

2012

RHODES UNIVERSITY

# Research Report



RHODES UNIVERSITY  
*Where leaders learn*



**RHODES UNIVERSITY**  
*Where leaders learn*

# RESEARCH REPORT

A publication of the Rhodes Research Office,  
compiled and edited by Jaine Roberts, Verna Connan, Thumeka Mantolo,  
Jill Macgregor and Patricia Jacob.

Design & Layout: Sally Dore

## Research Office

Director: Jaine Roberts

[j.roberts@ru.ac.za](mailto:j.roberts@ru.ac.za) | [t.mantolo@ru.ac.za](mailto:t.mantolo@ru.ac.za)

Tel: 27 - 46 - 603 8756/7572

[www.ru.ac.za](http://www.ru.ac.za)

**Cover Photo:** An artists's impression of the SKA Meerkat  
array in the Karoo. Credit: SKA South Africa



# CONTENTS

Foreword from Vice-Chancellor - <b>Dr Saleem Badat</b>	02	Botany	51	Sociology	183
Introduction from the Deputy Vice-Chancellor: Research & Development - <b>Dr Peter Clayton</b>	04	Chemistry	55	Statistics	187
Top Researchers: Acknowledgements	05	Computer Science	65	Zoology & Entomology	190
PhD Graduates	06	Drama	71		
<b>The Vice-Chancellor's Research Awards</b>		Economics	78	<b>Affiliates, Institutes, Centres and Units</b>	
Distinguished Senior Research Award <b>Professor Denis Hughes</b>	09	Education	83	Albany Museum	200
Book Award <b>Professor Catriona Macleod</b>	12	English	92	Centre for Higher Education, Research, Teaching and Learning (CHERTL)	203
<b>Selected Research Areas</b>		English Language & Linguistics	94	Cory Library for Humanities Research	207
The Year of the Chair	15	Environmental Science	96	The Institute for Environmental Biotechnology (EBRU)	210
Professor Oleg Smirnov and the SKA Chair	19	Fine Art	100	Electron Microscope Unit	213
A Centre for Gravity	23	Geography	104	Institute for the Study of English in Africa (ISEA)	215
The Allan Gray Centre for Leadership Ethics	27	Geology	109	Institute of Social & Economic Research (ISER)	220
A Firm Foundation for Education	31	History	114	Institute for Water Research (IWR)	225
Publications from the Vice-Chancellorate & Administration	35	Human Kinetics & Ergonomics	117	Rhodes University Mathematics Education Project (RUMEP)	228
<b>Departments</b>		Ichthyology & Fisheries Science	120	Public Service Accountability Monitor (PSAM)	230
Accounting	39	Information Systems	125	South African Institute for Aquatic Biodiversity (SAIAB)	233
Anthropology	41	Journalism & Media Studies	128		
Biochemistry, Microbiology and Biotechnology	44	Law	136		
		Management	140		
		Mathematics	144		
		Music & Musicology	147		
		International Library of African Music (ILAM)	150		
		Pharmacy	153		
		Philosophy	158		
		Physics & Electronics	161		
		Political & International Studies	165		
		Psychology	170		
		Rhodes Business School	176		
		School of Languages	179		



# FOREWORD

Rhodes Research Report 2012

One has to be a scholar of considerable significance for the *South African Journal of Science* to carry your obituary, as it did for Rhodes University's Chancellor, Professor Jakes Gerwel, who passed away in 2012 (Badat S. *Jakes Gerwel (1946-2012): Humble intellectual, scholar and leader. S Afr J Sci.* 2013;109(1/2), <http://dx.doi.org/10.1590/sajs.2013/a006>).

A role model for all, of ethical scholarship in the service of the public good, Gerwel valued knowledge and took intellectual work very seriously. He was wont to point out to the more action-oriented: "Good intellectual work entails hard work of a special type. It is as difficult, if not more difficult, than organising door-to-door work, street committees and mass rallies".

Gerwel was an exceptional, courageous and pioneering South African intellectual, scholar, leader, activist and citizen with a deep commitment to equity, social justice and democracy. Through a long and distinguished association with the higher education sector, as an academic, Dean, Vice-chancellor, Chairperson of the Committee of University Principals in the early 1990s, Chancellor of Rhodes University, and Chairperson of the Mandela Rhodes Foundation, Gerwel was an outstanding champion of higher education. He leaves a powerful legacy.

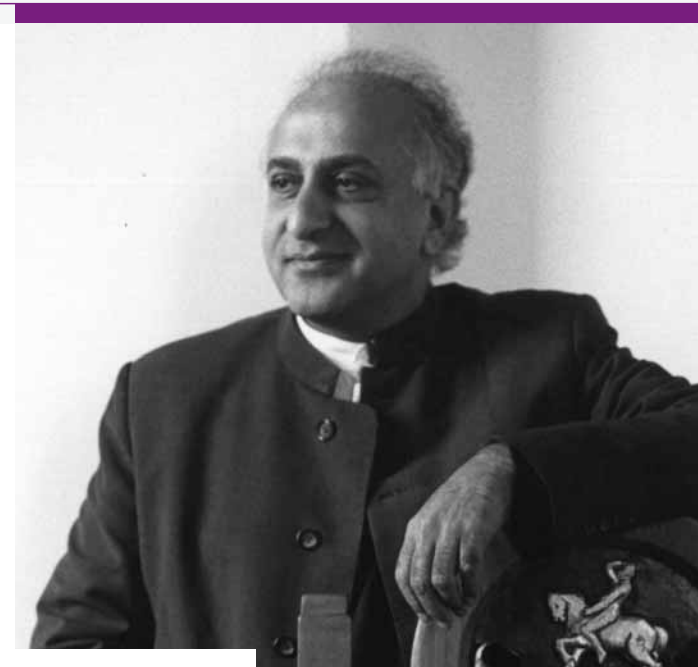
Rhodes University followed the Gerwel example during this period of review, producing research of quality and integrity in fields such as the treatment of cancer, the biological control of invasive species, sustainable use of the natural world, new studies in foundation phase education and mathematics education, the intellectualization of African languages, hydrology and water quality, social learning, international law, land reform, marine and coastal ecology, terrestrial biodiversity, industrial and community pharmaceuticals, river and estuarine management, human history and social identity,

biotechnology, health policy, media and citizenship, ethics, fisheries, financial markets, cultural heritage, exploration geology, international studies, higher education as a field of scholarly study in its own right, and many others.

Of special mention must be the leadership role that Rhodes scientists played in South Africa's competitive bid to host the bulk of the Square Kilometre Array (SKA) radio-astronomy project, a project that will raise the profile of African scholarship to new heights. Rhodes hosted a function in August 2012, attended by Minister Naledi Pandor and Director-General Phil Mjwara, to congratulate the SKA team and celebrate the contribution to the success of the South African bid that individuals from our University had made.

Professor Justin Jonas of our Physics Department was a key player in South Africa winning the bid to host the SKA, which will bring considerable intellectual and economic benefit to the country. He has been seconded by Rhodes University to the South African SKA/MeerKAT Project as the Chief Scientist for the past 10 years. Much of the success of the project was also due to the leadership of Dr Bernard Fanaroff, an honorary doctoral graduate of Rhodes University. Rhodes doctoral graduate Dr Adrian Tiplady, Assistant Project Scientist for the SKA, also made an important contribution to winning the SKA bid.

In February 2012, the Minister of Science & Technology announced the results of the latest round of awards in the South African Research Chairs Initiative (SARChI) programme. Sixty (60) prestigious research chairs were awarded, in open competition, across the South African university system. A key criterion for the award of a research chair is that the host university must provide a scholarly environment in which the chair and scholarship can flourish. Rhodes fared exceptionally in this national initiative, with five chairs being awarded to



Dr Saleem Badat

Photo: George Hallett

the University. The five new chairs represented 8.3% of the new chairs awarded, and brought the total number of SARChI chairs at Rhodes University to ten, or 7% of all chairs awarded thus far. This is a wonderful achievement for a university that has less than one percent of South Africa's university students and 2.6% of all full-time academic staff.

Individual academics continued to receive widespread recognition for their work. Particularly noteworthy were the accolades attracted by our two most established SARChI chairs, Distinguished Professors Tebello Nyokong and Christopher McQuaid, who were both awarded A ratings by the National Research Foundation (NRF), and Professor Mike Marais in the English department, who was awarded a B1

rating - the highest rating in the Humanities Faculty at Rhodes University. Professor Nyokong was also awarded the gold medal for 2012 of the South African Chemical Institute (SACI), and the 2012 Third World Academy of Sciences Medal for outstanding contributions to Science and Technology. The international *Journal of Porphyrins and Phthalocyanines* celebrated Professor Nyokong's birthday in 2012 by publishing a special issue to honour her contributions to the field.

The Vice-Chancellor's Distinguished Senior Research Award for 2012 was awarded to Professor Denis Hughes, Director of the Institute for Water Research, for the national and international impact of his research over a sustained period. The recipient of the Vice-Chancellor's Book Award for 2012 was Professor Catriona Macleod of the Department of Psychology, for her book entitled *"Adolescence", pregnancy and abortion: Constructing the threat of degeneration*, (Routledge, London and New York, 2011).

The national leadership role of the Centre for Higher Education Research, Teaching and Learning (CHERTL) in higher education teaching and learning was validated by it being awarded one million Euros by the Dutch agency Nuffic to host a national programme to improve doctoral supervision quality in universities across South Africa.

New scholarly entities and programmes established at the university during 2012 included the Allan Gray Centre for Leadership Ethics (AGCLE), established in the Philosophy department and funded by the Allan Gray Orbis Foundation; the Labour Market Research Unit (LMRU) in the Institute for Social and Economic Research (ISER), funded by the Eastern Cape Government, and the Unit for the Humanities at Rhodes University (UHURU), set up with a grant of US\$ 950,000 from the Andrew W. Mellon Foundation.

A second round of projects under the Sandisa Imbewu (*We are growing/multiplying our seeds*) strategic seed fund was launched in 2012, adding four more projects to the original nine awarded the previous year. The new projects span the fields of Development Studies, Drug Delivery, Climate Change, and Linguistics, and are supported by the R12.5 million provided for this programme by the Rhodes University Council and Board of Governors. In another multi-round competitive process, in which research proposals were invited from the Faculties of Commerce and Law, a new research focus area was awarded in the Department of Economics led by Professors Fraser and Snowball, and entitled Studies in Environmental and Natural Resource Economics in the Eastern Cape.

I extend my congratulations and thanks to all of our researchers, collaborators, funders, donors, and partners who contributed to making 2012 a year in which research at Rhodes University again flourished. Your expertise, integrity, dedication, rigour and generosity make Rhodes University the rich and distinctive intellectual space that it is.



**Dr Saleem Badat**

Vice-Chancellor

# INTRODUCTION

Rhodes Research Report 2012

Rhodes University continued to grow in overall accredited research outputs in 2012, and in other forms of scholarship which enhance the intellectual space of the university.

During the graduation ceremonies that followed the 2012 academic year, 2 288 students earned new qualifications. A record 948 students or 41% graduated with postgraduate degrees. We also celebrated a new University record of 63 PhD graduates, a wonderful achievement for the smallest university in the country. Our Science Faculty was a particularly noteworthy contributor to the postgraduate numbers, with 35 PhD graduates, 83 Master's graduates and 132 honours graduates.

The University's Enrolment Plan outlines our intention of becoming a more postgraduate university, and our overall strategy is to enhance our contribution to knowledge production through research and scholarship. Rhodes is well-positioned for such a trajectory, and we look to strengthening our capacity to serve society in this way by striving to provide our academics with effective research support. In the latest Department of Higher Education and Training (DHET) Ministerial Report on National Research Outputs, Rhodes University is listed as having the third most favourable research output rate per capita (the accepted norm for measuring efficiency of investment in the research domain) in the South African university system, and the second highest percentage of academic staff with PhDs (56%). Other studies show that Rhodes has the top PhD graduation rate of South African Universities, and very good postgraduate throughput rates overall.

We continue to give special attention to identifying potential new postgraduate and research niche areas and programmes, and to developing the appropriate institutional arrangements to effectively support larger numbers of Honours, Masters

and Doctoral students, and further enhance their academic and social experiences.

The audited result of our DHET submission of accredited research outputs for 2012 has not yet been received at the time of writing, so exact success rates in book and conference submissions are not yet known. These are the smaller components of our overall accredited outputs (in the previous year, books and accredited conference proceedings each contributed 7% of our total accredited publishing output, while journals contributed 86%). In 2012, Rhodes submitted 46.82 book and book chapter units for consideration (up by 33% on the 2011 submission), and 32.04 accredited conference proceeding weighted units (down by 8.6% on the 2011 submission, which in turn had been up 46.8% on the previous year's submission). Year-on-year variance on the relatively small submission base in these categories is to be expected.

The big component of Rhodes' publication output, our journal publications, grew by 13.2% on the 2011 level to 350.47 units (the previous year has seen a 6% increase in this category), maintaining Rhodes' position amongst the most research productive institutions in the South African Higher Education system. Coupled with Rhodes' high volume of accredited journal outputs in relation to its size, a very pleasing quality measure is that 90% of Journal outputs (the highest proportion in the sector) appear in internationally accredited journal indices.

Accredited outputs from thesis-based PhD and Masters graduates rose by 4.9% in 2012 to a new high for Rhodes (2011's figure had grown by 15.4% over 2010, which in turn had grown by 35.8% over 2009).

I add my warm thanks and congratulations to all of our



Dr Peter Clayton

Photo: George Hallett

researchers, funders, collaborators and partners who contributed to the excellent accredited research results of 2012, as well as generated the many forms of scholarship that are not counted in the accreditation exercise, but which contribute much to the rich intellectual space that is Rhodes. I also thank all of the administrators who play a crucial role in preparing the university's meticulous audited submissions.

Dr Peter Clayton

Deputy Vice-Chancellor: Research and Development

# TOP RESEARCHERS

Rhodes University acknowledges and congratulates the following for their accredited research outputs (Journal Publications, Books & Chapters, and Masters/Doctoral students graduated) in 2012:

1. **Distinguished Professor Tebello Nyokong**  
*Department of Chemistry*
2. **Professor Charlie Shackleton**  
*Department of Environmental Science*
3. **Professor Martin Hill**  
*Department of Zoology & Entomology*
4. **Professor Russell Kaschula**  
*School of Languages*
5. **Professor Nelson Torto**  
*Department of Chemistry*
6. **Professor Heila Lotz-Sisitka**  
*Department of Education*
7. **Professor Laurence Juma**  
*Faculty of Law*
8. **Dr Zeni Tshentu**  
*Department of Chemistry*
9. **Dr Kirk Helliker**  
*Department of Sociology*
10. **Distinguished Professor Christopher McQuaid**  
*Department of Zoology & Entomology*
11. **Professor Sioux Mckenna**  
*CHERTL (Centre for Higher Education, Research, Teaching & Learning)*
12. **Professor Jean Baxen**  
*Department of Education*
13. **Professor William Froneman**  
*Department of Zoology & Entomology*
14. **Professor Nigel Barker**  
*Department of Botany*
15. **Professor Gunther Jager**  
*Department of Statistics*
16. **Dr Denzel Beukes**  
*Faculty of Pharmacy*
17. **Professor Kate Rowntree**  
*Department of Geography*
18. **Dr Alan Kirkaldy**  
*Department of History*
19. **Professor Herman Wasserman**  
*School of Journalism & Media Studies*
20. **Dr Roman Tandlich**  
*Faculty of Pharmacy*
21. **Professor Brenda Schmahmann**  
*Department of Fine Arts*
22. **Professor Venkat Murali**  
*Department of Mathematics*
23. **Professor Alan Hodgson**  
*Department of Zoology & Entomology*
24. **Professor Denis Hughes**  
*IWR (Institute for Water research)*
25. **Professor Tom Martin**  
*Department of Philosophy*
26. **Dr Julie Coetzee**  
*Department of Zoology & Entomology*
27. **Professor Chrissie Boughey**  
*CHERTL (Centre for Higher Education, Research, Teaching & Learning)*
28. **Professor Horst Kaiser**  
*Department of Ichthyology and Fisheries Science*
29. **Professor Yong Yao**  
*Department of Geology*
30. **Dr Edith Antunes**  
*Department of Chemistry*

# PHD GRADUATIONS

Rhodes Research Report 2012

## Faculty of Commerce

### Doctor of Philosophy

**DLAMINI, Thula Sizwe.** (Economics). *The economics of converting a sheep farm into a springbuck (Antidorcas marsupialis) ranch in Graaff-Reinet: A simulation analysis.* Supervisor: Professor GCG Fraser.

**JARI, Bridget.** (Economics). *An investigation into the impact of fair-trade in South Africa.* Supervisor: Professor GCG Fraser. Co-supervisor: Professor JD Snowball.

**KANYANGALE, Macdonald Isaac.** (Management). *Conveniencing the family in agri-based processing enterprise: A grounded theory study of strategic leaders' cultural assumptions and strategising activities.* Supervisor: Professor N Pearse.

**NINDI, Angelique Gugulethu.** (Economics). *The implications of monetary integration within the SADC region for regional economic integration and development.* Supervisor: Dr TE Mutambara.

## Faculty of Education

### Degree of Doctor of Philosophy

**ALI, Million Belay.** (Education). *Participatory mapping, learning and change in the context of biocultural diversity and resilience.* Supervisor: Professor H Lotz-Sisitka. Co-supervisor: Professor R O'Donoghue.

**NIVEN, Penelope Mary.** (Education). *Narrating emergence in the curious terrain of academic development research: A realist perspective.* Supervisor: Professor S McKenna.

**OLVITT, Lausanne Laura.** (Education). *Deciding and doing what's right for people and planet: An investigation of the ethics-oriented learning of novice*

*environmental educators.* Supervisor: Professor H Lotz-Sisitka. Co-supervisor: Professor R Jickling.

**PEREIRA, Liphie Precious.** (Education). *A critical realist exploration of the implementation of a new curriculum in Swaziland.* Supervisor: Dr LE Quinn. Co-supervisor: Professor CM Boughey.

**RASELIMO, Mohaeka Gabriel.** (Education). *Curriculum reform in Lesotho: Exploring the interface between environmental education and geography in selected schools.* Supervisor: Dr PD Wilmot. Co-supervisor: Professor PR Irwin.

**SAMSON, Duncan Alistair.** (Education). *The heuristic significance of enacted visualisation.* Supervisor: Professor M Schäfer.

## Faculty of Humanities

### Degree of Doctor of Philosophy

**AGBEDAHIN, Komlan.** (Sociology). *Young veterans, not always social misfits: A sociological discourse of Liberian transmogrification experiences.* Supervisor: Professor M Drewett.

**CHIWESHE, Manase Kudzai.** (Sociology). *Farm level institutions in emergent communities in post fast track Zimbabwe: Case of Mazowe district.* Supervisor: Dr K Helliher.

**HOWELL, Simon Peter.** (Politics). *Force of habit: Mystical foundations of the narcotic.* Supervisor: Professor L Praeg.

**KWIZERA, Alice Stella.** (Sociology). *Quality of work and work life: Understanding the work ethic of medical professionals in selected hospitals in the Eastern Cape Region of South Africa.* Supervisor: Professor V Moller.

**MARX, Jacqueline Greer.** (Psychology). *(In)visibility*

*and the exercise of power: A genealogy of the politics of drag spectacles in a small city in South Africa.* Supervisor: Professor C Macleod.

**MFUNE, Damazio Laston.** (English). *My other-my self: Post-cartesian ontological possibilities in the fiction of J.M. Coetzee.* Supervisor: Professor M Marais.

**OWEN, Joy Natalie.** (Anthropology). *On se débrouille: Congolese Migrants' Search for Survival and Success in Muizenberg, Cape Town.* Supervisor: Professor RCG Palmer.

**STEENKAMP, Elzette Lorna.** (English). *Identity, belonging and ecological crisis in South African speculative fiction.* Supervisor: Professor DA Wylie.

**VON VEH, Karen Elaine.** (Art History). *Transgressive Christian iconography in post-apartheid South African art.* Supervisor: Professor B Schmähmann.

## Faculty of Pharmacy

### Degree of Doctor of Pharmacy

**MUNSAMY, Janine Indrani, B.Pharm.** (Rhodes).

### Degree of Doctor of Philosophy

**KNOTT, Michael George.** (Pharmaceutics). *Isolation, structural characterisation and evaluation of the cytotoxic activity of natural products from selected South African marine red algae.* Supervisor: Professor DR Beukes.

## Faculty of Science

### Degree of Doctor of Philosophy

**AKPABEY, Felix Jerry.** (Entomology). *Quantification of the cross-sectoral impacts of waterweeds and their control in Ghana.* Supervisor: Professor MP Hill. Co-



# PHD GRADUATIONS

supervisor: Dr DD Wilson (University of Ghana).

**AROWOLO, Afolake Temitope.** (Biochemistry). *Biological synthesis of metallic nanoparticles and their interactions with various biomedical targets.* Supervisor: Professor CG Whiteley.

**BATLOKWA, Bareki Shima.** (Chemistry). *Development of molecularly imprinted polymer based solid phase extraction sorbents for selective cleanup of food and pharmaceutical residue samples.* Supervisor: Professor N Torto.

**CHAKONA, Albert.** (Ichthyology). *Comparative biogeography and ecology of fresh water fishes in the Breede and associated river systems, South Africa.* Supervisor: Dr E Swartz. Co-supervisors: Dr G Gouws and Professor P Bloomer.

**CHALMERS, Russell.** (Ichthyology). *Systematic marine spatial planning and monitoring in a data poor environment: A case study of Algoa Bay, South Africa.* Supervisor: Professor WHH Sauer.

**CHAUKE, Vongani Portia.** (Chemistry). *Electrochemistry and photophysicochemical studies of titanium, tantalum and vanadium phthalocyanines in the presence of nanomaterials.* Supervisor: Distinguished Professor T Nyokong.

**CHIGOME, Samuel.** (Chemistry). *Electrospun nanofibres: An alternative sorbent material for solid phase extraction.* Supervisor: Professor N Torto.

**DARKO, Godfred.** (Chemistry). *Pre-concentration of heavy metals in aqueous environments using electrospun polymer nanofibre sorbents.* Supervisor: Professor N Torto.

**DE LA MARE, Jo-Anne.** (Biochemistry). *Identification of novel marine algal compounds with differential anti-cancer activity: Towards a cancer stem cell-specific chemotherapy.* Supervisors: Dr A Edkins and Professor GL Blatch.

**DESAI, Ahmed Yacoob.** (Hydrology - Institute for Water Research). *Development of a hydraulic sub-model as part of a desktop environmental flow assessment method.* Supervisor: Professor DA Hughes. Co-supervisor: Dr AL Birkhead.

**FOULKES, Philip James.** (Computer Science). *An investigation into the control of audio streaming across networks having diverse quality of service mechanisms.* Supervisor: Professor RJ Foss.

**GORDON, Andrew Kenneth.** (Water Resource Science - Institute for Water Research). *Assessing the effect of a laundry detergent ingredient (LAS) on organisms of a rural South African river.* Supervisor: Dr WJ Muller.

**IDAHOSA, Kenudi Christiana.** (Chemistry). *Baylis-Hillman adducts as scaffolds for the construction of novel compounds with medicinal potential.* Supervisor: Professor PT Kaye. Co-supervisor: Professor MT Davies-Coleman.

**JIMOH, Mahboob Adekilekun.** (Botany). *A comparative study of the feeding damage caused by South African biotypes of the Russian wheat aphid (*Diuraphis noxia* Kurdjumov) on resistant and non resistant lines of barley (*Hordeum vulgare* L).* Supervisor: Professor CEJ Botha. Co-supervisor: Professor G Bradley.

**KADYE, Wilbert Takawira.** (Ichthyology). *Assessing the impacts of invasive non-native African sharp tooth catfish *Clarias gariepinus*.* Supervisor: Professor AJ Booth.

**KHENE, Mielie Samson.** (Chemistry). *Nanocomposites of nickel Phthalocyanines as electrocatalyst for the oxidation of Chlorophenols: An experimental and theoretical approach.* Supervisor: Distinguished Professor T Nyokong. Co-supervisor: Dr KA Lobb.

**KIRK-SPRIGGS, Ashley Howard.** (Entomology). *A systematic revision of selected genera of Afrotropical Curtonotidae (Diptera: Schizophora: Ephydroidea) - A phylogenetic approach.* Supervisor: Professor MH Villet.

**LOTZ, Stefanus Ignatius.** (Physics). *Empirical modelling of the solar wind influence on PC3 pulsation activity.* Supervisor: Professor L-A McKinnell. Co-supervisor: Dr P Sutcliffe.

**MASHAZI, Philani Nkosinathi.** (Chemistry). *Electrochemical sensing and immunosensing using metallophthalocyanines and biomolecular modified surfaces.* Supervisor: Distinguished Professor T Nyokong.

**MOKGADI, Janes.** (Chemistry). *Pressurised hot water extraction of nutraceuticals and organic pollutants from medicinal plants.* Supervisor: Professor N Torto.

**MUTORWA, Marius Kudumo Mugabe.** (Chemistry). *Synthesis of novel inhibitors of 1-Deoxy-D-xylulose-5-phosphate reductoisomerase as potential anti-malarial lead compounds.* Supervisor: Professor PT Kaye. Co-supervisor: Dr R Klein.

**NGWIRA, Chigomezzyo.** (Physics). *An analysis of ionospheric response to geomagnetic disturbances over South Africa and Antarctica.* Supervisor: Professor L-A McKinnell. Co-supervisor: Dr P Cilliers.

# PHD GRADUATIONS

Rhodes Research Report 2012

**NOMBONA, Nolwazi.** (Chemistry). *Photophysico-chemical and phototherapeutic studies of phthalocyanines conjugated to selected drug delivery agents.* Supervisor: Distinguished Professor T Nyokong.

**NYONI, Dubekile.** (Chemistry). *Mechanistic studies of unusual Morita-Baylis-Hillman reactions.* Supervisor: Professor PT Kaye. Co-supervisor: Dr KA Lobb.

**OLOMOLA, Temitope Oloruntoba.** (Chemistry). *Synthesis and evaluation of novel HIV-1 enzyme inhibitors.* Supervisor: Professor PT Kaye. Co-supervisor: Dr R Klein.

**OPOKU- DEBRAH.** (Entomology). *Studies on existing and new isolates of *Cryptophlebia leucotreta* granulovirus (CrieGV) on *Thaumatotibia leucotreta* populations from a range of geographic regions in South Africa.* Supervisor: Professor MP Hill. Co-supervisors: Dr S Moore and Dr C Knox.

**RICHTER, Laura Lee.** (Physics). *A comparative polarimetric study of the 43 GHz and 86 GHz SiO masers toward the supergiant star VY CMA.* Supervisor: Professor JL Jonas. Co-supervisor: Professor AJ Kemball (Illinois).

**SOBOLA, Abdullahi Owolabi.** (Chemistry). *Synthesis, characterization and antimicrobial activity of copper (II) complexes of some hydroxybenzaldimines and their derivatives.* Supervisor: Professor GM Watkins.

**THONDHLANA, Gladman.** (Environmental Science). *Dryland conservation areas, indigenous peoples, livelihoods and natural resource values in South Africa: The case of Kgalagadi Transfrontier Park.* Supervisor: Dr S Shackleton. Co-supervisor: Professor JN Blignaut.

**TSHIMANGA, Raphael Muamba.** (Hydrology - Institute for Water Research). *Hydrological uncertainty analysis and scenario-based streamflow modelling for the Congo river basin.* Supervisor: Professor DA Hughes.

**TSIETSI, Mosiuoa Jeremia.** (Computer Science). *A structural and functional specification of a SCIM for service interaction management and personalisation in IMS.* Supervisor: Professor A Terzoli. Co-supervisor: Professor GC Wells.

**UWAMAHORO, Jean.** (Physics). *An analysis of sources and predictability of geomagnetic storms.* Supervisor: Professor L-A McKinnell.

**WALMSLEY, Ryan Steven.** (Chemistry). *An investigation into antidiabetic and catalytic properties of oxovanadium(IV) complexes.* Supervisor: Dr Z Tshentu.

**YOUNG, Ryan Mark.** (Chemistry). *Synthetic and bioactivity studies of antiplasmodial and anti-bacterial marine natural products.* Supervisor: Professor MT Davies-Coleman.

# VICE CHANCELLOR'S DISTINGUISHED SENIOR RESEARCH AWARD



Professor Denis Hughes, Director of the Institute for Water Research, at the Grey Dam water catchment area.

Photo: Christine Nesbitt Hills

## Professor Denis Hughes

*Denis Hughes was born in the UK and did his first degree in Geography at the University College of Wales, Aberystwyth (1973) where he also obtained his PhD. His doctoral thesis was on geomorphological and hydrological aspects of floodplains, under the supervision of Dr J Lewin (1978). After three years as a Research Assistant at Aberystwyth, he took up a position as Research Officer at Rhodes' Hydrological Research Unit (HRU) in 1979, becoming a Senior Research Officer in 1984, Associate Professor in 1988 and a Professor in 2003.*

*Professor Denis Hughes has been Director of the Institute for Water Research (IWR - an amalgamation of the former Hydrological Research Unit and Institute for Freshwater Studies) since 1991. Professor Hughes is widely regarded as one of South Africa's most distinguished Research Hydrologists and is a senior member of the top cohort of Surface Hydrology Researchers globally - particularly for his work on the development and application of a range of catchment rainfall-runoff and water resource models.*

There cannot be many areas of academic study that are more relevant to our everyday lives than the management of water. Our very existence on this planet depends on having enough of it, successfully distributed, working for us not against us. The absence of it is catastrophic. It's not surprising, then, that in the citation for Professor

Hughes' Distinguished Senior Research award, there is particular emphasis on the fact that "he has a reputation for being able to convert science into practical application in support of South Africa's water resources management".

In asking Denis Hughes if this very direct link between research and application is one of the things that appealed to him about the field of hydrology<sup>1</sup>, his answer is a wry one. It is, he says, partly that but mostly, it's a matter of money. In the early 80s the Water Research Commission (WRC - part of the Ministry of Water Affairs) was happy to allocate funding for theoretical or 'blue sky' research. In the next few decades, however, the focus changed to applied research - how to manage water resources and how water issues impacted on the lives of the people in a certain area. Denis Hughes comments:

*The WRC diverged their field of interest but didn't get much more money. So we were competing with people who would come along and say I can solve that water supply issue or that sewerage issue or that social issue. They weren't that interested in people who were saying 'I'm really interested in that field over here and how its hydrological processes work'. We then generated a lot of income partnering with commercial consultants on projects, researching solutions to specific, real world problems. This wasn't a bad thing. It meant we combined research and application. This has put South Africa in a strong position when it comes to the practical aspects of hydrological modelling.*

<sup>1</sup> Hydrology is the study of the movement, distribution, and quality of water on earth.



However, this collaboration with commercial projects did mean that there was less time to publish academic papers. Professor Hughes has made a conscious effort to change that and, largely due to his considerable success in fund raising,<sup>2</sup> the IWR now has a Postgraduate school of over 15 students working on projects all over Sub-Saharan Africa. Many of the students are from other countries in the region. As Denis Hughes notes, the number of Postgraduate students has grown:

*We wanted to expand the scientific knowledge base around managing water, not focus on managing the resource itself. We're now seeing the results of that effort and we've had two or three Postgrads finishing every year for the past few years. Although still a small unit, we've become one of the biggest outputs of the university. I think this emphasis on the science and publishing is vital, we needed to catch up. We're creating a new generation who are focused on it and I hope they continue to be - whether they end up in research, consultancy or even government.*

Because of the amount of time Professor Hughes spends in river basins and around dams, it is tempting to see him as some kind of environmental scientist. However, his main focus is catchment rainfall runoff and water resource modelling - and that is all about numbers and statistics. He confesses that, as an A level student, he was initially doing pure and applied maths and physics but got fed up with the applied maths after three weeks and changed to geography (causing his maths teacher to remark "so that kills your career, doesn't it?"). He went on to study geography where he was frequently

the most able mathematician in the class - and that included the lecturer. The numbers come easily to him, therefore, but he points out that the best modellers don't focus just on the figures:

*A lot of people in hydrology are almost purely mathematicians. However, the most successful ones not only have good quantitative strengths and understand the statistics, they also have a good conceptual understanding. They are able to integrate the data with its context. I try to pass these things on to my students. If a student comes to me and is battling with a set of results, I tell them to think about things some more, see the bigger picture.*

It is, perhaps, this focus on the conceptual that has inspired some of his most important research over the past few years. As his citation puts it, he has arrived at "seminal insights into the management of uncertainty in rainfall-runoff catchment models and into the quantification of ecological water requirements at the catchment scale". The key concept here is 'uncertainty', the use in models of data based on limited - and therefore uncertain - information. Some level of uncertainty in modelling has always been present but, with advances in computer technology, it is now possible to take into account a much greater range of possibilities and to generate a much a higher number of outcomes:

*We started formally on the uncertainty theory six years ago. The fundamental issue is that we've always known we're uncertain, but we've continued to make decisions as if we weren't. We started to look at the uncertainty. How much*

## We need to promote the understanding of uncertain data when it comes to water management in South Africa

*do we know about, say, the rainfall in a particular area? How do you analyse the uncertainty and how do you set up models to deal with it? If, for instance, the biggest source of uncertainty in a catchment you're developing for a dam is the rainfall because the area is mountainous, why not just put some rain gauges on the mountain tops for the next five years? If you ignore the uncertainties, you're never going to solve them, but if you acknowledge them, then you can deal with that accordingly.*

Denis Hughes believes very strongly that this incorporating of uncertainty into modelling and analysis, clarifies our understanding rather than clouding it:

*There are many different ways you can use uncertainty. It used to be frustrating to publish a paper with a bad model result because you couldn't get a better one and reviewers would say that it was a rubbish model. But we're liberated from that now. We can publish papers that demonstrate that the model doesn't work under certain circumstances but does under others. That tells us a lot about certain things - input data, the model, the methods used. Uncertainty research has allowed that to happen.*

However, it is not always easy to convince those using his

<sup>2</sup> In 2008 he secured a grant for \$800 000 over three years and a repeat of that in 2011 from the Carnegie Foundation of New York as part of the Regional Initiative in Science Education (RISE). It helped create the Sub-Saharan African Water Resources Network (SSAWRN), an inter-institutional body that trains postgraduate students in water-related disciplines at four universities across the region.



research findings of the benefits of this new approach. People who are developing water policy or planning a power station still need information that seems unequivocal. Changing people's mindset is, he says, the next step if things are to progress:

*There needs to be a greater understanding of how to make decisions using uncertain information. If we take our 'uncertain' data to managers and say this is what you need, they say, "we might need that, but what do we do with it? We can't spend five days waiting for a model to run because it's generating 200 000 outputs and what do we do with those, anyway?" There needs to be a transfer of skills from other areas - techniques from business and finance, disciplines who have lived with uncertain data and fluctuations for years - into water resource management. We're already beginning research into how this can happen.*

One area in which Professor Hughes' ideas about uncertainty have caused a particular reaction is that of climate change. Obviously the conservation of the world's water, changes to rainfall patterns and increased drought are at the heart of current climate change concerns. He has consistently spoken out against scientists who publish papers which start from the premise that climate change and its adverse consequences are known facts. Speaking at a recent symposium,<sup>3</sup> he went so far as to say,

*It is almost as if the 'science' of climate change has been taken out of the hands of scientists and is now more driven by political agendas.*

*As the scale of modelling increases, so does the uncertainty, regardless of the complexity included in the model. We simply do not have sufficient understanding of complex natural systems - whether of the land surface or of the atmosphere - to be able to construct models that are perfectly reliable.<sup>4</sup>*

His point is that extreme weather phenomena - whilst they do exist - cannot be automatically attributed to climate change. Not surprisingly, he has been accused of being a climate change denialist but he, in turn, is somewhat sceptical about some of the agendas of those involved in the field:

*This hysteria around climate change has allowed a lot of people to get into this type of research and they need to keep on saying there will be drastic consequences because of climate change to justify their grants. They should be investigating the uncertainties. What is the point of doing adaptation studies when you don't know what people have to adapt to?*

*They say they know that there'll be more extremes but I don't see that in any of the data. I know the tundra is getting warmer, there are glaciers getting smaller, there are bug problems in the Canadian Rockies - all of those things are real in terms of some kind of climate change. But in the area of water resources, the information we have at the moment tells us it's going to get better or worse depending on which model we use. Nobody can tell me which model is best. I have to assume they're all equally likely and therefore we have huge uncertainty. We have to reduce that uncertainty before we can make any decisions.*

Currently the only way to reduce that uncertainty requires considerable improvement to climate change and weather pattern models. Professor Hughes points out that most climatologists would agree wholeheartedly there is huge uncertainty in their models and that more work needs to be done to reduce it. That message is not necessarily getting through to sectors outside the scientific community such as media or government or, in some cases, those operating within it.

This brings us back to promoting the understanding of uncertain data when it comes to water management in South Africa.

*What we're saying to government is that we'd like them to adopt new approaches to water resource management issues. I've seen the way the country has moved since the new Water Act in 1998. It is now much better at reconciling water usage with availability and a lot of good work is being done. But I can see the benefits of taking into account uncertain information within a reconciliation strategy. It's not only uncertainty over how much water is available, it's also uncertainty around future usage and how that is going to impact the economy and social and health issues. All these things are uncertain and they need to be dealt with as such. Our government needs to be convinced.*

**- Jayne Morgan**

<sup>3</sup> 16th National Hydrology Symposium, Pretoria, October 2012.

<sup>4</sup> Ibid.

# VICE-CHANCELLOR'S BOOK AWARD

Rhodes Research Report 2012

## Professor Catriona Macleod

*Adolescence Pregnancy and Abortion: Constructing a threat of degeneration.* CATRIONA MACLEOD<sup>1</sup>

There is a theme that runs through the many reviews of this book: "Provocative";<sup>2</sup> "a fascinating read that challenges the way we think";<sup>3</sup> "this book rocks the foundations on which public health specialists ... across the developed world base their strategies to address teenage pregnancy".<sup>4</sup>

The cause of such widespread raising of academic eyebrows is Professor Macleod's exploration of some of our most deeply-seated attitudes towards the "problem" of teenage pregnancy. What makes the book even more interesting is that she does this, not through first-hand accounts from young girls or parents, teachers and social workers, but by examining what she calls the "public representations - the public discursive context - of early reproduction".<sup>5</sup> In other words how academics, health professionals, teachers, journalists (one South African newspaper recently splashed the headline "Teenage Pregnancy Tsunami" across its front page) and ordinary members of the public talk and write about young women's reproductive issues and how that affects the way we think about them.

She argues that most public discussions of "teenage pregnancy" - and the inverted commas are there for good reason - and abortion "construct a threat of degeneration,

in which young women are positioned as contributing, through their sexual and reproductive status, to social decline".<sup>6</sup> Or, as one reviewer puts it, "she unpacks the discourses that maintain and reinforce the ways that class, race, and age intermingle in producing 'adolescent' pregnancy and abortion as not just an individual 'problem' but as a much wider 'social problem'".<sup>7</sup> In the eight chapters of her book, she demonstrates, through widely-praised scholarship ("one of the strengths of this book lies in the diversity and rigour of the evidence that is drawn on"), that this idea is, in fact, a socially constructed one and that it came about for reasons that are little to do with the actual facts surrounding the young women who become pregnant or the babies they have.

Given that she is unravelling so many deeply-entrenched beliefs, how did her own thinking start to diverge from the generally accepted ideas about young women and reproduction?

*I was working in Limpopo in the mid-nineties and noticed how often the health workers and teachers I was working with on a range of projects mentioned teenage pregnancy as a phenomenon, usually saying what a bad thing it was and how it was 'taking over'. The kind of theoretical approach I had been working with involved looking at taken-for-granted assumptions. So I started applying this feminist, post-colonial, post-structuralist theoretical framework not just to teenage pregnancy, but to abortion and sex education.*



Professor Catriona Macleod.

Photo: Sophie Smith

<sup>1</sup> Professor Catriona Macleod is a Professor of Psychology at Rhodes and has an NRF B-rating. She is SARCHI Chair of the Critical Studies in Sexualities and Reproduction research programme. This book was also identified by the USA based Association for Women in Psychology (AWP), for their prestigious Distinguished Publication Award for 2011, in recognition of 'significant and substantial contributions of research and theory that advance the understanding of the psychology of women'.

In the book, she demonstrates that the negativity attached to early reproduction is underpinned by a notion of “adolescence-as-transition”. She provides evidence that the idea of “adolescence” is a constructed one that arose out of a specific historical context<sup>8</sup> and which has led to the creation of an “imaginary wall” between young people and adults. This view of adolescents as being on their way to adulthood, but not actually being adults leads to a number of contradictions and conundrums.

Take, for instance, sex education. By giving young people the information they need to become “good sexual citizens” (ie to behave in an acceptable way and not become pregnant or even to have sex) they are inevitably exposed to the world of sex from which the wall of adolescence is there to exclude them. As Catriona Macleod writes,

*Teenagers in the ‘adolescence as transition’ discourse, may practise at being adults, but may not actually perform adult activities such as having sex, reproducing or deciding on matters as personal and important as abortion....Theirs is a state of perpetual disequilibrium, in which activities that foretell of adulthood (such as sex education) must be balanced by a state of innocence that forecloses adulthood. The imaginary wall between ‘adolescence’ and adulthood must be maintained.*<sup>9</sup>

Professor Macleod argues that it is our determination to preserve this wall that leads to our insistence on seeing adolescents as either immature or delinquent. In fact, she goes on to point out that the very idea of teenage pregnancy

as “social problem” is an invented one that came to prominence in the 60s and 70s in the UK and America and in the late 70s, early 80s in South Africa.<sup>10</sup> Associated with it are issues surrounding abortion and the dominance of the idea that abortion necessarily constitutes a “trauma” with terrible physical and psychological consequences - something not borne out by the facts - which renders it, too, a social problem. Plus, our view of adolescents who have placed themselves in situations with which they cannot cope - having sexual relationships, becoming pregnant, making decisions about whether to continue a pregnancy, being mothers - allows the adult to make certain “expert interventions”. Professor Macleod then outlines the disciplinary and punitive approaches embedded in practices that purport to be in the best interest of the young person involved.

Throughout the book, she points out that, in all aspects of public discourse, including scholarly research, assumptions about young women’s immaturity and therefore lack of ability to deal with sexuality and reproduction, are not borne out by the facts. Again and again, she demonstrates using solid research and statistics that the problem is a constructed one. For instance, research shows that there are negligible physical ill-effects of early pregnancy and abortion. In reality, the trend of women having babies after the age of 35 is currently the greatest source of increase in mother and child health problems. If women of similar social and economic backgrounds are compared, very little shows up as being a teenage parent problem. Even the effect on schooling and career is not significant. Nor are children of teenage parents any more at risk than those with, say, a twenty-two year old

mother. She maintains that in many studies, like is not being compared with like:

*As an example, if you look at the research around the World Health Organisation’s Safe Motherhood programme, it is undoubtedly true that the less developed the country, the lower the average age of first pregnancy. It is also true that the number of health problems of these mothers and babies is higher. But it’s again about comparing apples with apples. The health services in these countries are less effective so there will be more health issues. If you match women by socio-economic status, then age becomes irrelevant when it comes to health.*

She also points out that there is a degree of ‘slippage’ in such reports and that health issues are more readily brought to the fore when the young mothers in question are unmarried. Young married women are not subjected to the same levels of scrutiny.

Another important theme of the book is the way that the idea of the adolescent threat of degeneration has been, as one reviewer put it, “not only steeped in stereotypic gender norms but also powerfully located in post colony, as inseparable from racist and colonialist white constructions of the black other ... and rooted in colonialist ideologies which conflate the development of the individual with the development of ‘civilization’”.<sup>11</sup>

Professor Macleod makes the comparison between the colonial emphasis on the “primitive becoming civilised” and our thinking about adolescence as a transitional state. Plus,

<sup>2</sup> Culture, Health & Sexuality: An International Journal for Research, Intervention and Care, April 2013

<sup>3</sup> Journal of Reproductive and Infant Psychology, January 2013.

<sup>4</sup> Sex Education: Sexuality, Society and Learning, Sept 2012.

<sup>5</sup> Macleod C: Adolescence, pregnancy and abortion: Constructing a threat of degeneration, (Routledge, London and New York, 2011).

<sup>6</sup> Ibid p5

<sup>7</sup> Psychology of Women Quarterly, February 2012.

<sup>8</sup> In particular the work of Stanley Hall in the early 20th century. Cf ibid p17.

## In defining 'unwanted' pregnancies as the key issue, we cease to pathologise young pregnant women merely because they are young.

in the process of colonisation, the Western idea of adolescence has been exported to the developing world - although it has not been taken up uniformly.

*The impact varies in, say, African countries because of the nature of those societies. There is more child labour and less protectionist legislation surrounding children. The social rituals in which young people become adults are still retained much more than they are in the West. This is related to such things as economic conditions, extended education and pressure to enter the world of work. However, Western ideas about adolescence are prevalent in the healthcare sector and in reproductive health programmes.*

A whole chapter in the book is devoted to the notion of "othering" - especially of those of a different race. Part of this is the tendency of white, Western societies to see, for instance, African culture as something which imposes certain ways of being - or, as she puts it "minority groups and 'blacks' have culture and whites 'a way of life'".<sup>12</sup> However it is not always about race. Professor Macleod makes quite extensive use in the book of transcripts from South African television programmes and her own original research, where black health practitioners display extremely negative attitudes

towards young pregnant women who are also black.

"'Othering' fractures along multiple lines. It can be racial but, in the case of a black majority, as in South Africa, it can be to do with money or class. Certain sections of black society would see the 'poor black' or 'rural black' person as other." [One health practitioner talks of incomers to the cities having children they can't take care of "Because people run away from the rural areas. They're starving. People are working in town. They don't bring money home then they build these shacks next to our houses"<sup>13</sup>. "Of course the key 'othering' is youth - these girls are seen as young and irresponsible."

The fact that Professor Macleod is based here meant that some of her reviewers saw the book as being about South Africa. While her research is predominantly drawn from this country, was this the case?

*It was intended not just to be a South African book. I was trying to point out that, if we want to look at what we're saying about teenage pregnancy globally, using South Africa as a case study is interesting. We've been through a lot of changes here, in both legislation and approach and in a relatively short time. It provides those of us working in sexuality and reproduction with an exceptional amount of important material upon which to base our research and from which to develop our ideas.*

In the closing chapter of her book, Professor Macleod proposes a shift in the discussion from "teenage pregnancy" to "unwanted pregnancy" so that our understanding and

treatment of such pregnancies "start aligning themselves to the social and gendered space within which women are located".<sup>14</sup>

*In defining 'unwanted' pregnancies as the key issue, we cease to pathologise young pregnant women merely because they are young. We undo the imaginary wall between younger and older women, thus opening the space for understanding how women in similar social circumstances face similar dilemmas, difficulties, barriers and possibilities around reproduction.*<sup>15</sup>

Given the prejudices she documents amongst, for example, health care practitioners in South Africa, I wonder if part of her intention for the book is to change the way young, pregnant South African women are perceived and consequently bring about changes to the way they are treated in our health systems.

*Absolutely and that is part of our whole programme.<sup>16</sup> It's one thing to do this deconstructive work, but we must think about what it means in terms of interventions. It's not about designing new programmes or dictating how people must operate. It's at a more subtle level, about how people think. Part of what we'll be doing is looking at nurse education and teacher training and how these ideas can be inserted into these pedagogical programmes. I believe the only real way to change praxis is through dialogue. It's not a formula you hand out, it's a long process of unpicking and unravelling and inspecting our ways of understanding things.*

<sup>9</sup> Macleod C: *Adolescence, pregnancy and abortion: Constructing a threat of degeneration*, (Routledge, London and New York, 2011).

<sup>10</sup> Ibid p 56

<sup>11</sup> Review by Tamara Shefer, Women's and Gender Studies, UWC.

<sup>12</sup> Macleod C: *Adolescence, pregnancy and abortion: Constructing a threat of degeneration*, (Routledge, London and New York, 2011) p103

<sup>13</sup> Ibid p116

<sup>14,15</sup> Ibid p140

<sup>16</sup> Professor Macleod is the incumbent of one of the five SARCHI Chairs - Critical Studies in Sexualities and Reproduction - awarded to Rhodes in 2012.



# THE YEAR OF THE CHAIR



Professor Steve Compton, SARCHI Chair in Insects in Sustainable Agricultural Ecosystems, taking a specimen from a wild fig tree (ficus) at the Botanical Gardens in Grahamstown.

Photo: Christine Nesbitt Hills

On 13th February 2012, Science and Technology Minister Naledi Pandor announced the results of the latest round of awards in the South African Research Chairs Initiative (SARCHI) programme. For Rhodes, the news was exceptionally good. Out of the sixty announced, five new chairs were awarded to Rhodes, taking our total up to ten of the countrywide total of 154 chairs.

For the country's smallest university, with only 0.8% of South Africa's university students and 1.9% of all full-time academic staff, this is a considerable achievement. It was, as Vice-Chancellor Saleem Badat said in reaction to the announcement, "a testament to Rhodes' commitment to knowledge and its outstanding track record in research. We are consistently among the top three universities in South Africa in terms of per capita research output".

The SARCHI programme was established in 2006 to, as it notes on its website "strengthen and improve research and innovation capacity of public universities for producing high quality postgraduate students, research and innovation outputs". Funded by the national Department of Science and Technology (DST) and the National Research Foundation (NRF), it regularly invites all twenty three of South Africa's universities to compete in an open application process for support in a variety of academic areas. Writing in the Mail & Guardian, prior to her February 2012 announcement, Minister Pandor described the approach the programme has taken to try and achieve its aims:

*SARCHI is intentionally designed to target the established research community with the view to supporting them towards increased research and innovation outputs as well as strengthening the human capital development pipeline of the next generation of researchers and emerging researchers. ... The programme has been successful in retaining leading South African scientists in the university system while also attracting leading foreign and expatriate researchers to the system and strengthening research collaboration between industry, science councils and universities.<sup>1</sup>*

The funding per chair is R2.5 million per annum which covers salaries, Postdoctoral fellowships, Postgraduate student bursaries, research operating costs and equipment. SARCHI Research Chairs are tenable for five years and renewable for two further five-year periods, giving a total life span of fifteen years. Eligibility for renewal is based on performance.

The five new Rhodes chairs were in 'Intellectualisation of African Languages, Multilingualism and Education'; 'Insects in Sustainable Agricultural Ecosystems'; 'Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods'; 'Critical Studies in Sexualities and Reproduction: Human and Social Dynamics'; and 'Marine Natural Products Research.'

When asking for applications, the National Research Foundation outlined a number of specific research themes. These included "supporting national strategies for the

<sup>1</sup> Mail & Guardian, SARCHI supplement, 27th May 2011

development of technology platforms, science missions, priority research areas such as global change, health innovation, and biotechnology; science and technology for poverty alleviation; engineering and applied technology; and an open category that includes fundamental disciplines and scarce and critical knowledge fields"<sup>2</sup>. Many of these are designed specifically to address the development goals that have been defined in various strategy documents over the past ten years including Medium Term Strategic Framework (MSF), National Research & Development Strategy and the DST Ten-year Plan.

Head of Rhodes' Environmental Science Department, Professor Charlie Shackleton's many years of research into the use of natural resources by local communities and the use of such resources for poverty alleviation, clearly speaks to a number of these priorities. It wasn't surprising, then, that the department's bid for the Chair in **Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods** was successful and has Professor Shackleton as its first incumbent Chair. In his motivation, he makes the point that the "consumptive and cash value of such resource use in rural livelihoods, especially in arid and semi-arid areas, is higher than the consumptive and cash value of arable cropping and livestock husbandry combined".<sup>3</sup> Not only that, but this is largely ignored - as he goes on to say: "South Africa has a well established extension service to support agriculture, but no extension service to promote sustainable resource use... These products are frequently invisible to developers and planners and hence national policies."<sup>4</sup>

The Chair has been designed to address three of what the Department of Science and Technology (DST) has outlined as its five Grand Challenges.<sup>5</sup> These are: energy, security especially in light of the current precariousness of the national grid; global change which includes climate change but also other social, economic and biophysical changes; and human and social dynamics, specifically the understanding of the links between social and human dynamics and the surrounding resource base. Some of the first projects the Chair is focusing on include: a national inventory of fuelwood use; valuation of wild resources used under contrasting climates; and social, economic or ecological benefits of urban forestry.

Professor Shackleton also believes that the Chair will provide even further impetus for international collaboration - another desired outcome of the SARChI programme. Increasingly, this kind of collaboration means not only a multi- and interdisciplinary approach - the working together with other disciplines - but also a 'trans-disciplinary' approach - which describes a more intrinsic kind of collaboration with other knowledge forms and holders outside formal scientific and research arenas.

The optimal use of natural resources and food security are also at the heart of the Department of Zoology and Entomology's Chair in **Insects in Sustainable Agricultural Ecosystems**. In the application document, department head Professor Martin Hill highlights the fact that, despite widespread warnings since the early sixties of environmental and human health dangers of pesticide use, "expenditure



Professor Martin Hill at Hammarsdale Dam in Kwazulu-Natal, assessing the impact of biological control on water hyacinth plants.

on pesticides has increased annually reaching some \$50 billion for 2008". The document goes on to say:

*Biological control, or the development of host specific natural enemies, offers the most effective and long-term solution to many invasive alien plant species and insect pests. However, discovery and development of natural and environmentally responsible means of agricultural pest management, particularly using biological control, has lagged behind on the African continent. This proposal aims to remedy this.*

This research into the sustainable control of both alien plants and insect pests - which involves the introduction of harmless

<sup>2</sup> Ibid

<sup>3</sup> Rhodes University Department of Environmental Science SARChI application form, 2011.

<sup>4</sup> Ibid

<sup>5</sup> The 2008 DST ten-year-plan, endorsing the world Millennium Development Goals and the need to halve poverty by 2014, provides details of five Grand Challenges: strengthening the bio economy ('from farmer to pharma'); space science and technology; energy security; global change; human and social dynamics.



Dr Jackie Hill, Mr Philip Weyl, and Professor Ray Newman (University of Minnesota) on the Vaal River in Cristiana, Northern Cape. Professor Newman was hosted by Dr Julie Coetzee as a Fulbright Fellow from August 2011 to June 2012

insect enemies to both - is aimed ultimately at increasing food security, reducing biodiversity loss and lowering the amount of pesticide being used in South African agriculture. More specifically, it will look at the control of alien weeds, particularly aquatic weeds that threaten the supply and quantity of potable water, and the biological control of insect pests - notably those threatening the fruit and vegetable crops in the peri-urban areas of the Eastern Cape.

The Chair provides the Rhodes Entomology department with the opportunity to bring a number of their applied entomology projects under one umbrella and therefore to create synergies that should enhance the quality and outcomes of the department's research output overall. Plus, there is benefit

to South Africa's international reputation in this field, as Professor Hill points out:

*By implementing the outcomes of high quality fundamental research, the chair seeks to improve international research and innovation competitiveness ..... Biological control technologies have been shown to provide an excellent return on investment and to be environmentally sustainable.*

This Chair also directly addresses another of SARChI's stated aims, and that is the attraction of the highest quality international faculty back to South Africa. Its first incumbent is **Professor Steve Compton**, who was a Reader in Entomology at the University of Leeds. Professor Compton,

although originally from the UK, has taught in the Zoology and Entomology Department at Rhodes before. Part of his remit is not only to spearhead this important research initiative, but mentor two promising young academics with a view to one of them taking over the Chair in its second or third phase.

Professor Russell Kaschula's work in revolutionising the teaching of African languages at Rhodes speaks directly to another government priority, namely to "consolidate and deepen our democracy and enhance social cohesion".<sup>6</sup> From his arrival at Rhodes in 2006, Russell Kaschula's vision has been to create a School of African Languages capable of helping South Africa succeed as a nation, as he wrote in an article for the Mail & Guardian in 2010:

*The reinvention of African languages is necessary to reach the populace in languages that they understand best. There can be no democracy, no effective service delivery, no effective policing, no effective education through the medium of languages that many do not speak-languages that were privileged under apartheid and that largely continue to be privileged today even though we have one of the worst literacy rates in the world. English remains one of the key barriers to educational success. It is time for English and African language scholars to innovate and help build our nation through effective communication.*<sup>7</sup>

Russell Kaschula is the first incumbent of the Chair for the **Intellectualisation of African Languages, Multilingualism and Education**. This Chair will focus on a number of research areas including: corpus development in African languages;

<sup>6</sup> Mail & Guardian, SARChI supplement, 27th May 2011.

<sup>7</sup> Professor Russell H Kaschula, *Mail & Guardian*, 15th October 2010.



African languages and technology; literary studies in African languages; acquisition of African languages as additional languages; techniques, methods and approaches to language policy implementation planning in multilingual higher education contexts; and African linguistic studies.

As the SARCHI application proposal points out, this is a problem already understood by government. The Higher Education Language Policy<sup>8</sup> states that indigenous African languages have purposefully not been used in higher education in the past and that they have not been fully developed as academic or scientific languages. Therefore students entering university engage in that environment in a language “foreign” to them while, because of the schooling system, these students are also not academically proficient in English or Afrikaans. Professor Kaschula passionately believes that this is the core motivation for all the research that will be done by the Chair.

*While the government recognises that students are struggling with language issues, the research necessary to start finding solutions to those issues has not yet been done. Ultimately we want to continue to lead the way in helping African languages become languages of scholarship and learning at the highest level.*

At full strength, the Chair envisages 20 fully-funded Honours students, eight MAs, three PhDs and two Postdoctoral Fellows engaged in a variety of projects aimed at furthering all these objectives and divided into six separate project areas. However, the total number of registered Postgraduate students in African Language Studies now exceeds 50, many of them partially funded by the Chair. Possible specific PhD

research topics include collaboration with the Faculty of Pharmacy on a pharmacy practice textbook, computer literacy terminology in African languages and a multilingual applied language studies textbook. The Rhodes School of African Languages, which includes the Chair, has also been approached to lead the DHET Catalytic Project (2013-2015). The Catalytic Project’s objective is to investigate how indigenous African languages can best be used to inform learning in higher education in the areas of the Humanities and Social Science. It involves collaboration with nine South African universities. This is very much in line with the desire, expressed in the application proposal for this Chair, that the outcomes of the Chair’s research are eventually of national benefit. As Professor Kaschula says:

*The work we do will help create templates for other tertiary institutions - especially in the areas of multilingualism and the formulation of language policies. This research is unique and essential, not only to the study of African languages but to their very existence.*

The fourth and fifth SARCHI Chairs awarded to Rhodes University are **Critical Studies in Sexualities and Reproduction: Human and Social Dynamics** in the Psychology Department, and **Marine Natural Products Research** spanning the Departments of Chemistry, Biochemistry, Microbiology and Biotechnology and Pharmacy.

Professor Catriona Macleod, Department of Psychology, has been confirmed as the Chair of Studies in Sexualities and Reproduction, and Professor Rosemary Dorrington, Department of Biochemistry and Microbiology, as the Chair in Marine Natural Products Research. The aim of the Marine

Natural Products Research Chair is to discover new medicines through marine research.

These two Chairs will start work in earnest in 2013. With the combination of the SARCHI Chairs and the many other outstanding research projects currently being undertaken at the university, there is no doubt that Rhodes’ reputation as one of the finest research institutions, both on the continent and internationally, is only going to increase in years to come.

- *Jayne Morgan*

## Rhodes Research Chairs

Medicinal Chemistry and Nanotechnology - **Distinguished Professor Tebello Nyokong**

Marine Ecosystems and Resources - **Distinguished Professor Christopher McQuaid**

Mathematics Education - **Professor Marc Schäfer**

Numeracy - **Professor Mellony Graven**

Radio Astronomy Techniques and Technologies (Square Kilometre Array) - **Professor Oleg Smirnov**

Intellectualisation of African Languages, Multilingualism and Education - **Professor Russell Kaschula**

Insects in Sustainable Agricultural Ecosystems - **Professor Steve Compton**

Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods - **Professor Charlie Shackleton**

Critical Studies in Sexualities and Reproduction: Human and Social Dynamics - **Professor Catriona Macleod**

Marine Natural Products Research - **Professor Rosemary Dorrington**

<sup>8</sup> Language Policy for Higher Education (LPHE) (2002).



# THE SKA SARCHI CHAIR



Minister of Science and Technology Naledi Pandor and SKA Chair Professor Oleg Smirnov.

Photo: Sophie Smith

## Professor Oleg Smirnov and the SKA CHAIR

### The Time Traveller's Life

On 25th May 2012, members of the Square Kilometre Array (SKA) Organisation announced that, while the SKA telescope would be split between Africa and Australia, the majority of it would be situated in South Africa and countries to the north of South Africa. It was a brilliant result for the entire continent but, in particular, an outstanding achievement for the South African SKA bid team who had worked tirelessly since 2001, and especially so since 2006, when it was revealed that only South Africa/Africa and Australia were still in the bid.

The lead scientist on the project - or Associate Director: Science and Engineering as he is more formally titled - is Professor Justin Jonas who is also part of the Department of Physics and Electronics at Rhodes.<sup>1</sup> Speaking at the time of the announcement, he said that "For South Africa, and our African partner countries, this represents a new era, where Africa is seen as a science destination and takes its place as an equal peer in global science."<sup>2</sup>

To create the largest ever radio telescope and to succeed in what is arguably the world's largest ever scientific project, it is necessary to attract the best of the world's scientific minds. Before the final site announcement, the NRF<sup>3</sup>, through its SKA Africa project, has been doing just

that. Since 2005, the NRF has provided nearly four hundred (400) scholarships in astrophysics and engineering for SKA-related projects, from undergraduate to post-doctoral level, while also investing in training programmes for technicians. Not only that, it has created five SKA Chairs at universities around the country, each one specialising in a different scientific aspect of the operation<sup>4</sup>. For Rhodes, which has the longest legacy in radio astronomy of all South African universities,<sup>5</sup> the focus is "radio astronomy techniques and technologies".

To support the work of the new chair, the university has established the Centre for Radio Astronomy Techniques and Technologies (RATT) with Professor Jonas as its Director.

In 2012, the centre welcomed the SKA Chair's first incumbent, Professor Oleg Smirnov, who had been at the Netherlands Institute for Radio Astronomy (ASTRON) since 1999. Originally from Russia, Professor Smirnov started his academic career as a mathematician, obtaining his first degree from Moscow State University, followed by a PhD at the Institute of Astronomy of the Russian Academy of Sciences. He became involved with radio astronomy thereafter. He specialises in the calibration of radio interferometers - astronomical instruments that combine multiple radio telescopes into a single system - and the development of the software and algorithms needed to process and analyse the data they generate. He is particularly well-known for software - called MeqTrees - which took a completely new approach to the analysis

<sup>1</sup> Another Rhodes Alumnus, Dr Adrian Tiplady, was also part of the team as SKA Site Bid Manager.

<sup>2</sup> SKA Media Release - Q&A on the site announcement with Professor Justin Jonas, 30th May 2012.

<sup>3</sup> National Research Foundation (NRF), the government agency that promotes and supports research in all fields of knowledge.

of data, offering scientists unprecedented levels of flexibility. He has been described as “one of the most outstanding radio interferometrists in the world”<sup>4</sup>, and is consistently praised for his “novel thinking” through which he has redefined the analysis of radio astronomy data. He puts this down to his background:

*Theoretical maths gives you a certain aesthetic sense, that a solution is beautiful when it's general, when it applies to many problems and not when it's fiddly and specific. So I'm always aiming for general solutions, but that can be difficult in software. If you try for something too general you often fail. So it's a question of balancing the general with the pragmatic and I suppose that's something I was good at. The fact that I came to radio astronomy late meant I had no baggage and I came in at the right time. There had just been a few theoretical breakthroughs. I was fresh to the scene and I could take them and run with them. For someone who had been in the field for a while, it was perhaps more difficult to change direction.*

The SKA will provide the biggest challenge yet in radio astronomy - a uniquely complex field which combines physics, mathematics, computing and electronics. He explains how he and his team fit into the overall SKA picture:

*We focus on how to process the data optimally - in other words, how to make the telescope 'see' as well as possible. We operate in the area between the engineers and the scientists and we often supply a bridge between them because they don't always speak the same language. Fifty*

*years ago it was possible to be a generalist. There were scientists in the heroic early radio astronomy generation who would do everything - they'd build the telescope, literally be the ones connecting up the wires, and then go off and do the science. But these machines have become so incredibly complicated that there is a massive gap between the engineers who build them and the scientists who use them.*

The SKA is really three instruments in one, each built using different technologies and receiving information from different parts of the radio spectrum. First there's the full dish array which will be made up of between two and three thousand dishes (looking like scaled-up satellite dishes), each about 15 meters in diameter. These pick up the high frequency waves. Then there are two aperture arrays: dense - which is made up of many small antennae packed into large, flat disk-shaped stations; and sparse - which consists of small upright radio receivers, about 1.5 m high. These will operate at mid and low frequencies respectively. The full dish array and the dense aperture array will both be built in Africa and the core of the project - the place with the highest concentration of receivers - will be in the Northern Cape Province, about 80 kilometres from the town of Carnarvon. However, there will be receivers spread across the Karoo and up into Africa to outstations in the eight partner countries of Botswana, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Namibia, and Zambia. The sparse aperture array will be built in Western Australia.

The information from all these will combine to create a telescope which, as the SKA Africa website says, will be “50



Ms Naledi Pandor (Minister of Science and Technology) and Professor Justin Jonas (Associate Director of Science and Engineering, SKA South Africa) at the media briefing 25 May 2012 following the site announcement for the SKA. Photo: GCIS

times more powerful and 10 000 times faster than any other radio telescope”. Its aim is to answer some of our most fundamental questions about the origins and the structure of the universe; to look, for instance, at how galaxies were formed and how they evolved. The SKA will be able to fill in some very important gaps in the continuum of what we know. There is a period known as ‘the dark ages’ that stretches from about 300,000 years after the Big Bang to a billion years later when young galaxies are seen. By observing

<sup>4</sup> Stellenbosch is focusing on ‘Electromagnetic Systems and Electromagnetic Interference Mitigation’, UCT on ‘Extragalactic Multi-Wavelength Astronomy’ and UWC on ‘Astronomy and Astrophysics’ and Wits on ‘Radio Astronomy’.

<sup>5</sup> Dating back to the 1950s when Professor Jack Gledhill attracted international attention with his ground-breaking work in the area of solar system astronomy.

<sup>6</sup> Dr Paul Alexander, Department of Physics, University of Cambridge. Interferometers are astronomical instruments that combine multiple radio telescopes in a single system.



Dishes from the KAT-7 Array. Photo: GCIS

the distribution of gas, the SKA should be able to see how the universe gradually came into being. The SKA will see more and further back in time than any other telescope has ever been able to.

While parts of the SKA are still being designed, a huge amount of construction activity is already happening and data is already being generated. South Africa has built the Karoo Array Telescope which has seven dishes (KAT-7) and is the world's first radio telescope array using dishes made of fibreglass. KAT-7 has started producing images and is, in

turn, a prototype for the MeerKAT telescope - also in the Karoo - which will consist of 64 dishes. It will be the most powerful radio telescope in the southern hemisphere until the SKA is finished. MeerKAT is sometimes called a 'pathfinder' telescope for the main project.

*Currently the biggest telescope we have, the Low Frequency Array (LOFAR) in the Netherlands, consists of 40-odd stations. When the SKA is finished, the dish component alone will contain between two and three thousand elements. That's a huge jump in scale, and we will need to master a lot of new technologies if we are to manage it successfully. Exploring these technologies is one reason we're building pathfinder telescopes such as MeerKAT. It's not the only reason, of course - MeerKAT is going to be a fantastic telescope all on its own.*

Professor Smirnov's team is working closely with the MeerKAT project and he divides his time between Grahamstown and the SKA Office in Cape Town. The first of MeerKAT's 64 dishes will be completed by early 2014 and it will become fully operational by 2016/17. Ultimately it will form part of SKA Phase One which will be about 10%, or 250, of the proposed dishes and is scheduled to be finished by 2020. Phase two should be completed by 2024 but, as soon as phase one is operational, scientists will start to use it.

When he first arrived at Rhodes, Oleg Smirnov said that one of his first priorities was to recruit some "bright postdocs and students" into his team. His aim is to turn RATT into a world leader in the field of radio astronomy data analysis.

South Africa is proud to be hosting the SKA. It seems that science and science projects have become a large part of the national identity.

That vision is becoming a reality with honours, MSc, PhD students and Postdoctoral Fellows already in place. They come from all over the world including Ghana, Cameroon, Mauritius, America and India. More are on their way. What are the biggest challenges they face when these gigantic machines start to operate at full capacity?

*Mainly it's the sheer amount of data. It's like a fire hose. If you imagine all the data that is moving across the internet in the entire world at this moment, that's what the SKA will produce in a second. We have to process that and we've never dealt with these volumes before. Up till now you could almost hand process the data, put it on your laptop and play with it until you understood it. With the SKA that's impossible. This torrent of data is coming at you and you either use it or you lose it. We can't rely on humans. We must take them out of the loop and replace them with programmes that can process data automatically.*

One of the things that any exploration of our universe might discover is, of course, the existence of some kind of intelligent life form. Given that this is the farthest we've ever been able to see, is that becoming a more realistic possibility? As Oleg Smirnov says,



*It would be fantastic if the SKA detected something, it would be a civilisation-changing event. The problem is the scale. Space could be seething with intelligent life but it's so big, mathematically our chances of finding it are very slim. The SKA will be incredibly sensitive. For instance, it would be able to detect something like airport radar 50 light years away. That sounds like a lot but, in cosmic terms it's just next door. It depends on how prevalent intelligent life is. If you could expect to find it on every star system, then it would just be a matter of time before we detected something, but what if it's on only one system in a million?*

He goes on to note that recent detections of Earth-like planets are encouraging:

*The more we look the more planets we seem to be finding. So it seems more and more that there's nothing particularly special about Earth, and if there's nothing special about where we are, then you'd expect life forms to occur elsewhere. Just the fact that we seem to be detecting planets everywhere suggests that, the better our instruments become, the more we're going to discover.*

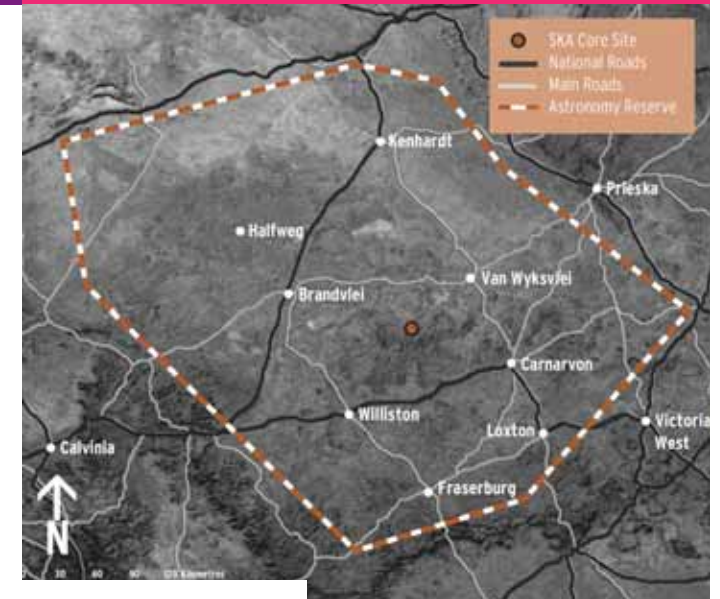
Oleg Smirnov has been fascinated by Africa since hearing stories of his grandfather's days as the Soviet ambassador to Kinshasa in the late 1960s. As he says, the SKA has given him the opportunity to work here, making it all the more rewarding as a project:

*I think the biggest difference between working on something like this in Africa rather than in the developed world, is that you feel like you're making far more of an impact here. You*

*can tell how proud South Africa is to be hosting the SKA. It seems that science and science projects have become a large part of the national identity. In Europe, fundamental science has an almost "ivory tower" feel, with far fewer lay people interested in what we actually do. Plus there are huge educational benefits to the SKA. There is a trickledown effect in academia, education and construction as well.*

*Building a telescope is an incredibly high tech enterprise and most of that work will be done by SA companies. Technicians will have to be trained to build and maintain it, and those people will then go out into the economy with these new found skills. That's why governments all over the world wanted to host this exceptional project.*

**- Jayne Morgan**



South Africa's new Astronomy Geographic Advantage Act protects 12.5 million hectares in the Northern Cape as a radio astronomy reserve to ensure the future of radio astronomy in the region.  
Photo: SKA South Africa

The configuration of the SKA core and remote stations throughout Africa. Photo: SKA South Africa



# A CENTRE FOR GRAVITY



Dr Julien Larena, Mathematics Lecturer

Photo: Sophie Smith

It seems that Rhodes Department of Mathematics has been exerting some kind of attractive force. Over the course of 2011 and 2012, it saw the arrival of Dr Denis Pollney and Dr Julien Larena, both of whom specialise in the study of gravity. The force was, in fact, the Head of Department, Professor Nigel Bishop, whose activities attracted these two talented researchers to join him in the work on gravitation he had already started and to develop a new research group.

Dr Larena is originally from France, has Masters degrees in both theoretical physics and applied mathematics and completed his PhD in theoretical cosmology in Paris in 2007. He came to Rhodes from UCT where he'd spent three years doing post doctoral research. He is a theoretical cosmologist and his main area of interest is in the application of the theory of gravity to very large scale objects, trying to describe the dynamics of the universe and the way structures - such as galaxies and clusters of galaxies - form within it.

Julien Larena divides his work into three main areas. Firstly, the testing of the Copernican Principle which states that we do not occupy a special place in the universe. As far as we know, through all the observations that have been made, the universe is isotropic - that means it looks the same in all directions ('looks' in this case this refers to it behaving according to the same physical laws rather than actual physical appearance, star formations, galaxies and so on). As Dr Larena says,

*What we don't know for sure, is whether it is homogeneous. That means that, if I was another observer in another galaxy far away, would I also see something that is the same around me everywhere. For a long time it was thought we couldn't test this because we're stuck where we are on earth and therefore can't observe from any other perspective. But actually, by being a bit more clever, we've managed to design tests for that.*

His second area of focus is what is called the 'fitting problem' in cosmology, an attempt to understand how the structural formation of the universe affects its dynamics on a large scale. Thirdly, he is working on relativistic corrections to cosmology - that is the effects of very fast and/or massive fluctuations in the distribution of matter in our universe. Until now, observations in cosmology have not been precise enough to probe genuine relativistic effects in the formation of structures. Dr Larena is working on physical models related to the science of the SKA<sup>1</sup> in order to make predictions that might be tested by the SKA in the long term.

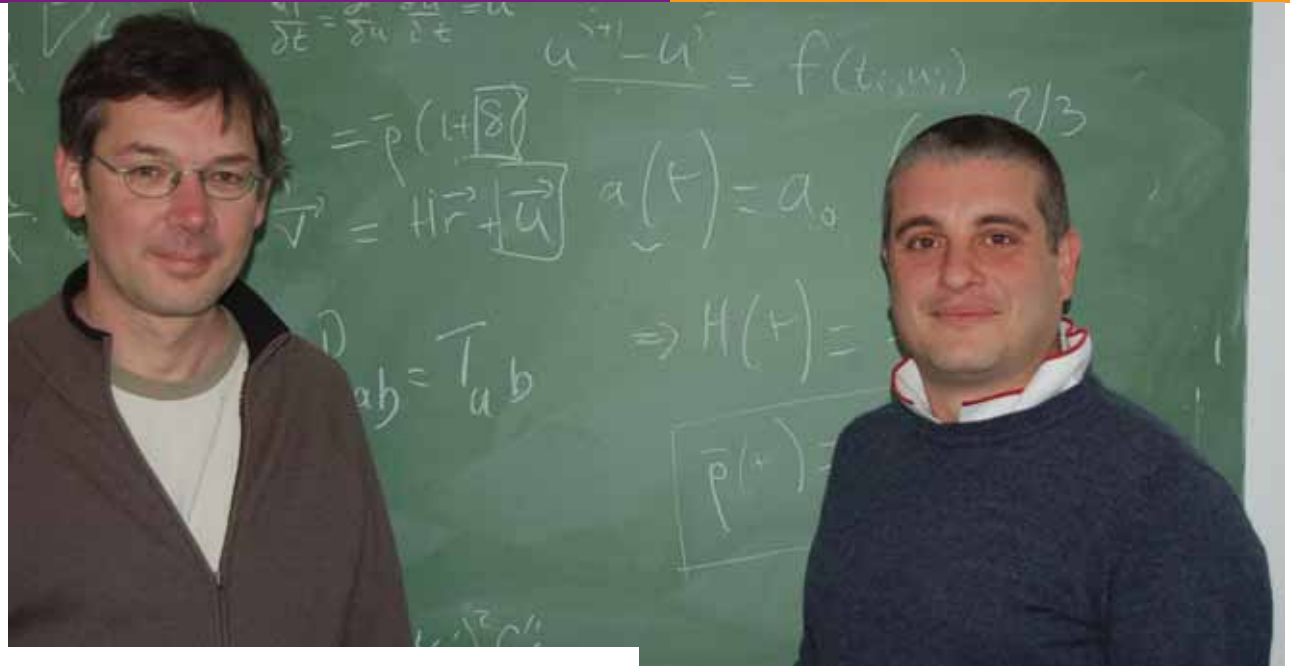
Dr Denis Pollney's work, by comparison, is on a smaller scale (as Dr Larena says "for me, galaxies are particles"). Dr Pollney is originally from Canada where he did his first degree in Mathematics at Waterloo University in Ontario. He gained his MSc from Queen's University in Kingston, Ontario and his PhD in Mathematics from Southampton University in the UK. His focus is on gravitation, black holes and, in particular, gravitational waves. When a violent cosmic event occurs - say a supernova explosion

<sup>1</sup> The Square Kilometre Array (SKA) will be the largest radio telescope ever built and is currently under construction. It consists of thousands of satellite dishes (a kilometre in surface area) and the majority of the SKA - the full dish array and the dense aperture array - will be built in Africa. The core (the region with the highest concentration of receivers) will be constructed in the Northern Cape Province, about 80km from the town of Carnarvon.

or two black holes in orbit around each other - a huge amount of energy is released causing a disturbance in spacetime. The distortion spreads out from the event in ripples, just as when a stone is thrown into a pond. These are gravitational waves. Their existence was predicted by Einstein in 1915 but, because they are very weak, they have never been directly observed. A huge amount of work is going on all round the world to try and detect them. Dr Pollney comments on why they are so important:

*Gravitational waves offer us a new way of looking at space and time. If we're able to detect them and observe their form, then we'll be able to see a whole new picture of the universe. This is an even bigger step than when we progressed from using visible light to radio waves. It's not just a different spectrum of electro-magnetic radiation, it's actually a completely different type of radiation. Radio waves tell us a lot about small-scale structures. Gravitational waves come from massive bodies and tell us how they move round each other, so they're telling us very different information about what's out there.*

Gravitational waves don't interact with matter very much which also means they're not obstructed by it. It is possible, therefore, to look deep into the centre of a galaxy and detect the gravitational waves coming from the central black hole. You couldn't see the centre of the galaxy using anything on the electromagnetic spectrum because it would be obscured by the dust all around it. This advantage, however, is also what makes them so difficult to detect. Because they interact so weakly, it is necessary to build a giant apparatus capable



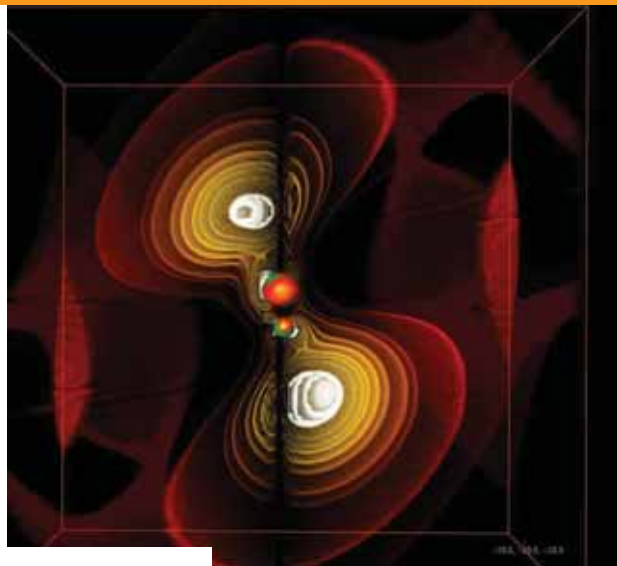
Dr Denis Pollney and Dr Julien Larena

of, as Dr Pollney puts it, “really ludicrous amounts of precision” to try and pick them up as they pass. How does his work help the process?

*In order to see a wave, the detectors have to pick the signal out of an extremely noisy stream of data, like trying to hear a very weak radio signal through loud static. One way to improve the chances of detecting the wave is if we know in*

*advance what the signal is going to look like. I model the formation of the waves from particular events - for instance a pair of black holes as they go round each other. We're using supercomputers to model these events and to get a template for what the gravitational wave will look like.*

The most sensitive wave detector on the planet is the Laser Interferometer Gravitational-wave Observatory - LIGO (which



A pair of black holes collide in a supercomputer simulation, demonstrating how gravitational waves are emitted in lobes from the central source. Coloured surfaces are the black hole 'event horizons', the surfaces of no-return from which no information can escape.

has two nodes in the US). There are other detectors around the world - VIRGO (in Italy) as well as future facilities in Japan (CLIO) and India (LIGO-India). A new generation of detectors, called Advanced LIGO and Advanced VIRGO, are already under construction and Dr Pollney is collaborating with teams at both these sites. They should be ten times more sensitive than the current ones and the first detections are expected within the next five years ("there will be Nobel prizes"). On how these detections will change our ideas about the structure

of the universe, Denis Pollney notes,

*The number of events they detect will tell us how often black holes are forming, how many exist and how big they are - all things that we have very poor information about at the moment. Plus, if they don't detect anything that also tells us that these binary black holes don't actually merge very often and that, again, is extra information. But we hope they'll detect a lot of waves and that will tell us what proportion of the universe is wrapped up in black holes and very dense bodies. If we look at the black hole at the centre of our galaxy and we look at objects falling into it such as stars or smaller black holes, by looking at the signals coming out we can develop a map of the spacetime around that central black hole. Even more exciting would be the discovery of completely unexpected events which have not been predicted by theory and point to new directions in physics.*

While both scientists are working at the very forefront of their fields, helping to push the boundaries of our understanding of the universe further and further, the chances are that, in comparison to what will eventually be discovered, we are some future generation's dark ages. What will be the next big discovery, the next relativity? Drs Larena and Pollney agree that dark matter and dark energy are the things for which we really don't have good explanations. As Dr Larena explains, we are so far off understanding them, we might need a complete change of paradigm:

*At the moment the universe is extremely boring. Dark matter was discovered in the '30s. Then dark energy came in 1998 and suddenly - because theorists are very imaginative people*

*To give you an idea of how much, the data collected by the SKA in just 24 hours would take nearly two million years to play on an iPod.*

*- thousands of ideas came to explain it but no conclusive evidence points one way or another. Dark matter is the most elusive thing you can imagine. It consists of light particles that don't want to interact with anything. Dark energy is just a little constant that comes into your equations but we don't know where it comes from either. At the moment, it's quite a confusing time because nobody has a clue. That's why it is important to come back to first principles and test all our hypotheses about the universe. This is what I am trying to do.*

Do we need another Einstein, someone with a ground-breaking theory? Or is it a question of looking deeper and deeper into space with ever more powerful telescopes? They both agree that it may well take "someone with a bright idea" but that the answers will probably come from a combination of theory and observation as Dr Pollney describes it:

*It's an interaction. The models predict something then, if the observers see something different, there's a lot of excitement amongst theorists who then try and adjust the models to fit the observations. It's a back and forth. You can have as many theories as you like, but unless you have the observations to back them up then it's just talk. On the other hand,*



*observations are only observations until you develop the theories to explain what's going on.*

Dr Larena points out that, indeed, without the theorists, it would be almost impossible to come to any conclusions just because of the scale of the current technology:

*We're talking about a massive amount of information. To give you an idea of how much, the data collected by the SKA in just 24 hours would take nearly two million years to play on an iPod. So, you can't just take it and say, "give me the truth". You have to know where to mine for it. That's where the theorists and modellers come in.*

Now that Drs Pollney and Larena are established at Rhodes, there is hope that the team will grow. The department is part of a bid for an NRF Centre of Excellence in Cosmology and Gravity which would have groups all over the country with the central node at UCT in Cape Town. As well as that, both teach at undergraduate level, and are keen to attract more of their students to stay on for post-graduate studies in gravitation.

As well as their individual research, the pair is just beginning to work together on something new. Dr Larena explains:

*We're trying to merge the techniques developed by the people looking at the numerical relativity of black hole mergers with the problematics coming from cosmology. Our aim is to try and do the first ever relativistic cosmological simulation of structure formation. I don't think this is being done anywhere else in the world.*

Dr Pollney elaborates:

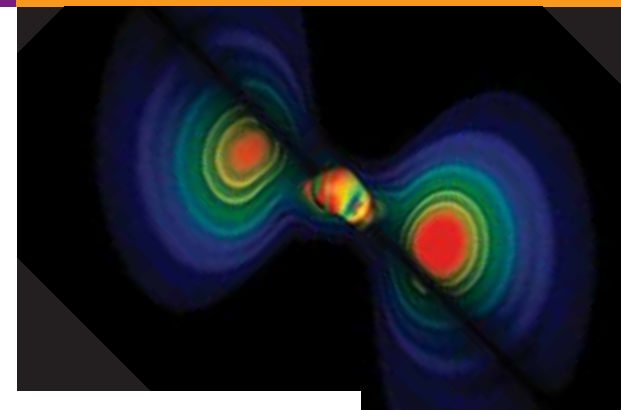
*Because of the focus on the binary black hole problem and the gravitational waves generated from that, people working in this field have often had tunnel vision. They haven't tried to apply the models anywhere else. There are quite a lot of effects that you can't study with hand calculations but that require potentially large simulations to do, and we've got the tools to do that now. I think it could be quite exciting.*

Most people spend so little time thinking about the kind of huge questions about our universe that they are devoting their lives to. Dr Larena disagrees about the lack of interest, saying that most people are curious - especially children.

Go to a class of eight-year-olds and talk to them about black holes and see how many questions they ask. Kids ask their parents, "why is the night sky dark?" - this is a cosmological question. But somehow, maybe as a product of our education system or society in general, those questions eventually dry up in most people.

Perhaps, then, it's not that people aren't interested but, rather, that they are overwhelmed. Many of the concepts that the two of them deal with every day - the idea of time slowing down in certain conditions, the extraordinary scales involved in the idea of the Big Bang, the fact that everything came from nothing in a fraction of second - are impossible to imagine or to describe in language. Dr Larena says that the equations are there to help:

*That's where the mathematics kicks in. Maths allows you to grasp concepts where your analogies fall short. You don't have to go to a black hole to see time slowing down - experiments have been done here on earth that shows that*



*this actually happens. The Big Bang is fundamentally a mathematical concept, not an everyday concept.*

Dr Pollney adds:

*It's one of the things that motivates my interest in the field" adds Dr Pollney. "When we go into a regime so foreign, our intuition is broken down entirely and we really have to rely on the maths. You're entering into a whole different way of thinking. You can't rely on your common sense - you build a new kind of intuition - it makes it fascinating. We're dealing with the boundaries of our understanding.*

*- Jayne Morgan*



# ALLAN GRAY CENTRE FOR LEADERSHIP ETHICS



Professor Pedro Tabensky  
Photo: Christine Nesbitt Hills

Issues of leadership are close to the heart of the Vice-Chancellor of Rhodes, Dr Saleem Badat. In his 2012 graduation speeches, he spoke about “the lack of competent and accountable leadership that has produced a widespread culture of unprofessional and disdainful conduct and service and sheer indifference to the basic needs of people”.<sup>1</sup> Dr Badat went on to say that we, as a society, continue to suffer the abuse of power by those to whom we have given the responsibility to lead but who use their positions “for political, economic and private gain and self-enrichment, as manifested in corruption, fraud and dubious tenderpreneurial activities”.<sup>2</sup>

Not one to highlight problems without offering some measure of solution, the Vice-Chancellor also used those speeches to announce the setting up of the Allan Gray Centre for Leadership Ethics (AGCLE). The centre is being funded by a potentially renewable endowment from Dr Allan Gray, a Rhodes University alumnus, founder of the Allan Gray investment company and a prominent South African philanthropist, keen to improve the quality of leadership in Southern Africa.

As part of the announcement, Dr Badat described the task of the AGCLE as being “to investigate and elaborate what constitutes ethical and responsible leadership, to promote such leadership in diverse contexts and circumstances and also to develop education and training initiatives to foster such leadership”.

Professor Pedro Tabensky of the Department of Philosophy was appointed as the AGCLE’s first Director. Thus the

Director of the AGCLE is not a management guru, nor a business specialist or even a social scientist, but a philosopher. Tabensky describes himself as an ethicist - “for want of a better description of what moves me as an intellectual”. He took on this new challenge with a characteristically “left-field” approach, commenting:

*I’m not that interested in the notion of leadership, I must confess. I think it’s a very thin concept, but it has a lot of purchase today amongst business schools and business people. Countless books on the subject have been published in the last few years and this is a sign that all is not well with the field. I believe there are deeper, underlying concepts that are much more substantial, in the sense that they are doing the explanatory work. Understanding these concepts will help us understand failures in leadership and how to promote a way of being that is both praiseworthy in its own right and which will help change how things are done in our wonderful and disturbing country. One such concept is that of ethical agency. To be an ethical agent is to be a person in the superlative sense. If you understand this, you can pretty much say all you want to about leadership.*

As Tabensky explains in his introduction to the AGCLE programme, “... ethics is not a mere collection of mores. It is rather a mode of being. Ethics, the field, is fundamentally the study of how to be in this world”.

In order to explore such concepts, we must, he says, get past the tired “Cold War-inspired” distinction between right and left that “seems to stop conversations rather

<sup>1</sup> Rhodes VC Saleem Badat, Graduation Ceremony Address, April 2012.

<sup>2</sup> *ibid*

than encouraging them". We also need to get past the idea that there is one ideology that will save us all: capitalism, socialism, entrepreneurialism, top-down or bottom-up governance structures or efficient management. Some of these things may be important, but none alone can save us. As Tabensky explains,

*We need to learn caringly to think out of the box, without having too many preconceptions of how to do things best. We need to be open to listening and learning from those who can and often do surprise us, those who come from spheres of life that are very different from our own or who may have conceptions of the ideal political order which do not conform to mainstream prejudices. Any real change requires that we humble ourselves to the other, that we listen and learn, that we walk out of our comfort zones and look at things afresh, that we become passionately curious about what others may teach us, rather than thinking of ourselves as those in the know.*

The first task of the AGCLE is to understand what the concept of ethical agency really means. The next thing, as Pedro Tabensky describes it, is the exciting and the "extremely scary" part, and that is "bringing philosophy to life", finding ways the work of the centre can make a genuine contribution to change in a country so beset by problems of corruption, mismanagement and lack of virtue in the public sphere. One thing he is adamant about is that a kind of glorified management training centre is not the answer:

*A quick workshop where you go in to a corporation, or to some other place, talk for a week and walk away is not the way to transform things. The potential for bullshit is immense. While it could attract a lot of money, money is not valuable enough to me to compromise the integrity of the academic*



Professor Pedro Tabensky holds an Existential Conversation with students at the Allan Gray Centre of Leadership Ethics in his office.  
Photo: Christine Nesbitt Hills.

*project and of the AGCLE. It's risky to do things in a quirky way but low-risk, 'safe' projects accomplish nothing. It's not that workshops have no potential, but this is not where our principal focus should be.*

The AGCLE team must, he believes, be "wildly creative" in their interventions if they are to have any hope of being effective. An important part of their thinking is the idea that ethics education should be an integral part of general education. Following Aristotle, Tabensky thinks of ethics as

the proper shape of human life. Given that professional choices are an integral part of our existence, educators ought to teach students to think of the proper place their educational endeavours occupy in their lives. As the AGCLE programme states in its opening paragraph: "Minimally and ideally, educators are formers of minds rather than mere conveyors of information and skills. And the well-formed mind is precisely the ethical one. So ethical living should be the ultimate aim of all education endeavours".



Professor Pedro Tabensky. Photo: Christine Nesbitt Hills.

In line with this thinking, he has chosen to start right on the doorstep of the AGCLE with the students at Rhodes, hosting weekly, what he calls, “existential conversations”.

*There is no obligation for the students to come here, there are no marks and it's not a course, at least not in a straightforward sense. It's a safe space for the sharing of ideas. Students come because they're interested in the content. Through these conversations, I hope students will start to think differently, be less passive, become more engaged and to start to take full responsibility for their own lives. I would like this to turn into a student led initiative and that, ideally, the SRC will get involved. I hope, through these interventions, that the student body will start having an impact on the institutional culture at Rhodes, taking it away from its*

*colonial legacy towards something else that is unique, different, special.*

At the heart of these conversation is the exploration of the nature of integrity and how the ethical flows from the pursuit of integrity:

*Integrity is a nice concept because it links action with the internal dimension of our lives. It helps us understand why people do what they do. As part of my work, I have studied the psychology of those who have done atrocious things - in the Holocaust, for instance. It seems to come down to a deep failure of integrity. I want students to understand that, even if it is painful to recognise the unpleasant aspects of yourself, it is necessary to do so and it's necessary to strive*

*And the well-formed mind is precisely the ethical one. So ethical living should be the ultimate aim of all education endeavours.*

*towards developing your own integrated sense of self. This is a lifelong task that requires care of the self or, in other words, attentive engagement with the pattern of life.*

Failure of leadership is, then, fundamentally a failure of integrity, which is why the AGCLE concerns itself so intimately with the concept. In addition to the internal development of the individual, Tabensky argues that our actions are also deeply influenced by our surroundings. The task of pursuing the life of integrity cannot be dissociated from the task of making of the world a better place, a place that encourages the formation of virtuous individuals, with well-formed minds. As Tabensky notes,

*Our minds are formed to a significant extent by the context in which we are born. So you have the psychological dimension of our lives which translates into action and then you have the space in which those actions occur - all of which has an impact on the formation of the mind. How do we help transform recalcitrant structures in a way that promotes the construction of a different mode of being?*

One natural conclusion from these ideas is the notion that, while lack of ability or expertise can affect leadership, this is not the central reason why we have such weak leadership in South Africa. The core problem is that our leadership lacks integrity. The person with integrity will have the humility to recognise that he or she does not have the relevant expertise

and will act in accordance with this understanding.

While the AGCLE has no specific political alignment (in the programme, Tabensky talks about the 'political being a subset of the ethical'), it was set up in response to a perceived ongoing failure of our current leadership. On being asked if he has any concerns about the centre being seen as politically fiery, he replies,

*I don't mind it being thought of in that way, but don't try and categorise me as right or left, don't put me in a box. I don't know what the best economic system for South Africa is, although it is pretty clear that what we have now is not good. I do think we have a problem with corruption but that is not a new thing. If you look at South Africa, it has been happening for a long time, long before the ANC came to power. I don't think corruption is the primary problem, but rather it is an expression of a deeper, more basic, problem. People are pillaging with no thought about the future. There is something weird in the psychology of the nation. Far too many of our leaders seem to be behaving as rats leaving a sinking ship, but clearly it's the rats that are sinking the ship.*

As well as Pedro Tabensky, the AGCLE currently comprises two Research Associates (Professor Barney Pityana and Dr Darlene Miller) and a Postdoctoral fellow (Dr Reza Hussein) with others due to join in 2013. The emphasis of the work is on education with current projects including a focus on educational psychology, the development of critical thinking in the classroom, a roundtable series on critical issues in higher education and links with many schools and other institutions.

As well as the educational focus of the AGCLE's work, Tabensky is also involved with local social activists and groups working to improve the lives of the many disadvantaged people in the area. His hope is that, particularly as a consequence of the existential conversations, students will also engage more fully, not only with their academic lives, but with their lives as citizens of Grahamstown. He notes,

*Grahamstown is an acutely clear expression of South Africa as a whole. You can't think about integrity without considering the context in which the life of integrity is lived, you have to take into account where you are. This AGCLE is not going to change the world, but we can make a contribution to making some difference in this town and that might serve as a model that can be applied elsewhere.*

*There is no magic pill. If you try and do things quickly, you will not be effective. Also, it would be arrogant to think that a single organisation could be the one place that could bring about a solution to all our woes. It's one contribution in a whole sea of contributions that need to be made in order for our country to change for the good. When I think about deep failures of the ethical, of corruption, I think of frail human beings who have certain histories and who are coping in a very unhealthy way and that's largely an expression of a kind of vulnerability.*

*Understanding that vulnerability and how it shapes our actions is important. I think of our failed leaders as damaged goods - as are many people in this country. The beggar who calls me "master", the black student who uses the expression 'you're so black' to his peers, the obsession of middle class black people with symbols of white power and wealth, the*

*white population's fear of fully recognising that their privilege is a consequence of gross injustice.*

*Our job is to make a contribution to working out how to change the psyche of our nation. That takes time. We need to proceed carefully if we really want to be effective in a good way.*

**- Jayne Morgan**



# A FIRM FOUNDATION FOR EDUCATION



Professor Jean Baxen

Photo: Christine Nesbitt Hills

## Professor Jean Baxen and The Cape Foundation Phase Research Project

The challenges facing South African education are impossible to ignore. We are regularly confronted by shocking statistics such as those from one recent report that put our Grade 4 and 5 learners last out of 40 countries<sup>1</sup>: 87% of Grade 4s and 78% of Grade 5s were unable to reach the lowest basic standards of literacy, even though most of the children were tested in their home language.

This catastrophic absence of basic skills in Grades 4 and 5 seems to point to there being something very wrong in Grades 1, 2 and 3 - or the Foundation Phase as it is known. While post-apartheid educational reform has ensured greater access to schooling, the educational infrastructure was not sufficiently prepared to cope with the increase in numbers. This means that many of the nation's children are not acquiring the early skills essential to their future schooling success.

At the heart of the Foundation Phase challenge is the lack of trained teachers specialising in those early grades. Many dedicated teacher training colleges were closed in the early 2000s and this left teacher education to universities. A number of these chose not to offer courses in Foundation Phase (FP) teaching, instead focusing on intermediate, senior and further education and training (FET).

In 2011, to try and address the problem, the government launched the 'Strengthening Foundation Phase Teacher Education Programme', a joint Department of Higher Education and Training and Department of Basic Education initiative. Supported by funding from the European Union, the programme was to last three years and had two overarching aims. Firstly, to increase the number of graduates who specialise as Foundation Phase teachers (particularly those speaking an African language) and, secondly, to increase the number of public universities that offer Foundation Phase initial teacher education programmes. It split the programme into seven deliverable objectives which it offered up as a challenge to all those interested in improving the situation in our Foundation Phase classrooms.

One group to respond to the challenge was The Cape Consortium. Led by Professor Jean Baxen<sup>2</sup>, it is a collaboration between four tertiary institutions - Rhodes University in Grahamstown, Nelson Mandela Metropolitan University (NMMU) in Port Elizabeth, Walter Sisulu University's (WSU) East London campus and the University of the Western Cape (UWC) in Cape Town. Three of these are in the Eastern Cape which has well-documented failures in its education system with vast numbers of its children in neglected rural schools. While the Western Cape has one of the most encouraging educational profiles in the country, the schools in the province that cater for predominantly African language speaking children have problems similar to their Eastern Cape counterparts.

<sup>1</sup> Howie, S., Venter, E., van Staden, S., Zimmerman, L., Long, C. du Toit, C., Scherman, V. & Archer, E. (2008). *PIRLS 2006 Summary Report: South African children's reading literacy achievement*. Pretoria: Centre for Evaluation and Assessment, University of Pretoria.

<sup>2</sup> Professor in the Department of Education and Deputy Dean (Research) in the Faculty of Education at Rhodes.

The Cape Consortium (TCC) was awarded just over R20 million between 2011 and 2013. The focus is on three of the overall project's seven stated objectives<sup>3</sup>: research into teaching practices and teacher education; programme design of initial teacher education courses; and materials development for teacher education. The aim is to develop an effective teacher education programme and teacher education support materials that would increase the number of Foundation Phase teachers and teacher educators in the system. This, with a view to ensuring an increase in "learners' epistemological access to literacy, numeracy and life skills in the classroom"<sup>4</sup> - in other words, to start having an impact on the statistics we are all too used to seeing.

From the outset, the group knew that, if they were going to bring about real and lasting change it could not be, as Professor Baxen says "business as usual". Of the three areas of focus, TCC knew that their primary concern had to be genuine, on-the-ground research about what is really happening in schools. Any attempt to put together a teacher education programme without this would simply repeat the mistakes of the past. As Professor Baxen puts it:

*While we know about the poor outcomes, we know very little about what is happening in classrooms in a systematic way. For some reason, the scholarship around education in South Africa has been nebulous and small scale and in some cases non-existent. We also know very little about teacher education. That's why a research programme like this is important. It doesn't make assumptions about what is happening in schools. It doesn't develop a programme in isolation using*

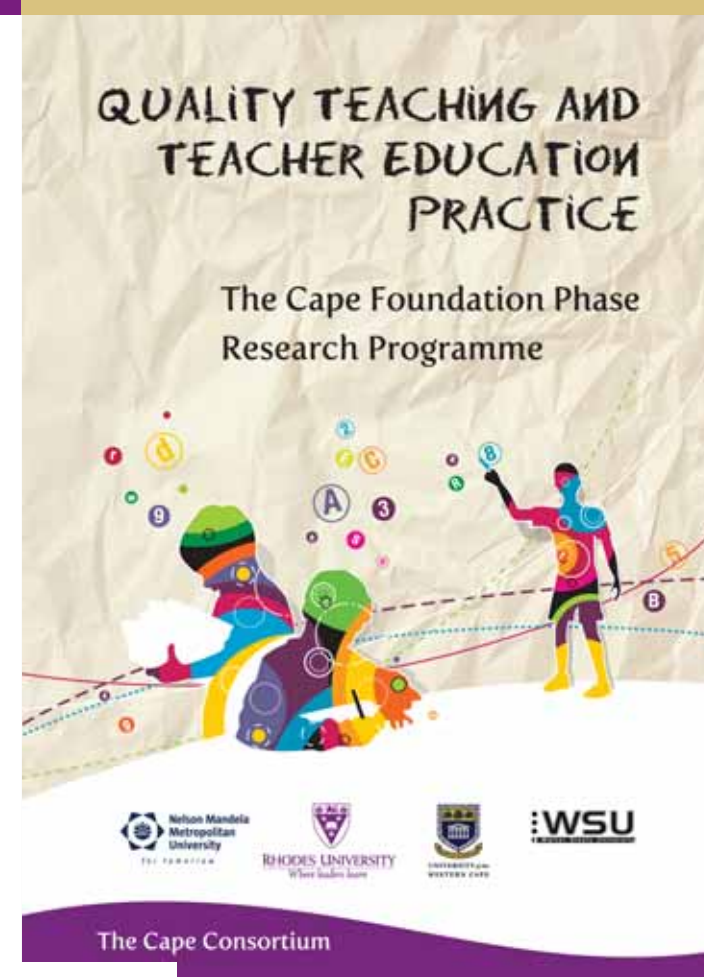
*notions of 'best practice'. Best practice assumes that one size fits all. It assumes we produce knowledge outside a context and that will never be effective. What we're doing is looking at what is actually going on in schools and then developing the programme from there.*

To conceptualise the research programme, the group identified key concepts in the literature that impacted on quality programming. They then allocated those concepts across the institutions: 'teacher identity' (NMMU); 'epistemological access' (UWC); 'practices with an emphasis on teaching and teacher education' (WSU) and 'quality in education' (Rhodes). What this means for the Rhodes team is explained by Professor Baxen:

*We looked at conceptions of quality - what is quality in education, quality for education and quality education - and we unpacked those terms. We looked at the literature about quality education and we linked that with notions of access. Prior to 1994, access was synonymous with quality. After 1994, the constitution said all children have a right to education, so there were more bums on seats but not quality. We had to look at how quality has changed over time and what we mean by it.*

The investigations had to be thorough. For instance, it's tempting to think that quality teacher education would, almost automatically, lead to quality teachers. Professor Baxen points out that this is not necessarily the case.

*It's complicated by who comes into the programme in the first place, their own contextual realities and identities and*



Research Programme Booklet

<sup>3</sup> The other objectives are: seeding the establishment of a FP teacher education forum; recruitment and advocacy campaign to encourage more young people to move into careers as FP teachers; the provision of FP initial teacher education bursaries for African language students; and seminars on FP education to share and disseminate the research.

<sup>4</sup> The Cape Consortium launch booklet, 2011.

*what they bring in. Then the assumption that, once students have the knowledge, they can just go and replicate it, is also one we have to interrogate. It's not a given that once they've gone through the course they are instantly able to teach. We have to ask, what are the conditions that are going to enable them to do that?*

The Rhodes team comprises eight PhD and three Masters students, and their projects cover a wide range of learner and teacher experience. Studies include an investigation of the vocabulary needs of children going from Grade 3 to Grade 4 (which is the point at which indigenous language speakers switch from mother tongue to English) and includes the development of a list of the hundred highest frequency words needed across all subjects. Another study looked at the home/school transition and how home literacy practices were being combined with literacy practices in the classroom. Jean Baxen notes that *What was fascinating was that often the home literacy practices were found to be richer than those in school, but these were regularly ignored by teachers.*

Another project looked at teachers' personal and professional identities in maths teaching, to examine the question of how teachers who have had terrible maths experiences themselves could teach the subject. Also in the area of maths, one researcher looked at whether teachers took differences of mathematical ability into account during lessons. It turned out that, in this study, teachers in the less well-resourced schools were better able to do this than their more privileged counterparts. Another project looked at isiXhosa-speaking children learning in an Afrikaans medium school. Somehow they seemed to cope better than being in an English medium environment. The researcher in question is analysing why this is the case.

Information gleaned from each project is being fed into the course design. For instance, one researcher set up an English book club for Grade 3s that ended up being so popular, it had to turn away eager learners from other grades. Consequently guidelines on setting up and running similar book clubs will find their way into the new curriculum. In other research projects, a student came across a teacher who refused to teach in English in Grade 3 although the curriculum states that it should be taught. The course will look at teacher cognition and decision-making and at what kind of critical engagement with official documents is necessary to help teachers understand how to work with all kinds of curricula.

One thing that did come to light is that not all is doom and gloom in rural schools. One PhD candidate discovered what Professor Baxen describes as "little pockets of excellence" in Kenton and Port Alfred, where teachers with limited resources were teaching very effectively. Videos from those classrooms will also be built into the course.

When it is completed, the course will be replicated throughout all four institutions - although each will tailor it to their own needs. For Rhodes, it will take the form of a re-introduction of a B Ed which was moved to Fort Hare from the Rhodes East London campus in 2003. As with any teacher education programme, it will include teaching practice but, unlike many such programmes, this one will strive to expose students to current conditions and to create as realistic an experience as possible. As Jean Baxen notes,

*If a class has 76 children, how do they manage that? In and around Grahamstown we're fortunate that we have a range of schools from St Andrews to Keiskammahoek - a rural school where teachers have to be imaginative when it comes*

*As with any teacher education programme, it will include teaching practice but, unlike many such programmes, this one will strive to expose students to current conditions and to create as realistic an experience as possible.*

*to resourcing their classrooms. Recently the minister has said all children must learn an African language in Foundation Phase, so how do we prepare our students when not all of them are African language speakers? We're considering immersing all of them in a rural environment where people only speak isiXhosa. This programme is not preparing them for an ideal world, it's preparing them for the real one.*

As The Cape Consortium pieces together the course, they are also building an overall picture of the kind of teacher they want to produce.

*At Rhodes, we want to produce a teacher who is "well". That is not just physical or emotional wellness. We need them to be competent, caring, critical and confident. Competent means he or she has the pedagogic knowledge as well as the content knowledge and that's a big ask - a lot of our research says that a lot of teachers have neither.*

Another area of investigation for The Cape Consortium is teacher identity. To learn more about this, the team has investigated existing teacher training institutions nationally and internationally, speaking to staff, administrators and students. Jean Baxen notes that,



*The student data was by far the most fascinating. What came out most strongly was their identity as foundation phase teachers was an issue. They felt strongly that people undermined their identity and that they were bottom of the pecking order in their training institution. We want to enable our students to have a better sense of self. So one of the things we're doing at Rhodes is to say that all our students will do a first and second year general course where they are Rhodes students not just education students. That, we hope, will give them a greater sense of a Rhodes identity and make them feel more equal.*

Dealing with this sense that teachers generally, and early primary school teachers in particular, are somehow second class citizens is another part of the task. One of the seven outcomes of the larger government project is, indeed, to improve the image of the profession and to raise the standing of Foundation Phase teachers. Although it is not directly in their remit, Professor Baxen believes that they, as teacher educators, must work hard to make the idea of becoming a teacher attractive to the highest calibre of student possible:

*It's a fact that students with enough points to attend a university like Rhodes, at the moment probably prefer to go into mainstream study. There has to be active recruitment and at the same time we have to change the image of teaching. We must work with our schools in more direct ways, go in and talk about teaching as a career. That's not happening enough. We have to raise the profile of the profession and attract those matrics who may have dropped a couple of points and who are sitting at home and entice them in to teaching.*

As the research nears its culmination, the project continues to generate important insights into the current situation in

our Foundation Phase classrooms. Those insights, it is hoped, will contain the seeds of a solution to our education crisis. Jean Baxen believes that The Cape Consortium is just the beginning and, although the project is due to finish in 2013, it will not be the end of their work:

*The partnerships we are establishing across the institutions and the quality of the work we're doing is changing the nature of teacher education in the Eastern Cape - perhaps eventually in the whole country. It is the result of the richness of our discussions and the fact that we can be critical of each other's work because our relationships are strong. That means we have designed an extraordinary programme which will provide excellent teacher education at all these institutions. We have achieved a phenomenal amount and we have an excellent platform to achieve even more.*

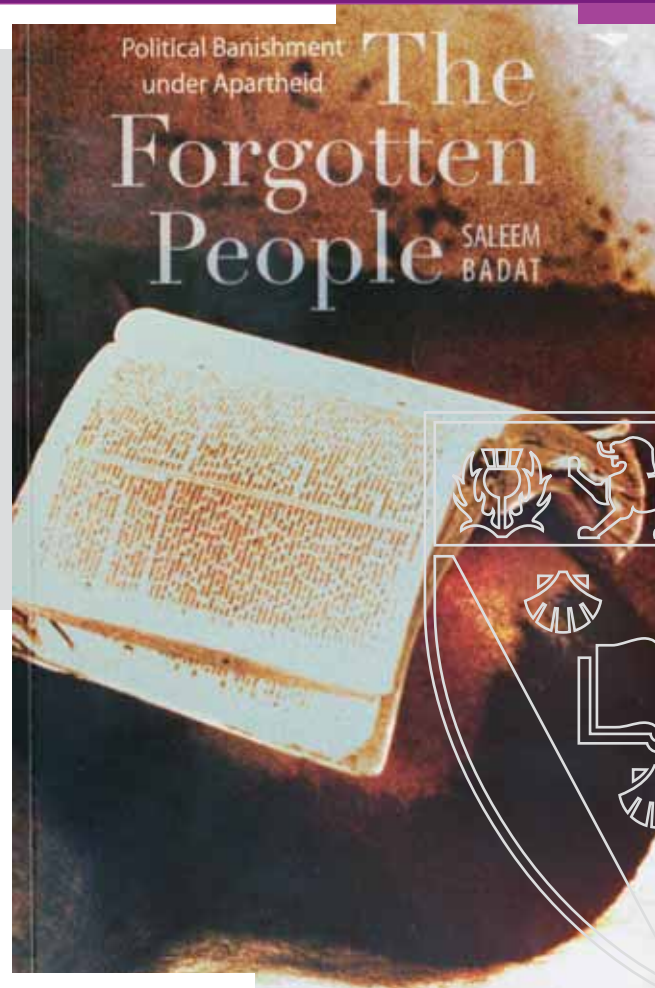
**- Jayne Morgan**



A foundation phase classroom



## PUBLICATIONS FROM THE VICE-CHANCELLORATE & ADMINISTRATION



### Books/Chapters/Monographs

*Badat, S.*

**Badat, S.** (2012) *The Forgotten People: Political Banishment under Apartheid*. Johannesburg: Jacana Media (Pty) Ltd. ISBN: 9781431404797.

**Badat, S.** (2012) Redressing the Colonial/Apartheid Legacy: Social Equity, Redress, and Higher Education Admissions in Democratic South Africa. In: Hasan, Z. and Nussbaum, M.C. (eds.). *Equalizing Access: Affirmative Action in Higher Education in India, United States, and South Africa*. India: Oxford University Press. p.121-150. ISBN: 9780198075059.

**Badat, S.** (2012) Redressing apartheid's legacy of social exclusion: social equity, redress and admission to higher education in South Africa. In: Halvorsen, T. and Vale, P. (eds.). *One world, many knowledges: Regional experiences and cross-regional links in higher education*. University of the Western Cape: Southern African-Nordic Centre. p.71-99. ISBN: 9780620557894.

### Other Publications

*Badat, S.*

**Badat, S.** (2012) Remembering Jakes - Chancellor our Chancellor. In: *City Press*: 02 December 2012. Johannesburg: Media24 Ltd.

**Badat, S.** (2012) A promising future stolen. In: *New Age*: 26 April 2012. Johannesburg: TNA Media.

**Badat, S.** (2012) We've lost one of our best. In: *Herald*: 23 April 2012. Port Elizabeth: Times Media Group.

**Badat, S.** (2012) It's up to us all to see we get the leaders we need. In: *Sunday Tribune*: 22 April 2012. Johannesburg: Independent Newspapers.

**Badat, S.** (2012) Small, but a research front-runner. In: *Daily Dispatch*: 29 February 2012. Port Elizabeth: Times Media Group.

**Badat, S.** (2012) Banished to our very own gulags. In: *Sunday Independent*: 02 December 2012. Johannesburg: Independent Newspapers.

**Badat, S.** (2012) A humble man of intellect, integrity. In: *Daily Dispatch*: 30 November 2012. Port Elizabeth: Times

Media Group.

**Badat, S.** (2012) Skeletons of a discarded past. In: *Daily Dispatch*: 23 November 2012. Port Elizabeth: Times Media Group.

**Badat, S.** (2012) Student leadership: SASO to the present day. In: *Frank Talk*: 4 May 2012. Johannesburg: Steve Biko Foundation.

**Badat, S.** (2012) Why we need leadership. In: *Daily Dispatch*: 24 April 2012. Port Elizabeth: Times Media Group.

**Badat, S.** (2012) The ugly truth about banishment. In: *Daily Dispatch*: 22 November 2012. Port Elizabeth: Times Media Group.

### Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*De Klerk, V.A.*

**De Klerk, V.A.** and **Young, C.** (2012) Changing the Message from 'Don't' to 'Do': Awareness-raising Strategies for Responsible Alcohol Use at a South African University. *Theory and Practice in Language Studies*. 2 (2). p.224-232.

### Peer Reviewed Subsidy-Earning Journal Research Publications

*De Klerk, V.A.*

**Young, C.** and **De Klerk, V.A.** (2012) Correlates of heavy alcohol consumption at Rhodes University. *Journal of Child and Adolescent Mental Health (Southern African Journal of Child and Adolescent Mental Health)*. 24 (1). p.37-44.

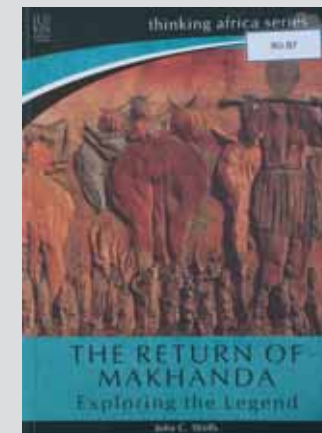
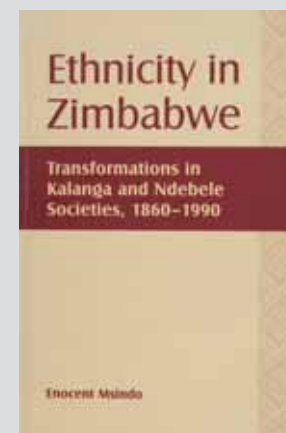
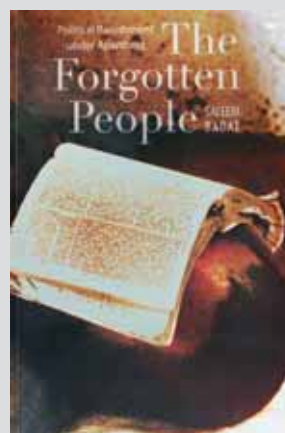
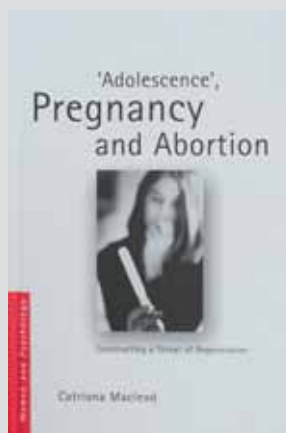
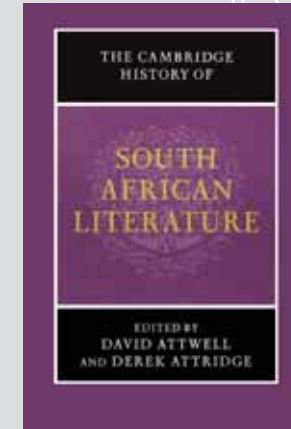
### Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

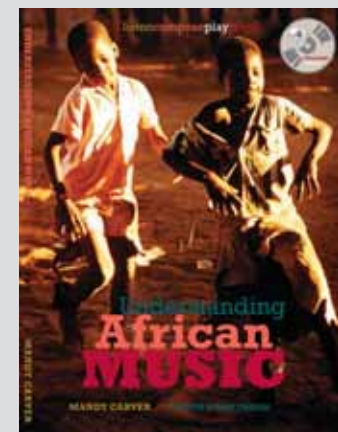
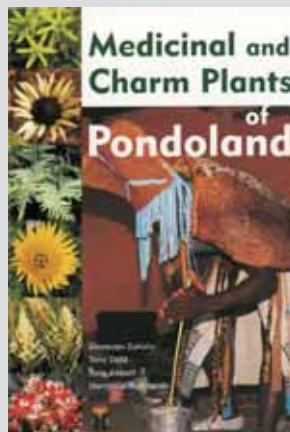
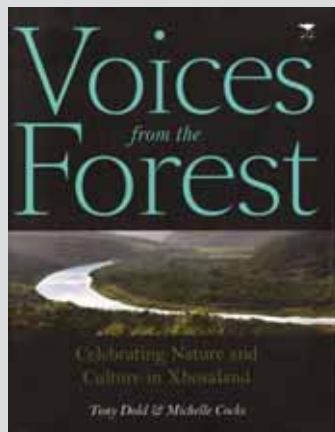
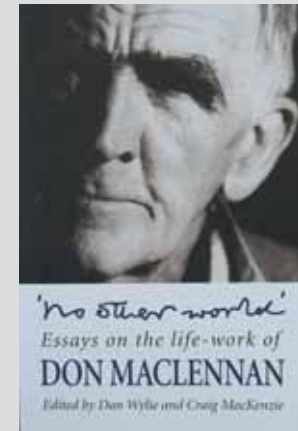
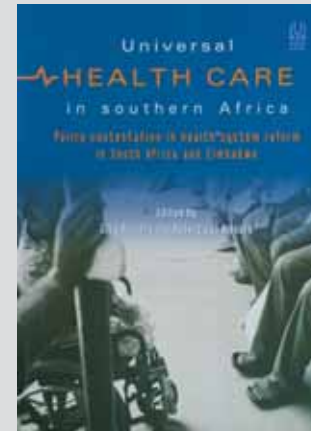
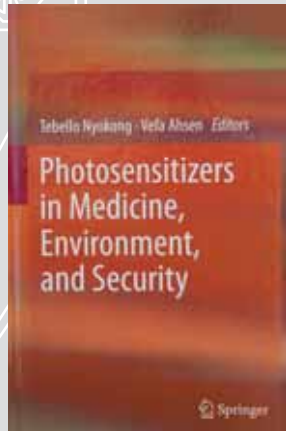
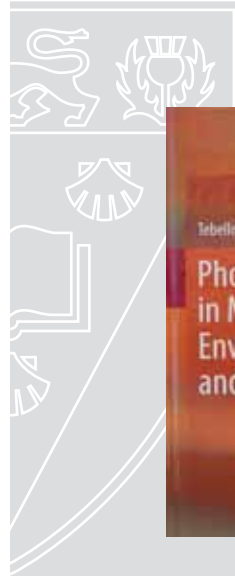
*De Klerk, V.A.*

**De Klerk, V.A.** and **Radloff, S.E.** The use of surveys as a tool to inform intervention strategies to enhance social inclusion. *15th International First Year in Higher Education Conference*. Sofitel Brisbane Central, Brisbane. Australia. June 2012.

# 2012 BOOKS

Rhodes Research Report 2012







# DEPARTMENTS AFFILIATES, INSTITUTES, CENTRES & UNITS



**RHODES UNIVERSITY**  
*Where leaders learn*

# ACCOUNTING

## Department of **ACCOUNTING**

Academics in the Department of Accounting continue to face a dramatic disconnect between research and practice as they try to develop research.

Main Administration Building, Rhodes University,  
which houses the Department of Accounting.  
*Photo: Sophie Smith*



Areas as diverse as medicines, asset pricing models, environmental management systems and consumer electronic components are all developed in the context of research traditions that generally involve the consideration of a theoretical foundation, from which falsifiable hypotheses are developed and then tested against real world conditions. The benefits to society that result from these activities of universities are clear.

However, this kind of research paradigm is not so easily transported to accounting. Even when it is, the results frequently seem contrived, incomprehensible and irrelevant to accounting practitioners. The main problem is that accounting has a long history of taking a normative rather than a positive approach to solving its problems. Thus, accountants are traditionally far more concerned with answering the prescriptive question “should transaction x be accounted for using method y or z?” than in considering the explanatory problem “which accounting method for transaction x is more highly correlated with equity returns, y or z?” Problem solving in accounting has, as a result, mainly been left to standard-setting institutions, not universities, in environments that are typically highly politicised and in which academic freedom is conspicuous only for its absence.

All too often, normative discussions are characterised by endless squabbling amongst key interest groups (the main usual opponents being listed companies and the analysts that examine their annual financial statements), in a process sometimes described by commentators as a race to the bottom. In addition, weaknesses in all of the available conceptual frameworks of accounting mean that deductive attempts to link normative propositions to underlying principles more often than not end in failure. Any expectations that the results of independent and objective university-based accounting research might usefully inform normative decision-making have, to date, generally been disappointed. Standard setters rarely, if ever, cite academic guidance, and academic membership of relevant decision-making bodies remains in the tiny minority. Therefore, accounting academics at this university and many others, both in South Africa and worldwide, continue to face a

# ACCOUNTING

dramatic disconnect between research and practice as they try to develop as complete, multi-dimensional participants in the higher education system.

## Significant Research Aligned Activities

The academic staff members of the Department of Accounting are following a number of interesting approaches in rising to meet these research challenges. **Professor Mark Bunting, Mr Kevin Barnard and Mr Thashveen Lutchmun** are, for example, closely examining various implications of the main claim of the standard setters: that their rules produce decision useful information.

By developing quantitative models of the relationships between the capital markets and accounting information, they are testing the proposition that balance sheets, income statements and other financial reports are indeed usefully representative of an underlying economic reality, and not mere artefacts of a mechanistically-applied system of processing rules.

**Professor Lilla Stack's** stature as South Africa's pre-eminent facilitator of tax research continues to grow. She annually supervises the largest single contingent of Masters and Doctoral level research students in the Faculty of Commerce, and is a pioneer in this country of the doctrinal research paradigm that is uniquely appropriate to her discipline. She continues to present her highly-regarded research methodology programme, and also contributes to research in her discipline through her membership of the review boards of all three of the main academic accounting journals in this country:

*Meditari*, the *South African Journal of Accounting Research* and the *Journal of Economic and Financial Sciences*, as well as a fourth journal, the *South African Business Review*. She presented a paper on her research into the legal and taxation-related complexities of partnerships at the Southern African Accounting Association's (SAAA) Eastern Cape conference in Katberg in September 2012, for which she generously declined the best paper award, in favour of developing researchers.

In addition to his capital markets research work, **Professor Mark Bunting** is working on developing a financial analysis framework for South African universities, with the objective of establishing a coherent and theoretically defensible mechanism for measuring their financial sustainability and capacity. He presented preliminary findings on this line of his research at the SAAA September 2012 conference (where he was awarded the best paper prize that had been declined by Prof Stack), as well as at colloquia in Cintsa in November 2011 and Cape Town in September 2012, attended by research staff from the eight universities included in his pilot study, including the University of Cape Town, North West University, University of Fort Hare, and Tshwane University of Technology, amongst others.

**Professor Kevin Maree and Ms Peta Myers** are researching accounting education. Professor Maree presented a paper at the SAAA conference which examined recent initiatives implemented by the South African Institute of Chartered Accountants in its qualification model, and explored the underpinning theories of student centeredness, coherence, constructive alignment and valid assessment practices, offering

insights into appropriate reactions from the higher education sector. Ms Myers presented three conference papers during the year: one at the EBES Conference in Istanbul, Turkey, in May 2012, on using the structure of knowledge within accounting to understand students' difficulties in acquiring knowledge, one at the September 2012 SAAA conference on her teaching methods in higher education, and finally one at the Higher Education Learning and Teaching Association of Southern Africa conference in Stellenbosch in November 2012, discussing Bernstein's pedagogic device in the context of accounting education.

**Mr Richard Poole** is following an important and topical cross-disciplinary research question, and presented a paper at the September 2012 SAAA conference on his examination of the use of tax incentive measures in conjunction with carbon taxes to reduce greenhouse gas emissions and achieve economic growth.

### Professor Mark Bunting

Academic Leader: Research  
Department of Accounting



# ANTHROPOLOGY

## Department of **ANTHROPOLOGY**

Anthropologists in the department have conducted research on a wide variety of topics in many different locations.

Chris de Wet with the late Mr Makhosana Pama and Mrs Madlomo Pama at their house in Chatha.



In 2012, the department of Anthropology produced one (1) book, a manual on heritage policy and legislation in South Africa, three (3) book chapters and one (1) subsidy earning paper. The department also presented sixteen (16) papers at national and international conferences or workshops.

## Postgraduates/Graduations

The department is steadily increasing its number of registered postgraduate students. The department graduated one (1) MA, and six (6) honours students. Presently the department has eight (8) MA and nine (9) PhD students, many of which are on the point of completing their theses.

## Significant Research Aligned Activities

**Professor Rose Boswell** was on sabbatical leave in 2012. During this time she continued with NRF funded field research on the experiences of aversive racism among the emerging African middle classes. She was also invited to speak at an international workshop on creolization at the International Migration Institute at Oxford and she was invited to present on education and marginalization at the 19th CCEM (Commonwealth) Stakeholders Forum hosted in Mauritius. She also prepared two papers for submission to subsidy earning journals, one on creolization processes and another on the challenges of restorative justice in post-slave society. These have been accepted and are in press for 2013. Professor Boswell also assisted the Rhodes University Environmental Learning Unit by producing a training manual on heritage legislation and policy in South Africa for the unit's Heritage Resources Management Program (HRMP).

**Professor Chris de Wet** was on sabbatical leave for the second half of 2012. During this time, he was working on the book he is currently writing on the long term consequences of forced resettlement in the rural 'community' where he has been doing field research since

# ANTHROPOLOGY

1979. As well as writing several draft chapters for the book, he wrote a paper for the International Expert Group Meeting on Guidelines on Eviction Impact Assessment, planned for September 2013 - Naples, Italy. Professor de Wet also produced two chapters for books and two journal articles. He also worked on various research projects, as well as consultancy work in Lesotho, and supervised six (6) Masters students.

**Dr Penny Bernard** was acting Head of Department from April to December 2012 during which time she presided over the appointment of a new Senior Lecturer in the department, Dr Patricia Henderson, who assumed her position in January 2013. Dr Bernard continued her research on diviner-healers during this period and submitted three papers to be reviewed for publication.

**Professor Rose Boswell**  
Head of Department

## Books/Chapters/ Monographs

*Henderson, P.C.*

**Henderson, P.C.** (2012) *A Kinship of Bones: AIDS, Intimacy and Care in Rural KwaZulu-Natal*. Durban: UKZN Press. ISBN: 9781869142469.

## Concerts, Exhibitions, Performances, Workshops, Events

*De Wet, C.J.*

**De Wet, C.J.** Invited expert. "Towards ethical outcomes in displacement: A search for coherence, or a fine balance?" *Blog site discussion group: Ethics and Development Thematic Group*. Blog site: <http://developmentethicsthematicgroup.wordpress.com/>, Cyberspace. 27 May - 1 July 2012.

*Palmer, R.C.G.*

**Palmer, R.C.G.** Workshop report. "Anthropology at Rhodes". *Re-Imagining Southern African Anthropology, Association for Anthropology in Southern Africa Regional Workshop*. University of Fort Hare, East London. South Africa. 24 - 25 February 2012.

## Other Publications

*Boswell, M.J.R.*

**Boswell, M.J.R.** (2012) "Heritage policy and legislation in South Africa". In: Stanford, M. (ed.). *Heritage Policy and Legislation in South Africa. Environmental Learning Unit*. Grahamstown: Environmental Learning Research Centre.

*De Wet, P.F.*

**De Wet, P.F.** (2011) "The KhoeSan early

learning center pilot project: Negotiating power and possibility in a South African institute of higher learning". In: Beckerman, Z. and MacPherson, S. (eds.). *Diaspora, Indigenous, and Minority Education: An International Journal*. London: Routledge.

**De Wet, P.F.** (2012) "South Africa". In: Mikkelsen, C. (ed.). *The Indigenous World 2012*. Copenhagen, Denmark: International Work Group for Indigenous Affairs (IWGIA).

*Henderson, P.C.*

**Henderson, P.C.** (2012) "Vhutshilo Mountain School: A Social Study of a Rural Paediatric Antiretroviral Program, South Africa". In: *Vhutshilo Mountain School: A Social Study of a Rural Paediatric Antiretroviral Program, South Africa*. Victoria, Australia: Oxfam.

## Peer Reviewed Subsidy- Earning Journal Research Publications

*De Wet, C.J.*

**De Wet, C.J.** (2012) The Application of International Resettlement Policy in African Villagization Projects. *Human Organization*. 71 (4). p.395-406.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Barbali, S.C.*

**Barbali, S.C.** "Teaching anthropology and the future of the discipline". *Association for Anthropology in Southern Africa, Annual Conference*. University of



Research Enabling Restitution of Past Injustices: the people of Chatha village were forcibly resettled in the 1960s from scattered residential hamlets into new large residential areas and a re-organised agricultural set-up. Chris de Wet's research documented the socio-economic impacts of this resettlement, and was used in the planning of a land restitution claim and award to the villagers. This photo is taken from a recently constructed toposcope in Chatha, which shows where families lived before the move, and which looks down upon the new post-resettlement residential areas.

Cape Town, Cape Town. South Africa. August 2012.

*Boswell, M.J.R.*

**Boswell, M.J.R.** "Challenges to Creolization in Mauritius and Madagascar". *Creolization and Diasporas*

# ANTHROPOLOGY



The village of Chatha, in the Keiskammahoek area of the Eastern Cape where Professor Chris de Wet has undertaken research for over 30 years.

*Conference*. International Migration Institute, Oxford University, Oxford. United Kingdom. December 2012.

**Boswell, M.J.R.** and Esch, E. "Language and diversity management in education". *19CCEM Stakeholders Forum*. Swami Vivekananda International Convention Centre, Port Louis. Mauritius. August 2012.

*De Wet, C.J.*

**De Wet, C.J.** "Contributing towards resettlement as development through effective training of resettlement officers". *International Conference on Resettlement and*

*Rehabilitation*. Xavier Institute of Management, Bhubaneswar. India. April 2012.

**De Wet, C.J.** "Monitoring the long-term impacts of displacement and resettlement in South Africa". *International Expert Group Meeting on Guidelines in Eviction Impact Assessment*. Hotel San Paolo, Napoli. Italy. September 2012.

*Featherstone, L.*

**Featherstone, L.** "Reflecting on the implementation of AwareNet into three Grahamstown schools: Contested spaces and perceptions". *Association for*

*Anthropology in Southern Africa, Annual Conference*. University of Cape Town, Cape Town. South Africa. August 2012.

*Gakale, T.B.*

**Gakale, T.B.** "Conceptualising motherhood in Grahamstown". *Association for Anthropology in Southern Africa, Annual Conference*. University of Cape Town, Cape Town. South Africa. August 2012.

*Gillies, K.L.*

**Gillies, K.L.** "Awarenet: A social networking program that collectively and connectively aids learning and education". *Association for Anthropology in Southern Africa, Annual Conference*. University of Cape Town, Cape Town. South Africa. August 2012.

*Harley, J.M.P.*

**Harley, J.M.P.** "Exploring multicultural experiences at the Grahamstown Arts Festival". *Association for Anthropology in Southern Africa, Annual Conference*. University of Cape Town, Cape Town. South Africa. August 2012.

*Mcalister, G.K.*

**Mcalister, G.K.** "Place theory and conservation: A case study from the Eastern Cape". *Association for Anthropology in Southern Africa, Annual Conference*. University of Cape Town, Cape Town. South Africa. August 2012.

*Owen, J.N.*

**Owen, J.N.** "Xenophilia in Cape Town, South Africa? New potentials for race relations". *The 111th Annual American Anthropological Association Conference (Borders and Crossings)*. Hilton San Francisco Union Square Hotel, San Francisco. USA. November 2012.

*Palmer, R.C.G.*

**Palmer, R.C.G.** "An evolutionary explanation

of garrulousness and repetition in the utterances of the elderly". *European Association of Social Anthropology 12th Biennial Conference*. Universite Paris, Nanterre. France. July 2012.

**Palmer, R.C.G.** "Indigenous rights in South Africa: Implications for conservation areas. Dwesa-Cwebe revisited". *Old Land, New Practices: The Changing Face of Land and Conservation in Postcolonial Africa. International Conference*. Rhodes University, Grahamstown. South Africa. September 2012.

**Palmer, R.C.G.** "Indigenous rights and wrongs: The ethics of advocacy in South Africa". *Association for Anthropology in Southern Africa, Annual Conference*. University of Cape Town, Cape Town. South Africa. August 2012.



# BIOCHEMISTRY, MICROBIOLOGY, BIOTECHNOLOGY

Department of

## BIOCHEMISTRY, MICROBIOLOGY & BIOTECHNOLOGY

2012 was another busy year for the department of Biochemistry, Microbiology and Biotechnology. The department was particularly productive in research, teaching and community engagement initiatives.

Professor Rosemary Dorrington (RU), Professor Isabelle Ansoorge (UCT) and Mr Adriano Mendes (RU) formed part of the Research Team 2012 to the Prince Edward Islands

Photo: Ian Meiklejohn



The department graduated twenty (20) Honours, fourteen (14) Masters and four (4) PhD students in April 2012.

## Postgraduates/Graduations

Ms Buhle Moyo, PhD student supervised by **Dr Edkins** and **Professor Blatch** of the Biomedical Biotechnology Research Unit (BioBRU), was awarded the prestigious Wood Whelan award by the International Union of Biochemistry and Molecular Biology (IUBMB) to fund an international research exchange. Ms Moyo spent two months in the laboratory of Dr Sophie Jackson at Cambridge University studying the interactions between the Hsp90 chaperone and novel hit compounds derived from indigenous sources.

## Distinguished Visitors / Overseas Visits

A research visit supported by the Women's Academic Solidarity Association Research Programme (WASARP) funded Professor Tom Wileman (Chair in Virology, University of East Anglia, UK) to visit the laboratory of **Dr Caroline Knox** in April 2012. During his visit, Professor Wileman assisted with Microbiology III teaching and the development of Dr Knox's research programme in Picornavirus molecular biology. In June 2012, Dr Knox was invited to chair a session on Virus-host interactions and presented her work at the 17th meeting of the European Study Group on the Molecular Biology of Picornaviruses (EUROPIC 2012) held in St Raphael, France.

**Professor Janice Limson**, Head of Biotechnology, continued with efforts to communicate science, working with academics and postgraduate students in a *SAASTA Public Understanding of Biotechnology* grant, which saw two dozen popular science articles

# BIOCHEMISTRY, MICRO-BIOLOGY, BIOTECHNOLOGY

published and several academics discussing their research on radio programmes.

## Significant Research Aligned Activities

In June 2012, Dr Knox was invited to chair a session on Virus-host interactions and presented her work at the 17th meeting of the European Study Group on the Molecular Biology of Picornaviruses (EUROPIC 2012) held in St Raphael, France.

The Rhodes University Bioinformatics (RUBi) Research Group is now part of the H3ABioNet (Pan African Bioinformatics Network for H3Africa), an H3Africa initiative. **Dr Ozlem Tastan Bishop** received NIH grant of \$350 000 for five (5) years as a part of H3ABioNet network to develop structural bioinformatics related pipelines and software, especially to analyze human genome SNP data. The grant also supports the establishment of new collaborations in Africa. Dr Tastan Bishop was elected as the first President of South African Society for Bioinformatics (SASBi) in September 2012.

**Professor Brett Pletschke**, President of the South African Society of Biochemistry and Molecular Biology (SASBMB), completed his two year term as President of the SASBMB. Professor Pletschke and colleagues accompanied a large group of students who presented their research at the 23rd SASBMB/FASBMB Congress held at the Champagne Sports Resort in the Drakensberg from the 29th January - 2nd February 2012. **Dr Susan van Dyk**, a Post-doctoral Fellow in Professor Pletschke's laboratory, presented a talk on the role of hemicellulases on lignocellulose bioconversion, a topic highly relevant to advanced (2-

4G) biofuel production in South Africa and abroad. During November 2012, Professor Pletschke also attended a Cape Peninsula University of Technology Research Day (26th November), where a D.Tech student, Mr Amos Musengi, co-supervised by Professor Pletschke, presented his research findings on the successful purification of peroxidase from *Streptomyces* sp. strain BSII#1.

During April and May 2012, **Professor Rosemary Dorrington** and Mr Adriano Mendes participated in a research cruise to the Prince Edward Islands aboard the research vessel, the SA Agulhas I. They were part of a multidisciplinary research team funded by the South African National Antarctic Program (SANAP) to study the long term impact of global change on marine and terrestrial ecosystems in the sub-Antarctic. Professor Dorrington's group is focused on understanding the role of microbes in driving the functioning of marine eco-systems using next generation sequencing technologies to characterize species diversity and population structure in the Southern Ocean. In December 2012, a member of Professor Dorrington's group and Manager of the newly launched Rhodes University GS-Sequencing Facility, **Dr Gwynneth Matcher**, travelled to the SANAE base on the Antarctic continent on the newly commissioned research vessel, the SA Agulhas II as part of a research team led by **Professor Ian Meiklejohn** (Department of Geography). Dr Matcher is researching the role of psychrophilic microbes in sub-Antarctic geomorphic processes.

Masters students, Mr Kyle O'Hagan and Ms Cindy Slater from BioBRU were invited to give oral presentations of their research on Hsp90 and cancer cell biology at the 23rd SASBMB/FASBMB Congress. At the same meeting, Dr Adrienne Edkins was elected to serve on the Council

of the SASBMB. Dr Jo-anne de la Mare, an NRF Innovation Post-doctoral Fellow in BioBRU, took over the leadership of the Cancer Awareness Initiative at Rhodes (CAIR). During 2012, CAIR was involved in a range of fund raising and community initiatives to promote awareness and understanding of cancer in the local community. In 2012, CAIR raised R20 000 for cancer related charities including Hospice, CANSA and the Sunflower Fund, a remarkable achievement for the group which was established by postgraduate students within BioBRU. The year ended with a research visit by Professor Greg Blatch, who holds the position of Visiting Professor in the department and was hosted by BioBRU.

Biotechnology received a significant boost in 2012 via a Research Infrastructure Support Programme grant in the NRF/DST National Nanotechnology Equipment Programme. The grant totalling R6.2 million was toward the purchase of a suite of equipment including a flagship Biorad ProteOn XPR36 Interaction Array System for high throughput surface plasmon resonance spectroscopy. This national facility is one of two in the country and represents a leap forward in the ability to monitor protein-protein, protein-small molecule and protein-aptamer interactions in real-time for drug discovery (cancer and malaria therapeutics), understanding mammalian stem cell signaling and development of biomarker biosensors (HIV, Cancer and Malaria). Professor Janice Limson and Dr Earl Prinsloo led a successful workshop in May 2012 to help postgraduates to better unlock the potential of this tool in their research.

**Dr Brendan Wilhelmi**  
Acting Head of Department

# BIOCHEMISTRY, MICROBIOLOGY, BIOTECHNOLOGY

## Books/Chapters/Monographs

*Edkins, A.L. and Blatch, G.L.*

**Edkins, A.L. and Blatch, G.L.** (2012) Targeting Conserved Pathways as a Strategy for Novel Drug Development: Disabling the Cellular Stress Response. In: Chibale, K., Davies-Coleman, M. and Masimirembwa, C. (eds.). *Drug Discovery in Africa*. New York: Springer. p.85-99. ISBN: 9783642281747.

## Concerts, Exhibitions, Performances, Workshops, Events

*Dames, J.F.*

**Dames, J.F.** Facilitator. Uncertainty of Measurement for Microbiology. *Uncertainty of Measurement for Microbiology Workshop*. Bluewater Bay Hotel, Durban. South Africa. 2 - 3 August 2012.

**Dames, J.F.** Facilitator. Good Laboratory Practices. *Good Laboratory Practices Workshop*. Bluewater Bay Hotel, Durban. South Africa. 23 - 24 April 2012.

**Dames, J.F.** Facilitator. Good Laboratory Management Practices. *Good Laboratory Management Practices Workshop*. City Lodge, Sandton. South Africa. 19 - 20 November 2012.

**Dames, J.F.** Facilitator. Good Laboratory Management Practices. *Good Laboratory Management Practices Workshop*. City Lodge, Bloemfontein. South Africa. 21 - 22 November 2012.

*Prinsloo, E.A.G.*

**Prinsloo, E.A.G.** Invited Panel Member. SAASTA Critical Thinker's Forum on Stem Cells. *SAASTA Critical Thinker's Forum on Stem Cells*. Saint Georges Hotel, Johannesburg. South Africa. 7 November 2012.

*Tastan Bishop, A.O.*

**Tastan Bishop, A.O.** Co-ordinator. Ensembl Browser Workshop. Department of Biochemistry, Microbiology and Biotechnology, Rhodes University, Grahamstown. South Africa. 9 October 2012.

## Other Publications

*Dames, J.F.*

**Dames, J.F.** and Gouveia, S. (2012) Inoculate them young and grow them strong. In: *Landscape SA*.

*Knox, C.M.*

**Opoku-Debrah, J.K., Moore, S.D., Hill, M.P. and Knox, C.M.** (2012) Studies on existing and new isolates of *Cryptophlebia leucotreta* granulovirus (CrleGV) on FCM populations from a range of geographic regions in South Africa. In: *Citrus Research International (CRI), Group Summarised Annual Research Report*. South Africa: Citrus Research International.

## Patents

*Dames, J.F.*

**Dames, J.F., Horan, M.P., Igbinigie, E.E., Mukasa-Mugerwa, T.T. and Rose, P.D.** (2012) *Fungcoal*. South Africa. 2012. P6894ZA00.

**Dorrington, R.A., Vlok, M. and Mendes, A. Dornington, R.A., Vlok, M. and Mendes, A.** (2012) *A method for producing virus-like particles*. South Africa. 2012. ZA200905604.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Matcher, G.F. and Dornington, R.A.*

**Matcher, G.F., Dornington, R.A.** and Burton, S.G. (2012) Enzymatic production of enantiopure amino acids from mono-



Dr Gwynneth Matcher collecting microbial samples from an Antarctic brine lake during the 2012 Relief voyage to the SANAE IV base. Photo: Professor Ian Meiklejohn

substituted hydantoin substrates. *Methods in Molecular Biology*. 794 (1). p.37-54.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Blatch, G.L.*

**Kee, N.L.A., Naude, R.J., Blatch, G.L.** and Frost, C.L. (2012) The effect of cancer procoagulant on expression of metastatic and angiogenic markers in breast cancer and embryonic stem cell lines. *Biological Chemistry*. 393 (3). p.113-121.

**Guirgis, B.S.S., Cunha, C.S.E., Gomes, I., Cavadas, M., Silva, I., Doria, G., Blatch, G.L., Baptista, P.V., Pereira, E., Azzazy, H.M.E., Mota, M.M., Prudencio, M. and Franco, R.** (2012) Gold nanoparticle-based fluorescence immunoassay for malaria antigen detection. *Analytical and Bioanalytical Chemistry*. 402 (3). p.1019-1027.

**Gitau, G.W., Mandal, P., Blatch, G.L., Przyborski, J.M. and Shonhai, A.** (2012) Characterisation of the Plasmodium falciparum Hsp70-Hsp90 organising protein



# BIOCHEMISTRY, MICRO-BIOLOGY, BIOTECHNOLOGY

(PfHop). *Cell Stress & Chaperones*. 17 (2). p.191-202.

*Dames, J.F. and Ridsdale, C.J.*

**Dames, J.F. and Ridsdale, C.J.** (2012) What we know about arbuscular mycorrhizal fungi and associated bacteria. *African Journal of Biotechnology*. 11 (73). p.13753-13760.

*De La Mare, J.A., Lawson, J.C., Edkins, A.L. and Blatch, G.L.*

**De La Mare, J.A., Lawson, J.C., Chiwakata, M.T., Beukes, D.R., Edkins, A.L. and Blatch, G.L.** (2012) Quinones and halogenated monoterpenes of algal origin show anti-proliferative effects against breast cancer cells in vitro. *Investigational New Drugs*. 30 (6). p.2187-2200.

*Edkins, A.L.*

**Edkins, A.L., Borland, G., Kelley, S.M., Cogdell, R., Ozanne, B. and Cushley, W.** (2012) Analysis of the CD23- $\alpha$ V integrin interaction: a study with model peptides. *Biochemical and Biophysical Research Communications*. 422 (2). p.207-212.

**Edkins, A.L., Borland, G., Acharya, M., Cogdell, R., Ozanne, B. and Cushley, W.** (2012) Differential regulation of monocyte cytokine release by  $\alpha$ V and  $\beta$ 2 integrins that bind CD23. *Immunology*. 136 (2). p.241-251.

*Edwards, S.L., Fogel, R., Mtambanengwe, K.T.E., Togo, C.A. and Limson, J.L.*

**Edwards, S.L., Fogel, R., Mtambanengwe, K.T.E., Togo, C.A., Laubscher, R.K. and Limson, J.L.** (2012) Metallophthalocyanine/carbon nanotube hybrids: extending applications to microbial fuel cells. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.917-926.

*Hodgson, V.*

**Hodgson, A.N., Hodgson, V. and**

**Eckelbarger, K.J.** (2012) Structure and formation of the unusual sperm *Patelloida latistrigata* (Mollusca: Patellogastropoda): implications for fertilization biology. *Biological Bulletin*. 222 (2). p.118-127.

*Hoppe, H.C.*

**DePonte, M., Hoppe, H.C., Lee, M., Maier, A.G., Richard, D., Rug, M., Spielman, T. and Przyborski, J.M.** (2012) Wherever I may roam: Protein and membrane trafficking in *P. falciparum*-infected red blood cells. *Molecular and Biochemical Parasitology*. 186 (2). p.95-116.

**Campos, W.R., Catarino, P.P. and Hoppe, H.C.** (2012) New frontiers in ethnomedicine: exploring the Angolan indigenous pharmacopeia for antimalarial drugs. *Drug Discovery Today*. 17 (13-14). p.651-653.

**Rossouw, C.L., Chetty, A., Moolman, F.S., Birkholtz, L.M., Hoppe, H.C. and Mancama, D.T.** (2012) Thermo-Responsive Non-Woven Scaffolds for "Smart" 3D Cell Culture. *Biotechnology and Bioengineering*. 109 (8). p.2147-2158.

**Gravestock, D., Rousseau, A.L., Lourens, A.C.U., Hoppe, H.C., Nkabinde, L.A. and Bode, M.L.** (2012) Novel branched isocyanides as useful building blocks in the Passerini-amine deprotection-acyl migration (PADAM) synthesis of potential HIV-1 protease inhibitors. *Tetrahedron Letters*. 53 (26). p.3225-3229.

*Jones, S.M.J., Van Dyk, J.S. and Pletschke, B.I.*

**Jones, S.M.J., Van Dyk, J.S. and Pletschke, B.I.** (2012) *Bacillus subtilis* SJ01 produces hemicellulose degrading multi-enzyme complexes. *Bioresources*. 7 (1). p.1294-1309.

*Khan, T. and Hoppe, H.C.*

**Khan, T., van Brummelen, A.C., Parkinson, C.J. and Hoppe, H.C.** (2012) ATP and luciferase assays to determine the rate of drug action in *in vitro* cultures of *Plasmodium falciparum*. *Malaria Journal*. 11 (2012). p.369-370.

*Knox, C.M. and Williams, B.J.*

**Knox, C.M., Luke, G.A., Dewar, J., de Felipe, P. and Williams, B.J.** (2012) Rotaviruses and emerging picornaviruses as aetiological agents of acute gastroenteritis. *Southern African Journal of Epidemiology and Infection*. 27 (4). p.141-148.

*Mwila, C., Van Dyk, J.S. and Pletschke, B.I.*

**Mwila, C., Burton, M.H., Van Dyk, J.S. and Pletschke, B.I.** (2012) The effect of mixtures of organophosphate and carbamate pesticides on acetylcholinesterase and application of chemometrics to identify pesticides in mixtures. *Environmental Monitoring and Assessment*. 185 (3). p.2315-2327.

*Niland, M.J., Fogel, R., Flanagan, S.P. and Limson, J.L.*

**Niland, M.J., Fogel, R., Flanagan, S.P. and Limson, J.L.** (2012) Towards Normalising Variability in Current Responses at Glassy Carbon Electrodes Using Double Layer Capacitance; a Case Study of Citrinin. *Electroanalysis*. 24 (4). p.945-954.

*Oyatsi, F.M. and Whiteley, C.G.*

**Oyatsi, F.M. and Whiteley, C.G.** (2012) Interaction of superoxide dismutase with the glycine zipper regions of  $\beta$ -amyloid peptides: Is there an implication towards Alzheimer's disease and oxidative stress? *Journal of Enzyme Inhibition and Medicinal Chemistry*. 2012 (2012). p.1-7.

*Prinsloo, E.A.G., Kramer, A.H., Edkins, A.L.*

*and Blatch, G.L.*

**Prinsloo, E.A.G., Kramer, A.H., Edkins, A.L. and Blatch, G.L.** (2012) STAT3 Interacts Directly with Hsp90. *LUBMB Life*. 64 (3). p.266-273.

*Ragubeer, N. and Limson, J.L.*

**Ragubeer, N., Limson, J.L. and Beukes, D.R.** (2012) Electrochemistry-guided isolation of antioxidant metabolites from *Sargassum elegans*. *Food Chemistry*. 131 (1). p.286-290.

*Sennuga, A., Van Marwijk, J. and Whiteley, C.G.*

**Sennuga, A., Van Marwijk, J. and Whiteley, C.G.** (2012) Ferroxidase activity of apoferritin is increased in the presence of platinum nanoparticles. *Nanotechnology*. 23 (3). p.1-10.

*Sennuga, A., Van Marwijk, J., Boshoff, A. and Whiteley, C.G.*

**Sennuga, A., Van Marwijk, J., Boshoff, A. and Whiteley, C.G.** (2012) Enhanced activity of chaperonin GroEL in the presence of platinum nanoparticles. *Journal of Nanoparticle Research*. 14 (824). p.1-11.

*Short, J. and Dorrington, R.A.*

**Short, J. and Dorrington, R.A.** (2012) Membrane targeting of an alpha-like tetravirus replicase is directed by a region within the RNA-dependent RNA polymerase domain. *Journal of General Virology*. 93 (8). p.1706-1716.

*Van Dyk, J.S. and Pletschke, B.I.*

**Van Dyk, J.S. and Pletschke, B.I.** (2012) A review of lignocellulose bioconversion using enzymatic hydrolysis and synergistic co-operation between enzymes. *Biotechnology Advances*. 30 (6). p.1458-1480.

**Sakka, M., Tachino, S., Katsuzaki, H., Van Dyk, J.S., Pletschke, B.I., Kimura, T. and Sakka, K.** (2012) Characterization of Xyn30a

# BIOCHEMISTRY, MICRO- BIOLOGY, BIOTECHNOLOGY

and Abf43A of *Bacillus licheniformis* SVD1 identified by its genomic analysis. *Enzyme and Microbial Technology*. 51 (4). p.193-199.

**Van Dyk, J.S.,** Kee, N.L.A., Frost, C.L. and **Pietschke, B.I.** (2012) Extracellular polysaccharide production in *Bacillus licheniformis* SVD1 and its immunomodulatory effect. *Bioresources*. 7 (4). p.4976-4993.

[Walmsley, T.A. and Dames, J.F.](#)

**Kleyi, P., Walmsley, R.S., Gundhla, I.Z., Walmsley, T.A., Jauka, T.I., Dames, J.F., Walker, R.B., Torto, N. and Tshentu, Z.R.** (2012) Synthesis, Protonation Constants and Antimicrobial Activity of 2-Substituted *N*-alkylimidazole Derivatives. *South African Journal of Chemistry-Suid-Afrikaanse Tydskrif Vir Chemie*. 65 (2012). p.231-238.

[Walmsley, T.A., Matcher, G.F. and Dorrington, R.A.](#)

**Walmsley, T.A., Matcher, G.F., Zhang, Y.C., Hill, R.T., Davies-Coleman, M.T. and Dorrington, R.A.** (2012) Diversity of Bacterial Communities Associated with the Indian Ocean Sponge *Tsitsikamma favus* That Contains the Bioactive Pyrroloiminoquinones, Tsitsikammamine A and B. *Marine Biotechnology*. 14 (6). p.681-691.

[Whiteley, C.G.](#)

Yang, C., Wang, F., Lan, D., **Whiteley, C.G.,** Yang, B. and Wang, Y. (2012) Effects of organic solvents on activity and conformation of recombinant *Candida antarctica* lipase A produced by *Pichia pastoris*. *Process Biochemistry*. 47 (3). p.533-537.

[Wilhelmi, B.S.](#)

Smogrovicova, D., Nadasky, P., **Tandlich, R., Wilhelmi, B.S.** and Cambray, G.A. (2012) Analytical and Aroma Profiles of Slovak and South African Meads. *Czech Journal of Food*

*Sciences*. 30 (3). p.241-246.

**Luyt, C.D., Tandlich, R., Muller, W.J. and Wilhelmi, B.S.** (2012) Microbial Monitoring of Surface Water in South Africa. *International Journal of Environmental Research and Public Health*. 9 (8). p.2669-2693.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

[Adeyemi, S.A., Tastan Bishop, A.O. and Edkins, A.L.](#)

**Adeyemi, S.A., Tastan Bishop, A.O. and Edkins, A.L.** Analysis of the interactions between type III Hsp40 and Hsp70 molecular chaperones from humans. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

[Bulcao, C., Edkins, A.L. and Wilhelmi, B.S.](#)

**Bulcao, C., Edkins, A.L. and Wilhelmi, B.S.** Analysis of the toxicity and differentiation ability of retinoic acid on THP-1 cells. *SASBMB/FASEB 2012 Congress*. Champagne Resort, Drakensburg. South Africa. January 2012.

[Clitheroe, C. and Tastan Bishop, A.O.](#)

**Clitheroe, C. and Tastan Bishop, A.O.** Structural analysis of malarial Hop protein and its interactions with several Hsp70s and Hsp90s under various simulated conditions applicable to the trophozoite (infectious) stage. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

[Dames, J.F.](#)

**Dames, J.F.** Mycorrhizal relationships in thicket communities. *Thicket Forum 2012*. Rhodes University, Grahamstown. South Africa.

September 2012.

**Fitzgerald, C.E., Dames, J.F., Hill, M.P. and Moore, S.D.** Screening of entomopathogenic fungi against citrus mealybug and citrus thrips. *7th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensburg. South Africa. August 2012.

**Dames, J.F.** Are mycorrhizal fungi important in the citrus industry? *7th Citrus Research Symposium*. Champagne Sports resort, Central Drakensburg. South Africa. August 2012.

**Dames, J.F.** Mycorrhizal agro-technology for Africa: Challenges and future prospects. *Integrated Soil Fertility Management in Africa: from Microbes to Markets*. Safari Park Hotel, Nairobi. Kenya. October 2012.

**Coombes, C.A., Dames, J.F., Hill, M.P. and Moore, S.D.** Entomopathogenic fungi for control of soil-borne life stages of false codling moth, *Thaumotobia leucotreta* (Meyrick) (Lepidoptera: Tortricidae). *7th Citrus Research Symposium*. Central Drakensburg, Drakensburg. South Africa. August 2012.

[Dames, J.F. and Ridsdale, C.J.](#)

**Dames, J.F. and Ridsdale, C.J.** Influence of mycorrhizal helper bacteria on arbuscular mycorrhizal fungi. *Integrated Soil Fertility Management in Africa: from Microbes to Markets*. Safari Park Hotel, Nairobi. Kenya. October 2012.

[De Moor, W.R.J., Van Marwijk, J. and Whiteley, C.G.](#)

**De Moor, W.R.J., Van Marwijk, J. and Whiteley, C.G.** The effect of gold/silver nanoparticles on triosephosphate isomerase activity from human and *Plasmodium falciparum*: A comparative study. *SASBMB 23*. Champagne Sports Resort, Champagne Castle. South Africa. January 2012.

[Dhanani, K.C.H., Cech, A.L. and Wilhelmi, B.S.](#)

**Dhanani, K.C.H., Cech, A.L., Cambray, G.A. and Wilhelmi, B.S.** Perfusion tower bioreactor with flocculation and adsorption immobilised *Saccharomyces cerevisiae* for continuous ethanolic fermentation: Design, Scale-Up, Analysis of performance and commercialization strategy. *SASBMB FASBMB Congress*. Champagne Resort, Drakensburg. South Africa. January 2012.

[Hatherley, R.A. and Tastan Bishop, A.O.](#)

**Hatherley, R.A. and Tastan Bishop, A.O.** *Plasmodium falciparum* Hsp70-x: An atypical cytosolic heat shock protein. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

[Kanzi, A.M. and Tastan Bishop, A.O.](#)

**Kanzi, A.M., Lobb, K.A. and Tastan Bishop, A.O.** Falcipains as malarial drug targets. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

[Kihara, E.W. and Tastan Bishop, A.O.](#)

**Kihara, E.W. and Tastan Bishop, A.O.** Structural bioinformatics analysis of *Plasmodium* Hsp40 proteins and their interactions with *Plasmodium* Hsp70s. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

[Knox, C.M.](#)

**Opoku-Debrah, J.K., Moore, S.D., Hill, M.P. and Knox, C.M.** Studies on existing and new isolates of *Cryptophlebia leucotreta* granulovirus (CrleGV) on FCM populations from a range of geographic regions in South Africa. *7th Biennial Citrus Research Symposium*. Central Drakensburg, Central Drakensburg. South Africa. August 2012.

[Maphumulo, P.N., Pesce, E.-R., Edkins, A.L.](#)

# BIOCHEMISTRY, MICRO-BIOLOGY, BIOTECHNOLOGY



"A laboratory with a view". Microbiology Masters student, Adriano Mendes dissects *Pringleophagia marioni* larvae in the analytical laboratory on the Marion Island Base. The research focuses on the role of microbial metabolism in driving nutrient cycling in sub-antarctic ecosystems.

Photo: Rosemary Dorrington

and Blatch, G.L.

**Maphumulo, P.N., Pesce, E.-R., Edkins, A.L. and Blatch, G.L.** Characterization of a *Plasmodium falciparum* type II Hsp40 chaperone exported to the cytosol of infected erythrocytes. *SASBMB/FASEB 2012 Congress*. Champagne Resort, Drakensberg. South Africa. January 2012.

**Meyer, A.H. and Dames, J.F.**

**Meyer, A.H., Dames, J.F. and Wooldridge,**

J. Correlation between glomalin and chemical properties of apple orchards soils. *Combined Congress*. Potchefstroom University, Potchefstroom. South Africa. January 2012.

**Meyer, A.H., Dames, J.F. and Wooldridge, J.** Soil surface management practices affect mycorrhizal and microbial enzyme activity and diversity in an apple orchard soil. *Combined Congress*. Potchefstroom University, Potchefstroom. South Africa. January 2012.

**Mutsvunguma, L.Z., Edkins, A.L., Blatch, G.L. and Knox, C.M.**

**Mutsvunguma, L.Z., Luke, G.A., Edkins, A.L., Blatch, G.L. and Knox, C.M.** Theiler's murine encephalomyelitis virus infection results in a redistribution of Hsp90 and Hsp70, and is inhibited by anti-Hsp90 drugs. *European Study Group on the Molecular Biology of Picornaviruses*. St Raphael convention centre, St Raphael. France. June 2012.

**Ngqwala, N.P. and Whiteley, C.G.**

**Ngqwala, N.P. and Whiteley, C.G.** Interaction of silver/gold nanoparticles with biomedical enzyme targets: Neuronal nitric oxide synthase. *SASBMB 23*. Champagne Sports Resort, Champagne Castle. South Africa. January 2012.

**Njuguna, J.N. and Tastan Bishop, A.O.**

**Njuguna, J.N. and Tastan Bishop, A.O.** Structural analysis of prodomain inhibition of cysteine proteases in *Plasmodium* species. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

**O'Hagan, K.L., Kenyon, A., Prinsloo, E.A.G., Blatch, G.L. and Edkins, A.L.**

**O'Hagan, K.L., Kenyon, A., Prinsloo, E.A.G., Blatch, G.L. and Edkins, A.L.** A role for Hsp90 in fibronectin matrix assembly. *SASBMB/FASEB 2012 Congress*. Champagne Resort, Drakensberg. South Africa. January 2012.

**Onywera, D.H. and Tastan Bishop, A.O.**

**Onywera, D.H., Lobb, K.A. and Tastan Bishop, A.O.** Influence of non-synonymous sequence mutations on the architecture of HIV-1 clade C protease receptor site: Molecular dynamics simulations. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

**Pletschke, B.I.**

**Khan, N., Le Roes-Hill, M., Pletschke, B.I. and Burton, S.G.** An immobilised lignocellulolytic system: Using oxidases for the bioremediation of agricultural wastes. *23rd South African Society for Biochemistry and Molecular Biology (SASBMB) Congress / FASBMB*. Champagne Sports Resort, Winterton. South Africa. February 2012.

**Musengi, A., Khan, N., Le Roes-Hill, M., Pletschke, B.I. and Burton, S.G.** Purification of peroxidase from *Streptomyces* sp. strain BSii1. *CPUT Research Day, CPUT, 26 November 2012*. CPUT, Bellville. South Africa. December 2012.

**Ryan, C.N. and Tastan Bishop, A.O.**

**Ryan, C.N. and Tastan Bishop, A.O.** Bioinformatics approaches to study genetic and spatial evolution of non-ribosomal polypeptide synthetase in plant growth-promoting rhizobacteria of the genus *Bacillus*. *Joint SAGS / SASBCB Conference*. Stellenbosch, Stellenbosch. South Africa. September 2012.

**Ryan, C.N., Basson, W., Brand, J. and Wilhelmi, B.S.**

**Ryan, C.N., Basson, W., Brand, J. and Wilhelmi, B.S.** Molecular analysis of black rhinoceros dung for diet determination using GS-FLX pyrosequencing. *SASBMB / FASEB*. Champagne Resort, Drakensberg. South Africa. January 2012.

**Sello, N.T., Knox, C.M., Van Marwijk, J. and Whiteley, C.G.**

**Sello, N.T., Knox, C.M., Brannigan, J., Van Marwijk, J. and Whiteley, C.G.** Synthesis of silver nanoparticles and their interaction against biological target: Superoxide dismutase. *SASBMB 23*. Champagne Sports Resort, Champagne Castle. South Africa. January 2012.



# BIOCHEMISTRY, MICRO- BIOLOGY, BIOTECHNOLOGY

*Sello, N.T., Whiteley, C.G. and Knox, C.M.*

**Sello, N.T., Whiteley, C.G. and Knox, C.M.** The interaction of silver nanoparticles with superoxide dismutase from human and Plasmodium parasite: A comparative study. *3rd BIT Symposium Enzymes & Biocatalysis*. Xian, China. January 2012.

*Sitole, P. and Dames, J.F.*

**Sitole, P. and Dames, J.F.** Investigating the role of mycorrhizal associated bacteria. *7th Citrus Research Symposium*. Champagne Sports resort, Central Drakensberg. South Africa. August 2012.

*Slater, C. and Edkins, A.L.*

**Slater, C. and Edkins, A.L.** Phenotype and Function-based Identification of Cancer Stem-like Cell Populations in Metastatic and Non-metastatic Colon Cancer Cell Lines. *SASBMB/FASEB 2012 Congress*. Champagne Resort, Drakensberg. South Africa. January 2012.

*Swart, S., Van Dyk, J.S., Beukes, N. and Pletschke, B.I.*

**Swart, S., Van Dyk, J.S., Beukes, N. and Pletschke, B.I.** Enzyme synergy studies with ViscozymeR, a commercial lignocellulolytic enzyme cocktail, for optimal lignocellulose degradation. *23rd South African Society for Biochemistry and Molecular Biology (SASBMB) Congress/FASEB*. Champagne Sports Resort, Winterton. South Africa. February 2012.

*Van Dyk, J.S., Beukes, N., Dredge, R.A., Olver, B.D. and Pletschke, B.I.*

**Van Dyk, J.S., Beukes, N., Dredge, R.A., Olver, B.D. and Pletschke, B.I.** The role of hemicellulases in lignocellulose bioconversion. *23rd South African Society for Biochemistry and Molecular Biology (SASBMB) Congress/FASEB*. Winterton. South Africa. February 2012.

*Van Marwijk, J. and Whiteley, C.G.*

**Van Marwijk, J. and Whiteley, C.G.** The effect of gold nanoparticles on Plasmodium falciparum superoxide dismutase activity. *SASBMB 23*. Champagne Sports Resort, Champagne Castle. South Africa. January 2012.

*Van Marwijk, J., Yao, J. and Whiteley, C.G.*

**Van Marwijk, J., Yao, J. and Whiteley, C.G.** The action of silver nanoparticles with a thiazolekinase enzyme from Plasmodium falciparum. *SASBMB 23*. Champagne Sports Resort, Champagne Castle. South Africa. January 2012.

*Whiteley, C.G.*

**Whiteley, C.G. and Sennuga, A.** Are nanoparticles safe? Neurotoxic effects of biologically synthesised nanoparticles on the central nervous system. *Nanotoxicology*. Beijing Friendship Hotel, Beijing. China. September 2012.

*Whiteley, C.G. and Van Marwijk, J.*

**Whiteley, C.G. and Van Marwijk, J.** The effect of silver nanoparticles on the superoxide dismutase activity of Plasmodium falciparum. *Colloids and Nanomedicine 2012*. Amsterdam. Netherlands. January 2012.

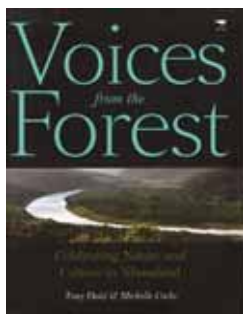
*Willmer, T., Blatch, G.L. and Edkins, A.L.*

**Willmer, T., Blatch, G.L. and Edkins, A.L.** Effect of knockdown of the co-chaperone Hop on biology of breast cancer cells. *SASBMB/FASEB 2012 Congress*. Champagne Resort, Drakensberg. South Africa. January 2012.

# BOTANY

## Department of BOTANY

The broad interests of the Botany staff translate into numerous postgraduate study opportunities.



Above Right: More than 700 plant species used for traditional medicine are sold at informal street markets throughout the country. Photo: Tony Dold



During 2012, the Botany Department continued to consolidate its research focus on global change and has secured funding towards establishing an elevated CO<sub>2</sub> facility at Rhodes University, which will be the only facility of its kind in Africa.

**Professor Brad Ripley's** central research focus remains the ecology and evolution of C4 grasses, and has resulted in the publication of several international journal articles. In collaboration with Rhodes and national researchers, Brad raised funding for the development of an elevated CO<sub>2</sub> facility at Rhodes University which will extend the scope of his current research and initiate several new projects. Brad returned from sabbatical in June 2012, where activities included a four month stay at UCT working on leaf succulence and research on the shade responses of C4 grasses.

**Professor Nigel Barker** continued to research and promote awareness of Africa's montane biodiversity, which continues to form the basis of his research activities and national and international collaborations. Montane biodiversity is of particular interest in reconstructing the effects of past climate change, but also particular vulnerability in the face of future climate change. He attended a workshop in Mphahlele, Lesotho, on African mountain research.

**Dr Anusha Rajkaran's** research interests include mangrove and salt marsh dynamics and ecosystem functioning in sub-tropical and warm temperate systems. In 2012, she was awarded a Thuthuka grant to determine the effect of disturbance, nutrients and sedimentation on mangrove and salt marsh dynamics.

**Dr Craig Peter's** research focuses on the evolutionary ecology of plant-pollinator interactions. 2012 also saw this research expanding into investigation of the role of pollination in invasive alien plant species.

**Dr Susanne Vetter's** research includes rangeland ecology and human-environment interactions, and she was invited to write the opening position paper for a special issue of the

# BOTANY



Thicket overlooking Fish River (Fish River Valley descent). Access to Ihlati lesixhosa (Xhosa Forest) contributes significantly to the physical, mental and spiritual well-being of local people in the Great Fish River Valley.

African Journal of Range & Forage Science on *Aligning policy with the socio-ecological dynamics of rangeland commons*.

Following his retirement at the end of 2011, **Professor Ted Botha** has remained active in the department as Emeritus Professor, supervising a number of postgraduate students. His NRF-funded research group makes use of light and electron microscopy to examine effects of aphid feeding at cellular, molecular and whole plant level under normal and elevated CO<sub>2</sub>.

## Postgraduates/Graduations

The Botany Department was home to twelve (12) MSc and three (3) PhD students in 2012, and staff of the department co-supervised several other postgraduates in other departments, including Zoology & Entomology

and Anthropology.

## Distinguished Visitors/Overseas Visits

Dr Craig Peter was invited to present a paper at the 3rd Guangxi Orchid Symposium, Nanning, China where he was able to meet leading Chinese orchid biologists as well as a number of leading international conservation biologists. The conference culminated in a trip to the Yuchan Orchid reserve, the first dedicated orchid reserve in the Peoples' Republic of China, where Dr Peter was able to see huge populations of Slipper Orchids in the wild. Later in the year, Dr Peter was invited to give a presentation at the 15th South African Orchid Council National Orchid Conference held in Rustenburg where he was able to interact with many of the country's leading

orchid enthusiasts, making a number of valuable contacts. Craig's students presented a paper and a poster at the 38th SAAB conference in Pretoria.

Dr Anusha Rajkaran visited Sri Lanka for the Meeting on Mangrove Ecology, Functioning and Management (MMM3). This meeting is the seminal conference on mangroves in the world and attracts scientists from all the main mangrove research units. During this time a number of connections were made with scientists from the United States of America, Australia and Sri Lanka. One of these connections has resulted in a number of interactions on the topic of mangrove expansion and salt marsh decline at mangrove poleward limits.

## Significant Research Aligned Activities

Staff and students were well-represented at several national conferences, notably the annual meeting of the South African Association of Botanists and the South African Association of Systematists. Tony Dold and **Michelle Cocks** launched their biocultural diversity research based book *Voices from the Forest* in Port Elizabeth, Grahamstown and East London. **Mr Tony Dold** and co-authors launched the book *Medicinal and Charm Plants of Pondoland* at Port Edward. Tony Dold gave a talk entitled "Gems from the Herbarium" to the Eastern Cape Historical Organisation (ECHO) in Grahamstown.

**Dr Susanne Vetter**

Head of Department



# BOTANY

## Books/Chapters/Monographs

*Dold, A.P.*

**Dold, T. and Cocks, M.** 2012. *Voices from the Forest. Celebrating Nature and Culture in Xhosaland*. Jacana Media, Auckland Park. ISBN 978-1-4314-0299-1

Zukulu, S., **Dold, A.P.**, Abbott, T. and Raimondo, D. (2012) *Medicinal and Charm Plants of Pondoland*. Pretoria: South African National Biodiversity Institute. ISBN: 9781919976716.

**Cocks, M.L. and Dold, A.P.** (2012) Perceptions and values of local landscapes: implications for bio-cultural diversity conservation and intangible heritage. In: Arts, B., Van Bommel, S., Ros-Tonen, M. and Verschoor, G. (eds.). *Forest-people interfaces: Understanding community forestry and biocultural diversity*. The Netherlands: Wageningen Academic Publishers. p.167-179. ISBN: 9789086861934.

## Concerts, Exhibitions, Performances, Workshops, Events

*Dold, A.P.*

**Cocks, M.L. and Dold, A.P.** Expert Consultants. *Inkcubeko nendalo: Bio-cultural Diversity Education Programme. Multiple Perspective Approaches to Biodiversity Education*. UNESCO HQ, Paris. France. 2 - 4 May 2012.

## Other Publications

*Dold, A.P.*

**Dold, A.P. and Cocks, M.L.** (2012) *Amaxesha Osuku* - Times of the day in Xhosaland. In: *Landscape*. Salt Spring Island: Terralingua.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Clark, V.R., Coombs, G. and Barker, N.P.*

**Clark, V.R.**, Perera, S.J., Stiller, M.J., Stirton, C.H., Weston, P.H., Stoev, P., **Coombs, G.**, **Morris, D.B.**, Ratnayake-Perera, D., **Barker, N.P.** and **Mcgregor, G.K.** (2012) A rapid multi-disciplinary biodiversity assessment of the Kamdebooberge (Sneeuberg, Eastern Cape, South Africa): implications for conservation. *SpringerPlus*. 1 (56). p.1-10.

*Dold, A.P.*

**Cocks, M.L., Alexander, J.K. and Dold, A.P.** (2012) *Inkcubeko Nendalo: A Bio-cultural Diversity Schools Education Project in South Africa and its Implications for Inclusive Indigenous Knowledge Systems (IKS) Sustainability*. *Journal of Education for Sustainable Development*. 6 (2). p.75-86.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Barker, N.P.*

**Kok, A.D., Parker, D.M. and Barker, N.P.** (2012) Life on high: the diversity of small mammals at high altitude in South Africa. *Biodiversity and Conservation*. 21 (11). p.2823-2843.

**Pereira Da Conceicao, L.L., Price, B.W., Barber-James, H., Barker, N.P., De Moor, F.C. and Villet, M.H.** (2012) Cryptic variation in an ecological indicator organism: mitochondrial and nuclear DNA sequence data confirm distinct lineages of *Baetis harrisoni* Barnard (Ephemeroptera: Baetidae) in southern Africa. *Bmc Evolutionary Biology*. 12 (26). p.1-14.

**Teske, P., Papadopoulos, I., Barker, N.P. and McQuaid, C.D.** (2012) Mitochondrial DNA paradox: sex-specific genetic structure in a marine mussel - despite maternal inheritance and passive dispersal. *Bmc Genetics*. 13 (45). p.1-6.

*Clark, V.R. and Barker, N.P.*

**Clark, V.R., Barker, N.P.** and Mucina, L. (2012) Taking the scenic route - the southern Great Escarpment (South Africa) as part of the Cape to Cairo floristic highway. *Plant Ecology & Diversity*. 4 (4). p.313-328.

*Coombs, G., Dold, A.P., Brassine, M.C. and Peter, C.I.*

**Coombs, G., Dold, A.P., Brassine, M.C. and Peter, C.I.** (2012) Large pollen loads of a South African asclepiad do not interfere with the foraging behaviour or efficiency of pollinating honey bees. *Naturwissenschaften*. 99 (7). p.545-552.

*Dold, A.P. and Vetter, S.*

**Cocks, M.L., Dold, A.P. and Vetter, S.** (2012) God is my forest Xhosa cultural values provide untapped opportunities for conservation. *South African Journal of Science*. 108 (5/6). p.1-8.

*Kaehler, S.*

**Hill, J.M., Kaehler, S. and Hill, M.P.** (2012) Baseline isotope data for *Spirodela* sp.: Nutrient differentiation in aquatic systems. *Water Research*. 46 (11). p.3553-3562.

*Kolasinski, J. and Jaquemet, S.*

**Kolasinski, J., Kaehler, S. and Jaquemet, S.** (2012) Distribution and sources of particulate organic matter in a mesoscale eddy dipole in the Mozambique Channel (south-western Indian Ocean): Insight from C and N stable isotopes. *Journal of Marine Systems*. 96 (97). p.122-131.

*Martinez-Azorin, M. and Dold, A.P.*

**Martinez-Azorin, M., Crespo, M.B. and Dold, A.P.** (2012) *Albuca tenuifolia* and *A. shawii* (Ornithogaloideae), two distinct species from South Africa. *Bothalia*. 42 (2). p.193-196.

*Martinez-Azorin, M., Dold, A.P. and Barker, N.P.*

**Martinez-Azorin, M., Crespo, M.B., Dold, A.P. and Barker, N.P.** (2012) The identity of *Albuca bifolia* (Hyacinthaceae), and the Description of Two Related New Species, *A. anisocrispa* and *A. pseudobifolia*, from the Eastern Cape, South Africa. *Systematic Botany*. 37 (3). p.599-605.

*Mckenzie, R.*

**Mckenzie, R.** (2012) (2108) Proposal to conserve the name *Venidium hirsutum* (*Arctotis hirsuta*) against *V. subacaule* (*A. subacaulis*) and *Antrospermum kraussii* (*V. kraussii*) (Asteraceae, Arctotideae). *Taxon*. 61 (6). p.1327-1329.

*Ripley, B.S.*

**Scheiter, S., Higgins, S.I., Osborne, C.P., Bradshaw, B., Lunt, D., Ripley, B.S., Taylor, S. and Beerling, D.** (2012) Fire and fire-adapted vegetation promoted C4 expansion in the late Miocene. *New Phytologist*. 195 (3). p.653-666.

**Pool, J.R.F., Ripley, B.S. and Powell, M.F.** (2012) The carbon content of *Portulacaria afra* (L.) Jacq. *South African Journal of Botany*. 79 (2012). p.206-207.

*Taylor, C.L. and Barker, N.P.*

**Taylor, C.L. and Barker, N.P.** (2012) Species limits in *Vachellia* (*Acacia*) *karroo* (Mimosoideae: Leguminosae): Evidence from automated ISSR DNA "fingerprinting". *South African Journal of Botany*. 83 (2012). p.36-43.

*Vetter, S.*

**Vetter, S. and Bond, W.J.** (2012) Changing

predictors of spatial and temporal variability in stocking rates in a severely degraded communal rangeland. *Land Degradation & Development*. 23 (2). p.190-199.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Barker, A.L. and Barker, N.P.*

**Barker, A.L., Barker, N.P. and Villet, M.H.** Phylogeny of African Bruchines associated with host plant *Acacias*. *10th meeting of the Southern African Society for Systematic Biology*. Arniston Hotel, Arniston. South Africa. July 2012.

*Barker, N.P.*

**Barker, N.P.** Wetlands, wingless wasps, and what we don't know: Where to from here for the Great Escarpment? *Regional Meeting on Mountain Research*. Mohale Hotel, Mohale. Lesotho. August 2012.

**Barker, N.P.** Mountains: the missing link in African global change studies. *National conference on Global Change*. Birchwood Hotel, Boksburg. South Africa. November 2012.

**Morris, D.B., Craig, A.J.F. and Barker, N.P.** The Drakensberg Rock-jumper: biology and future prospects of isolated populations. *Pan African Ornithological conference*. Arusha. Tanzania. October 2012.

*Clark, V.R. and Barker, N.P.*

**Clark, V.R., Barker, N.P. and Mucina, L.** Geomorphological intervals versus climatic cycles: who's really to blame for endemism on the southern Great Escarpment? *10th meeting of the Southern African Society for Systematic Biology*. Arniston Hotel, Arniston. South Africa. July 2012.

*Furrer, E.A.E. and Barker, N.P.*

**Furrer, E.A.E., Linder, H.P. and Barker, N.P.** Phylogeographical patterns of the widespread *Pentameris pallida* (Poaceae). *10th meeting of the Southern African Society for Systematic Biology*. Arniston Hotel, Arniston. South Africa. July 2012.

**Furrer, E.A.E., Barker, N.P. and Linder, H.P.** Phylogeographical patterns of the widespread *Pentameris pallida* (Poaceae). *21st International Symposium Biodiversity and Evolutionary Biology of the German Botanical Society (DBG)*. Institut für Spezielle Botanik und Botanischer Garten of Johannes Gutenberg-Universität Mainz, Mainz. Germany. September 2012.

*Kelly, C.M.R. and Barker, N.P.*

**Kelly, C.M.R., Branch, W.R., Barker, N.P., Barlow, A., Wuster, W. and Villet, M.H.** Species limits and the dynamics and drivers of diversification in the Berg adders (*Bitis atropos* complex, Serpentes: Viperidae). *10th meeting of the Southern African Society for Systematic Biology*. Arniston Hotel, Arniston. South Africa. July 2012.

*Peter, C.I.*

**Peter, C.I.** On the remarkably rapid bending contrivances of orchid pollinaria and other floral behaviours that reduce the deleterious effects of self-pollination in the Orchidaceae. *15th South African Orchid Council National Orchid Conference*. Rustenburg Civic Center, Rustenburg. South Africa. September 2012.

*Peter, C.I., Duffy, K. and Venter, N.*

**Peter, C.I., Duffy, K. and Venter, N.** Estimating pollen fates in two closely related South African epiphytes. *3rd Guangxi Orchid Symposium*. Red Forest Hotel, Nanning. China. May 2012.

*Ripley, B.S.*

**Ripley, B.S., Midgley, G.F. and Hill, M.P.** The need for experimental data to understand natural ecosystem, invasive plant and crop responses to elevated CO<sub>2</sub> in southern Africa. *DST-NRF National Global Change Conference*. Johannesburg. South Africa. September 2012.

*Ripley, B.S. and Strauss, A.J.*

**Ripley, B.S., Strauss, A.J. and Osborne, C.P.** Photosynthetic and anatomical acclimation by the C3 and C4 subspecies of *Alloteropsis semialata* in low CO<sub>2</sub> atmospheres. *South African Association of Botanists*. Pretoria. South Africa. January 2012.

*Taylor, C.L. and Barker, N.P.*

**Taylor, C.L. and Barker, N.P.** DNA Fingerprinting of Acacia Karoo: Attempting to resolve taxonomic uncertainties and inform ecological observations. *38th Annual conference of the South African Association of Botanists*. University of Pretoria, Pretoria. South Africa. January 2012.

*Thorne, C.-J., Gornall, C.M. and Peter, C.I.*

**Thorne, C.-J., Gornall, C.M. and Peter, C.I.** How generalised is the pollination system of *Hypoestes aristata*? *38th Annual Conference of the South African Association of Botanists (SAAB)*. Department of Plant Science, University of Pretoria, Pretoria. South Africa. January 2012.

*Vetter, S.*

**Vetter, S.** Development and sustainable management of rangeland commons aligning policy with the realities of a changing rural landscape in South Africa. *Congress of the Grassland Society of Southern Africa*. Club Mykonos, Langebaan. South Africa. July 2012.

# CHEMISTRY

## Department of CHEMISTRY

Professor Nyokong continues to be a shining example to us all, being awarded the 2012 South African Chemical Institute's Gold Medal at a time when the Institute itself celebrated its centenary.



Professor Rui Krause, Head of the Department of Chemistry (left) and Distinguished Professor Tebello Nyokong (right), DST/NRF Research Chair, with post-graduate students *Photo: Christine Nesbitt Hills*

The Department of Chemistry goes from strength to strength and 2012 was no exception. It is indeed an honour as the new HOD to introduce some of the highlights of the 2012 academic year.

**Professor Nyokong** continues to be a shining example to us all, being awarded the 2012 South African Chemical Institute's Gold Medal at a time when the Institute itself celebrated its centenary. This is not only an honour for Rhodes but for Chemistry in South Africa. Professor Nyokong joins **Professors TM Letcher, ME Brown and PT Kaye** as three other Rhodes Chemistry recipients of this award, which is given to an individual whose contribution is of outstanding merit to the field of chemistry. It is little wonder, therefore that Professor Nyokong was named by IT News Africa as one of the top 10 most influential women in Science in Africa, and that the National Center for Research on Human Evolution (CENIEH) in Spain listed her as one of their "13 Names To Change The World". We are also very proud to have not one but two SACI awardees, the other being **Joyce Sewry**, who received the SACI Chemical Education Medal in 2012 in recognition of her role in promoting innovative methods in chemical education.

As a dynamic department it is perhaps not surprising that there were also some changes during the year - two of these are somewhat sad, namely - the resignations of **Dr Zeni Tshentu** and **Professor Mike Davies-Coleman**. While we wish these two outstanding scientists the best in their new endeavours, we recognise that they will both be dearly missed. Dr Tshentu joined the department in 2007 and immediately set about carving out a very special role in the department. As a strategist he transformed many of the undergraduate practicals, introducing new modern aspects, and his research thrived. Professor Mike Davies-Coleman needs no introduction, having won both the VC's Distinguished Researcher (1996) and Distinguished Teaching award (2005), but his outstanding contribution to the Department over more than 25 years cannot be easily



# CHEMISTRY



Distinguished Professor Tebello Nyokong, DST/NRF Research Chair and Professor Rui Krause, Head of the Chemistry department, interacting with PhD students Mr Audacity Maringa and Mr Stephen Nyoni in a Department of Chemistry lab.

Photo: Christine Nesbitt Hills

summarised. Professor Davies-Coleman pioneered Marine Natural Products research in South Africa and the hands-on application of Nuclear Magnetic Resonance Spectroscopy (NMR) among many other aspects. It is thanks to his efforts and those of his postgraduate students that Rhodes is now recognised as a leader in both fields (the recent announcement of a SARCHI Chair and acquisition of 600MHz NMR are testament to this). We wish both of these colleagues a successful “time-share” role in the Department from now on.

Changes also mean we welcome new staff members including **Professor Rui Krause** (as the new head of organic chemistry and HOD) and **Dr Setshaba Khanye** whose wide experience in the medicinal chemistry field is certain to add great value to our research in this area. Dr Khanye's plans include the development of new anti-malarial compounds and boron-carbon compounds with

medicinal use. The NIC also welcomed **Dr John Mack** as a new staff member from the University of Western Ontario, and gladly took charge of a new Electron Paramagnetic Resonance (EPR) spectrometer (Bruker) to add to the already impressive suite of characterisation facilities.

The department played host to several visitors in 2012, including Professor Tim Egan, a foremost expert in Malaria research, who was our Barker Lecturer and delivered some interesting seminars on both recent work and historical perspectives. We had visitors from Japan, Greece, Zimbabwe, the UK, France, Sweden, and South Africa, including Prof Nagao Kobayashi, Dr Mamothibe Thamae, Dr Tawanda Mugadza, Prof Georgios Priniotakis, Dr Paula Guthrie-Strachan, Ms H Assumption, Dr Mopelola Idowu, Dr Eugeny Ermilov, Dr Michael Höpfner, Prof Fethioui and Dr Anne Varenne, and Prof R Zimmermann.

An especially warm visit was hosting Professor Tim Harrison from Bristol University, who helped the department a few years ago in setting up part of our very successful outreach programme - the “Pollutants Tale” demonstration/lecture.

We are very proud of all our students, without whose efforts none of these achievements would be possible. We had over seventy (70) postgraduate students (including visiting students) and twenty-seven (27) graduations including seven (7) PhDs. Several of our students have had the opportunity to visit an international laboratory to undertake part of their studies, and many others have travelled to conferences to present their work. This hard work has been recognised through a number of awards, including **Ms JM Taylor** as the SACI best Honours student in Chemistry, and **Colin Mkhize** and **Nkosiphile Masilela** as the Eastern Cape SACI Regional seminars winners, and we thank all our students for their valuable contributions.

The department collectively published six (6) book chapters, numerous conference presentations and at least seventy-one (71) peer-reviewed articles, again an increase on the previous year. Details of these are listed in this report, and it is clear to see that the charge is led by **Distinguished Professor Nyokong** and her team, as well as **Professor Nelson Torto**, who even as HOD managed to secure five (5) patents and numerous publications for 2012. We are extremely proud.

**Professor Rui Krause**

Head of Department

# CHEMISTRY

## Books/Chapters/Monographs

*Antunes, E.M., Litwinski, C.W.H.H. and Nyokong, T.A.*

**Antunes, E.M., Litwinski, C.W.H.H. and Nyokong, T.A.** (2012) Conjugates of Nanomaterials with Phthalocyanines. In: Tiwari, A., Mishra, A.K., Kobayashi, H. and Turner, A.P.F. (eds.). *Intelligent Nanomaterials*. Massachusetts: Scrivener. p.347-423. ISBN: 9780470938799.

*Davies-Coleman, M.T. and Sunassee, S.*

**Davies-Coleman, M.T. and Sunassee, S.** (2012) Marine Bioprospecting in Southern Africa. In: Chibale, K., Davies-Coleman, M. and Masimirembwa, C. (eds.). *Drug Discovery in Africa*. New York: Springer. p.193-209. ISBN: 9783642281747.

*Krause, R.W.M.*

**Krause, R.W.M., Thwala, L.N. and Dey, T.** (2012) Silver-impregnated Cyclodextrin Nanocomposites for Safe Drinking Water. In: Dey, T. (ed.). *Nanotechnology for Water Purification*. Boca Raton, USA: Brown Walker Press. p.51-70. ISBN: 9781612336191.

*Mack, J.D.*

**Mack, J.D., Kobayashi, N. and Shen, Z.** (2012) The Effect of Structural Modifications on the Properties of Porphyrinoids. In: Kadish, K.M., Smith, K.M. and Guillard, R. (eds.). *Handbook of Porphyrin Science with Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine*. Singapore: World Scientific. p.281-371. ISBN: 9789814397599.

*Nyokong, T.A.*

Schlettwein, D. and **Nyokong, T.A.** (2012) Phthalocyanines as Sensitizers in Dye-Sensitized Solar Cells. In: Kadish, K.M., Smith, K.M. and Guillard, R. (eds.). *Handbook of*

*Porphyrin Science with Applications to Chemistry, Physics, Materials Science, Engineering, Biology and Medicine*. Singapore: World Scientific. p.389-420. ISBN: 9789814397599.

**Nyokong, T.A.** and Ahsen, V. (ed.) (2012) *Photosensitisers in Medicine, Environment, and Security*. New York: Springer. ISBN: 9789048138708.

## Concerts, Exhibitions, Performances, Workshops, Events

*Britton, J., Nyokong, T.A., Litwinski, C.W.H.H. and Antunes, E.M.*

**Britton, J., Nyokong, T.A., Litwinski, C.W.H.H., Chauke, V., Durmus, M. and Antunes, E.M.** Oral Presentation. Optical Limiting Behaviour of Phthalocyanines and Nano-Materials Mixtures in Thin Films. *PRIMS Optical Limiters Workshop*. Rhodes University, Grahamstown. South Africa. 25 June 2012.

*Britton, J., Taylor, J.M., Sekhosana, K.E. and Modisha, P.M.*

**Britton, J., Taylor, J.M., Sekhosana, K.E. and Modisha, P.M.** Participants only. No Presentation. *4th Lynedoch Physics Workshop Ultrafast Spectroscopy*. University of Stellenbosch, Stellenbosch. South Africa. 2 March 2012.

*Managa, M.E., Antunes, E.M. and Nyokong, T.A.*

**Managa, M.E., Antunes, E.M. and Nyokong, T.A.** Poster Presentation. Development of molecules for treatment of cancer based on platinum toxicity and photodynamic therapy action of silicon phthalocyanines. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

*Modisha, P.M., Antunes, E.M. and Nyokong, T.A.*

**Modisha, P.M., Antunes, E.M. and Nyokong, T.A.** Oral Presentation. Development of smart probe consisting of phthalocyanine conjugated to magnetic nanoparticles. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

*Mpiti, U.B., Watkins, G.M. and Antunes, E.M.*

**Mpiti, U.B., Watkins, G.M. and Antunes, E.M.** Poster Presentation. A study of the spectral and magnetic properties of pyrazine-N-oxide complexes of iron(II) in the development of sensors. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

*Nyokong, T.A.*

**Nyokong, T.A.** Guest Speaker. *Queenstown Girls High School Prizegiving*. Queenstown Girls High School, Queenstown. South Africa. 20 October 2012.

*Nyoni, S. and Mack, J.D.*

**Nyoni, S. and Mack, J.D.** Oral Presentation. Towards non-invasive mediators of photodynamic therapy and photothermal cancer ablation. *5th African Laser Centre (ALC) Student Workshop*. University of Namibia, Windhoek. Namibia. 14 - 18 November 2012.

*Nyoni, S. and Nyokong, T.A.*

**Nyoni, S. and Nyokong, T.A.** Oral Presentation. The development of sensor array for an electronic tongue for fast detection of analytes using carbon nanotubes-metallophthalocyanines. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

*Sanusi, S.O., Britton, J. and Antunes, E.M.*

**Sanusi, S.O., Britton, J. and Antunes, E.M.**

Oral Presentation. The use of laser for the development of phthalocyanines for nonlinear optical applications. *5th African Laser Centre (ALC) Student Workshop*. University of Namibia, Windhoek. Namibia. 14 - 18 November 2012.

*Taylor, J.M., Nyokong, T.A., Antunes, E.M., Masilela, N. and Adegoke, O.*

**Taylor, J.M., Nyokong, T.A., Antunes, E.M., Masilela, N. and Adegoke, O.** Oral Presentation. Upconversion nanoparticles: synthesis and fluorescence sensing. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

*Tshangana, S.C., Antunes, E.M. and Nyokong, T.A.*

**Tshangana, S.C., Antunes, E.M. and Nyokong, T.A.** Poster Presentation. The use of upconversion nanoparticles with phthalocyanines for singlet oxygen generation. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

*Xego, S., Antunes, E.M. and Nyokong, T.A.*

**Xego, S., Antunes, E.M. and Nyokong, T.A.** Poster Presentation. Magnetic-Fluorescent nanocomposites for Biological importance. *5th Annual DST/Mintek NIC Workshop*. MRC Conference Centre, Cape Town. South Africa. 21 - 22 September 2012.

## Distinguished Visitors

**Ms H Assumption.** SASOL, Cape Town, South Africa. *Lecturing Honours Class*. July 2012.

**Dr F Bedioui and Dr A Varenne.** Ecole Nationale Supérieure De Chimie De Paris, Paris, France. *SA/France Research Collaboration*. November 2012.

# CHEMISTRY

**Prof T Egan.** University of Cape Town, Cape Town, South Africa. Lecture: *The Saga of Antimalarial Medicines: Priests, Pigments and Modern Drug Discovery*. September 2012.

**Dr E Ermilov and Dr M Hopfner.** Charité University, Berlin, Germany. *SA/Germany Research Collaboration*. September 2012.

**Dr P Guthrie-Strachan.** University of Northampton, Northampton, United Kingdom. Research/Lecture: *Isolation of collagen for use with nanomaterials in drug release and wound management*. August 2012.

**Mr T Harrison.** Bristol University, Bristol, United Kingdom. *Community Engagement*. February 2012.

**Dr M Hopfner.** Charite University, Berlin, Germany. Lecture: *Identification and evaluation of novel compounds for targeted tumor therapy*. October 2012.

**Dr M Idowu.** Federal University Of Agriculture, Ogun State, Nigeria. *Research*. September 2012.

**Prof N Kobayashi.** Tohoku University, Sendai, Japan. *SA/Japan Research Collaboration*. January 2012.

**Ms W Kuzyniak.** Charité University, Berlin, Germany. *SA/Germany Research Collaboration (Exchange Student)*. September 2012.

**Dr T Mugadza.** Midlands State University, Gweru, Zimbabwe. *Research*. July 2012.

**Prof G Priniotakis, Mr A Tzerachoglou, Mr I Chronis and Mr E Gravas.** Technological Education Institute Of Piraeus, Athens, Greece. *Research Collaboration - Procotex Project*. July 2012.

**Dr M Thamae.** School of Education, Durban University of Technology, Pietermaritzburg, South Africa. *Research*. July 2012.

**Prof R Zimmermann.** University Rostock, Rostock, Germany. Lecture: *Small particles with a big impact: Methods to characterize chemical and physical properties of ambient and process aerosols*. October 2012.

## International Visits

*Adegoke, O.*

**Adegoke, O.** Charité University, Berlin, Germany. *PhD Exchange Student - Research Collaboration*. 21 March - 7 April 2012.

**Adegoke, O.** Charité University, Berlin, Germany. *PhD Exchange Student - Research Collaboration*. 11 April - 17 June 2012.

*Mack, J.D.*

**Mack, J.D.** Hangzhou Normal University, Hangzhou, China. *Invited Lecture/Research*. 27 - 28 November 2012.

**Mack, J.D.** Nanjing University, Nanjing, China. *Invited Lecture/Research*. 19 - 26 November 2012.

*Maringa, A.*

**Maringa, A.** Ecole Nationale Supérieure De Chimie De Paris, Paris, France. *PhD Exchange Student - Research Collaboration*. 27 August - 14 November 2012.

*Modisha, P.M. and Ledwaba, M.V.*

**Modisha, P.M. and Ledwaba, M.V.** Ghent University, Gent, Belgium. *MSc Exchange Student - Research Collaboration*. 16 May - 15 June 2012.

*Mthethwa, T.P.*

**Mthethwa, T.P.** University of Western Ontario, Ontario, Canada. *PhD Exchange Student - Research Collaboration*. 20 January - 17 July 2012.

*Nyokong, T.A.*

**Nyokong, T.A.** Ghent University, Gent, Belgium. *Research Collaboration - Procotex*

*Project*. 22 - 24 April 2012.

**Nyokong, T.A.** Technological Education Institute Of Piraeus, Athens, Greece. *Research Collaboration - Procotex Project*. 21 - 22 April 2012.

**Nyokong, T.A.** Grand Challenge Canada, Ottawa, Canada. *Grand Challenge Meeting*. 9 - 14 December 2012.

*Quinton, D.*

**Quinton, D.** Dr Damien Quinton: Ecole Nationale Supérieure De Chimie De Paris, Paris, France. *Research Collaboration SA/France*. 27 August - 23 September 2012.

*Taylor, J.M.*

**Taylor, J.M.** Fudan University, Shanghai, China. *MSc Exchange Student - Research Collaboration*. 2 June - 15 July 2012.

## Patents

*Ondigo, D.A., Tshentu, Z.R. and Torto, N.*

**Ondigo, D.A., Tshentu, Z.R. and Torto, N.** (2012) *An indicator for the detection of Fe<sup>2+</sup>*. South Africa. 2012. 2012/10973.

*Ondigo, D.A., Tshentu, Z.R. and Torto, N.*

(2012) *An indicator for the detection of Ni<sup>2+</sup>*. South Africa. 2012. 2012/08972.

*Torto, N. and Mudabuka, B.*

**Torto, N., Mudabuka, B., Degni, D.R. and Vilakazi, S.** (2012) *Diagnostic probe for ascorbic acid*. South Africa. 2012. P58461ZP00.

*Torto, N. and Pule, B.O.*

**Degni, D.R., Torto, N. and Pule, B.O.** (2012) *An indicator for the detection of 17 beta Oestradiol*. South Africa. 2012. 2012/08971.

*Zugle, R., Darko, G., Torto, N., Litwinski,*

*C.W.H.H. and Nyokong, T.A.*

**Zugle, R., Darko, G., Torto, N., Litwinski, C.W.H.H. and Nyokong, T.A.** (2012) *Polymer*

*bound lutetium phthalocyanines and their use as catalysts*. South Africa. 2012. P49605PC00.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Idowu, M. and Nyokong, T.A.*

**Idowu, M. and Nyokong, T.A.** (2012) Photophysical behavior of fluorescent nanocomposites of phthalocyanine linked to quantum dots and magnetic nanoparticles. *International Journal of Nanoscience*. 11 (2). p.1-9.

*Khene, M.S. and Nyokong, T.A.*

**Khene, M.S. and Nyokong, T.A.** (2012) Characterization of quantum dots, single walled carbon nanotubes and nickel octadecylphthalocyanine conjugates. *International Journal of Nanoscience*. 11 (2). p.1-10.

*Magwa, N.P., Watkins, G.M. and Tshentu, Z.R.*

**Magwa, N.P., Hosten, E., Watkins, G.M. and Tshentu, Z.R.** (2012) An Exploratory Study of Tridentate Amine Extractants: Solvent Extraction and Coordination Chemistry of Base Metals with Bis((1R-benzimidazol-2-yl)methyl)amine. *International Journal of Nonferrous Metallurgy*. 1 (3). p.49-58.

*Nyokong, T.A.*

**Bedioui, F., Nyokong, T.A. and Zagal, J.H.** (2012) Surface Electrochemistry: Structured Electrode, Synthesis, and Characterization. *International Journal of Electrochemistry*. 2012 (2012). p.1-2.

**Balgakov, R.A., Kuznetsova, N.A., Dolotova, O.V., Shevchenko, E.N., Plyutinskaya, A.D.,**



# CHEMISTRY

Kaliya, O.L. and **Nyokong, T.A.** (2012) Covalent Conjugates of Ammine and Diamine Platinum(II) with Zinc(II) Octacarboxyphthalocyanine. *Macroheterocycles*. 5 (4-5). p.350-357.

**Sewry, J.D.**

**Southwood, S.L., Samson, D.A. and Sewry, J.D.** (2012) Investigating the nature of epistemological access afforded by a first year chemistry intervention programme: Towards a pedagogy of possibility! *Journal of Independent Teaching and Learning*. 7 (1). p.5-13.

**Sunassee, S.N., Young, R.M. and Sewry, J.D.**

**Sunassee, S.N., Young, R.M., Sewry, J.D., Harrison, T.G. and Shallcross, D.E.** (2012) Creating Climate Change Awareness in South African Schools through Practical Chemistry Demonstrations. *Acta Didactica Napocensia*. 5 (4). p.31-43.

**Torto, N.**

Ogunfowokan, O., Oyekunle, J.A.O., **Torto, N.** and Akanni, M.S. (2012) A study on persistent organochlorine pesticide residues in water and fish tissues from an agricultural fish pond. *Emirates Journal of Food and Agriculture*. 24 (2). p.165-184.

## Peer Reviewed Subsidy-Earning Journal Research Publications

**Adegoke, O. and Nyokong, T.A.**

**Adegoke, O., Hosten, E., McClelland, C. and Nyokong, T.A.** (2012) CdTe quantum dots functionalized with 4-amino-2,2,6,6-tetramethylpiperidine-N-oxide as luminescent nanoprobe for the sensitive recognition of bromide ion. *Analytica Chimica Acta*. 721 (2012). p.154-161.

**Adegoke, O. and Nyokong, T.A.** (2012) A

Comparative Study on the Sensitive Detection of Hydroxyl Radical Using Thiol-capped CdTe and CdTe/ZnS Quantum Dots. *Journal of Fluorescence*. 22 (6). p.1513-1519.

**Adegoke, O., Chidawanyika, W. and Nyokong, T.A.**

**Adegoke, O., Chidawanyika, W. and Nyokong, T.A.** (2012) Interaction of CdTe quantum dots with 2,2-Diphenyl-1-Picrylhydrazyl Free Radical: A Spectroscopic, Fluorimetric and Kinetic Study. *Journal of Fluorescence*. 22 (2012). p.771-778.

**Adewuyi, S. and Sobola, A.O.**

**Adewuyi, S., Sanyaolu, N.O., Amolegbe, S.A., Sobola, A.O. and Folarin, O.M.** (2012) Poly[beta-(1-<4)-2-amino-2-deoxy-D-glucopyranose] based zero valent nickel nanocomposite for efficient reduction of nitrate in water. *Journal of Environmental Sciences-China*. 24 (9). p.1702-1708.

**Adewuyi, S., Ondigo, D.A., Zugle, R., Tshentu, Z.R., Nyokong, T.A. and Torto, N.**

**Adewuyi, S., Ondigo, D.A., Zugle, R., Tshentu, Z.R., Nyokong, T.A. and Torto, N.** (2012) A highly selective and sensitive pyridylazo-2-naphthol-poly(acrylic acid) functionalized electrospun nanofiber fluorescence turn-off chemosensory system for Ni<sup>2+</sup>. *Analytical Methods*. 4 (6). p.1729-1735.

**Arslanoglu, Y., Idowu, M. and Nyokong, T.A.**

**Arslanoglu, Y., Idowu, M. and Nyokong, T.A.** (2012) Synthesis and photophysical properties of peripherally and non-peripherally mercaptopyridine substituted metal free, Mg(II) and Al(III) phthalocyanines. *Spectrochimica Acta Part A-Molecular and Biomolecular Spectroscopy*. 95 (2012). p.407-413.

**Batlokwa, B.S., Tshentu, Z.R. and Torto, N.**

**Batlokwa, B.S., Chimuka, L., Tshentu, Z.R., Cukrowska, E. and Torto, N.** (2012) An ion imprinted polymer for the selective extraction of mercury(II) ions in aqueous media. *Water SA*. 38 (2). p.255-260.

**Bromley, C.L., Popplewell, W. and Davies-Coleman, M.T.**

**Bromley, C.L., Popplewell, W., Pinchuck, S.C., Hodgson, A.N. and Davies-Coleman, M.T.** (2012) Polypropionates from the South African marine mollusk *Siphonaria oculus*. *Journal of Natural Products*. 75 (3). p.497-501.

**Canlica, M. and Nyokong, T.A.**

**Canlica, M. and Nyokong, T.A.** (2012) The synthesis and photophysical properties of 4,4' isopropylidenedioxydiphenyl substituted ball-type dinuclear Mg(II) and Zn(II) phthalocyanines. *Polyhedron*. 31 (2012). p.704-709.

**Chidawanyika, W., Litwinski, C.W.H.H. and Nyokong, T.A.**

Tühl, A., Chidawanyika, W., Ibrahim, H.M., Al-Awadi, N., Litwinski, C.W.H.H., Nyokong, T.A., Behbehani, H., Manaa, H. and Makhseed, S. (2012) Tetra and octa(2,6-di-isopropylphenoxy)-substituted phthalocyanines: a comparative study among their photophysicochemical properties. *Journal of Porphyrins and Phthalocyanines*. 16 (2012). p.163-174.

**Chigome, S. and Torto, N.**

**Chigome, S. and Torto, N.** (2012) Electrospun nanofiber based solid phase extraction. *Trac-Trends in Analytical Chemistry*. 38 (2012). p.21-31.

**Coates, M.P. and Nyokong, T.A.**

**Coates, M.P., Griveau, S., Bedioui, F. and Nyokong, T.A.** (2012) Layer by Layer

Electrode Surface Functionalisation Using Carbon Nanotubes, Electrochemical Grafting of Azide-Alkyne Functions and Click Chemistry. *Electroanalysis*. 24 (9). p.1833-1838.

**Coates, M.P., Elamari, H., Girard, C., Griveau, S., Nyokong, T.A. and Bedioui, F.** (2012) 4-Azidoaniline-based electropolymer as a building block for functionalisation of conductive surfaces. *Journal of Electroanalytical Chemistry*. 670 (2012). p.79-84.

**Coates, M.P. and Nyokong, T.A.** (2012) Electrode modification using iron metallo-phthalocyanine through click chemistry and axial ligation with pyridine. *Journal of Electroanalytical Chemistry*. 687 (2012). p.111-116.

**Darko, G. and Torto, N.**

Rammika, M., **Darko, G.** and **Torto, N.** (2012) Optimal synthesis of a Ni(II)-dimethylglyoxime ion imprinted polymer for the enrichment of Ni(II) ions in water, soil and mine tailing samples. *Water SA*. 38 (2). p.261-268.

**Darko, G., Sobola, A.O., Adewuyi, S. and Torto, N.**

**Darko, G., Sobola, A.O., Adewuyi, S., Okonkwo, J. and Torto, N.** (2012) Pre-concentration of toxic metals using electrospun amino-functionalized nylon-6 nanofiber sorbent. *South African Journal of Chemistry-Suid-Afrikaanse Tydskrif Vir Chemie*. 65 (2012). p.14-22.

**Davies-Coleman, M.T.**

Sikorska, J., Hau, A.M., Anklin, C., Parker-Nance, S., **Davies-Coleman, M.T.**, Ishmael, J.E. and McPhail, K.L. (2012) Mandelalides A-D, Cytotoxic Macrolides from a New Lissoclinum Species of South African Tunicate. *Journal of Organic Chemistry*. 77 (14). p.6066-6075.

# CHEMISTRY

- Bolzani, V.d.S., **Davies-Coleman, M.T.**, Newman, D.J. and Singh, S.B. (2012) Gordon M. Cragg, D Phil., D. D.Sc. (h.c.): A Man for All Natural Products. *Journal of Natural Products*. 75 (3). p.309-310.
- Walmsley, T.A., Matcher, G.F.**, Zhang, Y.C., Hill, R.T., **Davies-Coleman, M.T.** and **Dorrington, R.A.** (2012) Diversity of Bacterial Communities Associated with the Indian Ocean Sponge *Tsitsikamma favus* That Contains the Bioactive Pyrroloiminoquinones, Tsitsikammamine A and B. *Marine Biotechnology*. 14 (6). p.681-691.
- Forteach, S., Antunes, E.M., Chidawanyika, W. and Nyokong, T.A.**
- Forteach, S., Antunes, E.M., Chidawanyika, W. and Nyokong, T.A.** (2012) Synthesis and photophysical behavior of a novel zinc phthalocyanine containing a single carboxylic acid and three phenylthio substituents. *Journal of Luminescence*. 132 (9). p.2318-2324.
- Forteach, S., Antunes, E.M., Chidawanyika, W. and Nyokong, T.A.** (2012) Unquenched fluorescence lifetime for  $\beta$ -phenylthio substituted zinc phthalocyanine upon conjugation to gold nanoparticles. *Polyhedron*. 34 (2012). p.114-120.
- Galwey, A.**
- L'vov, B.V. and **Galwey, A.** (2012) Catalytic oxidation of CO on platinum. *Journal of Thermal Analysis and Calorimetry*. 111 (1). p.145-154.
- Iqbal, Z., Masilela, N. and Nyokong, T.A.**
- Iqbal, Z., Masilela, N., Nyokong, T.A.**, Lyubimtsev, A., Hanack, M. and Ziegler, T. (2012) Spectral, photophysical and photochemical properties of tetra- and octaglycosylated zinc phthalocyanines. *Photochemical & Photobiological Sciences*. 11 (4). p.679-686.
- Iqbal, Z., Ogunsipe, A.O. and Nyokong, T.A.**
- Iqbal, Z., Ogunsipe, A.O., Nyokong, T.A.**, Lyubimtsev, A., Hanack, M. and Ziegler, T. (2012) Photophysics and photochemistry of octaglycosylated zinc phthalocyanine derivatives. *Journal of Porphyrins and Phthalocyanines*. 16 (4). p.413-422.
- Kempgens, P.**
- Kempgens, P.** (2012) Investigation of the central line of 11B in hexagonal boron nitride by a one-dimensional single pulse nutation NMR experiment. *Solid State Nuclear Magnetic Resonance*. 47-48 (2012). p.35-38.
- Khene, M.S. and Nyokong, T.A.**
- Khene, M.S. and Nyokong, T.A.** (2012) Single walled carbon nanotubes functionalised with nickel phthalocyanines: effects of point of substitution and nature of functionalization on the electro-oxidation of 4-chlorophenol. *Journal of Porphyrins and Phthalocyanines*. 16 (2012). p.130-139.
- Kleyi, P., Walmsley, R.S., Gundhla, I.Z., Jauka, T.I., Torto, N. and Tshentu, Z.R.**
- Kleyi, P., Walmsley, R.S., Gundhla, I.Z., Walmsley, T.A., Jauka, T.I., Dames, J.F., Walker, R.B., Torto, N. and Tshentu, Z.R.** (2012) Synthesis, Protonation Constants and Antimicrobial Activity of 2-Substituted N-alkylimidazole Derivatives. *South African Journal of Chemistry-Suid-Afrikaanse Tydskrif Vir Chemie*. 65 (2012). p.231-238.
- Kleyi, P., Walmsley, R.S., Torto, N. and Tshentu, Z.R.**
- Kleyi, P., Walmsley, R.S., Fernandes, M.A., Torto, N. and Tshentu, Z.R.** (2012) Synthesis, characterization and antimicrobial activity of silver(I) complexes containing 2-hydroxymethyl-N-alkylimidazole ligands. *Polyhedron*. 41 (1). p.25-29.
- Lobb, K.A. and Nyokong, T.A.**
- Mack, J., Lobb, K.A., Nyokong, T.A.**, Shen, Z. and Kobayashi, N. (2012) Trends in the optical and redox properties of tetraphenyl-tetraphenanthroporphyrins. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.833-844.
- Mack, J.D.**
- Mack, J.D.**, Sosa-Vargas, L., Coles, S.J., Tizzard, G.J., Chambrier, I., Cammidge, A.N., Cook, M.J. and Kobayashi, N. (2012) Synthesis, Characterization, MCD Spectroscopy and TD-DFT Calculations of Copper Metallated Non-peripherally Substituted Octa-octyl Derivatives of Tetrabenzotriazaporphyrin, cis and trans Tetrabenzodiazaporphyrin, Tetrabenzomonoazaporphyrin and Tetrabenzoporphyrin. *Inorganic Chemistry*. 51 (2012). p.12820-12833.
- Xu, H.-J., Mack, J.D.**, Wu, D., Xue, Z.-L., Descalzo, A.B., Rurack, K., Kobayashi, N. and Shen, Z. (2012) Synthesis and Properties of Fused-Ring-Expanded Porphyrins Core Modified with Group 16 Heteroatoms. *Chemistry-A European Journal*. 18 (52). p.16844-16867.
- Mack, J.D., Chidawanyika, W. and Nyokong, T.A.**
- Bulgakov, R.A., Kuznetsova, N.A., Dolotova, O.V., Solovieva, L.I., Mack, J.D., Chidawanyika, W., Kaliya, O.L. and Nyokong, T.A.** (2012) Synthesis and photophysical properties of covalent conjugates of aqua platinum(II) and octacarboxy-substituted zinc phthalocyanine. *Journal of Porphyrins and Phthalocyanines*. 16 (11). p.1217-1224.
- Malinga, N.N., Antunes, E.M. and Nyokong, T.A.**
- Malinga, N.N., Dolotova, O., Bulgakov, R., Antunes, E.M. and Nyokong, T.A.** (2012) Synthesis and physicochemical behaviour of aluminium trikis and tetrakis (diaqua-platinum) octacarboxyphthalocynine. *Dyes and Pigments*. 95 (3). p.572-579.
- Mashazi, P.N. and Nyokong, T.A.**
- Sosibo, N., Mdluli, P., Mashazi, P.N., Tshikhudo, R., Skepu, A., Vilakazi, S. and Nyokong, T.A.** (2012) Facile deposition of gold nanoparticle thin films on semi-permeable cellulose substrate. *Materials Letters*. 88 (2012). p.132-135.
- Masilela, N. and Nyokong, T.A.**
- Masilela, N. and Nyokong, T.A.** (2012) The photophysical and energy transfer behaviour of low symmetry phthalocyanine complexes conjugated to coreshell quantum dots: an energy transfer study. *Journal of Photochemistry and Photobiology A-Chemistry*. 247 (2012). p.82-92.
- Masilela, N. and Nyokong, T.A.** (2012) Synthesis and physicochemical behavior of new low symmetry Ge, Ti and Snphthalocyanines: Effect of central metal. *Synthetic Metals*. 162 (21-22). p.1839-1845.
- Matemadombo, F. and Nyokong, T.A.**
- Matemadombo, F., Apetrei, C., Nyokong, T.A., Rodríguez-Méndez, M.L. and Antonio de Saja, J.** (2012) Comparison of carbon screen-printed and disk electrodes in the detection of antioxidants using CoPc derivatives. *Sensors and Actuators B-Chemical*. 166-167 (2012). p.457-466.
- Mthethwa, T.P., Arslanoglu, Y., Antunes, E.M. and Nyokong, T.A.**
- Mthethwa, T.P., Arslanoglu, Y., Antunes,**

# CHEMISTRY



Photo: Christine Nesbitt Hills

**E.M. and Nyokong, T.A.** (2012) Photophysical behaviour of cationic 2-(dimethyl-amino) ethanethio tetrasubstituted phthalocyanine complexes in the presence of gold nanoparticles. *Polyhedron*. 38 (2012). p.169-177.

**Mugadza, T. and Nyokong, T.A.**  
He, Q., **Mugadza, T.**, Hwang, G. and **Nyokong, T.A.** (2012) Mechanisms of Electrocatalysis of Oxygen Reduction by Metal Porphyrins in Trifluoromethane Sulfonic Acid Solution. *International Journal of Electrochemical Science*. 7 (8). p.7045-7064.

He, Q., **Mugadza, T.**, Kang, X., Zhu, X., Chen, S., Kerr, J. and **Nyokong, T.A.** (2012) Molecular catalysis of oxygen reduction reaction by iron porphyrin catalysts tethered into Nafion layers: an electrochemistry study in solution and a membrane-electrode-assembly study in fuel cells. *Journal of Power Sources*. 216 (2012). p.67-75.

**Mugadza, T., Arslanoglu, Y. and Nyokong, T.A.**

**Mugadza, T., Arslanoglu, Y. and Nyokong, T.A.** (2012) Characterization of 2,(3)-tetra-(4-oxo-benzamide) phthalocyaninato cobalt (II) - Single walled carbon nanotube conjugate platforms and their use in electrocatalysis of amitrole. *Electrochimica Acta*. 68 (2012). p.44-51.

**Nombona, N. and Nyokong, T.A.**

**Nombona, N. and Nyokong, T.A.** (2012) Photophysical and photochemical studies of sulphur containing phthalocyanine derivatives in the presence of folic acid. *Inorganica Chimica Acta*. 392 (2012). p.380-387.

**Nombona, N., Antunes, E.M. and Nyokong, T.A.**

**Nombona, N., Maduray, K., Antunes, E.M., Karsten, A. and Nyokong, T.A.** (2012) Synthesis of Phthalocyanine conjugated with gold nanoparticles and liposomes for photodynamic therapy. *Journal of Photochemistry and Photobiology B-Biology*. 107 (2012). p.35-44.

**Nombona, N., Antunes, E.M., Chidawanyika, W., Kleyi, P.E., Tshentu, Z.R. and Nyokong, T.A.**

**Nombona, N., Antunes, E.M., Chidawanyika, W., Kleyi, P.E., Tshentu, Z.R. and Nyokong, T.A.** (2012) Synthesis,

photophysics and photochemistry of phthalocyanine- $\epsilon$ -polylysine conjugates in the presence of metal nanoparticles against *Staphylococcus aureus*. *Journal of Photochemistry and Photobiology A-Chemistry*. 233 (2012). p.24-33.

**Nombona, N., Chidawanyika, W. and Nyokong, T.A.**

**Nombona, N., Chidawanyika, W. and Nyokong, T.A.** (2012) Spectroscopic and physicochemical behaviour of magnesium phthalocyanine derivatives mono-substituted with a carboxylic acid group. *Journal of Molecular Structure*. 1012 (2012). p.31-36.

**Nyokong, T.A.**

Canlica, M., Altindal, A. and **Nyokong, T.A.** (2012) The synthesis, photophysical and dielectric properties of ball-type dinuclear zinc phthalocyanine. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.826-832.

Zhao, J.F., Wang, J., Chen, J.-Y., Chidawanyika, W., **Nyokong, T.A.**, Ishii, K. and Kobayashi, N. (2012) Gallium phthalocyanine photosensitizers: carboxylation enhances the cellular uptake and improves the photodynamic therapy of cancers. *Anti-Cancer Agents in Medicinal Chemistry*. 12 (6). p.604-610.

Sekkat, N., van den Bergh, H., **Nyokong, T.A.** and Lange, N. (2012) Like a Bolt from the Blue: Phthalocyanines in Biomedical Optics. *Molecules*. 17 (2012). p.98-144.

Canlica, M., Coskun, M., Altindal, A. and **Nyokong, T.A.** (2012) Schottky barrier diode parameters of Ag/MgPc/p-Si structure. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.855-860.

Ya'na, G., Erdogmus, A., Ugur, A.L., Sener,

M.K., Avciata, U. and **Nyokong, T.A.** (2012) Photophysical and photochemical properties of novel phthalocyanines bearing non-peripherally substituted mercaptoquinoline moiety. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.845-854.

Ion, R.-M., **Nyokong, T.A.**, Gyulkhandanyan, G. and Wrobel, D. (2012) Photomedicine and Photo Nanosystems. *International Journal of Photoenergy*. 2012 (2012). p.1.

Vilakazi, S., **Nyokong, T.A.**, Fukuda, T. and Kobayashi, N. (2012) Electrocatalytic behavior of cobalt phthalocyanine complexes immobilized on glassy carbon electrode towards the reduction of dicrotophos pesticide. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.939-945.

Maduray, K., Odhav, B. and **Nyokong, T.A.** (2012) In vitro photodynamic effect of aluminum tetrasulfophthalocyanines on melanoma skin cancer and healthy normal skin cells. *Photodiagnosis and Photodynamic Therapy*. 9 (2012). p.32-39.

Tuhl, A., Manaa, H., Makhseed, S., Al-Awadi, N., Mathew, J., Ibrahim, H.M., **Nyokong, T.A.** and Behbehani, H. (2012) Reverse saturation absorption spectra and optical limiting properties of chlorinated tetra-substituted phthalocyanines containing different metals. *Optical Materials*. 34 (11). p.1869-1877.

Schwarz, A., Hakuzimana, J., Westbroek, P., De Mey, G., Priniotakis, G., **Nyokong, T.A.** and Van Langenhove, L. (2012) A study on the morphology of thin copper films on para-aramid yarns and their influence on the yarns electro-conductive and mechanical properties. *Textile Research Journal*. 82 (15). p.1587-1596.



# CHEMISTRY

*Nyoni, D., Lobb, K.A. and Kaye, P.T.*

**Nyoni, D., Lobb, K.A., Kaye, P.T. and Caira, R.** (2012) DBU-Mediated cleavage of aryl- and heteroaryl disulfides. *Arkivoc.* 6 (2012). p.245-252.

*Ogunlaja, A.S., Chidawanyika, W., Fernandes, M.A., Nyokong, T.A., Torto, N. and Tshentu, Z.R.*

**Ogunlaja, A.S., Chidawanyika, W., Antunes, E., Fernandes, M.A., Nyokong, T.A., Torto, N. and Tshentu, Z.R.** (2012) Oxovanadium(IV)-catalysed oxidation of dibenzothiophene and 4,6-dimethyldibenzothiophene. *Dalton Transactions.* 41 (45). p.13908-13918.

*Ogunsipe, A.O.*

**Ogunsipe, A.O., Idowu, M., Ogunbayo, T.B. and Akinbulu, I.A.** (2012) Protonation of some non-transition metal phthalocyanines - spectral and photophysical consequences. *Journal of Porphyrins and Phthalocyanines.* 16 (7-8). p.885-894.

*Okewole, A.I., Magwa, N.P. and Tshentu, Z.R.*

**Okewole, A.I., Magwa, N.P. and Tshentu, Z.R.** (2012) The separation of nickel(II) from base metal ions using 1-octyl-2-(2-pyridyl)-imidazole as extractant in a highly acidic sulfate medium. *Hydrometallurgy.* 121-124 (2012). p.81-89.

*Olomola, T.O.*

**Adeloye, A.O., Olomola, T.O., Adebayo, A.I. and Ajibade, P.A.** (2012) A High Molar Extinction Coefficient Bisterpyridyl Homoleptic Ru(II) Complex with trans-2-Methyl-2-butenic Acid Functionality: Potential Dye for Dye-Sensitized Solar Cells. *International Journal of Molecular Sciences.* 13 (3). p.3511-3526.

*Olomola, T.O., Klein, R. and Kaye, P.T.*

**Olomola, T.O., Klein, R. and Kaye, P.T.**

(2012) Convenient Synthesis of 3-Methylcoumarins and Coumarin-3-carbaldehydes. *Synthetic Communications.* 42 (2). p.251-257.

*Rapulenyane, N., Antunes, E.M., Masilela, N. and Nyokong, T.A.*

**Rapulenyane, N., Antunes, E.M., Masilela, N. and Nyokong, T.A.** (2012) Synthesis and photophysical properties of novel zinc phthalocyanines mono substituted with carboxyl containing functional groups. *Journal of Photochemistry and Photobiology A-Chemistry.* 250 (2012). p.18-24.

*Sunasse, S.N. and Davies-Coleman, M.T.*

**Sunasse, S.N. and Davies-Coleman, M.T.** (2012) Cytotoxic and antioxidant marine prenylated quinones and hydroquinones. *Natural Product Reports.* 29 (5). p.513-535.

*Tombe, S.L., Chidawanyika, W., Antunes, E.M. and Nyokong, T.A.*

**Tombe, S.L., Chidawanyika, W., Antunes, E.M., Priniotakis, G., Westbroek, P. and Nyokong, T.A.** (2012) Physicochemical behavior of zinc tetrakis (benzylmercapto) phthalocyanine when used to functionalize gold nanoparticles and in electronspun fibers. *Journal of Photochemistry and Photobiology A-Chemistry.* 240 (2012). p.50-58.

*Torto, N.*

**Pakade, V.E., Cukrowska, E., Darkwa, J., Torto, N. and Chimuka, L.** (2012) Simple and efficient ion imprinted polymer for recovery of uranium from environmental samples. *Water Science and Technology.* 65 (4). p.728-736.

**Heudi, O. and Torto, N.** (2012) Analytical Chemistry no longer neglected but gaps remain. *Analytica Chimica Acta.* 730 (1). p.1.

*Walmsley, R.S., Chigome, S., Torto, N. and*

*Tshentu, Z.R.*

**Walmsley, R.S., Chigome, S., Torto, N. and Tshentu, Z.R.** (2012) Towards the Development of Fiber-Based Oxidovanadium(IV) Catalysts for the Oxidation of Thioanisole. *Catalysis Letters.* 142 (2). p.243-250.

*Walmsley, R.S., Ogunlaja, A.S., Coombes, M.J., Chidawanyika, W., Litwinski, C.W.H.H., Torto, N., Nyokong, T.A. and Tshentu, Z.R.*

**Walmsley, R.S., Ogunlaja, A.S., Coombes, M.J., Chidawanyika, W., Litwinski, C.W.H.H., Torto, N., Nyokong, T.A. and Tshentu, Z.R.** (2012) Imidazole-functionalized polymer microspheres and fibers - useful materials for immobilization of oxovanadium(IV) catalysts? *Journal of Materials Chemistry.* 22 (2012). p.5792-5800.

*Zugle, R. and Nyokong, T.A.*

**Zugle, R. and Nyokong, T.A.** (2012) Electrospun polyacrylic acid polymer fibers functionalized with metallophthalocyanines for photosensitizing and gas sensing applications. *Journal of Macromolecular Science Part A-Pure and Applied Chemistry.* 49 (4). p.279-287.

**Zugle, R. and Nyokong, T.A.** (2012) Physicochemical properties of lutetium phthalocyanine complexes in solution and in solid polystyrene polymer fibers and their application in photoconversion of 4-nitrophenol. *Journal of Molecular Catalysis A-Chemical.* 358 (2012). p.49-57.

*Zugle, R., Antunes, E.M., Khene, M.S. and Nyokong, T.A.*

**Zugle, R., Antunes, E.M., Khene, M.S. and Nyokong, T.A.** (2012) Photooxidation of 4-chlorophenol sensitized by lutetium tetraphenoxy phthalocyanine anchored on

electrospun polystyrene polymer fiber. *Polyhedron.* 33 (2012). p.74-81.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Adegoke, O. and Nyokong, T.A.*

**Adegoke, O., Hosten, E., McClelland, C. and Nyokong, T.A.** CdTe quantum dots functionalized with 4-amino-2,2,6,6-tetramethylpiperidine-N-oxide as luminescent nanoprobe for the sensitive recognition of bromide ion. *International Conference of Young Chemist - ICYC 2012.* University of Jordan, Amman. Jordan. April 2012.

*Awokoya, K.N., Tshentu, Z.R. and Torto, N.*

**Awokoya, K.N., Tshentu, Z.R. and Torto, N.** Development of Styrene based Molecularly Imprinted Polymer and its Molecular Recognition Properties of Vanadyl tetraphenylporphyrin. *4th African Network of Analytical Chemists (SEANAC).* Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

*Chigome, S. and Torto, N.*

**Chigome, S. and Torto, N.** Electrospun nanofiber based solid phase extraction. *ChromSAAMS 2012.* ChromSAAMS HQ, Dikholo. South Africa. October 2012.

**Chigome, S. and Torto, N.** Electrospun nanofiber based solid phase extraction. *4th African Network of Analytical Chemists (SEANAC).* Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

**Chigome, S. and Torto, N.** Electrospun nanofibers as sorbent material for miniaturized solid phase extraction devices.

# CHEMISTRY

*Electrospinning, Principles, Possibilities and Practice, Institute of Physics.* Institute of Physics, London. United Kingdom. March 2012.

**Coates, M.P., Antunes, E.M. and Nyokong, T.A.**

**Coates, M.P., Antunes, E.M., Griveau, S., Bedioui, F. and Nyokong, T.A.** Modification of carbon nanotube-based electrodes through grafting and azide-alkyne click chemistry. *The 4th International Conference on Nanoscience and Nanotechnology.* University of Free State, Bloemfontein. South Africa. April 2012.

**Fayemi, O.E., Ogunlaja, A.S., Antunes, E.M., Kempgens, P., Nyokong, T.A. and Tshentu, Z.R.**

**Fayemi, O.E., Ogunlaja, A.S., Antunes, E.M., Kempgens, P., Nyokong, T.A. and Tshentu, Z.R.** Ammonium-functionalized microparticles and nanofibers for the separation of platinum and palladium. *Minerals Engineering International-Precious Metals'12.* Newlands, Cape Town. South Africa. November 2012.

**Kempgens, P.**

**Kempgens, P.** The density matrix theory of the COSY and the DQF-COSY NMR experiments. *EUROMAR (European Magnetic Resonance Conference).* University College, Dublin. Ireland. July 2012.

**Khene, M.S. and Nyokong, T.A.**

Kobayashi, N., Shimizu, S., Furuyama, T., Miura, A., **Khene, M.S., Nyokong, T.A., Ogura, Y., Otaki, T., Zhu, X., Nakano, S. and Hosoya, T.** Synthesis and Properties of Superazaphthalocyanines and Novel Subphthalocyanines. *40th International Conference on Coordination Chemistry.* Valencia Conference Centre, Valencia. Spain. September 2012.

**Kleyi, P.E., Tshentu, Z.R. and Torto, N.**

**Kleyi, P.E., Tshentu, Z.R. and Torto, N.** Electrospun nylon 6 nanofibers doped with 2-substituted N-alkylimidazoles for the inhibition of the growth of pathogens in drinking water. *4th African Network of Analytical Chemists (SEANAC).* Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

**Krause, R.W.M.**

Bambo, M.F., Moutloali, R.M. and **Krause, R.W.M.** Synthesis and Characterization of PVDF/Organoclay Nanocomposite Membranes. *Microscopy Society of Southern Africa Proceedings.* University of Cape Town, Cape Town. South Africa. December 2012.

**Lobb, K.A.**

**Kanzi, A.M., Lobb, K.A. and Tastan Bishop, A.O.** Falcipains as malarial drug targets. *Joint SAGS / SASBCB Conference.* Stellenbosch, Stellenbosch. South Africa. September 2012.

**Onywera, D.H., Lobb, K.A. and Tastan Bishop, A.O.** Influence of non-synonymous sequence mutations on the architecture of HIV-1 clade C protease receptor site: Molecular dynamics simulations. *Joint SAGS / SASBCB Conference.* Stellenbosch, Stellenbosch. South Africa. September 2012.

**Mack, J.D.**

**Mack, J.D.** TD-DFT Calculations and MCD Spectroscopy: Ring-contracted, Fused-ring-expanded and Core Modified Porphyrinoids. *Seventh International Conference on Porphyrins and Phthalocyanines ICPP-7.* ICC Juju, Jungman Resort Complex, Jeju. Korea. July 2012.

**Majavu, A., Ogunlaja, A.S., Antunes, E.M., Torto, N., Nyokong, T.A. and Tshentu, Z.R.** **Majavu, A., Ogunlaja, A.S., Antunes, E.M., Torto, N., Nyokong, T.A. and Tshentu, Z.R.** Separation of rhodium and iridium using

diquaternary ammonium-functionalized beads and nanofibers. *Minerals Engineering International-Precious Metals 12.* Newlands, Cape Town. South Africa. November 2012.

**Maringa, A., Mugadza, T., Antunes, E.M. and Nyokong, T.A.**

**Maringa, A., Mugadza, T., Antunes, E.M. and Nyokong, T.A.** Nickel nanoparticle modified electrodes and their comparative redox behaviour with Ni phthalocyanine. *63rd Annual Meeting of the International Society of Electrochemistry.* Clarion Congress Hotel, Prague. Czech Republic. August 2012.

**Masilela, N., Antunes, E.M. and Nyokong, T.A.**

**Masilela, N., Antunes, E.M. and Nyokong, T.A.** The interaction of low symmetry phthalocyanines with quantum dots and gold nanoparticles. *Seventh International Conference on Porphyrins and Phthalocyanines ICPP-7.* ICC Jeju, Jungman Resort Complex, Jeju. Korea. July 2012.

**Masilela, N., Antunes, E.M. and Nyokong, T.A.** A combination of silver nanoparticles and phthalocyanines for photodynamic antimicrobial chemotherapy. *South African Chemical Institute (SACI) Regional Seminars.* Walter Sisulu University, East London. South Africa. October 2012.

**Moronkola, B.A., Awokoya, K.N., Chigome, S., Ondigo, D.A., Kleyi, P.E., Tshentu, Z.R. and Torto, N.**

**Moronkola, B.A., Adewuyi, S., Awokoya, K.N., Chigome, S., Ondigo, D.A., Kleyi, P.E., Tshentu, Z.R. and Torto, N.** 2-amino-4,6-dihydroxypyridine-functionalized polyvinyl-methylketone nanofibers for selective removal of arsenic from wastewater. *4th African Network of Analytical Chemists (SEANAC).* Joaquim Chissano International

Conference Centre, Maputo. Mozambique. July 2012.

**Mothibedi, K., Mokgadi, J. and Torto, N.**

**Mothibedi, K., Mokgadi, J. and Torto, N.** Determination of Flavanoids in Ginkgo Biloba and Alkaloids in Goldenseal using Bond Elut Plexa Solid Phase Extraction Sorbent for Cleanup and HPLC-DAD analysis. *4th African Network of Analytical Chemists (SEANAC).* Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

**Mudabuka, B. and Torto, N.**

**Mudabuka, B., Torto, N. and Vilakazi, S.** Gold nanoparticles based nanofibre colorimetric diagnostic probe. *Gold nanoparticles workshop.* Kloofzicht Lodge Muldersdrift, Johannesburg. South Africa. May 2012.

**Mudabuka, B., Torto, N. and Vilakazi, S.** Development of a point of use probe for ascorbic acid. *DST annual NIC Workshop.* DST/MINTEK Innovation Centre, Cape Town. South Africa. September 2012.

**Mudabuka, B., Torto, N. and Vilakazi, S.** Development of a point of use probe for ascorbic acid. *4th African Network of Analytical Chemists (SEANAC).* Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

**Ngomane, N. and Torto, N.**

**Ngomane, N., Vilakazi, S. and Torto, N.** Evaluation of the suitability of electrospun molecularly imprinted polymers for the colorimetric detection of dopamine employing gold nanoparticles. *5th DST/MINTEK annual NIC workshop.* DST/MINTEK Innovation Centre, Cape Town. South Africa. October 2012.

**Nyokong, T.A. and Zugle, R.**

**Nyokong, T.A. and Zugle, R.** Character-

# CHEMISTRY

ization of Electrospun fibers containing phthalo-cyanines (Invited Lecture). *12th Eurasia Conference on Chemical Sciences (EuAsC2S-12)*. Chandris Hotel, Corfu. Greece. April 2012.

*Nyokong, T.A., Nombona, N., D'Souza, S., Chidawanyika, W., Masilela, N., Chauke, V.P. and Antunes, E.M.*

**Nyokong, T.A., Nombona, N., D'Souza, S., Chidawanyika, W., Masilela, N., Chauke, V.P. and Antunes, E.M.** Characterization of conjugates of phthalocyanines with nanoparticles (Invited Lecture). *7th International Conference on Porphyrins and Phthalocyanines ICPP-7*. ICC Jeju, Jungman Resort Complex, Jeju. Korea. July 2012.

**Ogunlaja, A.S., Torto, N. and Tshentu, Z.R.** **Ogunlaja, A.S.,** Fernandes, M.A., **Torto, N. and Tshentu, Z.R.** Oxovanadium(IV) catalysed oxidation of dibenzothiophene and 4,6-dimethyldibenzothiophene. *Catalysis Society of South Africa (CATSA) Conference 2012*. Langebaan, Cape Town. South Africa. November 2012.

**Ogunlaja, A.S., Torto, N. and Tshentu, Z.R.** Oxovanadium(IV) catalysed oxidation of dibenzothiophene and 4,6-dimethyldibenzothiophene, United States of America. *Gordon Research conference: Catalysis*. Colby Sawyer College, New Hampshire. USA. June 2012.

*Okewole, A.I., Antunes, E.M., Nyokong, T.A. and Tshentu, Z.R.*

**Okewole, A.I., Antunes, E.M., Nyokong, T.A. and Tshentu, Z.R.** The development of novel nickel selective amine extractants: 2,2-pyridylimidazole functionalized chelating resins. *Minerals Engineering International-Nickel Processing f12*. Newlands, Cape Town. South Africa. November 2012.

*Olalekan, E.T. and Watkins, G.M.*

**Olalekan, E.T., Watkins, G.M. and Beukes, D.R.** Co(II) and Cu(II) complexes of 2MT, 2MA and derivatives: Antimicrobial activity. *Bioinorganic Chemistry Gordon Research Seminar (GRS) Four Points*. Sheraton / Holiday Inn Express, Ventura, CA. USA. January 2012.

*Ondigo, D.A. and Torto, N.*

**Ondigo, D.A. and Torto, N.** Development of Diagnostic Probes for Detection of Toxic Metal Ions in Water. *4th African Network of Analytical Chemists (SEANAC)*. Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

*Pule, B.O., Degni, D.R. and Torto, N.*

**Pule, B.O., Degni, D.R. and Torto, N.** Development of Gold Nanoparticles based Optical Probe for Colorimetric detection of Endocrine Disruptors in wastewater from dairy farming effluents. *4th African Network of Analytical Chemists (SEANAC)*. Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

*Quinton, D. and Nyokong, T.A.*

**Quinton, D., Griveau, S., Bedioui, F. and Nyokong, T.A.** Surface Patterning using the Scanning Electrochemical Microscope to Locally Trigger a "Click" Chemistry Reaction. *63rd Annual Meeting of the International Society of Electrochemistry*. Clarion Congress Hotel, Prague. Czech Republic. August 2012.

*Sekhosana, K.E., Masilela, N., Antunes, E.M. and Nyokong, T.A.*

**Sekhosana, K.E., Masilela, N., Antunes, E.M. and Nyokong, T.A.** Encapsulation of Cadmium Telluride Quantum Dots into a Zinc Sulphide Shell. *The 4th International Conference on Nanoscience and Nanotechnology*. University of Free State, Bloemfontein. South Africa. April 2012.

*Sewry, J.D.*

**Sewry, J.D. and Mokilane, P.** Using Rasch analysis to analyse the NSC mathematics examination. *Umalusi 2012 Conference Standards in Education and Training: The Challenge*. Misty Hills Hotel and Conference Centre, Umalusi. South Africa. May 2012.

*Tancu, Y. and Torto, N.*

**Tancu, Y. and Torto, N.** Evaluation of electrospun styrene fibers as sorbents in solid phase extraction of alkylphenols from aqueous media. *4th Symposium, African Network of Analytical Chemists (SEANAC)*. Joaquim Chissano International Conference Centre, Maputo. Mozambique. July 2012.

*Tombe, S.L., Chidawanyika, W., Antunes, E.M. and Nyokong, T.A.*

**Tombe, S.L., Chidawanyika, W., Antunes, E.M. and Nyokong, T.A.** Synthesis and characterization of electrospun fibers containing phthalocyanine-functionalized gold nanoparticles. *The 4th International Conference on Nanoscience and Nanotechnology*. University of Free State, Bloemfontein. South Africa. April 2012.

*Tshentu, Z.R., Ogunlaja, A.S. and Walmsley, R.S.*

**Tshentu, Z.R., Ogunlaja, A.S. and Walmsley, R.S.** Catalytic oxovanadium(IV)-containing materials. *Catalysis Society of South Africa (CATSA) Conference 2012*. Langebaan, Cape Town. South Africa. November 2012.

*Tshentu, Z.R., Okewole, A.I., Magwa, N.P., Majavu, A., Fayemi, O.E., Feldmann, W.K., Chigome, S., Antunes, E.M., Torto, N. and Watkins, G.M.*

**Tshentu, Z.R., Okewole, A.I., Magwa, N.P., Majavu, A., Fayemi, O.E., Feldmann, W.K., Chigome, S., Antunes, E.M., Torto, N. and**

**Watkins, G.M.** Metal Ion Separation - A View to the Future. *40th International Conference on Coordination Chemistry*. Valencia Conference Centre, Valencia. Spain. September 2012.

*Walmsley, R.S. and Tshentu, Z.R.*

**Walmsley, R.S. and Tshentu, Z.R.** Tailor-made electrospun fibers for immobilization of oxovanadium(IV) - Ultrathin and easily separable catalysts for the oxidation of sulphides. *Catalysis Society of South Africa (CATSA) Conference 2012*. Langebaan, Cape Town. South Africa. November 2012.

*Watkins, G.M., Lamprecht, E., Coombes, M.J., Lobb, K.A. and Antunes, E.M.*

**Watkins, G.M., Lamprecht, E., Coombes, M.J., Lobb, K.A. and Antunes, E.M.** Tuning MOFs - Comparison of two copper (II) 1,2,4,5 - benzenetetracarboxylates. *40th International Conference on Coordination Chemistry*. Valencia Conference Centre, Valencia. Spain. September 2012.



# COMPUTER SCIENCE

## Department of **COMPUTER SCIENCE**

2012 marked the 15th Anniversary of the Telkom Centre of Excellence in Distributed Multimedia.

Professor Alfredo Terzoli at a function in Kimberley where he received the Department of Trade and Industry Technology award. To his right is the Minister of Trade and Industry, Dr Rob Davies. To his left Mr John Block, MEC for Finance, Economic Development and Tourism, Northern Cape.



In 2012, research activity in the Computer Science Department was organised around the research groups listed alongside, which together realise an 'eco-system' in which each part supports and is supported by the others.

All the groups, except Bioinformatics, are integrated in the Telkom Centre of Excellence in Distributed Multimedia.

### **Convergence**

Professor Alfredo Terzoli & Dr Mosiuoa Tsietsi

This group carries the core activity of the Telkom Centre of Excellence, focusing on the rich space at the convergence between legacy telecommunication systems & organizations and the Internet.

### **Security and Networks**

Dr Barry Irwin

The Security and Networks Research Group (SNRG) efforts are concentrated in the areas of Information Security and Computer Networks, both crucial areas in modern computing and telecommunications.

### **Mobility**

Professor Hannah Thinyane

This group focuses on mobile computing devices, whose explosive growth in number and power is dramatically changing the way in which we produce and consume information.

### **Distributed Audio Networks**

Professor Richard Foss

The Audio Networks group deals primarily with the management and control protocol of audio streams to be used in large sound installations such as stadiums, studios and convention centres.

### **Parallel and Distributed Computing**

Dr Karen Bradshaw and Professor George Wells

This group has a long history in the department and focuses on the ever present and important theme of parallel and distributed computations.

# COMPUTER SCIENCE



The Convergence group demonstrating their work in April 2012, during the 15th anniversary of the Telkom Centre of Excellence. From left, Dr Zolani Dyosi from NRF -THRIP, Mr David Ledwaba from Tellabs SA, Mr Walter Muswera (partially visible - MSc student Rhodes), Professor Philip Machanick (Rhodes), Mr Okelitse Nyathi (MSc student Rhodes), Dr Mosiuoa Tsietsi (Postdoctoral Fellow, Rhodes), and Mr Zelalem Shibeshi (PhD student, Rhodes).

*Photo: Adrian Frost*

## ICT for Development

### Professor Alfredo Terzoli and Professor Hannah Thinyane

This group concentrates on a long-term, multidisciplinary effort to introduce meaningful and sustainable ICT in marginalized areas.

## Bioinformatics

### Professor Philip Machanick

Rhodes University Bioinformatics (RUBi) Research Group is an interdisciplinary group housed in the Department of Biochemistry, Microbiology and Biotechnology and focuses on collaborative research to produce computational outcomes of biological significance.

## Postgraduates/Graduations

Honours: nine (9)

Masters by Thesis: eight (8)

Masters by coursework and research: one (1)

PhD: two (2) (Dr Philip Foulkes and Dr Mosiuoa Tsietsi)

## Distinguished Visitors/Overseas Visits

Visitors to the department in 2012 were:

- Professor Denis Riordan from Dalhousie University, Canada, who presented an Honours module on Artificial Intelligence;
- Professor Tiko Iyamu and Professor Jill Slay (Dean of the School of Information Technology) from the Polytechnic of Namibia, in connection with an MoU between the Polytechnic and the Telkom Centre of Excellence;
- Professor Adolfo Villafiorita from the Bruno Kessler Foundation (BKF) in Trento Italy, as part of the launch of a EU FP7 funded mobility initiative among Rhodes, Fort Hare, BKF and Fraunhofer FOKUS in Sankt Augustin, Germany;
- Mr Marco Slavero from Thinkst Applied Research, who presented a module on Penetration Testing for the Coursework MSc program.

Staff and students of the Computer Science department routinely attend overseas conferences. The attendance might be complemented by a visit to an academic institution in the country where the conference takes place. Of note was Dr Barry Irwin's visit to the USA, joining

a CSIR panel as part of a technology evaluation program for the design and construction of a large scale network simulator, to be used to support future work into network related Cyber Defense.

## Significant Research Aligned Activities

Grants are the lifeblood of academic research, particularly of the applied type as it is in the Computer Science department at Rhodes. In 2012, the department received significant research grants from the partners of the Telkom Centre of Excellence in Distributed Multimedia (Telkom, Tellabs, GENBAND and THRIP, a DTI programme to support industry-academia interaction); the Ford Foundation (towards the establishment of a cellphone-based local government monitoring system, MobiSAM); the CSIR Defense Peace Safety and Security (DPSS) in support of the work done in Information Security; the NRF in support of various activities, the major one being Bioinformatics.

2012 marked the 15th year of operations of the Telkom Centre of Excellence in Distributed Multimedia, the externally funded entity that has been crucial in growing research in the Computer Science department. Such longevity is a remarkable achievement for an externally funded project, for which a thank you is due to all the partners, past and present, as well as the department itself, for its stability and the willingness of its staff to work together for a common purpose. The Centre celebrated the achievement in April 2012 showcasing current research activity, and having a festive dinner with all the partners.

# COMPUTER SCIENCE

The quality and the quantity of the postgraduates output of the department was recognized through one of the 2012 Department of Trade and Industry Technology Awards. This was presented to Professor Terzoli, as the Head of the Centre, but on behalf of the whole department, by the Minister of Trade and Industry, Mr Rob Davies, at a gala dinner in Kimberley in November. As further proof of the high quality of the department's graduates, Etienne Stalmans and Samuel Hunter, MSc students, won the South African leg of the MWR Hack-Fu Challenge and competed in the finals held in the United Kingdom in July 2012.

In November, the work done by the Siyakhula Living Lab, an important component of the research effort in the department, was showcased in a full page of the 'News' section of the City Press, a South African Sunday newspaper with national distribution.

## Professor Richard Foss

Head of Department

## Books/Chapters/ Monographs

*Sieborger, I.G. and Thinyane, H.E.*

Dalvit, L., **Sieborger, I.G.** and **Thinyane, H.E.** (2012) The expansion of the Siyakhula Living Lab: A holistic perspective. In: Popescu-Zeletin, R., Jonas, K., Rai, I.A., Glitho, R. and Villafiorita, A. (eds.). *E-Infrastructure and E-Services for Developing Countries: Third International ICST Conference, AFRICOMM 2011, Zanzibar, Tanzania, November 23-24, 2011, Revised Selected Papers*. London: Springer. p.228-238. ISBN: 9783642290923.

*Thinyane, H.E.*

**Thinyane, H.E.** (2012) Informed Eclecticism in a Capacity Building Project between South Africa and Namibia: The SANTED Virtual Classroom Project. In: Gillies, R.M. (ed.). *Pedagogy: New Developments in the Learning Sciences*. New York: Nova Science Publishers, Inc. p.85-101. ISBN: 9781621009009.

## Concerts, Exhibitions, Performances, Workshops, Events

*Foss, R.J.*

**Foss, R.J.** Chairman. Audio Network Device Connection and Control - *Workshop at 133rd Audio Engineering Society convention*. Moscone Convention Center, San Francisco. USA. 28 October 2012.

## International Visits

*Irwin, B.V.W.*

**Irwin, B.V.W.** Iowa State University,

Ames, Iowa, USA. *Investigation of ISEAGE network simulation software*. 19 - 22 January 2012.

**Irwin, B.V.W.** Breaking Point Systems, Houston, Texas, USA. *Investigation of Network Simulation equipment*. 16 - 18 January 2012.

**Irwin, B.V.W.** Information Sciences Institute, University of Southern California, Los Angeles, California, USA. *Investigation of Network simulation and mass system control platform*. 22 - 24 January 2012.

## Other Publications

*Foss, R.J.*

**Foss, R.J.** and **Gurdan, R.** (2012) AES standard for audio applications of networks -Command, control, and connection management for integrated media. Foss, R.J. and Gurdan, R. (eds.). In: *AES standard for audio applications of networks -Command, control, and connection management for integrated media*. New York, USA: Audio Engineering Society.

## Peer Reviewed Non-Subsidy- Earning Journal Research Publications

*Bradshaw, K.L.*

**Srinivas, S.C., Wrench, W.M., Bradshaw, K.L.** and **Dukhi, N.** (2012) Hypertension: Preliminary Health Promotion Activity Based on Service-Learning Principles at a South African National Science Festival. *International Journal of Pharmacy Education and Practice*. 8 (2). p.1-11.

*Sahd, C.L. and Thinyane, H.E.*

**Sahd, C.L.** and **Thinyane, H.E.** (2012) Community Telephone Networks in Africa: Bridging the gap between poverty and technology. *International Journal on Advances in Networks and Services*. 5 (1,2). p.129-138.

*Schoeman, A. and Irwin, B.V.W.*

**Schoeman, A.** and **Irwin, B.V.W.** (2012) Social Recruiting: a Next Generation Social Engineering Attack. *Journal of Information Warfare*. 11 (3). p.17-24.

*Terzoli, A.*

**Mufeti, T.K., Foster, G.G.** and **Terzoli, A.** (2012) Challenges Experienced in the First Year of Implementation of a Teaching and Learning Virtual Partnership at the University of Namibia. *Journal of the Research Center for Educational Technology*. 8 (1). p.26-37.

*Van Heerden, R.P.*

**Van Heerden, R.P.**, Bester, I.M. and Burke, I.D. (2012) A review of IPv6 security concerns. *Journal of Information Warfare*. 11 (3). p.25-38.

*Wertlen, R.R.R., Sieborger, I.G., Tsietsi, M., Shibeshi, Z.S. and Terzoli, A.*

**Wertlen, R.R.R., Sieborger, I.G., Tsietsi, M., Shibeshi, Z.S.** and **Terzoli, A.** (2012) Research Testbed Networks: Practical Tools for Service Delivery. *Electronic Journal of Information Systems in Developing Countries*. 50 (1). p.1-14.

## Peer Reviewed Subsidy- Earning Journal Research Publications

*Chigwamba, N. and Foss, R.J.*



**Chigwamba, N., Foss, R.J., Gurdan, R. and Klinkrad, B.** (2012) Parameter Relationships in High-Speed Audio Networks. *Journal of the Audio Engineering Society*. 60 (3). p.132-146.

**Machanick, P.**

Bailey, T.L. and **Machanick, P.** (2012) Inferring direct DNA binding from ChIP-seq. *Nucleic Acids Research*. 40 (17). p.1-10.

**Shibeshi, Z.S., Terzoli, A. and Bradshaw, K.L.** **Shibeshi, Z.S., Terzoli, A. and Bradshaw, K.L.** (2012) An RTSP proxy for implementing the IPTV media function using a streaming server. *Informatica*. 36 (1). p.37-45.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

**Andersen, M.P. and Irwin, B.V.W.**

**Andersen, M.P. and Irwin, B.V.W.** Cost-effective Realisation of the Internet of Things. *Southern African Telecommunications and Applications Conference (SATNAC) 2012*. Fancourt Hotel, George. South Africa. September 2012.

**Blaauw, P.**

**Blaauw, P.** Search Engine Poisoning, and why it matters to Business. *ITWeb Security Summit*. Sandton Convention Centre, Sandton. South Africa. May 2012.

**Bradshaw, K.L. and Van Der Merwe, D.R.**

**Bradshaw, K.L. and Van Der Merwe, D.R.** Visualization of C Data Structures for Novice Programmers. *Proceedings of the 2012 Conference of the Southern African Computer Lecturers' Association (SACLA)*. Black Mountain Leisure and Conference Hotel, Thaba Nchu. South Africa. July 2012.

**Connan, J.**

Frieslaar, I., Ghaziasgar, M. and **Connan, J.** Addressing the Problem of Hand Occlusion in Bimanual Hand Shape Recognition. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012)*. Fancourt, George. South Africa. September 2012.

Nel, W., Ghaziasgar, M. and **Connan, J.** An Integrated Sign Language Recognition System. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012)*. Fancourt, George. South Africa. September 2012.

Mushfieldt, D., Ghaziasgar, M. and **Connan, J.** Robust Facial Expression Recognition in the Presence of Rotation and Partial Occlusion. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC 2012)*. Fancourt, George. South Africa. September 2012.

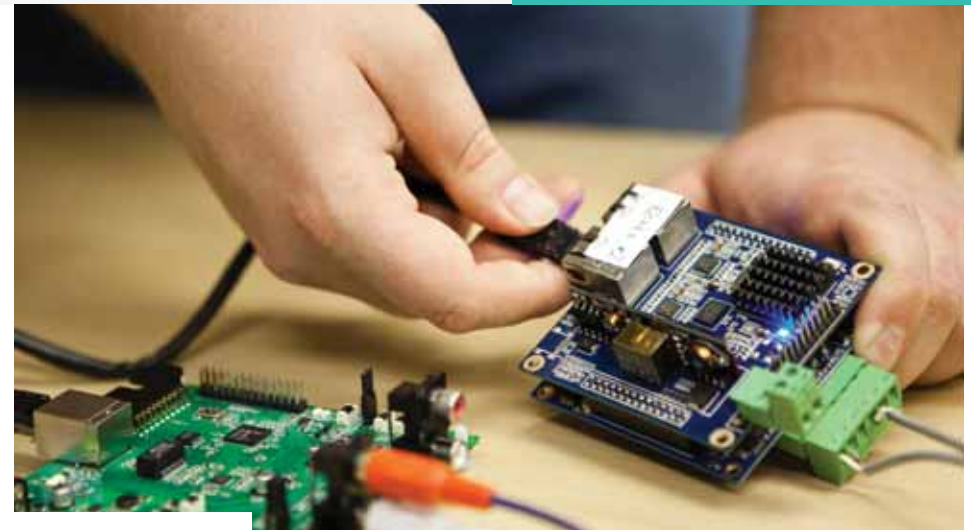
Ghaziasgar, M. and **Connan, J.** Robust and Accurate Hand Motion Recognition. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

Mushfieldt, D., Ghaziasgar, M. and **Connan, J.** Fish Identification System. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

Brown, D., Ghaziasgar, M. and **Connan, J.** Faster Upper Body Pose Estimation and Recognition Using CUDA. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

**Dibley, J. and Foss, R.J.**

**Dibley, J. and Foss, R.J.** An Investigation



Connecting high speed audio reference boards into an audio network. Photo: Sophie Smith

into the AES X170 Project for Control of Ethernet AVB Networks. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

**Eales, A.A. and Foss, R.J.**

**Eales, A.A. and Foss, R.J.** Modeling Complex Networked Audio Devices. *133rd Audio Engineering Society Convention*. Moscone Convention Center, San Francisco. USA. October 2012.

**Egan, S.P. and Irwin, B.V.W.**

**Egan, S.P. and Irwin, B.V.W.** An Analysis and Implementation of Methods for High Speed Lexical Classification of Malicious URLs. *Information Security for South Africa*. Balalaika Hotel, Sandton. South Africa. August 2012.

**Egan, S.P. and Irwin, B.V.W.** Normandy: A Framework for Implementing High Speed

Lexical Classification of Malicious URLs. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt Hotel, George. South Africa. September 2012.

**Honye, S. and Thinyane, H.E.**

**Honye, S. and Thinyane, H.E.** WiIMS: Simulating mouse and keyboard for motor-impaired users. *SAICSIT 2012 Contemplate /Connect/Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.

**Honye, S., Thinyane, H.E. and Tsietsi, M.J.**

**Honye, S., Thinyane, H.E. and Tsietsi, M.J.** Mobile Application Development for Converged Telecommunication/Internet Environment. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

# COMPUTER SCIENCE



Masters student Welsey Murisa hard at work. Photo: Sophie Smith

*Hunter, S.O., Stalmans, E.R., Irwin, B.V.W. and Richter, J.P.F.*

**Hunter, S.O., Stalmans, E.R., Irwin, B.V.W. and Richter, J.P.F.** Remote Fingerprinting and Multisensor Data Fusion. *Proceedings of the ISSA 2012 Conference*. Balalaika Hotel, Sandton. South Africa. August 2012.

**Hunter, S.O., Stalmans, E.R., Irwin, B.V.W. and Richter, J.P.F.** An Exploratory Framework for Non-Aggressive Response to Hostile Network Traffic. *Proceedings of the 4th*

*Workshop on ICT Uses in Warfare and the Safeguarding of Peace 2012 (IWSP 2012)*. Balalaika Hotel, Sandton. South Africa. August 2012.

*Igumbor, O.P. and Foss, R.J.*

**Igumbor, O.P. and Foss, R.J.** A Solution for Integrating Layer 2 Controllable Audio Devices into a Layer 3 Network. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

*Irwin, B.V.W.*

**Irwin, B.V.W.** Network Telescope Metrics. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt Hotel, George. South Africa. September 2012.

**Irwin, B.V.W.** A Network Telescope perspective of the Conficker outbreak. *Proceedings of the ISSA 2012 Conference*. Balalaika Hotel, Sandton. South Africa. August 2012.

**Irwin, B.V.W.** Standing Your Ground: Current and Future Challenges in Cyberdefense. *Theories and Intricacies of Information Security Workshop (INTRICATE-SEC'12)*. Balalaika Hotel, Sandton. South Africa. August 2012.

*Jordaan, J.*

**Jordaan, J.** A Sample of Digital Forensic Quality Assurance in the South African Criminal Justice System. *Proceedings of the ISSA 2012 Conference*. Balalaika Hotel, Sandton. South Africa. August 2012.

*Miteche, S.P., Terzoli, A. and Thinyane, H.E.*

**Miteche, S.P., Terzoli, A. and Thinyane, H.E.** A Mobile Phone Solution to Improve Geographic Mobility. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

*Motara, Y.M.*

**Motara, Y.M.** Strengthening the Grammar of Pedagogic Discourse. University of Guelph, Guelph, Ontario. Canada. June 2012.

*Muswera, W.T. and Terzoli, A.*

**Muswera, W.T. and Terzoli, A.** RUCRG IMS Client: Design and Implementation of Presence and XCAP. *Southern Africa Telecommunication Networks and Applications*

*Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

*Ndwe, J.*

**Ndwe, J., Barnard, E. and Dlodlo, M.E.** Effects of Application Type on the Choice of Interaction Modality in IVR Systems. *SAICSIT 2012 Contemplate/Connect/Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.

*Nottingham, A.T., Richter, J.P.F. and Irwin, B.V.W.*

**Nottingham, A.T., Richter, J.P.F. and Irwin, B.V.W.** CaptureFoundry: a GPU accelerated packet capture analysis tool. *SAICSIT 2012 Contemplate/Connect/Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.

*Otten, F.J. and Foss, R.J.*

**Otten, F.J. and Foss, R.J.** A Comparison of the bandwidth utilization of Ethernet AVB and IEEE 1394b for streaming real-time audio with QoS using Network Simulation. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

*Reynell, E.R. and Thinyane, H.E.*

**Reynell, E.R. and Thinyane, H.E.** Hardware and software for skateboard trick visualisation on a mobile phone. *SAICSIT 2012 Contemplate/Connect/Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.

*Sahd, C.L. and Thinyane, H.E.*

**Sahd, C.L. and Thinyane, H.E.** Bluetooth Proxying and Communication with 802.11 Wireless: An Android solution to an African problem. *MESH 2012: The Fifth International Conference on Advances in Mesh Networks*. H10 Roma Citta, Rome. Italy. August 2012.

# COMPUTER SCIENCE

*Schoeman, A., Irwin, B.V.W. and Richter, J.P.F.*

**Schoeman, A., Irwin, B.V.W. and Richter, J.P.F.** Social Recruiting: a Next Generation Social Engineering Attack. *Proceedings of the 4th Workshop on ICT Uses in Warfare and the Safeguarding of Peace 2012 (IWSP 2012)*. Balalaika Hotel, Sandton. South Africa. August 2012.

*Sieborger, I.G. and Thinyane, H.E.*

**Dalvit, L., Sieborger, I.G. and Thinyane, H.E.** The Expansion of the Siyakhula Living Lab: A Holistic Perspective. *e-Infrastructure and e-Services for Developing Countries: Third International ICST Conference, AFRICOMM 2011: LNICST 2012*. Zanzibar. Tanzania. November 2012.

*Stalmans, E.R. and Irwin, B.V.W.*

**Stalmans, E.R. and Irwin, B.V.W.** An Exploratory Framework for Extrusion Detection. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt Hotel, George. South Africa. September 2012.

*Stalmans, E.R., Hunter, S.O. and Irwin, B.V.W.*

**Stalmans, E.R., Hunter, S.O. and Irwin, B.V.W.** Geo-Spatial Autocorrelation as a Metric for the Detection of Fast-Flux Botnet Domains. *Proceedings of the ISSA 2012 Conference*. Balalaika Hotel, Sandton. South Africa. August 2012.

*Terzoli, A.*

**Terzoli, A.** A model for sustainable broadband in poor communities. *Invited Presentation to the National Treasury*. Pretoria. South Africa. June 2012 (presented again to the Department of Communications, Pretoria, in July 2012)

**Terzoli, A.** Connecting the Eastern Cape - meaningfully and sustainably: marrying

economic and social development. *Eastern Cape ICT Summit 2012*. International Conference Centre, East London, South Africa. November 2012.

**Terzoli, A.** TeleWeaver: sustainable e-government for marginalized communities. *govTech 2012*. International Conference Centre, Durban. South Africa. September 2012

*Thinyane, H.E.*

**Thinyane, H.E. and Thorne, J.-P.** An empirical investigation into the use of digital photo frames as low cost e-book readers. *SAICSIT 2012 Contemplate/Connect /Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.

Osborne, C.P., **Thinyane, H.E.** and Slay, J. Visualizing Information in Digital Forensics. *Advances in Digital Forensics VIII*. University of Pretoria, Pretoria. South Africa. January 2011.

*Thinyane, H.E. and Coulson, D.M.*

**Thinyane, H.E. and Coulson, D.M.** MobiSAM: Mobile Social Accountability Monitoring in South Africa. *Proceedings of MAD 2012*. Mapple Emerald Hotel, New Delhi. India. February 2012.

*Tristram, W.B. and Bradshaw, K.L.*

**Tristram, W.B. and Bradshaw, K.L.** Performance optimisation of sequential programs on multi-core processors. *SAICSIT 2012 Contemplate/Connect/Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.

*Tsietsi, M. and Terzoli, A.*

**Tsietsi, M. and Terzoli, A.** Prototyping an Enhanced SMS Service for the Teleweaver Application Server. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt, George. South Africa. September 2012.

*Van Der Schyff, K.I.*

**Van Der Schyff, K.I. and Krauss, K.E.M.** Cloud Adoption: A South African Perspective. *First Pre-ECIS Special Interest Group for ICT in Global Development (SIG GlobDev) Workshop on ICT and Sustainable Development*. Avda. de Pedralbes, Barcelona. Spain. June 2012.

*Van Heerden, R.P.*

**Van Heerden, R.P., Bester, I.M. and Burke, I.D.** A review of IPv6 security concerns. *Proceedings of the 4th Workshop on ICT Uses in Warfare and the Safeguarding of Peace 2012 (IWSP 2012)*. Balalaika Hotel, Sandton. South Africa. August 2012.

*Van Heerden, R.P. and Irwin, B.V.W.*

**Van Heerden, R.P., Irwin, B.V.W. and Burke, I.** Classifying Network Attack Scenarios Using an Ontology. *Proceedings of the 7th International Conference on Information Warfare and Security*. University of Washington, Seattle. USA. March 2012.

**Van Heerden, R.P., Pieterse, H. and Irwin, B.V.W.** Mapping the Most Significant Computer Hacking Events to a Temporal Computer Attack Model. *ICT Critical Infrastructures and Society*. Amsterdam. Netherlands. September 2012.

*Zeisberger, S.F. and Irwin, B.V.W.*

**Zeisberger, S.F. and Irwin, B.V.W.** Building a Graphical Fuzzing Framework. *Information Security for South Africa (ISSA)*. Balalaika Hotel, Sandton. South Africa. August 2012.

**Zeisberger, S.F. and Irwin, B.V.W.** A Framework for the Static Analysis of Malware focusing on Signal Processing Techniques. *Southern Africa Telecommunication Networks and Applications Conference (SATNAC) 2012*. Fancourt Hotel, George. South Africa. August 2012.



# DRAMA

## Department of DRAMA



Michele Ellis, Maude Sandham, Tyson Ngubeni, Fezi Mthonti & Rob Haxton in *TENDER* by Madele Vermaak.

Photo: Adrian Frost



Main picture, right: Michael von Bardeleben & Sandi Dlangalala in *Double Helix* by Elisha Mudly.

Theatre in Motion '12.

Photo: Cat Pennells



The research outputs from the Drama Department for 2012 include a total of seventy four (74) performances and workshops from staff and senior students, in venues ranging from the Rhodes Theatre to a variety of classrooms in the Eastern Cape, national and international festival venues and stages, as well as conference venues. The list of research outputs and activities reflect the growing diversity in the type of research outputs being developed in this discipline.

Senior students and staff are exploring the relationship between practice and research and are actively engaged in proposing forward-thinking ways in which formal research outputs and practical, creative, performed research outputs might find new relationships. This is balanced by a strong drive for academic rigour and attention to detail in the development of formal research skills, and this strength is recognised by critics and external examiners alike.

These explorations and line of enquiry resulted in a range of types of performance which were distinguishable by the different venues in which they took place; interactive improvisations in rehearsal spaces, formal theatre spaces, street theatre, classrooms, school halls, prisons, community centres, lecture theatres, conference proceedings, amongst others. Performance was explored as a valid means of dissemination of new or rigorously queried knowledge.

Significant also in the research outputs has been the very positive input of a series of interdisciplinary events initiated and driven by Visiting Lecturer **Ms Athina Vahla**. This solidified the experiments of 2011 and resulted in a crafted series of seven of these events which actively engage in the relationship between enquiry, research and performance in a variety of contexts, richly enhanced through collaboration with academics from other disciplines. The series also stimulated the production *Polis* which featured on the NAF ThinkFest programme.

## Postgraduates/Graduations

The Department has focused in the last few years on developing the quantity and quality of research outputs being published or academic papers being presented at conferences by senior students. This has resulted in a trend

# DRAMA

which has continued in 2012. A total of eleven (11) academic papers were presented at conferences by Masters and Doctoral students.

Also notable is the growing trend among the Postgraduates to produce their own work, as well as create and direct it. Masters students **Tristan Jacobs**, **Themba Mchunu**, **Thalia Laric** and **Jess Harrison** all reflect a range of activities including performance, writing, creating, producing, combined with the writing of academic articles published in peer reviewed journals. These students are good examples of a growing number of Postgraduates who have successfully worked toward exploring the boundaries between research forms, at the same time as engaging with the industry both as contributors and researchers, producers, administrators and business managers in control of the production elements of performance.

Themba Mchunu, a Drama Masters student, under the auspices of Ubom!, and under the supervision of **Ms Alex Sutherland**, also organised and directed Grahamstown community performers in a work *Imphethuko* (Turning Point) developed with the specific performance forms of the participants to find new performance forms relevant to local audiences.

## Distinguished Visitors/ Overseas Visits

The department was fortunate to host **Mr Mandla Mbothwe**, a distinguished young Director who has recently made a significant mark on the South African theatre landscape. His productions are unique and display highly original and theatrically innovative explorations of



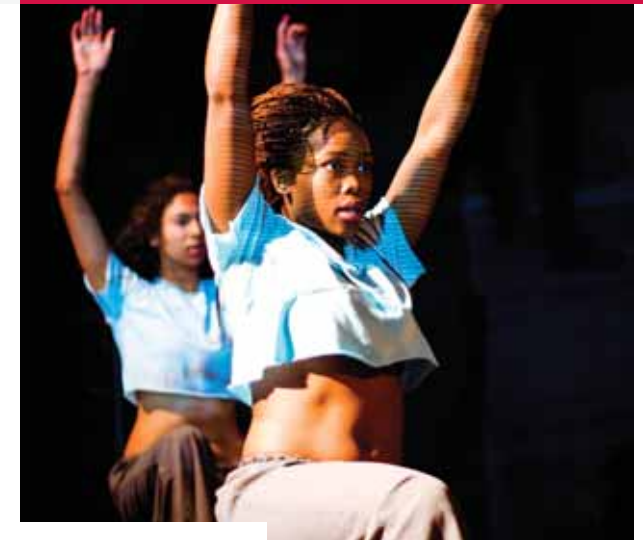
Sandi Dlangalala in *The Boundary* (Tom Stoppard & Clive Exton). Directed by Bryce Woodiwiss. YDS '12. Photo: Robynne Peatfield

performance employing amaXhosa performance forms and isiXhosa as the lingua franca. His production *Ukuphuthelwa* with the students identified the department as one actively engaged in exploring performance forms and constructs which have some chance of breaking the huge divide between theatre experiences of differing South African language and social groups.

International visits by staff **Professor Buckland**, **Ms Gehring** and **Ms Vahla**, and postgraduate student **Tristan Jacobs**, saw the university represented in centres of performance practice and research as far afield as New York, Battambang in Cambodia, London (as part of the Cultural Olympics), Lobao da Beira, Portugal and Hong Kong.

## Significant Research Aligned Events

In 2011, the department celebrated the twentieth year of the existence of the First Physical Theatre Company. 2012 saw Ubom! Eastern Cape Drama Company celebrate its



Nomcebisi Moyikwa & Maipelo Gabang in *Experience the Witnessed...* by Nomcebisi Moyikwa. Theatre in Motion '12. Photo: Cat Pennels

tenth year of extraordinary existence. Both companies have distinguished the University and identified the Drama Department at Rhodes with artistic excellence based on, and driven by, rigorous attitudes to research and training and an unapologetically experimental frame which has produced innovation and extensive development of form. The Department is still the only department in the country to host two Professional Theatre Companies and both are essential elements of the department's core activities. Their work is intimately woven into the web of research enquiry and practical experimentation which identifies the quality outputs of the department.

Ubom! was fortunate to gain the unique experience and professional innovation of **Rob Murray**; Rhodes Drama

# DRAMA

alumni, Masters graduate and artistic director of the very successful theatre initiatives in Cape Town of FTHK. Murray joined the Ubom! company as Resident Director and energized a strong initiative to develop and drive a new vision for the continued life of the company.

The first production of the year, *Hush!*, was a work directed for the Rhodes University Orientation programme for 3000 first years by Masters student **Madele Vermaak**. This work then subsequently toured and was performed in a variety of venues including Wits Amphitheatre, Krugersdorp Prison, Leeukop Prison, Sun City Prison Johannesburg, and Victoria Girls High School. Rob Murray then directed the creation of three new works for the company which performed to audiences from Grahamstown to Johannesburg to Harare and Cape Town. A highlight of the year for Ubom! and the department is the annual Makana Drama Development Festival in which Grahamstown theatre making groups, principally from the township, supported by developmental workshops in creative technical and production skills, create and perform over twenty original theatre works at a festival which has developed a significant local following. These new plays, written and performed principally in isiXhosa, are presented and given public assessment by local experts. Then, from this body of work, the best was selected to perform at township venues and as an introduction to the Ubom! Christmas show. This activity, as a mechanism for developing research and enquiry into the creation of locally relevant theatre is highly acclaimed.

The First Physical Theatre Company has maintained a vital presence, working on a project to project basis in the arena of artistic production and is still very much recognized as producing innovative and cutting edge



Natalie Ehlers & Roberto Queiroz in *Writing the Body*. Facilitated by Thalia Laric. Theatre In Motion '12. Photo: Cat Pennells

choreography - "These guerrilla performers immediately unnerved me in the exact way that I need to be unnerved in contemporary dance." (Robyn Sassen, Artslink, March 2012).

The company produced *Cellardoor* for the Dance Umbrella in Johannesburg and also pushed performance boundaries in the site specific collaboration *Discharge*, which played at the military base in Grahamstown giving National Arts Festival goers an unusual performance experience. The company continues its commitment to the development

of local theatre making and performance skills by maintaining the training programmes available to the community in the form of weekly classes. The company also continues to contribute to the body of educational resources with an educational package on *The Unspeakable Story* developed to support the teaching of dance and Physical Theatre through the FET syllabus.

**Professor Andrew Buckland**  
Head of Department



# DRAMA

## Books/Chapters/ Monographs

**Buckland, A.F.**

**Buckland, A.F.** Performer. Theatre or extinction- choose! *TedX Rhodes*. Rhodes Theatre, Grahamstown. South Africa. 12 August 2012.

**Buckland, A.F.** Performer. Between the Teeth. *Free State Schools Festival*. Mouton Theatre, Bloemfontein. South Africa. 10 August 2012.

**Buckland, A.F.** Performer. Through Blue. *Best of the Fest season*. Rhodes Theatre, Grahamstown. South Africa. 3 - 4 August 2012.

**Buckland, A.F.** Performer. Discharge. *National Arts Festival - Main programme*. Military Base, Grahamstown. South Africa. 3 - 7 July 2012.

**Buckland, A.F.** Performer. Through Blue. *National Arts Festival Fringe*. PJ's, Grahamstown. South Africa. 28 June - 8 July 2012.

**Buckland, A.F.** Performer. The Ugly Noo Noo. *Eastern Cape Schools Festival*. Guy Butler Theatre, Grahamstown. South Africa. 9 May 2012.

**Buckland, A.F.** Performer. The Ugly Noo Noo. *Rhodes Graduation Production*. Rhodes Theatre, Grahamstown. South Africa. 13 April 2012.

**Buckland, A.F.** Performer. Mistero Buffo. *Ubom! 10 year anniversary*. Rhodes Theatre, Grahamstown. South Africa. 25 - 1 February 2012.

**Buckland, A.F.** Performer. Praise Poetry for Ubom. *Ubom 10 year anniversary*. Box Theatre, Grahamstown. South Africa. 24 February 2012.

**Buckland, A.F.** Performer. Mistero Buffo. *Musho Festival*. Catalina Theatre, Durban. South Africa. 11 - 13 January 2012.

**Gehring, H.**

**Gehring, H.** Conceptualiser, Co-creator and Director. Enter. Under Construction. Drama Department Theatre in Motion Programme, Box

Theatre, Grahamstown. South Africa. October 2012.

**Gehring, H.** Co-creator and panel leader. Interdisciplinary event curated by Athina Vahla. Box theatre, Grahamstown. South Africa. November 2012.

**Jacobs, T.V.**

**Jacobs, T.V.** Performer-Creator. Les Pigeons. *Musho! Festival*. Catalina Theatre, Durban. South Africa. 11 - 15 January 2012.

**Jacobs, T.V.** Producer. Bru. *Festival of Fame at National School of the Arts*. The Fringe theatre (Johannesburg Theatre Complex), Braamfontein. South Africa. 12 - 17 March 2012.

**Jacobs, T.V.** Performer. Polis : Border. *National Arts Festival*. Nuns Chapel, Grahamstown. South Africa. 28 June - 8 July 2012.

**Jacobs, T.V.** Performer. Autopsy. *National Arts Festival*. Gymnasium, Grahamstown. South Africa. 28 June - 8 July 2012.

**Jacobs, T.V.** Artist. Dimetos, a performative LARP: Video installation. *A-Maze/Interact International Festival*. Wits Arts museum, Braamfontein. South Africa. 28 August - 2 September 2012.

**Jacobs, T.V.** Performer. Stilted. *GIPCA Symposium, Directors and Directing: Playwrights*. Hiddingh Hall (UCT campus), Cape Town. South Africa. 24 - 26 August 2012.

**Jacobs, T.V.** Performer-Creator. Les Pigeons. *National Arts Festival*. Library Hall, Grahamstown. South Africa. 28 June - 8 July 2012.

**Jacobs, T.V.** Performer-Creator. Les Pigeons. *Festival of Fame*. The space.com (Johannesburg Theatre Complex), Braamfontein. South Africa. 12 - 17 March 2012.

**Jacobs, T.V.** Performer. Hats. *National Arts Festival*. St Andrews Hall, Grahamstown. South Africa. 28 June - 8 July 2012.

**Jacobs, T.V.** Performer. Op en Top. *Klein*

*Karoo Nationale Kunstefees*. Suid-Kaap Kollege Saal, Oudtshoorn. South Africa. 29 March - 6 April 2012.

**Jacobs, T.V.** Producer. Bru. *Musho! Festival*. Catalina Theatre, Durban. South Africa. 11 - 15 January 2012.

**Krueger, A.R.**

**Krueger, A.R.** Playwrite. Bones. *PANSA Festival of staged reading*. Catalina Theatre, Durban. South Africa. 1 - 3 June 2012.

**Krueger, A.R.** Producer and performer. Polis. *Think Fest, National Arts Festival*. Nun's Chapel, Grahamstown. South Africa. 3 - 7 July 2012.

**Krueger, A.R.** Short Film director. Eugene's Dream of the ABSA building. *Arts Lounge, National Arts Festival*. Arts Lounge, Grahamstown. South Africa. 28 June - 7 July 2012.

**Laric, T.S.**

**Laric, T.S.** Performer. Keepsake minus 3. *National Arts Festival Fringe*. National Arts Festival Fringe, Grahamstown. South Africa. 28 June - 8 July 2012.

**Laric, T.S.** Performer and choreographer. "Eyes closed with chair and radio". *Detours Festival*. University of the Witwatersrand, Johannesburg. South Africa. 14 January - 18 May 2012.

**Laric, T.S.** Performer and choreographer. Eyes closed in a Small Room. *GIPCA Live Art Festival*. City Hall, Cape Town. South Africa. 4 December 2012.

**Mchunu, T.**

**Mchunu, T.** Director. Makana Missing Lynx. *Sakhuluntu Community Festival*. Fingo Village, Grahamstown. South Africa. 31 May 2012.

**Mchunu, T.** Director. Makana Missing Lynx. *Local Performance*. Fikizolo Primary School, Grahamstown. South Africa. 5 June 2012.

**Mchunu, T.** Director. Makana Missing Lynx.

*Eastern Cape Schools Festival*. Guy Butler Theatre, Grahamstown. South Africa. 9 May 2012.

**Mchunu, T.** Director. Makana Missing Lynx. *Local Performance*. Rhodes Box Theatre, Grahamstown. South Africa. 18 May 2012.

**Mchunu, T.** Director. Makana Missing Lynx. *Local Performance*. N.V Cewu Primary School, Grahamstown. South Africa. 1 June 2012.

**Mchunu, T.** Director. Makana Missing Lynx. *Local Performance*. Makana Primary School, Grahamstown. South Africa. 1 June 2012.

**Mchunu, T.** Director. Makana Missing Lynx. *Local Performance*. Eluxolweni Shelter, Grahamstown. South Africa. 1 June 2012.

**Murray, R.I.**

**Murray, R.I.** Director. Eco- Wolf and the Three Pigs. *National Arts Festival*. Oatlands Family Venue, Grahamstown. South Africa. 28 June - 8 July 2012.

**Murray, R.I.** Director. The Dogs Must Be Crazy. *Free State Schools Festival*. Wynand Mouton Theatre, Bloemfontein. South Africa. 9 - 12 August 2012.

**Murray, R.I.** Director. The Dogs Must Be Crazy. *Gauteng Schools Festival*. Wits Theatre, Johannesburg. South Africa. 4 - 6 September 2012.

**Murray, R.I.** Director. The Dogs Must Be Crazy. *Eastern Cape Tour*. Tarkastad High School, Tarkastad. South Africa. 18 October 2012.

**Murray, R.I.** Director. Ikrismes ePosini. *Feel Good Tour*. Old Age Homes, Prisons, Grahamstown. South Africa. 21 - 27 November 2012.

**Murray, R.I.** Director. Through Blue. *National Schools Festival*. Rhodes Main Theatre, Grahamstown. South Africa. 10 January - 12 July 2012.

**Murray, R.I.** Director. Through Blue. *Local Performance*. Rhodes Main Theatre,

# DRAMA



Pumelela Nqelenga in *Ukuphuthelwa* by Mandla Mbothwe. Photo: Cat Pennels

Grahamstown. South Africa. 3 - 4 August 2012.

**Murray, R.I.** Director. *Eco- Wolf and the Three Pigs. Local Performance.* Rhodes Main Theatre, Grahamstown. South Africa. 14 - 21 May 2012.

**Murray, R.I.** Director. *UMBHIYOZO. Local Performance.* Rhodes Main Theatre, Grahamstown. South Africa. 29 November 2012.

**Murray, R.I.** Director. *Eco- Wolf and the Three Pigs. Eastern Cape Tour.* Tarkastad Primary School, Tarkastad. South Africa. 19 October 2012.

**Murray, R.I.** Director. *Eco- Wolf and the Three Pigs. Eastern Cape Tour.* Sosebenza Primary School, Tarkastad. South Africa. 19 October 2012.

**Murray, R.I.** Director. *Eco- Wolf and the Three Pigs. Eastern Cape Tour.* Tea in the Trees Theatre, Cintsa. South Africa. 20 - 22 October 2012.

**Murray, R.I.** Director. *Ikrismes ePosini. Local Performance.* Rhodes Main Theatre, Grahamstown. South Africa. 30 November - 1 December 2012.

**Murray, R.I.** Director. *The Dogs Must Be Crazy. National Arts Festival.* PJ's, Grahamstown. South Africa. 28 June - 2 July 2012.

**Murray, R.I.** Director. *The Dogs Must Be Crazy. Harare International Festival of the Arts.* State Theatre, Harare. Zimbabwe. 2 - 5 May 2012.

**Murray, R.I.** Director. *The Dogs Must Be Crazy. Eastern Cape Schools Festival.* Guy Butler Theatre, Grahamstown. South Africa. 9 May 2012.

**Murray, R.I.** Director. *The Dogs Must Be Crazy. My Heart Beats UBOM! Campaign.* Rhodes Box Theatre, Grahamstown. South Africa. 25 - 26 April 2012.

**Murray, R.I.** Director. *The Dogs Must Be Crazy. Western Cape Schools Festival.* Artscape, Cape Town. South Africa. 28 February - 1 March 2012.

**Murray, R.I.** Director. *Through Blue. National*

*Arts Festival Fringe.* PJ's, Grahamstown. South Africa. 28 June - 8 July 2012.

**Parker, A.C. and Krastin, G.J.**

**Western, N.A., Parker, A.C. and Krastin, G.J.** Co-Director/ Performer /Set and Sound Design. Collaborative, Multidisciplinary Performance. Main Stage, National Arts Festival. *DISCHARGE.* First City Military Hangar, Grahamstown. South Africa. 3 - 7 July 2012.

**Parker, A.C., Praeg, J., Krastin, G.J. and Schneeberger, J.A.**

**Parker, A.C., Praeg, J., Krastin, G.J. and Schneeberger, J.A.** Performers. *Cellar Door. Dance Umbrella.* Dance Factory, Johannesburg. South Africa. 24 - 25 February 2012.

**Praeg, J.**

**Praeg, J.** Performer. *Discharge. National Arts Festival - Main programme.* Military Base, Grahamstown. South Africa. 3 - 7 July 2012.

**Praeg, J., Parker, A.C., Krastin, G.J. and Schneeberger, J.A.**

**Praeg, J., Parker, A.C., Krastin, G.J. and Schneeberger, J.A.** Performer. *Cellar Door. First Physical Theatre Company.* Rhodes Theatre, Grahamstown. South Africa. 9 - 10 March 2012.

**Smit, S.**

**Smit, S.** Choreographer. *Villain. National Arts Festival Fringe.* Nun's Chapel, Grahamstown. South Africa. 29 June - 8 July 2012.

**Sutherland, A.E.**

**Sutherland, A.E.** Workshop leader. Reflective writing praxis in Applied Theatre. *University of Witwatersrand, Drama for Life MA and Honours programme.* University of the Witwatersrand, Johannesburg. South Africa. 12 June 2012.

**Vahla, A.**

**Vahla, A.** Curator. *Read The Moment.*

# DRAMA

Interdisciplinary Events. Rhodes Theatre, Grahamstown, South Africa. 13 November 2012.

**Vahla, A.** Curator. *Synesthesia*. Interdisciplinary Events. Rhodes Theatre, Grahamstown, South Africa. 28 September 2012.

**Vahla, A.** Curator. *Man at Play*. Interdisciplinary Events. Rhodes Box Theatre, Grahamstown, South Africa. 6 September 2012.

**Vahla, A.** Director, designer, facilitator. *Polis*. A series of four performance art events. Thinkfest, National Arts Festival Nun's Chapel, Grahamstown, South Africa. 28-8 July 2012.

**Vahla, A.** Curator. *Retellings*. Interdisciplinary Events. Rhodes Box Theatre, Grahamstown, South Africa. 31 May 2012.

**Vahla, A.** Curator. *Know your Place*. Interdisciplinary Events. Rhodes Theatre, Grahamstown, South Africa. 8 April 2012.

**Vahla, A.** Curator. *Objects of Desire*. Interdisciplinary Events. Rhodes Theatre, Grahamstown, South Africa. 27 March 2012.

**Vahla, A.** Curator. *Beyond Fighting*. Interdisciplinary Events. Rhodes Box Theatre, Grahamstown, South Africa. 2 February 2012.

**Vermaak, M.**

**Vermaak, M.** Director. Hush! *Local Performance*. Rhodes Main Theatre, Grahamstown. South Africa. 30 October 2012.

**Vermaak, M.** Director. Hush! *Drama For Life*. Wits University Amphitheatre, Johannesburg. South Africa. 31 August 2012.

**Vermaak, M.** Director. Hush! *Drama For Life*. Krugersdorp Prison, Johannesburg. South Africa. 30 August 2012.

**Vermaak, M.** Director. Hush! *Drama For Life*. Sun City Prison, Johannesburg. South Africa. 29 August 2012.

**Vermaak, M.** Director. Hush! *Drama For Life*. Leeukop Prison, Johannesburg. South Africa.

28 August 2012.

**Vermaak, M.** Director. Hush! *Drama For Life*. Wits University Spaceframe, Johannesburg. South Africa. 27 August 2012.

**Vermaak, M.** Director. Hush! *Local Tour*. Victoria Girls High School, Grahamstown. South Africa. 17 February 2012.

**Vermaak, M.** Director. Hush! *Rhodes University Orientation Week*. Rhodes University Great Hall, Grahamstown. South Africa. 6 - 10 February 2012.

**Vermaak, M.** Director. Hush! *Drama For Life*. Sun City Prison, Johannesburg. South Africa. 29 August 2012.

## Creative Writing

**Jacobs, T.V.**

**Jacobs, T.V.** (2012) Dance the Dance. In: Johaardien, A. (ed.). *SA Shorts: Quickies for a microwave generation*. Cape Town: Junkets.

## International Visits

**Buckland, A.F.**

**Buckland, A.F.** Workshop leader. Circus and theatre arts. *Global Arts Corps*. Phare Ponleu Selpak social centre and arts School, Battambang. Cambodia. 1 - 10 December 2012.

**Gehring, H.**

**Gehring, H.** A two month research internship at the New York based theatre company, The Wooster Group. New York City. United State of America. April - May 2012.

**Jacobs, T.V.**

**Jacobs, T.V.** Arterra - RESIDÊNCIAS RURAIS ARTÍSTICAS, Lobao da Beira, Portugal. *Performance residency for production "Hambre del Alma"*. 25 - 30 November 2012.

**Vahla, A.**

**Vahla, A.** Choreographer, Director. *Alchemy*.

A full length performance. London Cultural Olympics, Queen's Elizabeth Hall, London UK, 5 September 2012.

**Vahla, A.** Workshop Leader. International Summer School. Laban, London UK, 27 July-3 August 2012.

**Vahla, A.** Workshop Leader. Physical Extremes. Chisenhale Dance Space. London UK, 22 & 23 January 2012.



Pumelela Nqelenga in *Like Catching Smoke...* by Alan Parker. Theatre In Motion '12. Photo: Cat Pennels

**Vahla, A.** Workshop Leader. MA Choreography Course. Hong Kong Dance Academy, Hong- Kong, 3-7 January 2012.

## Distinguished Visitors

**Mbothwe, M.** Artistic Director at Steve Biko Centre, and renowned South African theatre maker directed *Ukuphthelwa* a Drama Department Production.

**Ginslov, J.** World renowned practitioner and director of Screendance; a two week residency with post graduates, 2 - 10 October 2012.

## Peer Reviewed Subsidy-Earning Journal Research Publications

**Krueger, A.R.**

**Krueger, A.R.** (2012) Zef/Poor White Kitsch Chique: Die Antwoord's Comedy of Degradation. *Safundi: Journal of South African and American Studies*. 13 (3-4). p.399-408.

**Krueger, A.R.** (2012) Die Moderne self as toneelpop in Woyzeck on the Highveld. *Literator*. 32 (2) p. 65-77.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

**Buckland, A.F.**

**Buckland, A.F.** Reflections on assessment - a dramatic dialogue. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

**Gehring, H.**

**Gehring, H.** Mediating Tradition: An investigation into the Wooster Group's reimagining of Shakespeare's Troilus and Cressida. *International Research Centre "Interweaving*



# DRAMA



Pumelela Nqelenga in *Enter. Under Construction.* Theatre In Motion '12. Photo: Cat Pennels

*Performance Cultures* seminar series. Berlin, Germany. 31 May 2012.

**Gehring, H.** Mediating Tradition: An investigation into the Wooster Group's reimagining of Shakespeare's *Troilus and Cressida*. *International Federation for Theatre Research Conference*. Santiago, Chile. 22-28 July 2012.

**Harrison, J.**

**Harrison, J.** The struggle of belonging: devised theatre and transformation in Mandla Mbothwe's production '*Ukuphuthelwa*'. *Drama for Life African Research Conference*. University of Pretoria, Pretoria. South Africa. November 2012.



Madele Vermaak, Michele Ellis & Sandi Dlangalala in *Double Helix* by Elisha Mudly. Theatre in Motion '12. Photo: Cat Pennels

**Jacobs, T.V.**

**Jacobs, T.V.** Playing Pessoa: Scripting autobiographical performance under mask. *GIPCA Symposium, Directors and directing: playwrights*. Hiddingh Hall (UCT campus), Cape Town. South Africa. August 2012.

**Jacobs, T.V.** The Magic Circle: Performativity in pervasive play. *A-Maze/Interact International Festival*. Alexander Theatre, Braamfontein. South Africa. September 2012.

**Krastin, G.J.**

**Krastin, G.J.** Querying spaces, querying audiences: strategies in forging an activated and connected spectatorship. *African Theatre Association*. University of Cape Town, Cape Town.

South Africa. July 2012.

**Krueger, A.R.**

**Krueger, A.R.** The Implacable Grandeur of the Stranger. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

**Krueger, A.R. and Reeve, Z.R.L.P.**

**Krueger, A.R. and Reeve, Z.R.L.P.** Where is the Umbilical Cord Buried? *Performance Studies International*. University of Leeds, Leeds. United Kingdom. July 2012.

**Parker, A.C.**

**Parker, A.C.** Performing the archive - Alternative approaches to the representation of the dance archive with particular reference

to First Physical Theatre's 'Retrospective Altered Daily'. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

**Robertson, D.**

**Robertson, D.** The audience as witness: Exploring the construction and portrayal of gender-based violence in Lara Foot-Newton's *Karoo Moose*. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

**Schneeberger, J.A.**

**Schneeberger, J.A.** Beyond words - an investigation into vocal possibilities through a practical re-imagining of *Antigone*. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

**Smit, S.**

**Smit, S.** Nomadic Questions: Performing and analyzing How a dead dog explains soccer to Sonja Smit. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

**Sutherland, A.E.**

**Sutherland, A.E.** Narrative/therapy and an apartheid story: witness, voyeur, bystander. *Drama for Life African Research Conference*. University of Pretoria, Pretoria. South Africa. November 2012.

**Sutherland, A.E.** Releasing Performances; A South African prison theatre experience. *Performing the World*. East Side Institute, New York. USA. October 2012.

**Turner, W.A.**

**Turner, W.A.** Infecting the City: An indispensable platform for the implementation of public art in South African society. *African Theatre Association*. University of Cape Town, Cape Town. South Africa. July 2012.

# ECONOMICS

## Department of **ECONOMICS**

The Department of Economics sustained its growth trajectory in research outputs, particularly in peer-reviewed, subsidy-earning publications.

The inaugural lecture of Professor Gavin Fraser, titled *Institutional Economics and the Environment*, held on 3 October 2012.

*Back row (LtoR):* Ms Kelcey Brock, Professor Alan Collins, Professor Gavin Keeton, Professor Hugo Nel, Dr Tsitsi E Mutambara, Professor Geoff Antrobus, Professor Paul Alagidede

*Front row (LtoR):* Ms Niki Cattaneo, Professor Gavin Fraser, Dr Saleem Badat, Professor Jen Snowball, Dr Doreen Bekker

*Photo: Ross Schackleton*



Other categories of research, such as book chapters and conference papers, also feature very prominently in the 2012 report.

The topics of research bear evidence to the important niche areas in which the Department continues to excel, particularly Financial Markets, Environmental Economics, Trade and Development, Agricultural Economics, Cultural Economics, and more recently, Happiness Studies.

## Postgraduates/Graduations

Postgraduate numbers and the graduation rate have remained steady in 2012. The Masters in Financial Markets Degree has continued to record a healthy and growing recruitment. Strong growth has, however, also been recorded in Environmental and Cultural Economics, as well as various topics in Masters and PhD by full thesis.

## Distinguished Visitors

From October to December, the Department hosted Professor Alan Collins of the University of Portsmouth

# ECONOMICS

as the 2012 Hobart Houghton Research Fellow. While he was here, Professor Collins initiated new research projects with a number of staff. In particular, he worked on a study of the South African firm industry with **Professor Jen Snowball**, which included a field trip to Cape Town to interview industry stakeholders. A report on the work has been submitted to the Department of Trade and Industry (who supplied some of the data) and a journal article is underway. Professor Collins also worked with **Professors Gavin Fraser** and Jen Snowball on an article on the Economics of rhino horn poaching. The article is under review at *Ecological Economics* and a letter based on the work has recently been published by *Science*.

## Significant Events

The *African Review of Economics and Finance*, which is published by the Department of Economics under the editorship of **Professor Paul Alagidede**, was successful in obtaining accredited journal status. This is particularly significant given that Professor Alagidede started the journal only three years before applying for accreditation.

A further milestone was the establishment of the Environmental and Resource Economics Focus Area by Professors Gavin Fraser and Jen Snowball, in support of which the university approved a substantial Focus Area Grant. The considerable number of research papers in this focus area, has given the initiative a strong boost.

The Masters in Financial Markets remains a vibrant programme, not only in terms of a steady and growing annual intake of new students, but also providing an umbrella for research publications. A considerable number of the department's publications this year fall in this category. Financial industry interest and support of this

degree continues through the Cape Town based Foord Asset Management's sponsorship of the *Foord Chair in Investments*, which is held by **Professor Pierre Faure**.

**Professor Hugo Nel**

Head of Department



# ECONOMICS

## Books/Chapters/Monographs

*Alagidede, P.*

**Alagidede, P.** (2012) The Economy and The Construction Sector in West Africa. In: Laryea, S., Agyepong, S., Leiringer, R. and Huges, W. (eds.). *Construction in West Africa*. Ghana: EPP Book Services Ltd. p.1-33. ISBN: 9780956606037.

*Antrobus, G.G.*

Reynolds, K. and **Antrobus, G.G.** (2012) Identifying Economic Growth Drivers in Small Towns in South Africa. In: Donaldson, R. and Marais, L. (eds.). *Small Town Geographies in Africa: Experiences from South Africa and Elsewhere*. New York: Nova Science Publishers, Inc. p.35-43. ISBN: 9781621000013.

*Faure, A.P.*

**Faure, A.P.** (2012) The Foreign Exchange Market. In: van Wyk, K., Botha, Z. and Goodspeed, I. (eds.). *Understanding South African Financial Markets*. 4th Ed. Pretoria: Van Schaik Publishers. p.417-449. ISBN: 9780627029813.

**Faure, A.P.** (2012) Fundamentals of the Financial System. In: van Wyk, K., Botha, Z. and Goodspeed, I. (eds.). *Understanding South African Financial Markets*. 4th Ed. Pretoria: Van Schaik Publishers. p.1-35. ISBN: 9780627029813.

## Distinguished Visitors

**A Collins.** University of Portsmouth, Portsmouth, UK. Research Collaboration. September 2012.

## Other Publications

*Faure, A.P.*

**Faure, A.P.** (2012) Notes on money creation. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

**Faure, A.P.** (2012) Depicting the bid-offer spread. In: *Capital Markets: Markets Microstructure eJournal*. USA: SSRN eLibrary.

**Faure, A.P.** (2012) Money creation: the sources. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

**Faure, A.P.** (2012) Money creation: misconceptions: it begins with a new deposit. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

**Faure, A.P.** (2012) Money creation: misconceptions: a small bank cannot create money. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

**Faure, A.P.** (2012) Money creation: reflections of an ex-central banker on exogenous / endogenous money. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

**Faure, A.P.** (2012) Notes on the composition of interest rates. In: *Monetary Economics eJournal*. USA: SSRN eLibrary.

*Keeton, G.R.*

**Keeton, G.R.** (2012) Infrastructure meant to reduce, not raise, costs. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) History (and social policy) lessons from Buffett. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Time to take performance monitoring seriously. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) SA's policy response to global crisis not sufficient. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) No room for slippage in fiscal obstacle course. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Resist calls for lower

rates and bigger fiscal deficits. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) The principles that underpin growth strategy. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Marikana's shadow will engulf whole economy. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Deficit demands SA boosts exports and savings. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Rhetoric and ideology obscure obvious solution. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) No simple solution to SA's inequality problem. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Mining remains important to Africa's growth. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Without a vision we're at the mercy of the world. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) War on poverty will require some sacrifices. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Populist slogans sacrifice economy for politics. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) ANC's mining report makes a foolish assumption. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Problem with economic pie is it may get smaller. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Test youth wage subsidy and adapt it if needed. In: Bruce, P. (ed.).

*Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) In developing states, honesty is the best policy. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) New World Bank chief is committed to the poor. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Payment for not producing is no recipe for success. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Alternatives to mine grabs may be as damaging. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

**Keeton, G.R.** (2012) Current account deficit not always a bad thing. In: Bruce, P. (ed.). *Business Day*. Johannesburg: BDFM.

*Martens, B., Fraser, G. and Snowball, J.*

**Martens, B., Fraser, G. and Snowball, J.** (2012) Livelihoods and climate change in Hamburg: issues for food security. In: Ribbink, A.J. and Ribbink, A.C (eds) Hamburg: *Keiskamma Estuary, food security and climate change*. Sustainable Seas Trust, Grahamstown. p.67-77

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Alagidede, P.*

**Alagidede, P.** and Akposa, A. (2012) Sovereign Wealth Funds and Oil Discovery, Lessons for Ghana: an emerging oil exporter. *AfricaGrowth Agenda*. 9 (4). p.7-10.

Adu, G. and **Alagidede, P.** (2012) Modern macroeconomics: a review of the post 2008/2009 crisis debate. *African Review of Economics and Finance*. 4 (1). p.73-88.

*Faure, A.P.*

# ECONOMICS

**Faure, A.P.** (2012) Redefining the money market. *African Review of Economics and Finance*. 4 (1). p.10-25.

*Smith, D.A. and Fryer, D.C.A.*

**Smith, D.A. and Fryer, D.C.A.** (2012) The new frontier in risk assessment: estimation of corporate credit rating quality in emerging markets. *African Review of Economics and Finance*. 4 (1). p.89-109.

*Van Heerden, G.L. and Alagidede, P.*

**Van Heerden, G.L. and Alagidede, P.** (2012) Short run underpricing of Initial Public Offerings (IPOs) in the Johannesburg Stock Exchange. *Review of Development Finance*. 2 (3). p.130-138.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Alagidede, P.*

**Alagidede, P.** and Panagiotidis, T. (2012) Stock Returns and Inflation: Evidence from Quantile Regressions. *Economics Letters*. 117 (1). p.283-286.

**Alagidede, P.**, Coleman, R.A. and Cuestas, J.C. (2012) Inflationary shocks and common economic trends: Implications for West African monetary union membership. *Journal of Policy Modeling*. 34 (1). p.460-475.

**Alagidede, P.** (2012) Trends and Cycles in the Net Barter Terms of Trade for Sub-Saharan Africa's Primary Commodity Exporters. *Journal of Developing Areas*. 46 (2). p.213-229.

*Antrobus, G.G.*

**Mbatha, N.C. and Antrobus, G.G.** (2012) A Cooperative Benefits Framework in South Africa's Land Redistribution Process: The Case of Sugarcane Farmland Transfers. *Agrekon*. 51 (4). p.81-104.

*Botha, F.*

**Botha, F.** and Booyesen, F. (2012) The Gold of One's Ring is Not Far More Precious than the Gold of One's Heart: Reported Life Satisfaction Among Married and Cohabiting South African Adults. *Journal of Happiness Studies*. 2012 (2012). p.1-24.

**Botha, F.** (2012) The economics of suicide in South Africa. *South African Journal of Economics*. 80 (4). p.526-552.

*Brock, K., Fraser, G.C.G. and Botha, F.*

**Brock, K., Fraser, G.C.G. and Botha, F.** (2012) A production function for cricket: The South African perspective. *Studies in Economics and Econometrics*. 36 (2). p.37-51.

*Cattaneo, N.S.*

**Cattaneo, N.S.** and Ezeoha, A.E. (2012) FDI Flows to Sub-Saharan Africa: The Impact of Finance, Institutions, and Natural Resource Endowment. *Comparative Economic Studies*. 54 (2012). p.597-632.

*Dlamini, T.S. and Fraser, G.C.G.*

**Dlamini, T.S., Fraser, G.C.G. and Grove, B.** (2012) Economics of meat production from springbuck in the Eastern Cape Karoo. *Agrekon*. 51 (1). p.1-20.

*Dobson, B.J. and Snowball, J.D.*

**Dobson, B.J. and Snowball, J.D.** (2012) The economics of greening the Grahamstown National Arts Festival in South Africa. *Acta Academica*. 44 (4). p.1-30.

*Ezeoha, A.*

**Ezeoha, A.** (2011) Financial leverage decisions in an era of corporate earnings down-turn and financial market instability - the Nigerian experience. *Journal of Economic and Financial Sciences*. 4 (2). p.333-350.

*Ezeoha, A. and Botha, F.*

**Ezeoha, A. and Botha, F.** (2012) Firm Age, Collateral Value, and Access to Debt Financing in an Emerging Economy: Evidence from South Africa. *South African Journal of Economic and Management Sciences*. 15 (1). p.55-71.

*Fraser GCG*

**Fraser, GCG.** (2011) Vulnerability and poverty dynamics in rural areas of the Eastern Cape province, South Africa. *Ghana Journal of Development Studies*. 8 (2). p.83-100.

*Fadiran, G.O. and Ezeoha, A.*

**Fadiran, G.O. and Ezeoha, A.** (2012) South African Market Volatility, Asymmetry and Retail Interest Rates Pass-Through. *South African Journal of Economics*. 80 (2). p.157-180.

*Hill, G.D. and Fraser, G.C.G.*

**Hill, G.D., Fraser, G.C.G. and Baiyegunhi, L.J.S.** (2012) The impact of contaminated fertilizer on pineapple growers in the Eastern Cape, South Africa. *African Journal of Agricultural Research*. 7 (27). p.3898-3905.

*Mandimika, N.Z. and Chinzara, Z.*

**Mandimika, N.Z. and Chinzara, Z.** (2012) Risk-return trade-off and behaviour of volatility on the South African stock market: evidence from both aggregate and disaggregate data. *South African Journal of Economics*. 80 (3). p.345-366.

*Mutambara, T.E.*

**Mutambara, T.E.** (2012) Mutual accessibility amongst markets in India, Brazil and South Africa (IBSA). *Studies in Economics and Econometrics*. 36 (3). p.65-99.

**Mutambara, T.E.** (2012) Intra-African trade: Key players and products. *New Agenda: South African Journal of Economic and Social Policy*. 46 (1). p.58-63.

**Mutambara, T.E.** (2012) Intra-African trade part 2: Non-tariff barriers to market access. *New Agenda: South African Journal of Economic and Social Policy*. 46 (2). p.22-25.

*Poor, P.J. and Snowball, J.D.*

**Poor, P.J. and Snowball, J.D.** (2012) The impact of student opinions of campus built heritage on their perceptions of institutional loyalty: Implications for marketing strategies. *Acta Academica*. 44 (3). p.99-122.

*Snowball, J.D.*

**Snowball, J.D.** (2012) Richard T. Carson: Contingent Valuation: A comprehensive bibliography and history. *Journal of Cultural Economics*. 36 (2). p.175-177.

**Willis, K.G., Snowball, J.D., Wymer, C. and Grisolia, J.** (2012) A count data travel cost model of theatre demand using aggregate theatre booking data. *Journal of Cultural Economics*. 36 (2). p.91-112.

**Snowball, J.D. and Boughhey, C.M.** (2012) Understanding student performance in a large class. *Innovations in Education and Teaching International*. 49 (2). p.195-205.

**Mostert, M. and Snowball, J.D.** (2012) Where angels fear to tread: online peer-assessment in a large first-year class. *Assessment & Evaluation in Higher Education*. 2012 (2012). p.1-13.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Botha, F.*

**Botha, F.** and Booyesen, F. Family functioning, life satisfaction, and happiness: Evidence from the 2011 South African Social Attitudes

# ECONOMICS

Survey. *2nd Conference on the Micro-econometric Analysis of South African Data (MASA 2012)*. Salt Rock Hotel, Durban. South Africa. November 2012.

*Botha, F. and Snowball, J.D.*

**Botha, F., Snowball, J.D., De Klerk, V.A. and Radloff, S.E.** Determinants of student satisfaction with campus residence life at a South African university. *11th Conference of the International Society of Quality of Life Studies: Investigating new frontiers in quality of life research*. Ca Foscari University, Venice. Italy. November 2012.

*Kinghorn, J.W. and Snowball, J.D.*

**Kinghorn, J.W., Snowball, J.D., Britz, P.J. and Weyl, O.** Estimating the economic impact of alien invasive fishes: recreational angling in the Amatola region. *South African Society of Aquatic Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Kinghorn, J.W., Snowball, J.D., Britz, P.J. and Weyl, O.** Evaluating the socio-economic benefits of alien invasive fishes: recreational angling in the Amatola region. *IIFET 2012: Visible Possibilities, International Institute for Fisheries Economics and Trade Symposium*. Hyatt Hotel, Dar es Salaam. Tanzania. July 2012.

*Martens, C. and Cattaneo, N.S.*

**Martens, C. and Cattaneo, N.S.** An analysis of the impact of Southern African Customs Union revenue-sharing arrangements on the small state: A case study of Lesotho. *Monitoring Regional Integration in Southern Africa*. Johannesburg, Johannesburg. South Africa. June 2011.

*Snowball, J.D.*

**Snowball, J.D.** Are arts events a good way of augmenting the economic impact of sport? The case of the 2010 Soccer World Cup and

the National Arts Festival in South Africa.

*The 17th International Conference on Cultural Economics*. Kyoto University, Kyoto. Japan. June 2012.

**Mostert, M., Boughey, C.M. and Snowball, J.D.**

The role of culture in enabling or constraining the use of technology in higher education teaching and learning: The Commerce Curriculum Project. *Higher Education Close Up 6*. Rhodes University, Grahamstown. South Africa. July 2012.



# EDUCATION

## Department of **EDUCATION**

During the course of 2012, the themes of quality and relevance in education, as well as enhancing access to and in education have emerged as underlying areas of commonality across the work of the department.

*Left to Right: Head of Department, Dr Bruce Brown, Dean of Education, Dr Di Wilmot and Deputy Dean of Education, Professor Jean Baxen  
Photo: Christine Nesbitt Hills*



The Education Department has a number of strong and well established specialist areas of research within the broad field of Education research. These specialist areas include mathematics education, environmental education and education for sustainable development, Foundation Phase education and Education leadership and management. We are also working to develop research programmes in a number of other specialist areas and are seeing positive growth in science education, geography education, English language and literacy education and multilingualism in education.

Research in mathematics education at all levels of schooling is led by two of the funded research Chairs in the Department - the FRF Mathematics Education Chair, focussing on Senior Phase and FET mathematics education and the SA Numeracy Chair, focussing on Foundation and Intermediate Phase mathematics education. These research programmes have a broad coverage, including the teaching and learning process, learner identity, teacher professional development, and the use of technology for mathematical learning. Environmental education and education for sustainable development is also a well established and highly productive research area in the Department, led by the Chair of Environmental Education. This Chair has a strong International reputation and is the leader in the field of education for sustainable development in Africa, having strong and growing MEd and PhD programmes drawing productive scholars from the entire continent.

The EU sponsored Foundation Phase research programme has also had a productive year, seeing the staff and a number of postgraduate scholars in the programme involved in a number of publications and conferences. This programme has a strong focus on quality in Foundation Phase education. The smaller specialist programmes in the Department have also produced a number of important professional offerings, research papers and conference presentations. The result is a diverse research output covering a large number of fields of educational research.

Fitting with the professional orientation of the Departmental research programmes, publications are spread across research and professional journals and presentations are made at a wide range of conferences from International Research conferences through National and Regional

# EDUCATION

conferences, to professional workshops and conferences for teachers.

During the course of this year, the themes of quality and relevance in education, as well as enhancing access to and in education have emerged as underlying areas of commonality across the work of the Department. Also, a common approach that involves researching solutions characterizes our engagement.

Even though working in many different fields of research, the Department has embraced a consensual commitment to work that seeks to advance quality, relevance and access within our fields.

## Postgraduates/Graduations

In keeping with our commitment to the development of research capacity in South and Southern Africa, we celebrated the graduation of a number of students at the graduation ceremony in April 2012. These included seven (7) PhD students and forty-two (42) Masters students.

## Significant Research Aligned Events

The Education Department was involved in the organization of a number of successful International and National conferences were held at Rhodes University in 2012 . These included:

- The International Association of Critical Realism (IACR) conference was held at Rhodes University in July 2012.
- A landmark 30th annual conference of the Environmental Education Association of Southern

Africa (EEASA) conference was hosted by Rhodes University in September 2012.

- A research and development week focussed on Numeracy in early learning was hosted by the Numeracy Chair in the Department in September 2012.
- The Southern African Development Community (SADC)/Rhodes University International Certificate in Environmental Education (EE) course has taken place annually for the past fourteen years. This is the flagship course for SADC Regional Environmental Education Programme (REEP) and specially selected past participants from the course were invited to attend this, fifteenth course and to stay on in Grahamstown for the EEASA conference.

**Dr Bruce Brown**

Head of Department

# EDUCATION

## Books/Chapters/Monographs

*Grant, C.*

**Grant, C.** (2012) Daring to Lead: The Possibility of Teacher Leadership in KwaZulu-Natal Schools. In: Chikoko, V. and Molberg Jorgensen, K. (eds.). *Education Leadership, Management and Governance in South Africa*. New York: Nova Science Publishers, Inc. p.51-68. ISBN: 9781621008972.

*Graven, M.H.*

**Graven, M.H.** (2012) Teacher Support, Identity and Retention: Exploring the Relationship. In: Monograph: Mathematics Teacher Retention. *Los Angeles: California Mathematics Project*. p.105-114. ISBN: 9780615718262.

**Graven, M.H.** (2012) Changing the story: Teacher education through re-authoring their narratives. In: Day, C. (ed.). *The Routledge International Handbook of Teacher and School Development*. London: Routledge. p.127-138. ISBN: 9870415669702.

*Kulundu, I.L.*

**Kulundu, I.L.** (2012) In Pursuit of Participation: Tracking the Influence of Local Action for Sustainable Development. In: Lotz-Sisitka, H. (ed.). *(RE) Views on Social Learning Literature: A monograph for Social Learning Researchers in Natural Resources Management and Environmental Education*. Grahamstown: Environmental Learning Research Centre, Rhodes University / EEASA / SADC REEP. p.36-55. ISBN: 9781919991818.

*Lotz-Sisitka, H.*

**Lotz-Sisitka, H.** (2012) Introducing the Monograph and the (re)views. In: Lotz-Sisitka, H. (ed.). *(RE) Views on Social Learning Literature: A monograph for Social Learning Researchers in Natural Resources*

*Management and Environmental Education*. Grahamstown: Environmental Learning Research Centre, Rhodes University / EEASA / SADC REEP. p.8-10. ISBN: 9781919991818.

*Lotz-Sisitka, H., Mukute, M. and Ali, M.B.*

**Lotz-Sisitka, H., Mukute, M. and Ali, M.B.** (2012) The 'Social' and 'Learning' in Social Learning Research: Avoiding Ontological Collapse with Antecedent Literatures as Starting Points for Research. In: Lotz-Sisitka, H. (ed.). *(Re) views on social learning literature: a monograph for social learning researchers in natural resources management and environmental education*. Grahamstown: Environmental Learning Research Centre, Rhodes University / EEASA / SADC REEP. p.56-88. ISBN: 9781919991818.

*O'Donoghue, R.*

**O'Donoghue, R.** (2012) Towards a Change Practices approach to enhance Sustainable livelihoods in Makana. In United nations University Institute for Advanced Studies (UNU-AIS) . In: Fadeeva, Z., Payyappallimana, U. and Petry, R. (eds.). *Towards more sustainable consumption and production systems and sustainable livelihoods*. Pacifico-Yokohama: United Nations University Institute of Advanced Studies. p.28-33.

**O'Donoghue, R.** (2012) RCE Makana and Rural Eastern Cape: Recovering and Expanding Bio-cultural Diversity. In United Nations University Institute for Advanced Studies (UNU-AIS). In: Payyappallimana, U. and Fadeeva, Z. (eds.). *Traditional Knowledge and Biodiversity*. Pacifico-Yokohama: United Nations University Institute of Advanced Studies (UNH-IAS). p.114-119. ISBN: 9789280845402.

*Olviit, L.L.*

**Olviit, L.L.** (2012) Ethical deliberations in environmental education workplaces: a case

story of contextualised and personalised reflexivity. In: Wals, A. and Corcoran, P. (eds.). *Learning for sustainability in times of accelerating change*. The Netherlands: Wageningen Academic Publishers. p.105-120. ISBN: 9789086862030.

*Togo, M*

**Togo, M.** and Nhamo, G. (2012). Sustainability education and graduateness: A way of life? In: Coetzee, M., Botha, J., Eccles, N., Nienaber, H. and Holtzhausen, N. *Developing Student Graduatness and employability: Issues, provocations, theory and practical guidelines*. pp. 75-88. Randburg, Johannesburg: Knowres Publishing.

## Concerts, Exhibitions, Performances, Workshops, Events

*Baxen, J*

**Baxen, J.** Book Symposium. Stubborn Roots: Race, Culture and Inequality in US and South African Schools. 2012.

*Lotz-Sisitka, H.*

**Lotz-Sisitka, H.** Workshop presentation. Mainstreaming Environment and Suitability in African Universities (MESA) Reflections and planning workshop. *MESA Programme: Achievements, Outcomes, and Opportunities in Africa; and their implications for Ethiopian Universities*. Addis Ababa University, Addis Ababa. Ethiopia. 19 - 22 November 2012.

**Lotz-Sisitka, H.** Workshop presentation. Development and the African University: An intellectual and social history of African Universities and University Leadership a necessity for 21st Century. *Mainstreaming Environment and Suitability in African Universities (MESA) Reflections and planning*

*workshop*. Addis Ababa University, Addis Ababa. Ethiopia. 20 - 22 November 2012.

**Lotz-Sisitka, H.** Workshop presentation. Moderated discussions on the activities in various universities in Ethiopia. *Mainstreaming Environment and Suitability in African Universities (MESA) Reflections and planning workshop*. Addis Ababa University, Addis Ababa. Ethiopia. 19 - 22 November 2012.

**Lotz-Sisitka, H.** Workshop presentation. Conclusions and way forward- Greening Curriculum and campuses- Governance and Coordination of MESA- Community Engagement-Linkages with MESA and GUPES. *Mainstreaming Environment and Suitability in African Universities (MESA) Reflections and planning workshop*. Addis Ababa University, Addis Ababa. Ethiopia. 19 - 22 November 2012.

**Lotz-Sisitka, H.** Presentations. MESA case stories from Universities in Africa. *Mainstreaming Environment and Suitability in African Universities (MESA) Reflections and planning workshop*. Addis Ababa University, Addis Ababa. Ethiopia. 19 - 22 November 2012.

*Samson, D.A.*

**Samson, D.A.** Workshop. Calculudoku the new addictive number puzzle. *Mathematics as an Educational Task: Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA), Volume 2 (pp. 23-28)*. North-West University, Potchefstroom, Potchefstroom. South Africa. 24 - 28 June 2012.

*Samson, D.A. and Schafer, M.*

**Samson, D.A. and Schafer, M.** Workshop. Video clips and cell phones: VITALmaths in the palm of your hand. *Mathematics as an Educational Task: Proceedings of the 18th National Congress of the Association for*



# EDUCATION

*Mathematics Education of South Africa (AMESA), Volume 2 (pp. 29-32).* North-West University, Potchefstroom, Potchefstroom. South Africa. 24 - 28 June 2012.

*Wilmot, P.D.*

**Wilmot, P.D.** Plenary Address. Teachers a critically reflective and reflexive practitioners: What, Why and How? *Research and Teaching in Conversation Mini-Conference coinciding with the Department of Basic Education National Maths and Science Week.* Rhodes University, Grahamstown. South Africa. 4 August 2012.

**Wilmot, P.D.** Initiation to attend. Pilot test the UNESCO Climate Change Module for secondary school teachers. *Pilot test the UNESCO Climate Change Module for secondary school teachers.* ELRC, Rhodes University, Grahamstown. South Africa. 26 - 29 March 2012.

**Wilmot, P.D.** Invited to make a presentation. Pilot Test of the UNESCO Climate Change Module. *Eastern Cape Forum for Environmental Education and Sustainability (ECEES) provincial meeting.* ELRC, Rhodes University, Grahamstown. South Africa. 12 June - 12 November 2012.

**Wilmot, P.D.** Moderator for the Group 4. Teachers and teaching for sustainable development. *The International Task Force on Teachers for Education for All: 5th International Policy Dialogue Forum.* Windhoek, Windhoek. Namibia. 28 - 29 November 2012.

*Lotz-Sisitka, H.*

**Lotz-Sisitka, H.** (2012) Learning for a Sustainable Future: Fifteen Years of Swedish-SADC Co-operation in Environment and Sustainability Education. In: Lotz-Sisitka, H. (ed.). *Learning for a Sustainable Future.* Port

Elizabeth, South Africa: Cadar Printers.

## Distinguished Visitors

**Dr D. Babikwa.** Makerere University, Uganda. *EEASA Conference and International Training Programme on Education for Sustainable Development in Higher Education in South Africa.* September - October 2012.

**Prof P. Corcoran.** Centre for Environmental and Sustainability Education, Florida Gulf Coast. *RU/SADC REEP ESD leadership course.* 2012.

**M.J. Ketlhoilwe.** *International Training Programme on Education for Sustainable Development in Higher Education in South Africa.* October 2012.

**Prof B. Jickling.** Lakehead University, Canada. *EEASA Conference and Masters Programme.* September. 2012.

**Prof H. Linneweber-Lammerskitten.** University of Applied Sciences, Switzerland. *Vital maths project.* July. 2012.

**Namafe, C.** *International Training Programme on Education for Sustainable Development in Higher Education in South Africa.* October 2012.

**Prof J. Ohman.** *Masters week.* 2012.

**Prof J. Proulx.** University of Quebec a Montreal, Canada. *International Symposium.* August. 2012.

**Ms A. Sobieraj.** Oxfam, Italy. *Seminar.* March 2012.

**Prof E. Simmt.** University of Alberta, Canada. *International Symposium.* August. 2012.

## Other Publications

*Agbedahin, A.V.*

**Agbedahin, A.V.** (2012) Sustainable Food Use in University Dining Halls. In: Lotz-Sisitka, H., Burt, J. and Gaunt, H. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Ali, M.B.*

**Ali, M.B.** (2012) Participatory Mapping, Learning and Change. In: Gaunt, H., Lotz-Sisitka, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Baxen, J.*

**Baxen, J.** (2012) South African Foundation Phase Lifeskills Comparative Curriculum Analysis. *Unpublished Research Report: UMALUSI.* Grahamstown.

*Burt, J.*

**Burt, J.** and Berold, R. (2012) Working with Knowledge Resources. In: Gaunt, H., Burt, J. and Lotz-Sisitka, H. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Chikunda, C.*

**Chikunda, C.** (2012) A Gender Agenda in Sustainability Education. In: Lotz-Sisitka, H., Gaunt, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Gaunt, H.K.*

**Gaunt, H.K.** (2012) Inhabiting a Habitable Planet. In: Gaunt, H., Lotz-Sisitka, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

**Gaunt, H.K.** (2012) Re-imagining at the National Arts Festival. In: Lotz-Sisitka, H., Burt, J. and Gaunt, H. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

**Gaunt, H.K.** (2012) Linking Universities and Communities. In: Lotz-Sisitka, H., Burt, J. and Gaunt, H. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

**Gaunt, H.K.** (2012) Building a Regional Research Network. In: Lotz-Sisitka, H., Burt, J. and Gaunt, H. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Kachilonda, D.D.K.*

**Kachilonda, D.D.K.** (2012) Learning on the Shores of Lake Malawi. In: Lotz-Sisitka, H., Gaunt, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Kulundu, I.L.*

**Kulundu, I.L.** (2012) Living Learning: Social Learning in Practise. In: Gaunt, H., Lotz-Sisitka, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Lotz-Sisitka, H.*

**Lotz-Sisitka, H.** (2012) Learning Today for tomorrow: Sustainable Development Learning Processes in Sub-Saharan Africa. In: Lotz-Sisitka, H. and Lupele, J. (eds.). *Learning Today for tomorrow: Sustainable Development Learning Processes in Sub-Saharan Africa.* Port Elizabeth, South Africa: Cadar Printers.

**Lotz-Sisitka, H.** (2012) 2012 Dialogue Overview. In: Burt, J., Lotz-Sisitka, H. and Gaunt, H. (eds.). *Dialogue: 2012 Environmental Learning Research.* Port Elizabeth, South Africa: Cadar Printers.

*Lotz-Sisitka, H., Masara, C. and Pesanayi, T.V.*

**Lotz-Sisitka, H., Mukute, M., Masara, C.**

# EDUCATION

and **Pesanayi, T.V.** (2012) Future Capacity Building: Capacity Assessment for Environmental Policy Implementation. In: Lotz-Sisitka, H., Mukute, M., Marange, T., Masara, C. and Pesanayi, T. (eds.). *Future Capacity Building: Capacity Assessment for Environmental Policy Implementation*. Port Elizabeth, South Africa: Cadar Printers.

*Mandikonza, C.*

**Mandikonza, C.** (2012) Changes in Learning and Practice. In: Gaunt, H., Lotz-Sisitka, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

*McGarry, D.K.*

**McGarry, D.K.** (2012) Learning to be an Earthling. In: Gaunt, H., Lotz-Sisitka, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

*Mohanoe, E.N.*

**Mohanoe, E.N.** (2012) Agri-culture and learning in Makana. In: Lotz-Sisitka, H., Gaunt, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

*O'Donoghue, R.*

**O'Donoghue, R., Jan, I.V. and Brouwers, H.A.M.** (2012) Captured country evaluation report India. Wagenign UR. Report Number CD1. 12.018.

*Pesanayi, T.V.*

**Pesanayi, T.V.** (2012) Water Harvesting in Agricultural Training. In: Lotz-Sisitka, H., Gaunt, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

*Ramsarup, P.*

**Ramsarup, P.** (2012) Environmental Learning

Pathways. In: Lotz-Sisitka, H., Gaunt, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

*Sabai, D.*

**Sabai, D.** (2012) Traditional Ecological Knowledge Indicator. In: Lotz-Sisitka, H., Burt, J. and Gaunt, H. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

*Zazu, C.*

**Zazu, C.** (2012) Heritage Education and why it matters. In: Gaunt, H., Lotz-Sisitka, H. and Burt, J. (eds.). *Dialogue: 2012 Environmental Learning Research*. Port Elizabeth, South Africa: Cadar Printers.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Graven, M.H.*

**Graven, M.H.** (2012) Accessing and assessing young learner's mathematical dispositions. *South African Journal of Childhood Education*. 2 (1). p.49-62.

*Lotz-Sisitka, H.*

**Lotz-Sisitka, H.** and Mukute, M. (2012) Working With Cultural-Historical Activity Theory and Critical Realism to Investigate and Expand Farmer Learning in South Africa. *Mind, Culture, and Activity*. 19 (4). p.342-367.

*Samson, D.A.*

**Samson, D.A.** (2012) Encouraging meaningful engagement with pictorial patterning tasks. *The Australian Mathematics Teacher*. 68 (2). p.4-10.

**Southwood, S.L., Samson, D.A. and Sewry, J.D.** (2012) Investigating the nature of epistemological access afforded by a first

year chemistry intervention programme: Towards a pedagogy of possibility! *Journal of Independent Teaching and Learning*. 7 (1). p.5-13.

*Schafer, M. and Wilmot, P.D.*

**Schafer, M. and Wilmot, P.D.** (2012) Teacher education in post-apartheid South Africa: Navigating a way through competing state and global imperatives for change. *Prospects*. 42 (1). p.41-54.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Baxen, M.J. and Namakula, H.*

Hill, L.D., **Baxen, M.J.**, Craig, A.T. and **Namakula, H.** (2012) Citizenship, Social Justice, and Evolving Conceptions of Access to Education in South Africa: Implications for Research. *Review of Research in Education*. 36 (2012). p.239-260.

*Euvrard, G.J.*

**Euvrard, G.J.** (2012) 'Creating' a Pilgrimage? *Journal of Theology for Southern Africa*. 144 (2012). p.26-33.

*Grant, C.*

**Niven, P.M. and Grant, C.** (2012) PhDs by publications: an 'easy way out'? *Teaching in Higher Education*. 17 (1). p.105-111.

*Mhlolo, M.K.*

**Mhlolo, M.K.** (2012) Mathematical connections of a higher cognitive level: A tool we may use to identify these in practice. *African Journal of Research in Mathematics, Science and Technology Education (Ajrmsste) or African Journal of Research in Mst Education*. 16 (2). p.176-191.

*Mhlolo, M.K. and Schafer, M.*

**Mhlolo, M.K. and Schafer, M.** (2012) Towards empowering learners in a demo-

cratic mathematics classroom: To what extent are teachers' listening orientations conducive to and respectful of learners' thinking? *Pythagoras*. 33 (2). p.1-9.

**Mhlolo, M.K., Venkat, H. and Schafer, M.** (2012) The nature and quality of the mathematical connections teachers make. *Pythagoras*. 33 (1). p.28-36.

*Samson, D.A.*

**Samson, D.A.** (2012) Pictorial pattern generalisation: Tension between local and global visualisation. *Pythagoras*. 33 (3). p.1-9.

*Togo, M. and Lotz-Sisitka, H.*

**Togo, M. and Lotz-Sisitka, H.** (2012) Exploring a systems approach to mainstreaming sustainability in universities: An in-depth case study of Rhodes University in South Africa. *Environmental Education Research Journal*. 18 (6). p.1-21.

*Westaway, A.*

**Westaway, A.** (2012) Rural poverty in the Eastern Cape Province: Legacy of apartheid or consequence of contemporary segregationism? *Development Southern Africa*. 29 (1). p.115-125.

*Wilmot, P.D.*

**Wilmot, P.D.** and Wood, L. (2012) In search of an enabling pedagogy for HIV and AIDS education in initial teacher education. *South African Journal of Higher Education*. 26 (5). p.1112-1130.

**Nyambe, J. and Wilmot, P.D.** (2012) New pedagogy, old pedagogic structures: A fork-tongued discourse in Namibian teacher education reform. *Journal of Education*. 55 (2012). p.55-83.

## Teacher Professional Non-

# EDUCATION

## Subsidy-Earning Journal Research Publications

*Samson, D.A.*

**Samson, D.A.** (2012) Even oddness & odd evenness in figural pattern generalisation activities. *Learning and Teaching Mathematics*. 12 (1). p.20-23.

**Samson, D.A.** (2012) The heuristic beauty of figural patterns. *Learning and Teaching Mathematics*. 12 (1). p.36-38.

**Samson, D.A.** (2012) Viviani's theorem: A geometrical diversion. *Learning and Teaching Mathematics*. 13 (1). p.28-32.

*Pausigere, P.*

**Pausigere, P.** (2012) Foundation Phase numeracy enriching encounters at AMESA, 2011 Congress held in Johannesburg. *Learning and Teaching Mathematics*. 12. p.10-14.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Baxen, M.J.*

**Ellery, K. and Baxen, M.J.** Arrival at the Academy: A narrative account of student agency. *Higher Education Learning and Teaching Association of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. December 2012.

*Brown, B.*

**Brown, B.** Where's the difficulty with fractions. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning*. Rhodes University, Grahamstown. South Africa. September 2012.

*Dalvit, L., Gunzo, F.T. and Abel, S.R.*

**Dalvit, L., Gunzo, F.T. and Abel, S.R.** Using the What? So What? Now What? Reflection model to teach Grade 9 Financial Mathematics. *SAARMSTE*. Crossroads Hotel, Lilongwe. Malawi. January 2012.

*Dalvit, L., Gunzo, F.T. and Magadza, A.*

**Dalvit, L., Gunzo, F.T. and Magadza, A.** Computer Assisted Assessment and Re-design of the Computer Literacy Module of the Post-graduate Certificate in Education: A Case Study at a South African Tertiary Institution. *Proceedings of the twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), Volume 1: Long Papers*. Crossroads Hotel, Lilongwe. Malawi. January 2012.

*Dirwai, C.*

**Dirwai, C.** Looking at capabilities approach in climate change education: A critical realist orientation. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Fox, H.E.*

**Fox, H.E.** Interdisciplinary, social-ecological systems and critical realism: a promising relationship. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Graven, M.H.*

**Graven, M.H.** Why Should Teachers Pay Attention to Learner Mathematical Identities and how do we as Researchers Access these Identities? *Proceedings of the twentieth*

*annual meeting of the Southern African Association for Research in Mathematics, Science and Technology Education Mathematics, Science and Technology Education: A Key to Sustainable Development (Book of Abstracts)*. University of Malawi, Lilongwe. Malawi. January 2012.

**Graven, M.H.** Socio-economic status and mathematics performance/learning: A review of South African research. *12th International Congress on Mathematical Education*. Seoul: COEX. 2012.

**Graven, M.H.** Round table extended abstract: Why should teachers' pay attention to Learner Mathematical Identities and how do we as researchers access these identities? *Book of Abstracts of the twentieth annual meeting of the Southern African Association for Research in Mathematics, Science and Technology Education*. University of Malawi, Lilongwe. 2012.

**Graven, M.H.** The evolution of an instrument for accessing early learning mathematical dispositions. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning*. Rhodes University, Grahamstown. South Africa. September 2012.

*Graven, M.H. and Stott, D.A.*

**Graven, M.H. and Stott, D.A.** Design Issues for Mathematics Clubs for Early Grade Learners. *Proceedings of the twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), Volume 1: Long Papers*. Cross Roads Hotel, Malawi. Lilongwe. January 2012.

**Graven, M.H. and Stott, D.A.** Conceptualising Procedural Fluency as a Spectrum of

Proficiency. *Proceedings Of the Eighteenth National Congress Of the Association for Mathematics Education of South Africa*. North West University, Potchefstroom. South Africa. June 2012.

*Graven, M.H. and Venkatakrishnan, H.*

**Graven, M.H. and Venkatakrishnan, H.** Linking research and development in Numeracy Education - Building and sustaining a community of numeracy educators and researchers. *Maths, Science and ICT in Education Convention*. Johannesburg. 2012.

*Gunzo, F.T.*

**Gunzo, F.T., Dalvit, L., Sobeiraj, A. and Barahona, R.** E-learning for Global Citizenship with Conectando Mundos: A South African Experience. *eLmL 2012: The Fourth International Conference on Mobile, Hybrid, and On-line Learning*. Polytechnic University of Valencia, Valencia. Spain. January 2012.

**Gunzo, F.T. and Dalvit, L.** A Survey of Cell Phone and Computer Access and Use in Marginalised Schools in South Africa. *Proceedings of M4D 2012*. Mapple Emerald Hotel, New Dehli. India. February 2012.

*Hamwedi, A.M.*

**Hamwedi, A.M. and Dalvit, L.** E-learning and M-learning in African Languages: A Survey of Oshikwanyama Students at a Northern Namibian School. *eLmL 2012: The Fourth International Conference on Mobile, Hybrid, and On-line Learning*. Polytechnic University of Valencia, Valencia. Spain. January 2012.

*Jooste, Z.C.*

**Jooste, Z.C.** "I've Never Given the Value of Zero Much Thought": Teachers' Understanding the Concept of Zero. *Proceedings of the twentieth Annual Meeting*



# EDUCATION

of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), Volume 1: Long Papers. University of Malawi, Lilongwe. Malawi. January 2012.

*Kangela, N. and Mbelani, X.*

**Kangela, N. and Mbelani, X.** (2012). How to teach the concept of a gradient in a Grade 11 class. In S. Nieuwoudt, D. Laubscher & H. Dreyer (Eds.), *Mathematics as an Educational Task: Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA), Volume 2 (pp. 58-61)*. Potchefstroom, South Africa.

*Kaulinge, P.O.*

**Kaulinge, P.O.** Analyzing the Relationship between Conceptual and Procedural Knowledge in a Departmentally Provided Numeracy Work Book. *Proceedings Of the Eighteenth National Congress Of the Association for Mathematics Education of South Africa*. North-West University, Potchefstroom. South Africa. June 2012.

*Lee, A.J. and Schafer, M.*

**Lee, A.J. and Schafer, M.** How enactivism can inform an action research design. *20th Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE)*. Crossroads Hotel, Lilongwe. Malawi. January 2012.

*Lotz-Sisitka, H.*

**Cundill, G., Shackleton, S.E. and Lotz-Sisitka, H.** Community-led social learning innovation model for adaptation to climate change. *4th International Eco summit. Ecological sustainability: restoring the planet's ecosystem services*. Columbus University, Ohio. USA. October 2012.

**Hlengwa, A. and Lotz-Sisitka, H.**

Professional Development Models. *Environmental Education Association of Southern Africa Conference*. Rhodes University, Grahamstown. South Africa. September 2012.

**Hlengwa, A. and Lotz-Sisitka, H.** Seeding change: Reflexive professional development and morphogenesis in a higher education International Training Programme. *International Association for Critical Realism Conference*. Rhodes University, Grahamstown. South Africa. July 2012.

**Lotz-Sisitka, H.** Environmental and Sustainability Education Research Symposium: research Environmental Learning, Agency and Societal Change (and education and education system implications). *EEASA's 30th Annual Conference: Environmental Learning, Agency and Social change*. Rhodes University, Grahamstown. South Africa. September 2012.

**Lotz-Sisitka, H.** Experiences and issues of Educational Quality for Sustainable Development. *4th ESACO Conference*. Protea Hotel, Johannesburg. South Africa. May 2012.

**Lotz-Sisitka, H.** Multi-disciplinary approach to global change research: Paradigm shift needed to transition to a low-carbon society. *1st National Global Change conference*. Birchwood Hotel, Boksburg. South Africa. November 2012.

**Lotz-Sisitka, H.** GUPES work in progress: Higher Education Guidelines for Curriculum Review and Reorientation towards SD. *Global Universities Partnership on Environmental and Sustainability Official launch*. Tongji University, Shanghai. China. June 2012.

**Lotz-Sisitka, H.** "Seeding Change" The social-ecological condition and professional

development of university teachers. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

**Lotz-Sisitka, H.** Environmental and sustainability education knowledge and praxis in teacher education: Do we need it and if so, how do we engage this new knowledge area in and across teacher education programmes? *Teacher Education Conference 2012*. University of Pretoria, Pretoria. South Africa. September 2012.

**Lotz-Sisitka, H.** Human Capital as a Planetary Boundary. *The National Environmental Skills Summit 2012*. Indaba Hotel, Johannesburg. South Africa. October 2012.

**Lotz-Sisitka, H.** Learning, agency and societal change - uncovering meaning making in transdisciplinary sustainable development. *"Transboundary learning beyond disciplines. Sustainable development opening up research dialogues"*. Umea University, Umea. Sweden. October 2012.

*Lotz-Sisitka, H., Burt, J.C. and Price, L.*

**Lotz-Sisitka, H., Burt, J.C. and Price, L.** The trans-disciplinary space in water resource management. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Madzima, L.*

**Madzima, L.** Poverty coping strategies of two Eastern Cape Grade 1 learners. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning*. Rhodes University, Grahamstown. South Africa. September 2012.

*Magadza, A. and Dalvit, L.*

**Magadza, A. and Dalvitt, L.** Assessing learners' ICT experiences in Foundation Programmes. *Foundation Colloquium*. Pretoria, South Africa. 25-26 June 2012.

**Magadza, A. and Dalvitt, L.** Using narratives to explore the computer and mobile phones experiences of students at a South African Institution. *International Seminar on narratives and social memory*. Porto, Portugal. 29-30 June 2012.

*Magxala, X.P.*

**Magxala, X.P.** Habitus and early literacy in rural disadvantaged schools. *Early Childhood Education Research and Development Week Programme and Proceedings*. Rhodes University, Grahamstown. South Africa. September 2012.

*Magxala, X.P., Sibanda, Z. and Magadla, S.*

**Magxala, X.P., Sibanda, Z., Nelani, L., Tshuma, A., Magadla, S. and Knoetze, S.** Literacy development of isiXhosa Foundation Phase learners in the Eastern Cape. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning*. Rhodes University, Grahamstown. South Africa. September 2012.

*Mandikonza, C.*

**Mandikonza, C.** Understanding the implementation process of institutional change projects in professional development. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Mcgarra, D.K.*

**Mcgarra, D.K.** Children's Agency, Creativity and Future Earth. *EEASA's 30th Annual Conference: Environmental Learning, Agency and Social change*. Rhodes University,

# EDUCATION

Grahamstown. South Africa. September 2012.

*Mhlolo, M.K.*

**Mhlolo, M.K.** How can we improve learners' grammatical structures in mathematical texts? *7th International Conference on Science, Mathematics and Technology Education*. Sultan Qaboos University, Muscat. Oman. November 2012.

**Mhlolo, M.K.** To What Extent Do Mathematics Teachers Negotiate With and Adapt To Learners' Novel Comments and Actions in Practice? *Proceedings of the twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), Volume 1: Long Papers*. Crossroads Hotel, Lilongwe. Malawi. January 2012.

*Mhlolo, M.K. and Mani, M.*

**Mhlolo, M.K. and Mani, M.** How we teach graphing of parabolas in a less resourced Grade 11 class. In S. Nieuwoudt, D. Laubscher & H. Dreyer (Eds.), *Mathematics as an Educational Task: Proceedings of the 18th National Congress of the Association for Mathematics Education of South Africa (AMESA), Volume 2 (pp. 62-64)*. Potchefstroom, South Africa.

*Murphy, M.*

**Murphy, M.** Documenting my internal conversation to reflexively make meaning of the structure and inspiration behind my PhD in Environmental Education. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Nqabeni, P.*

**Nqabeni, P.** A review of SA & Foreign

Literature on the use of learning and teaching support materials. *Early Childhood Education Research and Development Week Programme and Proceedings*. Rhodes University, Grahamstown. South Africa. September 2012.

*Oteki, J.B.*

**Oteki, J.B.** Exploring Environmental Resource Management Diploma Course and the emerging Education for Sustainable Development practitioner in Kenya: A case study. *EEASA's 30th Annual Conference: Environmental Learning, Agency and Social Change*. Rhodes University, Grahamstown. South Africa. September 2012.

*Pausigere, P.*

**Pausigere, P.** Numeracy Teacher Identity within a Community of Practice-Inquiry Setting. *Proceedings of the twentieth annual meeting of the Southern African Association for Research in Mathematics, Science and Technology Education: A Key to Sustainable Development (Book of Abstracts)*. University of Malawi, Lilongwe. Malawi. January 2012.

*Peter, P.*

**Peter, P.** Using Bernstein to analyse primary maths teachers' practices and identities in the context of education change: the case of the Annual National Assessment (ANA). *Abstract in the Department of Education and Higher Education and Training (DHET) Teacher Education Conference proceedings (p. 38)*. University of Pretoria: DHET. 2012.

*Pausigere, P. and Graven, M.H.*

**Pausigere, P. and Graven, M.H.** Primary Teacher Imagination: The Emergence of Identities through Participation in a Numeracy Community of Practice. *Proceedings Of the*

*Eighteenth National Congress Of the Association for Mathematics Education of South Africa*. North West University, Potchefstroom. South Africa. June 2012.

**Pausigere, P. and Graven, M.H.** The story of two Reception teachers participating in NICLE: emergent themes and early childhood mathematics education learning trajectories. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning*. Rhodes University, Grahamstown. South Africa. September 2012.

*Pesanayi, T.V.*

**Pesanayi, T.V.** Exploring boundaries and boundary-crossing learning in selected agricultural and water sustainability practices. *EEASA's 30th Annual Conference: Environmental Learning, Agency and Social Change*. Rhodes University, Grahamstown. South Africa. September 2012.

**Pesanayi, T.V.** Exploring use of critical realism and CHAT to study boundary crossing in agro - ecological and water education contexts. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Ramsarup, P.*

**Ramsarup, P.** HCD Research towards improved Skills Intelligence. *The National Environmental Skills Summit*. Indaba Hotel, Johannesburg. South Africa. October 2012.

*Rivers, N.*

**Rivers, N.** Reviewing the literature of the role of mediating processes within social leaning in the context of community based natural resource management for food and water security practices in the rural Eastern

Cape. *EEASA's 30th Annual Conference: Environmental Learning, Agency and Social Change*. Rhodes University, Grahamstown. South Africa. September 2012.

*Robertson, S.A.*

**Robertson, S.A.** In search of strategies for developing reading literacy in an L2 literacy learning environment. *Colloquium: Teaching Languages as 2nd or Additional Languages in a Multilingual context*. Rhodes University, Grahamstown. South Africa. October 2012.

*Sabai, D.*

**Sabai, D.** Analysing the significance of abstraction, conceptualism, and representation of traditional ecological knowledge in social learning. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate*. Rhodes University, Grahamstown. South Africa. July 2012.

*Samson, D.A. and Schafer, M.*

**Samson, D.A. and Schafer, M.** The Case for Manipulatives: Enabling "Ways of Seeing". *Proceedings of the twentieth Annual Meeting of the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE), Volume 1: Long Papers*. Crossroads Hotel, Lilongwe. Malawi. January 2012.

*Schafer, M.*

**Schafer, M.** The use of mobile phones in the Mathematics classroom in Africa. *Gemeinsame Jahrestagung Deutsche Mathematiker-Vereinigung (DMV) und Gesellschaft für Didaktik der Mathematik (GDM)*. Weingarten, Weingarten. Germany. March 2012.

**Schafer, M. and Barnard, E.** Gr R Maths - What went wrong? *Early Childhood*

# EDUCATION

*Education Research and Development Week Programme and Proceedings.* Rhodes University, Grahamstown. South Africa. September 2012.

*Schudel, I.J.*

**Schudel, I.J.** Using Dialectical critical realism in examining active learning processes as transformative praxis. *International Association of Critical Realism annual conference.* Rhodes University, Grahamstown. South Africa. July 2012.

**Schudel, I.J.** and **Songqwaru, N.Z.** Using critical realist tools in science curriculum lesson planning and research. *International Association of Critical Realism annual conference.* Rhodes University, Grahamstown. South Africa. July 2012.

*Schudel, I.J., Chikunda, C. and Pesanayi, T.V.*

**Schudel, I.J., Chikunda, C., Pesanayi, T.V., Bolah, R. and Mondlane, A.** Researching Environmental Learning. *Environmental Education Association of Southern Africa Annual Conference: Environmental learning, agency and social change.* Rhodes University, Grahamstown. South Africa. September 2012.

*Schwinge, M.*

**Schwinge, M.** People with Disabilities as Partners in ESD and Agents for a Sustainable Development. *EEASA's 30th Annual Conference: Environmental Learning, Agency and Social Change.* Rhodes University, Grahamstown. South Africa. September 2012.

*Stevens, A.W.*

**Stevens, A.W.** Problematising Problem Solving: The Role of the South African Mathematics Olympiad. *Proceedings of the twentieth annual meeting of the Southern African Association for Research in Mathematics, Science and Technology*

*Education (SAARMSTE): Volume 2 - Short Papers.* University of Malawi, Lilongwe. Malawi. January 2012.

*Stott, D.A.*

**Stott, D.A.** Tracking Procedural Fluency progress in Grade 3 Maths Club. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning.* Rhodes University, Grahamstown. South Africa. September 2012.

*Togo, M*

**Togo, M.** Greening the economy: the role of the education sector in South Africa. *Presented at the 30th EEASA conference.* Grahamstown, South Africa. September 2012.

*Togo, M. and Ramsarup, P.*

**Togo, M. and Ramsarup, P.** Exploring use of critical realism and systems theories to understand how education and training systems respond to the interdisciplinary changing environment. *Annual International Association of Critical Realism Conference: Global change, challenges and critical realism debate.* Rhodes University, Grahamstown. South Africa. July 2012.

*Westaway, A.*

**Westaway, A.** Using language as a resource: strategies to teach mathematics in multi-lingual classes. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning.* Rhodes University, Grahamstown. South Africa. September 2012.

*Wilmot, P.D.*

**Wilmot, P.D.** Report on the Pilot Test of the UNESCO Climate Change Module for Secondary School Teachers. *7th Biennial Meeting of the International Network of Teacher Education institutions associated*

*with the UNESCO Chair on Reorienting Teacher Education to Address Sustainability.* York University, Toronto. Canada. May 2012.

**Wilmot, P.D.** The challenge of meeting the curriculum standards for environment and sustainability learning in school geography: A South African perspective. *International Geography Union (IGU) Congress.* University of Cologne, Cologne. Germany. August 2012.

**Wilmot, P.D.** ESD Pedagogies in South Africa. *7th Biennial Meeting of the International Network of Teacher Education institutions associated with the UNESCO Chair on Reorienting Teacher Education to Address Sustainability.* York University, Toronto. Canada. May 2012.



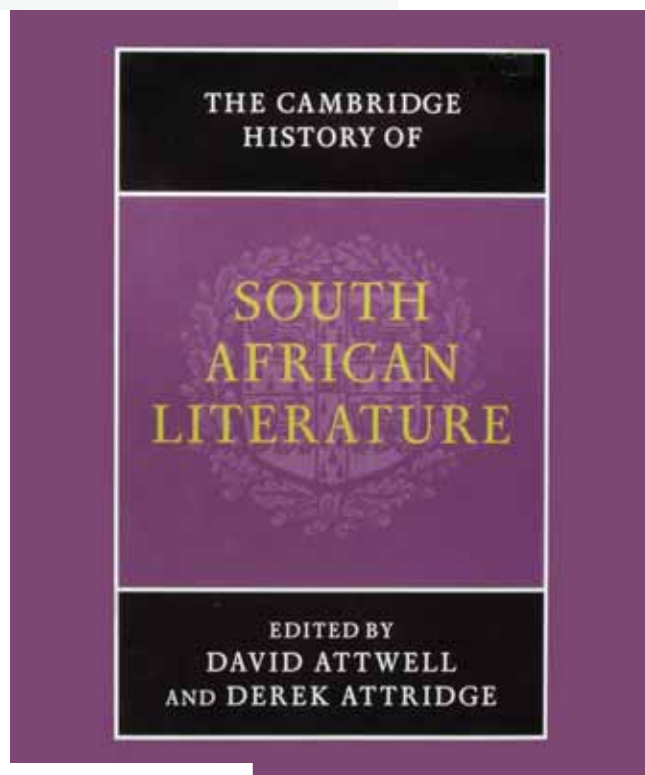
# ENGLISH

## Department of ENGLISH

Klopper, D.C.A. (2012) The lyric poem during and after apartheid. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.587-606. ISBN: 9780521199285.

Van Der Vlies, A. (2012) South Africa in the global imaginary. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.697-716. ISBN: 9780521199285.

Van Wyk Smith, M. (2012) Shades of Adamastor: the legacy of The Lusiads. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.117-137. ISBN: 9780521199285.



Members of the English Department produced ten (10) journal articles and six (6) book chapters, and delivered three (3) conference papers.

Staff members were also involved in presenting papers in the department's regular research seminars.

Sixteen (16) seminars were held in 2012, and staff also engaged with student research in the two (2) postgraduate seminars held annually.

The department's young research associate, **Andrew van der Vlies**, made a significant contribution to research publications; the department's **Professor Emeritus, Malvern Van Wyk Smith**, continues to produce quality research well into his retirement; the Post-doctoral Fellow, **Dr Spalding Lewis**, introduced into the academic mix her work on the nineteenth century imperial romance in South Africa.

## Postgraduates/Graduations

The department enrolled six (6) PhD students, fifteen (15) MA students and sixteen (16) Honours students in 2012. It graduated one (1) PhD student, six (6) MA students, and fifteen (16) Honours students.

## Distinguished Visitors

Five (5) writers presented readings and discussions in the research seminars: Andrew Brown, lawyer and police reservist, discussed his crime fiction; Ingrid Winterbach, artist and writer, talked about scientific discourse in her novel *To Hell with Cronje*. Eben Venter, Mellon writer-in-residence at the Institute for the Study of English in Africa, discussed the language used by the character Koert in the novel *Trencherman*; Professor Dan Wylie launched his new collection of poems, *Sailor: Poems for my Father*; and Patrick Flanery introduced his first novel *Absolution*.

Three (3) prominent scholars presented papers in the research seminars: **Michael Chapman** spoke on the uses of literature in society; **Sarah Nuttall** talked about Mandela's mortality; and **Hilmar Heister** discussed the sympathetic imagination in the early works of J.M. Coetzee.

# ENGLISH

## Research Aligned Events

The department currently runs one formal research project, South African Literature in Focus (SALiF), which is funded by Mellon and supports two (2) MA bursaries, one (1) PhD bursary, and one (1) Post-doctoral Fellowship annually. The department also hosts a non-funded project, Literature & Ecology, which runs annual colloquiums in different locations across the country.

**Mike Marais** was awarded an NRF research rating of B2, and **Dirk Kloppe**r was awarded an NRF research rating of C2.

**Professor Dirk Kloppe**r  
Head of Department

## Books/Chapters/Monographs

*Kloppe, D.C.A.*

**Kloppe, D.C.A.** (2012) The lyric poem during and after apartheid. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.587-606. ISBN: 9780521199285.

*Van Der Vlies, A.*

**Van Der Vlies, A.** (2012) South Africa in the global imaginary. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.697-716. ISBN: 9780521199285.

**Van Der Vlies, A.** (2012) In (-or From) -the Heart of the Country: Local and Global Lives of Coetzee's Anti-pastoral. In: Van der Vlies, A. (ed.). *Print, Text, & Book Cultures in South Africa*. Johannesburg: Wits University Press. p.166-194. ISBN: 9781868145669.

**Van Der Vlies, A.** (2012) Print, Text, and Books in South Africa. In: Van der Vlies, A. (ed.). *Print, Text, & Book Cultures in South Africa*. Johannesburg: Wits University Press. p.2-48. ISBN: 9781868145669.

*Van Wyk Smith, M.*

**Van Wyk Smith, M.** (2012) Shades of Adamastor: the legacy of The Lusiads. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.117-137. ISBN: 9780521199285.

*Wylie, D.A.*

**Wylie, D.A.** (2012) Don MacLennan and the Prehistoric. In: Wylie, D. (ed.). *No Other World: Essays on the life-work of Don MacLennan*. Cape Town: Print Matters Heritage. p.219-232. ISBN: 9780987009524.

## Other Publications

*Njovane, T.*

**Njovane, T.** (2012) A National Treasure: Imraan Coovadia's Institute for Taxi Poetry. In: Njovane, T. (ed.). *Litnet Academic*. <http://www.litnet.co.za/Article/a-national-treasure-imraan-coovadias-the-institute-for-taxi-poetry>. South Africa: Litnet.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Boniface Davies, S.*

**Boniface Davies, S.** and Davies, R. (2012) "So Take This Magic Flute and Blow. It Will Protect Us As We Go": *Impempe Yomlingo* (2007-11) and South Africa's Ongoing Transition. *Opera Quarterly*. 28 (1-2). p.54-71.

*Cornwell, D.G.N.*

**Cornwell, D.G.N.** (2012) For a new-ish criticism. *Scrutiny2* (UniSA English Studies). 17 (1). p.5-11.

**Cornwell, D.G.N.** (2012) Three Texts and the Moral Economy of Race in South Africa, c.1890-1910. *English in Africa*. 39 (2). p.11-50.

**Cornwell D.G.N.** (2011). "A Teaspoon of Milk in a Bucketful of Coffee": The Discourse of Race Relations in Early Twentieth-Century South Africa. *English in Africa*. 38 (3). p.9-33.

*Grogan, B.*

**Grogan, B.** (2012) Abjection and Compassion: Affective Corporeality in Patrick White's Fiction. *Journal of Literary Studies*. 28 (3). p.93-115.

*Marais, M.J.*

**Marais, M.J.** (2012) "Impossible Possibilities: Ethics and Choice in J.M. Coetzee's 'The Lives of Animals' and 'Disgrace'". *English Academy Review*. 29 (Supplement 1). p.116-135.

*Naidu, S.*

**Naidu, S.** (2012) Three Tales of Theal:

Biography, History and Ethnography on the Eastern Frontier. *English in Africa*. 39 (2). p.51-68.

*Njovane, T.*

**Njovane, T.** (2012) Trauma, (Mis)Perception and Memory in Uwem Akpan's 'Fattening for Gabon'. *English Studies in Africa*. 55 (2). p.102-112.

*Van Der Vlies, A.*

**Van Der Vlies, A.** (2012) Queer knowledge and the politics of the gaze in contemporary South African photography: Zanele Muholi and others. *Journal of African Cultural Studies*. 24 (2). p.140-156.

*Van Wyk Smith, M.*

**Van Wyk Smith, M.** (2012) Great Expectations or Paradise Lost? The London Years of the Southern African Review of Books 1987 - 1991. *Current Writing: Text and Reception in Southern Africa*. 24 (1). p.27-36.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Kloppe, D.C.A.*

**Kloppe, D.C.A.** Something appalling has happened: Beauty and the Sublime in Justin Cartwright's White Lighting. *9th Literature and Ecology Conference*. Nirox Foundation, Cradle of Humankind. South Africa. October 2012.

*Njovane, T.*

**Njovane, T.** "The Seduction of Ash": Traumatic Inheritance and Death in Mia Couto's "The Bird-Dreaming Baobab". *4th Annual Inter-disciplinary Postgraduate Conference*. Rhodes University, Grahamstown. South Africa. September 2012.

# ENGLISH LANGUAGE AND LINGUISTICS

Department of

## ENGLISH LANGUAGE AND LINGUISTICS

During 2012, the Department continued its strategy of consolidating its postgraduate programme by expanding the module options for Masters-by-coursework.

Graduation celebration

*Front Row (Ltr):* Professor R. Adendorff, M. Sebaeng (BA), B. Hubbard (BA), A. Sutherland (BA), A. Richardson (Honours), S. Lauriks (Honours), A. Mhlanga (BA)

*Second Row (Ltr):* Mr I. Siebörger, T. Lechanteur (BA), E. van de Ruit (BA), T. Beangstrom (Honours), J. Smith (MA), H. Mitchley (Honours)

*Back Row (Ltr):* Professor S.R. Simango (observed), Dr M. de Vos, Dr S. Hunt

*Photo: Ettione Ferreira*



Staff also remained active in their research activities by having their works presented at conferences here and abroad and getting their papers published.

In addition new niche areas for research were identified in the area of literacy and Dr. Mark de Vos and Ms Kristin van der Merwe secured a *Sandisa Imbewu* grant to carry out research in this area.

Professor Adendorff continues to serve on the Board of the Dictionary of South African English as well as on the national (PANSAB-affiliated) English Language Board. He and Professor Simango are members of the Academy of Science of South Africa. Professor Simango and Dr de Vos continue to serve on the executive board of the Linguistic Society of Southern Africa. Professor Simango is on the editorial board of *Southern African Linguistics and Applied Language Studies* and this year co-edited a special issue of the journal.



# ENGLISH LANGUAGE AND LINGUISTICS

## Postgraduates/Graduations

Post-graduate numbers remained healthy in 2012 with five (5) Honours students, nine (9) Master's students and two (2) PhD students registered with the Department. One (1) student submitted her Master's thesis for examination whilst Mr Ian Siebörger obtained his Masters degree.

## Distinguished Visitors

Distinguished visitors and guest lecturers included Dr. Kristina Riedel, a syntactician from the University of Illinois at Urbana-Champaign (USA) and Professor Almino Ngunga, a phonologist from Eduardo Mondlane University (Mozambique).

## Significant Research Aligned Events

**Dr Mark de Vos** and **Ms Kristin van der Merwe** were awarded a grant of R1,5 million to study foundation phase literacy in African languages. The grant, which is funded under Rhodes University's *Sandisa Imbewu* programme, will be used to fund postgraduate students who seek to provide solutions to one of most pressing educational problems in South Africa.

**Professor Simango** co-edited a special issue of the journal *Southern African Linguistics and Applied Language Studies* with Professor Lutz Marten (University of London School of Oriental and African Studies), Dr. Kristina Riedel (University of Illinois at Urbana-Champaign), and Professor Jochen Zeller (University of Kwa-Zulu Natal).

**Professor Silvester Ron Simango**

Head of Department

## Other Publications

*De Vos, M.A.*

**De Vos, M.A.** (2012) Heads and specifiers: on spec-head word orders in English. In: Zwart, J.W. (ed.). *Groninger Arbeiten zur german-istischen Linguistik*.

*Simango, S.R.*

Marten, L. Riedel, K., **Simango, S.R.**, Zeller, J. (2012). Preface. *Southern African Linguistics and Applied Language Studies*. 30 (2): iii-vii.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*De Vos, M.A.*

**De Vos, M.A.** and **Mitchley, H.J.** (2012) Subject marking and preverbal coordination in Sesotho: A perspective from Optimality Theory. *Southern African Linguistics and Applied Language Studies*. 30 (2): 155-170.

*Simango, S.R.*

**Simango, S.R.** (2012) Subject marking, coordination and noun classes in ciNsenga. *Southern African Linguistics and Applied Language Studies*. 30 (2): 171-183.

*Van Der Merwe, K.C. and Adendorff, R.D.*

**Van Der Merwe, K.C.** and **Adendorff, R.D.** (2012) Comprehension and production of figurative language by Afrikaans-speaking children with and without Specific Language Impairment. *Southern African Linguistics and Applied Language Studies*. 30 (1): 39-63.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*De Vos, M.A.*

**De Vos, M.A.** Semantic strategies for determination of plurals in South African English. *1st Southern African Microlinguistics Workshop*. NorthWest University, Potchefstroom. South Africa. October 2012.

Riedel, K. and **De Vos, M.A.** Swahili Coordinated Infinitives. *Annual Conference of LSSA/SAALA/SAALT*. University of

the Free State, Bloemfontein. South Africa. June 2012.

Mitchley, H.J. and **De Vos, M.A.** Subject marking and preverbal coordination in Sesotho: A perspective from Optimality Theory. *Annual Conference of the LSSA/SAALA/SAALT*. Bloemfontein University, Bloemfontein. South Africa. June 2012.

*Hunt, S.A.*

**Hunt, S.A.** Representations of womanhood in the South African media: Winnie and Albertina. *Annual Conference of LSSA/SAALA/SAALT*. University of the Free State, Bloemfontein. South Africa. June 2012.

*Sieborger, I.*

**Sieborger, I.** The battle of the black box: axiological condensation's role in building procedural knowledge in the South African parliament. *International Systemic Functional Congress 39*. University of Technology, Sydney, Sydney. Australia. July 2012.

*Simango, S.R.*

**Simango, S.R.** (2012) The Semantics of Locative Clitics and Locative Applicatives in ciCewa. *Selected Proceedings of the 41st Annual Conference on African Linguistics*, ed. Bruce Connell and Nicholas Rolle, 141-149. Somerville, MA: Cascadilla Proceedings Project.

**Simango, S.R.** "Iamaphi ama-subject eniwa-enjoy-ayo esikolweni?": isiXhosa-English code switching among bilingual learners in the Eastern Cape. *Annual Conference of LSSA/SAALA/SAALT*. University of the Free State, Bloemfontein. South Africa. June 2012.

# ENVIRONMENTAL SCIENCE

Department of

## ENVIRONMENTAL SCIENCE

Postgraduate students have played a significant role in research in 2012, with many papers and presentations led by current and former postgraduate students in the department.

Ms Gosia Bryja working with the Waorani people in the Ecuadorian Amazon. Her PhD is looking at the feasibility of the successful implementation of adaptive co-management initiatives within this community.



The Department of Environmental Science has again punched well above its weight in terms of research outputs, with seventeen (17) articles in peer reviewed journals, two (2) book chapters, six (6) popular articles and thirteen (13) papers presented at international and local conferences.

News in 2012 that **Professor Charlie Shackleton** was to be awarded a prestigious DST/NRF SARCHI Chair in Interdisciplinary Science in Land and Natural Resource Use for Sustainable Livelihoods, effective from 2013, was extremely welcome as it will boost research productivity and postgraduate training in the department.

**Dr Gladman Thondlana** was appointed to a KRESGE accelerated academic development post. Both of these scholars have already made their mark in the

# ENVIRONMENTAL SCIENCE

research outputs for 2012 as shown by the number of high quality research papers they have authored.

The role of postgraduate students in contributing to research outputs is excellent, with many papers and presentations led by current and former postgraduate students in the department. This is testimony to the high quality of postgraduate scholarship in Environmental Science.

Disciplinary fields covered in the research outputs are remarkably diverse and include: climate change, climate change adaptation, climate change and poverty; social learning for natural resource management; ecosystem services and resilience of social-ecological systems; ecosystem restoration; wetland structure, functioning and ecological condition assessment; natural products, natural resource harvesting and rural livelihoods; and urban forestry.

The range of contributors to articles includes scientists from a wide range of disciplines, and collaborators from Africa and the rest of the world. Environmental Science is truly multidisciplinary and connected with scholars globally.

## Postgraduates/Graduations

A total of fourteen (14) students graduated with Honours degrees, eight (8) with Masters degrees (Abby Chinyimba, Mwale Chishaleshale, Caryn Clarke, Michelle Evans, Humphrey Kaoma, Khulekani Mpofu, Leigh Stadler and Catherine Ward) and four (4) with Doctoral degrees (Saskia Fourie, Ramesh Hari Krishnan, Matthew McConnachie and Manyewu Mutamba).

## Distinguished Visitors/ Overseas Visits

Professor Brian King from Pennsylvania State University in the USA visited the department to discuss research opportunities of mutual interest. He hosted a seminar and gave a guest lecture to undergraduate students.

Professor Paul Hebinck, a regular visitor to the Eastern Cape from Wageningen University in The Netherlands, is conducting research in collaboration with Professor Charlie Shackleton. He participated in our weekly seminar series and gave a guest lecture.

Professor James Blignaut from the University of Pretoria gave a public guest lecture on his research in resource economics in October 2012 as a part of his visit to the Environmental Science Research Forum in which staff and postgraduate students in the department present research results.

Dr Henrik Ernston visited the department from the University of Cape Town and presented a guest lecture on his work in Urban Ecology.

Dr Annika Dahlberg from Stockholm University (Sweden) met Prof Charlie Shackleton to discuss research collaboration of mutual interest in the field of natural resource use.

**Professor Charlie Shackleton** spent three weeks in India early in the year, covering research visits to the Ashoka Trust for Research in Ecology in Bangalore (Karnataka state) and then to the Tropical Forest Research institute in Jabalpur (Madhya Pradesh state). He delivered a guest lecture at both institutions. In May 2012, Charlie

Shackleton traveled to the University of Southampton for the research meeting of the international ASSETS project (Attaining Sustainable Services from Ecosystems through Trade-off Scenarios) spanning three countries and fifteen collaborative research institutions.

In June 2012, Professor Charlie and Dr Sheona Shackleton travelled to the University of Alberta in Canada as part of the ongoing collaboration around the Jongaphambili Sinethemba project.

**Dr Sheona Shackleton** gave a presentation in the Department of Resource Economics & Environmental Sociology. Charlie Shackleton spent ten days in Zomba (Malawi) during September, working with the ASSETS project team in piloting participatory research approaches in four rural villages.

## Significant Research Aligned Events

The department hosted the week long closing workshop of the international LUNA project on livelihoods and natural resource use along urbanising gradients, which included twenty-six (26) participants from six (6) countries.

**Professor Charlie Shackleton** was nominated as Chair of the NRF Assessment Panel for Plant Sciences for three years.

**Professor Fred Ellery** was awarded the Mondi Award for his research in the field of wetland science in South Africa.

**Professor Fred Ellery**  
Head of Department



# ENVIRONMENTAL SCIENCE

## Books/Chapters/Monographs

Cundill, G.

**Cundill, G.,** Rodela, R. and Wals, A. (2012) A Reflection on Research Design and Methodologies used by the Social Learning Literature. In: Lotz-Sisitka, H. (ed.). *(Re) views on social learning literature: a monograph for social learning researchers in natural resources management and environmental education*. Grahamstown: Environmental Learning Research Centre, Rhodes University/EEASA/SADC REEP. p.28-35. ISBN: 9781919991818.

**Cundill, G.** and Rodela, R. (2012) A Search for Coherence: Social Learning in Natural Resource Management. In: Lotz-Sisitka, H. (ed.). *(Re) views on social learning literature: a monograph for social learning researchers in natural resources management and environmental education*. Grahamstown: Environmental Learning Research Centre, Rhodes University/EEASA/ SADC REEP. p.12-26. ISBN: 9781919991818.

## Other Publications

Cundill, G.

**Cundill, G.** (2012) Learning is fundamental to our capacity to cope with future social-ecological change. But how do we stimulate the 'right' kind of learning, and how will we know if we succeed or fail? In: Cundill, G. (ed.). *Sustainable learning centre*. Grahamstown: Sustainable learning centre.

**Gambiza, J., Shackleton, C.M., Davenport, N.A. and Martens, C.**

**Gambiza, J., Shackleton, C.M., Davenport, N.A.,** Atkinson, D., Hoffman, M.T., **Martens, C.,** Puttick, J. and de Groot, W. (2012) Municipal commonage: an undervalued national resource. In: Gambiza, J. (ed.). *Policy Brief No 7*. Grahamstown: Department of

Environmental Science.

**Shackleton, C.M.**

**Shackleton, C.M.** (2012) Extension needs to be more about livelihoods. In: *Phuhlani Extension Opinion*. South Africa: Extension policy.

**Shackleton, S.E. and Paumgarten, F.E.**

**Shackleton, S.E., Paumgarten, F.E.,** Kassa, H., Husselman, M., Zida, M., Purnomo, H., Irawati, R.H., Fauzan, A.U. and Melati, A. (2012) Forests: gender and value chains. In: Shackleton, S. (ed.). *Infobrief*. South Africa: Infobrief.

**Shackleton, S.E. and Paumgarten, F.E.**

(2012) Opportunities for enhancing poor women's socio-economic empowerment in the value chains of three African dry forest non-timber forest products. In: CIFOR, (ed.). *Mainstreaming gender in the COBAM Project*. India: CIFOR.

**Ward, C.D.**

**Ward, C.D.** (2012) Promoting Queenstown food gardens. In: *The Representative*. Queenstown.

## Peer Reviewed Subsidy-Earning Journal Research Publications

**Clarke, C.L., Shackleton, S.E. and Powell, M.J.**

**Clarke, C.L., Shackleton, S.E. and Powell, M.J.** (2012) Climate change perceptions, drought responses and views on carbon farming amongst livestock and game farmers in the semi-arid Great Fish River valley, Eastern Cape province, South Africa. *African Journal of Range & Forage Science*. 29 (1). p.13-23.

**Cundill, G.**

**Cundill, G.,** Cumming, G., Biggs, D. and Fabricius, C. (2012) Soft systems thinking

and social learning for adaptive management. *Conservation Biology*. 26 (1). p.13-20.

**Cundill, G.** and Rodela, R. (2012) A review of assertions about the processes and outcomes of social learning in natural resource management. *Journal of Environmental Management*. 113 (2012). p.7-14.

Rodela, R., **Cundill, G.** and Wals, A.E.J. (2012) An analysis of the methodological underpinnings of social learning in natural resource management. *Ecological Economics*. 77 (2012). p.16-26.

Biggs, D., Schluter, M., Biggs, D., Bohensky, E., BurnSilver, S., **Cundill, G.,** Dakos, V., Daw, T., Evans, L., Kotschy, K., Leitch, A., Meek, C., Quinlan, A., Raudsepp-Hearne, C., Robards, D., Schoon, M., Schultz, L. and West, P. (2012) Toward principles for enhancing the resilience of ecosystem services. *Annual Review of Environment and Resources*. 37 (2012). p.421-448.

**Curran, P., Thompson, P.J. and Knight, A.**

**Curran, P., Smedley, D.A., Thompson, P.J. and Knight, A.** (2012) Mapping restoration opportunity for collaborating with land managers in a carbon credit-funded restoration program in the Makana Municipality, Eastern Cape, South Africa. *Restoration Ecology*. 20 (1). p.56-64.

**Davenport, N.A., Shackleton, C.M. and Gambiza, J.**

**Davenport, N.A., Shackleton, C.M. and Gambiza, J.** (2012) The direct use value of municipal commonage goods and services to urban households in the Eastern Cape, South Africa. *Land Use Policy*. 29 (3). p.548-557.

**Ellery, W.N.**

**Ellery, W.N.,** Grenfell, S.E., Grenfell, M.C.,

Humphries, M.S., Barnes, K., Dahlber, A. and Kindness, A. (2012) Peat formation in the context of the development of the Mkuze floodplain on the coastal plain of Maputaland, South Africa. *Geomorphology*. 141-142 (2012). p.11-20.

Kotze, D., **Ellery, W.N.,** MacFarlane, D.M. and Jewitt, G.P.W. (2012) A rapid assessment method for coupling anthropogenic stressors and wetland ecological condition. *Ecological Indicators*. 13 (1). p.284-293.

**Kaschula, S.A.H. and Shackleton, C.M.**

**Kaschula, S.A.H. and Shackleton, C.M.** (2012) How do HIV & AIDS impact the use of natural resources by poor rural populations? The case of wild animal products. *South African Journal of Science*. 108 (1/2). p.46-54.

**Powell, M.F.**

**Pool, J.R.F., Ripley, B.S. and Powell, M.F.** (2012) The carbon content of *Portulacaria afra* (L.) Jacq. *South African Journal of Botany*. 79 (2012). p.206-207.

**Shackleton, C.M.**

Mahapatra, A.K. and **Shackleton, C.M.** (2012) Exploring the relationship between trade and natural products, cash income and livelihoods in tropical forest regions of Eastern India. *International Forestry Review*. 14 (1). p.62-73.

Pandey, A.K. and **Shackleton, C.M.** (2012) The effect of harvesting approaches, fruit yield, embelin concentration and regrowth dynamics of a forest shrub *Embelia tsjeriam-cottam* in central India. *Forest Ecology and Management*. 266 (2012). p.180-186.

**Shackleton, C.M.** (2012) Is there no urban forestry or greening in the developing world?. *Scientific Research and Essays*. 7 (40). p.3329-

# ENVIRONMENTAL SCIENCE

3335.

*Shackleton, S.E.*

**Shackleton, S.E.** (2012) Prickly Pear: the social history of a plant in the Eastern Cape. *African Journal of Range & Forage Science*. 29 (3). p.157-158.

*Shackleton, S.E. and Shackleton, C.M.*

**Shackleton, S.E. and Shackleton, C.M.** (2012) Linking poverty, HIV/AIDS and climate change to human and ecosystem vulnerability in southern Africa: consequences for livelihoods and sustainable ecosystem management. *International Journal of Sustainable Development and World Ecology*. 19 (3). p.275-286.

*Thondhlana, G. and Shackleton, S.E.*

**Thondhlana, G., Vedeld, P. and Shackleton, S.E.** (2012) Natural resource use, income and dependence among San and Mier communities bordering Kgalagadi Trans-frontier Park, southern Kalahari, South Africa. *International Journal of Sustainable Development and World Ecology*. 19 (5). p.460-470.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Clarke, C.L.*

**Clarke, C.L.** Responses to the linked stressors of climate change and HIV/AIDS among vulnerable rural households in the Eastern Cape, South Africa. *Global Change conference*. Johannesburg. South Africa. November 2012.

*Cundill, G.*

**Cundill, G.** Toward reflexively tracking change in complex systems. *Complexity Forum*.

Stellenbosch. South Africa. October 2012.

**Cundill, G.** The implications of complexity thinking for South Africa. *Complexity Forum*. Stellenbosch. South Africa. October 2012.

*Cundill, G. and Shackleton, S.E.*

**Cundill, G., Shackleton, S.E. and Lotz-Sisitka, H.** Community-led social learning innovation model for adaptation to climate change. *4th International Ecosummit. Ecological sustainability: restoring the planet's ecosystem services*. Columbus University, Ohio. USA. October 2012.

*Cundill, G., Thondhlana, G., Blore, M.L. and Shackleton, S.E.*

**Cundill, G., Thondhlana, G., Blore, M.L. and Shackleton, S.E.** Land claims and the unquestioned pursuit of co-management on protected areas in South Africa. *Old land - new land? the changing face of land and conservation in postcolonial Africa*. Rhodes University, Grahamstown. South Africa. September 2012.

*Ellery, W.N.*

**Ellery, W.N., Elkington, L.B., McGregor, G.K., Cowling, R.M. and Schroeder, D.H.** The Oyster Bay headland bypass dunefield, Eastern Cape: interactions between slow and fast variables lead to unpredictable catastrophic events. *Southern African Society of Aquatic Scientists conference*. Cape St Francis. South Africa. July 2012.

*Gambiza, J. and Shackleton, C.M.*

**Gambiza, J. and Shackleton, C.M.** Seedling survival and nurse plants of *Aloe ferox*. *Annual Thicket Forum*. The Monument, Grahamstown. South Africa. September 2012.

*Lunderstedt, K.E.*

**Lunderstedt, K.E.** Quantifying the rate of natural vegetation recovery and changes in

species composition on old lands, for a small private nature reserve, Bathurst, Eastern Cape. *Annual Thicket Forum*. The Monument, Grahamstown. South Africa. September 2012.

*Munro, S.A.*

**Munro, S.A.** Local ecological knowledge of *Portulacaria afra* amongst commercial farmers in the Sundays River Valley. *Annual Thicket Forum*. The Monument, Grahamstown. South Africa. September 2012.

*Shackleton, C.M.*

**Alexander, J.K., Cocks, M.L. and Shackleton, C.M.** Cultural environmental narratives and perceptions: potential for improved community connection to and protection of landscapes. *Old Lands: New Practices Conference*. Eden Groove, Grahamstown. South Africa. September 2012.

*Shackleton, C.M. and Shackleton, S.E.*

**Shackleton, C.M. and Shackleton, S.E.** Natural resource richness mitigates against income poverty and livelihood vulnerability. *International conference on strategies to overcome poverty and inequality: towards Carnegie*. Not known, Cape Town. South Africa. September 2012.

*Shackleton, S.E.*

**Shackleton, S.E. and Cobbin, L.** Who is most vulnerable to climate change in the Eastern Cape and why? *First national conference on global change*. Birchwood Hotel, Boksburg. South Africa. November 2012.

**Shackleton, S.E., Tschakert, P., Koelle, B., Alston, M., Sallu, S. and Ziervogel, G.** Limits to adaptation. *Climate adaptation futures: 2nd international climate change adaptation conference*. University of Arizona, Tuscon. USA. May 2012.

Department of

## FINE ART

A strong presence was displayed at the National Arts Festival with multiple involvements on the Main Programme of the Festival.

Detail of 'Vlug' on 'Maria's Story', a one-person exhibition by Maureen de Jager at the 2012 National Arts Festival Main Programme.

*Photo: Paul Greenway*



The Fine Art Department has experienced a productive year in terms of research, resulting in a broad range of research outputs, including both academic and those embracing creative research as practice.

The Rhodes Fine Art Research Focus Area, ViPPA, continues to engage actively with aligned research in the visual arts through associated researchers and postgraduate students.

Staff had nine (9) accredited journal articles published and fourteen (14) additional publications.

Research papers were presented at four (4) international and two (2) national conferences. Active participation in art exhibitions included six (6) group shows and two (2) solo exhibitions.

In addition, staff members were also involved in the research and curation of six (6) exhibitions and art performances. The department graduated five (5) Master of Fine Art students and one (1) PhD in Art History.



# FINE ART

## Significant Research Aligned Events

**Ms Maureen de Jager** was Artist in Residence and presented the solo exhibition 'Maria's Story' in the Standard Bank Gallery. **Ms Rat Western** was Co-director of *Discharge*; an ambitious multi-disciplinary collaborative performance. **Professor Ruth Simbao** was researcher and curator of *Making Way: Contemporary Art from South Africa & China* which saw an integrated exhibition installed in three venues. A book of the same title was published in support of the exhibition. **Ms Christine Dixie** was awarded a Smithsonian Artist Research Fellowship in Washington D.C. where she presented the exhibition *The Heroic Explorer and Angelic Girl* at the National Museum of African Art. **Mr Brent Mestre** was the recipient of an artist's residency at the Nirox Foundation - Cradle of Humankind in Johannesburg where he engaged with videography work.

Internationally **Ms Nomusa Makhubu** presented a research paper at the AICA Congress in Zurich, Switzerland, **Professor Brenda Schmähmann** at conferences in Germany and Northern Ireland, and **Mr Brent Mestre** in the United Kingdom.

## Distinguished Visitors/ Overseas Visits

The department hosted five distinguished visitors including *Art South Africa* editor Dr Bronwyn Law-Viljoen and artists Mr Randy Hartzenberg, Mr Doung Anwar Jahangeer, Mr Athi-Patra Ruga, and Ms Diane Victor.

**Professor Dominic Thorburn**

Head of Department

## Books/Chapters/Monographs

*Simbao, R.*

**Simbao, R.** (ed.) (2012) *Making Way: Contemporary Art from South Africa & China*. Grahamstown: VIPAA. ISBN: 9780868104775.

## Concerts, Exhibitions, Performances, Workshops, Events

*De Jager, M.S.*

**De Jager, M.S.** Artist: one-person exhibition. 'Maria's Story'. *National Arts Festival Main Programme*. Albany History Museum, Grahamstown. South Africa. 15 June - 15 October 2012.

*Dixie, C.B.*

**Dixie, C.B.** Smithsonian Artist Research Fellowship. *The Heroic Explorer and Angelic Girl*. National Museum of African Art, Washington D.C. 1 September - 31 October 2012.

*Makhubu, N.*

**Makhubu, N.** Exhibitor. *Re-Sampled*. ABSA Art Gallery, Johannesburg. South Africa. 25 - 26 October 2012.

*Malatjie, L.P.*

**Malatjie, L.P.** Curator. *display*. Goetheon Main and Ansteys Building, Johannesburg. South Africa. 18 July - 4 August 2012.

**Malatjie, L.P.** Researcher. *Jackson Hlungwane Retrospective Exhibition*. Polokwane Art Museum, Polokwane. South Africa. 1 January - 31 December 2012.

**Malatjie, L.P.** Coordinator. *Jackson Hlungwane Seminar*. Polokwane Art Museum, Polokwane. South Africa. 9 March 2012.

**Malatjie, L.P.** Curator. *MTN New*



'Family portrait' on 'Maria's Story', a one-person exhibition by Maureen de Jager at the 2012 National Arts Festival Main Programme. Photo: Paul Greenway

*Contemporaries Award 2012*. Castle of Goodhope B Block, Cape Town. South Africa. 12 December - 25 January 2012.

**Malatjie, L.P.** Curator. *Transference*. Johannesburg Art Gallery, Johannesburg. South Africa. 26 February - 22 April 2012.

*Mestre, B.A.*

**Mestre, B.A.** Exhibitor. *L'Afrique en mouvement*. International Black Film Festival. CINÉMATHEQUE QUÉBÉCOISE, Montreal. Canada. 19 September - 30 January 2012.

**Mestre, B.A.** Two - Person Show. 6 works from Sojourn series. *Sojourn /Landskap*. Photographers Gallery, Cape Town. South Africa. 21 November - 31 December 2012.

**Mestre, B.A.** Artist Residency. Nirox Foundation- Cradle of Humankind. *Across my Fathers Fault*. Nirox Foundation, Krugersdorp. South Africa. 28 June - 12 July 2012.

**Mestre, B.A.** Exhibitor. "INexactly THIS. *Kunstvlaai: Festival of Independents*. Sandberg Instituut, Amsterdam. Netherlands. 23 November - 2 December 2012.

**Mestre, B.A.** Curator (with Khaled Hafez). Arab Spring: The Video Diaries & Field Statements. *Highway Africa*. Eden Grove Seminar Room 3, Grahamstown. South Africa. 9 September 2012.

**Mestre, B.A.** Exhibitor. A Stranger who came with a book in the crook of his arm & The Stranger who licked salt back

# FINE ART

into our eyes. *Making Way: Contemporary Art from South Africa & China*. Fort Selwyn, Grahamstown. South Africa. 28 June - 8 July 2012.

*Poole, T.K.*

**Poole, T.K.** Exhibitor. *Facing the Future: Portraits for Africa*. Liebrecht Gallery, Somerset West, Western Cape, South Africa. 5 December 2012 - 2 February 2013.

**Poole, T.K.** Participant. Arts Writing Workshop. *Leader - Bronwyn Law-Viljoen*. Rhodes University, Grahamstown, South Africa. 9 - 10 July 2012.

*Simbao, R.*

**Simbao, R.** Curator. *Making Way: Contemporary Art from South Africa and China*. National Arts Festival: Main Programme. Alumni Gallery, the Provost and Fort Selwyn, Grahamstown. South Africa. 28 June - 8 July 2012.

*Thorburn, D.*

**Thorburn, D.** Participant. Arts Writing Workshop. *Leader - Bronwyn Law-Viljoen*. Rhodes University, Grahamstown. South Africa. 9 - 10 July 2012.

**Thorburn, D.** Delegate. Visual Arts Indaba 2012. *Department of Arts and Culture (DAC)*. Cedar Park Hotel & Conference Centre, Johannesburg. South Africa. 25 - 26 October 2012.

*Western, N.A.*

**Western, N.A., Parker, A.C. and Krastin, G.J.** Co-Director/Performer/Set and Sound Designer. Collaborative, Multidisciplinary Performance. Main Stage, National Arts Festival. *DISCHARGE*. First City Military Hangar, Grahamstown. South Africa. 3 - 7 July 2012.

## Distinguished Visitors

**Mr Randolph Hartzenberg.** Cape Peninsular University of Technology, Cape Town, South

Africa. *Lecture and Performance*. July 2012.

**Mr Doung Anwar Jahangeer.** Dala, Durban, South Africa. *Lecture and Performance*. May 2012.

**Dr Bronwyn Law-Viljoen.** Fourthwall Books, Johannesburg, South Africa. *Writing Workshop*. July 2012.

**Mr Athi-Patra Ruga.** What if the world Gallery, Cape Town, South Africa. *Lecture and Performance*. April 2012.

**Ms Diane Victor.** Independent artist, Johannesburg, South Africa. *Guest lecturer*. September 2012.

## Other Publications

*De Jager, M.S.*

**De Jager, M.S.** (2012) Editor. In: De Jager, M.S. (ed.). *Trans: Narratives of Memory / History / Family in Maria's Story*. Grahamstown: Maureen de Jager.

**De Jager, M.S.** (2012) Introduction: Precarious Stories. In: de Jager, M. (ed.). *Trans: Narratives of Memory / History / Family in Maria's Story*. Grahamstown: Maureen de Jager.

*Heymans, S.*

**Heymans, S.** (2012) "Artists' Biographies". In: *Making Way: Contemporary Art from South Africa and China*. Grahamstown: VIPAA.

*Makhubu, N.*

**Makhubu, N.** (2012) Closed Circuit: Three Hundred and Sixty Degrees with Mikhael Subotzky. In: *Cue*. Grahamstown: CueMedia Rhodes University.

**Makhubu, N.** (2012) Tipping the gallery- a social turn. In: *Cue*. Grahamstown: CueMedia Rhodes University.

**Makhubu, N.** (2012) Thoughts on the First-



'Discharge' Maxwell Farouk. Photo: Charlton Reimers

Wave of Contemporary Performance Art in South Africa. In: Stemberger, M.C. (ed.). *Exhibition Catalogue: Alterating Conditions*. Berlin, Germany-South Africa: Bag Factory Artists' Studios and Goethe-Institut.

**Makhubu, N.** (2012) Photography and activism. In: *Cue*. Grahamstown: CueMedia Rhodes University.

*Malatjie, L.P.*

**Malatjie, L.P.** (2012) Performing Gendered Identities: Tracey Rose, Mary Sibande, Nandipha Mntambo. In: Stemberger, C.M. (ed.). *Alterating Conditions: Performing Performance Art in South Africa*. Berlin,

Germany-South Africa: Bag Factory Artists' Studios and Goethe-Institut.

**Malatjie, L.P.** (2012) Different Kinds of Collaborations on the MTN New Contemporaries Awards 2012. In: Hobbs, P. and Malatjie, L.P. (eds.). *ArtTalk*. South Africa: MTN SA Foundation.

**Malatjie, L.P.** (2012) A Collaborative Effort. In: Hobbs, P. and Malatjie, P. (eds.). *MTN New Contemporaries Awards 2012*. South Africa: MTN SA Foundation.

**Malatjie, L.P.** (2012) dis/play. In: Malatjie, L.P. and Assemblage, (eds.). *dis/play*. South Africa: dis/play project.



# FINE ART



Doung Anwar Jahangeer's performance, *The Other Side with the Matebese Family* for the *Making Way* exhibition curated by Ruth Simbao at the National Arts Festival 2012. Photo: Ruth Simbao

*Meistre, B.A.*

**Meistre, B.A.** (2012) Best of Six Highlights. In: *Art South Africa*. Cape Town: Suzette and Brendon Bell-Roberts.

*Simbao, R.*

**Simbao, R.** (2012) "Making Way: Opening up the Road". In: Simbao, R. (ed.). *Making*

*Way: Contemporary Art from South Africa and China*. Grahamstown: ViPAA.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Baasch R.M.*

**Baasch R.M.** (2011) Between a cushion and

a risky conversation. *De Arte*. 84. p.85-90.

*Bronner, I.*

**Bronner, I.** (2012) The 'person without the person' in the early work of Paul Emmanuel. *De Arte*. 85 (2012). p.42-58.

*De Jager, M.S.*

**De Jager, M.S.** (2012) Mikhael Subotzky (exhibition review). *Art South Africa*. 11 (01). p.76-77.

*Makhubu, N.*

**Makhubu, N.** (2012) Violence and the cultural logics of pain: representations of sexuality in the work of Nicholas Hlobo and Zanele Muholi. *Critical Arts: A Journal of South-North Cultural and Media Studies*. 26 (4). p.504-524.

**Makhubu, N.** (2012) The Peculiar Language of Material. *Art South Africa*. 10 (4). p.39-42.

*Schmahmann, B.*

**Schmahmann, B.** (2012) Developing Images of Self: Childhood, Youth and Family Photographs in Works by Three South African Women Artists. *African Arts*. 45 (4). p.8-21.

*Simbao, R.*

**Simbao, R.** (2012) Figures & Fictions: Contemporary South African Photography. *Kronos: Southern African Histories* (Kronos: Journal of Cape History). 38 (2012). p.272-275.

**Simbao, R.** (2012) China-Africa Relations: Research Approaches. *African Arts*. 45 (2). p.1-7.

*Western, N.A.*

**Western, N.A.** (2012) Suspense, the serious and the superman. *De Arte*. 85 (2012). p.68-72.

## Research Papers Presented at Academic/Scientific Conferences

## (Proceedings, Booklets and Attendance)

*Makhubu, N.*

**Makhubu, N.** I Will Not Say Discourse: The Venom in Restless Text. *AICA Congress*. University of Zurich, Zurich. Switzerland. July 2012.

*Meistre, B.A.*

**Meistre, B.A.** Scrubbing Ground: Representations of Trauma in South African Landscape. *Affective Landscapes*. University of Derby, Derby. United Kingdom. May 2012.

*Schmahmann, B.*

**Schmahmann, B.** Memories of Childhood in the Works of South African Women Artists'. *SAVAH Conference*. University of South Africa, Pretoria. South Africa. July 2012.

**Schmahmann, B.** Embroidery the Facts? Markets and the subject matter of works by the Mapula project in South Africa. *CIHA Congress on The Challenge of the Object*. Germany National Museum, Nuremburg. Germany. July 2012.

**Schmahmann, B.** Reworking the Ghent Altarpiece in the Keiskamma Art Project's Creation Altarpiece. *Kevin Carroll Conference on African Christian Art*. Dromantine Conference and Retreat Centre, County Down. Northern Ireland. October 2012.

*Simbao, R.*

**Simbao, R.** "Artists and New Mobilities: Re-Visualising the China-Africa Debate. *Chinese in Africa/Africans in China conference*. Monash University, Johannesburg. South Africa. September 2012.



# GEOGRAPHY

## Department of GEOGRAPHY

The staff and students of the Department of Geography had a productive year and through their research were able to contribute both locally and internationally in the various disciplines that make up Geography.

Honours student Rosie Dwight measuring rock hardness for her research project, which was awarded the prize for the best poster at the Southern African Association of Geomorphologists Conference in September 2012. Her poster also came second in an ESRI competition for young researchers using GIS.



A significant highlight was the final publication of a special edition of the journal *Land Degradation and Development*, edited by Professors Kate Rowntree, Ian Foster and Ian Meiklejohn.

The published papers followed the Department of Geography's hosting of the Southern African Association of Geomorphology conference in 2010. Research was conducted, and findings were presented, in a wide range of locations that included Antarctica, Namibia, Germany, Denmark, Sweden, Finland, the USA, Canada, and China.

## Postgraduates/Graduations

Students in the Department of Geography performed exceptionally through the year and showed that they are able to compete both nationally and internationally. **Philippa Kleyn** and **Sarita Pillay** won prizes for the best presentations in their respective fields at the annual Geography Students conference in June 2012 in Cape Town.

**Rebecca Joubert** and **Rosie Dwight** won prizes for the best student oral and poster presentations at the Southern African Association of

# GEOGRAPHY



David Scott, Dr Gwynneth Matcher, Rosie Dwight and Professor Ian Meiklejohn; the Rhodes contingent working in Western Dronning Maud Land Antarctica during the 2012/2013 Austral Summer.

Geomorphologists Conference held at the Desert Research Station at Gobabeb in Namibia in September.

**Sarita Pillay**, our top Honours Student in 2012, was awarded a Fullbright Scholarship to read for her Masters in the USA.

## Distinguished Visitors/ Overseas Visits

A group of twelve (12) students and four (4) Faculty members from the University of Northern British Columbia, visited South Africa in May 2012 and undertook a three-

week excursion through the southern parts of South Africa together with Geography Honours students and others from the University of Pretoria. The material covered, and mini-research projects undertaken, formed part of the academic curriculum at all three institutions.

**Professors Roddy Fox and Kate Rowntree** visited Linköping University, Sweden, where they finalised an inter-institutional agreement funded by the Linnaeus-Palme program that includes research collaboration, as well as staff and student exchanges. Both Professors also attended the Third SANORD International symposium in Denmark on 'Strengthening the Role of Universities as hubs of development through the Southern African-Nordic University Centre.'

Professor Rowntree literally flew around the world to present papers and investigate potential collaboration in Europe, the USA and China, and the details of her presentations are outlined below.

## Significant Research Aligned Events

**Professor Ian Meiklejohn** and two (2) Masters students from the Department of Geography, **Ms Rosie Dwight** and **Mr David Scott**, together with **Dr Gwynneth Matcher** from the Department of Biochemistry, Microbiology and Biotechnology, spent the 2012-2013 Austral Summer in the Antarctic undertaking research which is part of the South African National Antarctic Programme (NRF) funded project on Landscape Processes in Antarctic Ecosystems.

**Professor Ian Meiklejohn**

Head of Department

# GEOGRAPHY

## Books/Chapters/Monographs

*Meiklejohn, K.I.*

Sumner, P.D., Hall, K.J., **Meiklejohn, K.I.** and Nel, W.N. (2012) Weathering. In: Holmes, P.J. and Meadows, M. (eds.). *Southern African Geomorphology: Recent Trends and New Directions*. Bloemfontein: SUN MeDIA. p.75-93. ISBN: 9781920382025.

*Rowntree, K.M.*

**Rowntree, K.M.** (2012) Fluvial Geomorphology. In: Holmes, P.J. and Meadows, M. (eds.). *Southern African Geomorphology: Recent Trends and New Directions*. Bloemfontein: SUN MeDIA. p.97-140. ISBN: 9781920382025.

## Distinguished Visitors

**Prof P.M Assmo.** Linköping University, Linköping, Sweden. *Teaching*. February 2012.

**Prof J.D. Boelhouwers.** University of Upsalla, Upsalla, Sweden. *Research, teaching*. August 2012.

**Prof I. Foster.** University of Northampton, Northampton, England. *Research, teaching, conference*. August 2012.

**Prof J.D. Hooke.** University of Liverpool, Liverpool, England. *Research*. April 2012.

**Prof K.M. Ibsen.** Karslstad University, Karslstad, Sweden. *Research*. October 2012.

**Prof A.J. Parsons.** University of Sheffield, Sheffield, England. *Lecture*. August 2012.

## Other Publications

*Lewis, C.A.*

**Lewis, C.A.** (2012). In: *Henry Williams, The Glasbury Bellfounder And The Production and Tuning of Bells*. United Kingdom: The Whiting Society of Ringers.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Mcgregor, G.K.*

Clark, V.R., Perera, S.J., Stiller, M.J., Stirton, C.H., Weston, P.H., Stoev, P., **Coombs, G., Morris, D.B., Ratnayake-Perera, D., Barker, N.P. and Mcgregor, G.K.** (2012) A rapid multi-disciplinary biodiversity assessment of the Kamdebooberge (Sneeuberg, Eastern Cape, South Africa): implications for conservation. *SpringerPlus*. 1 (56). p.1-10.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Foster, I.*

Bateman, M., Bryant, R.G., **Foster, I.**, Livingstone, I. and Parsons, A.J. (2012) On the formation of sand ramps: A case study from the Mojave Desert. *Geomorphology*. 161-162 (2012). p.93-109.

*Foster, I. and Rowntree, K.M.*

Mighall, T.M., **Foster, I., Rowntree, K.M.** and Boardman, J. (2012) Reconstructing recent land degradation in the semi-arid Karoo of South Africa: a palaeoecological study at Compassberg, Eastern Cape. *Land Degradation & Development*. 23 (6). p.523-533.

**Foster, I. and Rowntree, K.M.** (2012) Sediment yield changes in the semi-arid Karoo: a palaeoenvironmental reconstruction of sediments accumulating in Cranemere Reservoir, Eastern Cape, South Africa. *Zeitschrift Fur Geomorphologie*. 56 (3). p.131-146.

**Foster, I., Rowntree, K.M., Boardman, J. and Mighall, T.M.** (2012) Changing sediment

yield and sediment dynamics in the Karoo uplands, South Africa: post-European impacts. *Land Degradation & Development*. 23 (6). p.508-522.

*Grenfell, S.E. and Rowntree, K.M.*

**Grenfell, S.E., Rowntree, K.M.** and Grenfell, M.C. (2012) Morphodynamics of a gully and flood out system in the Sneeuberg Mountains of the semi-arid Karoo, South Africa: *Implications for local landscape connectivity*. *Catena*. 89 (1). p.8-21.

*Kirshner, J.D.*

**Kirshner, J.D.** (2012) "We are Gauteng people": Challenging the Politics of Xenophobia in Khutsong, South Africa. *Antipode*. 44 (4). p.1307-1328.

*Meiklejohn, K.I.*

Mortimer, E., Van Vuuren, B.J., **Meiklejohn, K.I.** and Chown, S.L. (2012) Phylogeography of a mite, *Halozetes fulvus*, reflects the landscape history of a young volcanic island in the sub-Antarctic. *Biological Journal of the Linnean Society*. 105 (1). p.131-145.

*Pool, J.R.F.*

**Pool, J.R.F., Ripley, B.S. and Powell, M.F.** (2012) The carbon content of *Portulacaria afra* (L.) Jacq. *South African Journal of Botany*. 79 (2012). p.206-207.

*Rowntree, K.M.*

Manjoro, M., Kakembo, V. and **Rowntree, K.M.** (2012) Trends in Soil Erosion and Woody Shrub Encroachment in Ngqushwa District, Eastern Cape Province, South Africa. *Environmental Management*. 49 (3). p.570-579.

*Rowntree, K.M. and Foster, I.*

**Rowntree, K.M. and Foster, I.** (2012) A reconstruction of historical changes in sediment sources, sediment transfer and

sediment yield in a small, semi-arid Karoo catchment, South Africa. *Zeitschrift Fur Geomorphologie*. 56 (1). p.87-100.

Manjoro, M., **Rowntree, K.M.**, Kakembo, V. and **Foster, I.** (2012) Gully Fan Morphodynamics in a Small Catchment in the Eastern Cape, South Africa. *Land Degradation & Development*. 23 (2012). p.569-576.

*Rowntree, K.M., Meiklejohn, K.I. and Foster, I.*

**Rowntree, K.M., Meiklejohn, K.I. and Foster, I.** (2012) Special issue on Landscape denudation or landscape degradation? Interrogating the geomorphic processes of landscape change in southern Africa. *Land Degradation & Development*. 23 (6). p.505-507.

*Smedley, D.A.*

**Curran, P., Smedley, D.A., Thompson, P.J. and Knight, A.** (2012) Mapping restoration opportunity for collaborating with land managers in a carbon credit-funded restoration program in the Makana Municipality, Eastern Cape, South Africa. *Restoration Ecology*. 20 (1). p.56-64.

*Smedley, D.A. and Rowntree, K.M.*

**Smedley, D.A. and Rowntree, K.M.** (2012) Rivers as borders, uniting or dividing? The effect of topography and implications for catchment management. *Water Science and Technology*. 66 (3). p.510-516.

*Van Der Waal, B.W. and Rowntree, K.M.*

**Van Der Waal, B.W., Rowntree, K.M. and Radloff, S.E.** (2012) The effect of *Acacia mearnsii* invasion and clearing on soil loss in the Kouga Mountains, Eastern Cape, South Africa. *Land Degradation & Development*. 23 (6). p.577-585.



# GEOGRAPHY



Honours student Rosie Dwight using a differential GPS to map a boulder for her research project, which was awarded the prize for the best poster at the Southern African Association of Geomorphologists Conference in September 2012. Her poster also came second in an ESRI competition for young researchers using GIS.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Chadzingwa, K.*

**Chadzingwa, K.** The effects of the underlying geology and geomorphology on soil and vegetation characteristic: consequences for recovery of dam levels after a drought. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia.

September 2012.

*Dwight, R.*

**Dwight, R.** Investigating rock hardness on a dolerite boulder, Komga, Eastern Cape. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Elkington, L.B., McGregor, G.K. and Schroeder, D.H.*

**Ellery, W.N., Elkington, L.B., McGregor, G.K., Cowling, R.M. and Schroeder, D.H.** The Oyster Bay headland bypass dunefield,

Eastern Cape: interactions between slow and fast variables lead to unpredictable catastrophic events. *Southern African Society of Aquatic Scientists conference*. Cape St Francis. South Africa. July 2012.

*Fox, R.C. and Rowntree, K.M.*

**Fox, R.C., Rowntree, K.M.** and Kaskinen, J.D. Futures Studies for the southern African region: 'from Africa' not 'on Africa'. *SANORD International Symposium*. Aarhus University, Aarhus. Denmark. June 2012.

*Hansen, C.*

**Hansen, C.** Near-surface temperature fluctuations observed on a Blockfield in Dronning Maud Land, Antarctica. *Biennial Conference of the Society of South African Geographers*. University of Cape Town, Cape Town. June 2012.

*Hansen, C.*

**Hansen, C.** Aspect Control on Weathering Observed on a Blockfield in Dronning Maud Land, Antarctica. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Irvine, P.M.*

**Irvine, P.M.** Post-Apartheid Racial Integration in Grahamstown: A Time-Geographical Perspective. *Biennial Conference of the Society of South African Geographers*. University of Cape Town, Cape Town. June 2012.

*Irvine, P.M.*

**Irvine, P.M.** Post-Apartheid Racial Integration in Grahamstown: a time-geographical perspective, within the Urban Utopias and Heterotopias: Theorising, Analysing and Evaluating Urban Spaces session. *International Geographical Union*. Not Known, Cologne. Germany. August 2012.

*Kirshner, J.D.*

**Kirshner, J.D.** Bordering Practices and the Politics of Local Demarcation in South Africa: The Case of Khutsong. Session: Identity Formation and Exclusion in Africa. *American Association of Geographers Annual Meeting*. New York. USA. February 2012.

*Kirshner, J.D.*

**Kirshner, J.D.** Contesting Boundaries and Forging Solidarity in Khutsong, South Africa. *Biennial Conference of the Society of South African Geographers*. University of Cape Town, Cape Town. June 2012.

*Mabuza, N.*

**Mabuza, N.** An investigation of geomorphic connectivity in the middle reaches of the Baviaanskloof catchment, Eastern Cape, South Africa. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Meiklejohn, I. and Lee J.*

**Meiklejohn, I. and Lee J.** The Active Layer Environments in parts of Western Dronning Maud Land, Antarctica. *Biennial Conference of the Society of South African Geographers*. University of Cape Town, Cape Town. June 2012.

*Meiklejohn, I., Lee J., le Roux, P.C. and Chown S.L.*

**Meiklejohn, I., Lee J., le Roux, P.C. and Chown S.L.** Active layer landforms and biological interactions in Western Dronning Maud Land, Antarctica. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Moeller, J.*

**Moeller, J.** Using ICTs to Understand Multiple-Use Water Services in Rural South

# GEOGRAPHY

Africa. Session: Mobile phone data and geographic modelling. *American Association of Geographers Annual Meeting*. New York. USA. February 2012.

*Rowntree, K.M.*

**Rowntree, K.M.** Boulder transport during an extreme flood event in the Sneeu Berg Mountains, Karoo, South Africa. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

**Rowntree, K.M.** A political geocological framework for the conservation and management of Africa's riverine ecosystems. *Ecosummit, Ecological Sustainability Restoring the Planet's Ecosystem Services*. Convention Centre, Ohio. USA. October 2012.

*Rowntree, K.M., Mzobe, P.N. and Van Der Waal, B.W.*

**Rowntree, K.M., Mzobe, P.N. and Van Der Waal, B.W.** Sediment source tracing in the Thina catchment, Eastern Cape, South Africa. *Erosion and Sediment Yields in the Changing Environment*. Institute of Mountain Hazards and Environment, Chengdu. China. October 2012.

*Sahula, A.*

**Sahula, A.** Investigating the biological responses of freshwater shrimp (*Caridina nilotica*), to suspended sediment. *Biennial conference of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Schroeder, D.*

**Schroeder, D.** Bedload sediment fluxes along the Sand River, Oyster Bay headland bypass dunefield: Implications for sediment delivery to St Francis Bay. *Biennial conference*



Namib Dunes, near the Desert Research Station, Gobabeb, Namibia. The Southern African Association of Geomorphologists Conference was held here in September 2012.

*of the Southern African Association of Geomorphologists*. Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Van Der Waal, B.W.*

**Van Der Waal, B.W.** Predicting sediment related habitat change in non-perennial river systems: a Geomorphological Response Model. *Biennial conference of the Southern African Association of Geomorphologists*.

Gobabeb Desert Research Station, Gobabeb. Namibia. September 2012.

*Van Der Waal, B.W. and Rowntree, K.M.*

**Van Der Waal, B.W. and Rowntree, K.M.** A Geomorphological Response Model for predicting sediment-related habitat change in ephemeral rivers. *Erosion and Sediment Yields in the Changing Environment*. Institute

of Mountain Hazards and Environment, Chengdu. China. October 2012.

# GEOLOGY

## Department of GEOLOGY

In 2012 the Department of Geology welcomed two new faculty members, Professors Yong Yao (Exploration Geology) and Annette Götz (Sedimentology & Palynology), as well as the installation and operation of a new JEOL electron microprobe.

The “Grand Opening” of the newly purchased R8M electron probe microanalyser, 9 November 2012.

Dr Saleem Badat (Vice Chancellor) and Ms Lindiwe Thabede (Programme Officer, Strategic Platforms Programme, NRF) officially cut the ribbon on the new JEOL electron probe, Department of Geology.

*Photo: Desiree Schirlinger*



With the addition of new staff members and the pending retirement of another, there was a slight drop in journal publications in 2012, but an increase in research activity in general which should be reflected in future outputs and graduations.

The department produced nine (9) journal publications, one (1) scientific magazine article, and twenty-two (22) conference presentations (up significantly from 2011), plus hosted twelve (12) distinguished visitors from abroad for research-related interactions, and three (3) international visits by Rhodes staff to visit colleagues abroad, with particular interest in the Democratic Republic of the Congo.

Much of the department's productivity in 2012 can be attributed to the efforts of **Professor Götz**, who produced four (4) journal articles and ten (10) conference abstracts



# GEOLOGY

during her first year at Rhodes, while also acquiring her NRF rating and applying for research grants.

**Dr Tsikos** and **Dr Büttner** continued to be productive while investing time in long-term research grants and in analytical acquisitions and infrastructural refinements respectively, both of which should bear research fruit in the next few years.

The new electron microprobe was particularly busy since it became operational in April 2012, and this productivity should also manifest in probe-derived publications commencing in 2013.

On the grounds that the publications and research activities from Professor Götz, **Dr R Prevec**, and to some extent those of Dr Tsikos are directed towards the interactions between lithosphere and the biosphere, arguably the emphasis of departmental research has, at least temporarily, shifted away from the traditional focus on high-temperature processes.

The arrival of a new junior staff member in Metamorphic Geology, pending in 2013, represents an exciting development to sustain a two-pronged research emphasis amongst the academic research staff.

## Postgraduates/Graduations

In keeping with our commitment to the development of research capacity in South and Southern Africa, we celebrated the graduation of a number of students at the graduation ceremony in April 2012. These included seven (7) PhD students and forty-two (42) Masters students.

## Distinguished Visitors/ Overseas Visits

The Department was particularly well-favoured in terms of international visitors, who brought specialist expertise with emphasis on multidisciplinary studies of Karoo Geology, and several with particular interest in the Earth's most devastating mass extinction event 250 million years ago.

Visitors with this inclination included Professor Robert Gastaldo (Colby College, USA), Professor John Geissman (University of Texas, USA), and Dr Sandra Kamo (University of Toronto, Canada). Other visitors with research interests involving palaeontology and/or interactions between the biosphere and geosphere included Dr Conrad Labandeira (Smithsonian Institute, USA), Professor Simon Poulton (Leeds University, UK) and Dr Carolyn Jones (University of Southern Denmark, Denmark).

## Significant Research Aligned Events

The Department was very pleased to report the operational installation of its new R8M electron probe microanalyser in April 2012, purchased from JEOL (Japan) courtesy of generous contributions from the NRF and Rhodes University. The application was driven by Dr Steffen Büttner, with **Professor J.S. "Goonie" Marsh** as Principal Investigator and **Dr Gelu "Gabi" Costin** as prospective analyst and technical specialist. This addition, formally inaugurated in October 2012, represents a major upgrade in our research and training capacity.



Professor Goonie Marsh (right), Principal Investigator on the NRF's Research Infrastructure Support Programme grant proposal, and Dr Gabi Costin, Instrument Scientist, with the new probe.

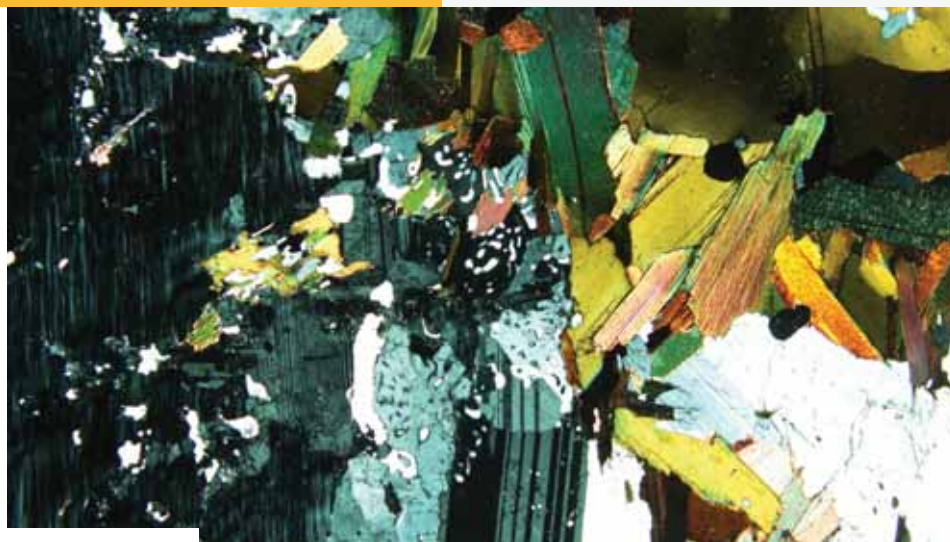
*Photo: Desiree Schirlinger*

The Department has continued to maintain its high recent levels of postgraduate research activity, and with our new analytical equipment and research projects, as well as new staff, we look forward to the next few years of research activity in the Geology Department.

**Dr Steve Prevec**

Head of Department

# GEOLOGY



Feldspars, biotite and quartz in granite

## Distinguished Visitors

**Prof N Arndt.** University of Grenoble, Grenoble, France. *Public lecture on behalf of Geological Society of South Africa; du Toit Memorial Lecture series.* August 2012.

**Prof M Bamford.** Bernard Price Institute for Palaeontology, School of Geoscience, University of the Witwatersrand, Johannesburg, South Africa. *Research collaboration with Dr R. Prevec.* May 2012.

**Prof B Dawson.** School of Geosciences, University of Edinburgh, Edinburgh, U.K. *Public lecture.* December 2012.

**RA Gastaldo.** Colby College, Waterville, Maine, U.S.A. *Field work; research visit (to Dr R. Prevec).* January 2012.

**Prof J Geissman.** University of Texas, Dallas, Texas, U.S.A. *Field work; research visit (to*

*Dr R. Prevec).* January 2012.

**Prof J Harris.** School of Geographical & Earth Sciences, University of Glasgow, Glasgow, U.K. *Public lecture.* December 2012.

**Dr CA Jones.** University of Southern Denmark, Odense, Denmark. *Collaboration/Field work.* March 2012.

**S Kamo.** University of Toronto, Toronto, Canada. *Field work; research visit (with Dr R. Prevec).* January 2012.

**CC Labandeira.** Smithsonian Institute, Washington D.C., U.S.A. *Research collaboration, through Hugh Kelly Fellowship (6 months).* April 2012.

**Mr M Linklater.** Elemental Minerals Limited, Sintoukola, D.R. Congo. *Professional exchange; public lecture.* August 2012.

**J Neveling.** Council for Geoscience, Pretoria,

South Africa. *Field work; research visit (with Dr R. Prevec).* January 2012.

**Prof S Poulton.** Leeds University, Leeds, UK. *Collaboration/Field work.* March 2012.

## International Visits

*Büttner, S.H.*

**Büttner, S.H.** Banro Ltd., DRC, Bukavu, DRC. *Field investigations at Banro Ltd's gold exploration areas, South Kivu, DRC.* 25 August - 1 September 2012.

*Costin, G.*

**Costin, G.** Jean Monnet University (UJM) at Saint-Etienne and Blaise Pascal University (BPU) at Clermont-Ferrand, Saint-Etienne and Clermont-Ferrand, France. *Cooperation on mineralogy and petrology of Roberts Victor eclogites, microtextures of sheared peridotites (Kimberley) visit of the EPMA laboratory; developing Memorandum of Understanding between RU and UJM.* 20 June - 10 July 2012.

*Prevec, S.A.*

**Prevec, S.A.** Skorpion & Rosh Pinah Mines, Rosh Pinah, Namibia. *Reconnaissance research planning visit, dissemination of research.* 12 - 20 October 2012.

*Yao, Y.*

**Yao, Y.** Banro Limited; Catholique University of Bukavu, Bukavu, D.R. Congo. *Field visit & research collaboration & student recruitment visit.* 25 January - 1 February 2012.

## Other Publications

*Prevec, R.*

**Prevec, R.** (2012) The life of coal. In: *Quest.* Noordhoek, South Africa: Academy of Science for South Africa.

## Peer Reviewed Subsidy-Earning

## Journal Research Publications

*Büttner, S.H.*

**Büttner, S.H.** (2012) Rock Maker: an MS Excel spreadsheet for the calculation of rock compositions from proportional whole rock analyses, mineral compositions, and modal abundance. *Mineralogy and Petrology.* 104 (1-2). p.129-135.

*Cabral, A.R.*

**Cabral, A.R.,** Koglin, N., Gomes, I. and Lehmann, B. (2012) Xenotime-hematite aggregates on opaline filaments: evidence for biomineralization in weathered siliciclastic rocks, Capanema, Quadrilátero Ferrífero of Minas Gerais, Brazil. *International Journal of Earth Sciences.* 101 (1). p.377-383.

*de Klerk, W.J.*

**Choiniere, J.N.,** Forster, C.A. and **de Klerk, W.J.** (2012) New information on *Nqwebasaurus thwazi* a coelurosaurian theropod from the Early Cretaceous Kirkwood Formation in South Africa. *Journal of African Earth Sciences.* 71-72 (2012). p.1-17.

*Denison, J.A.N.*

**Denison, J.A.N.** and **Wotshela, L.** (2012) An Overview of Indigenous, Indigenised and Contemporary Water Harvesting and Conservation Practices in South Africa. *Irrigation and Drainage.* 61 (2). p.7-23.

*Eales, H. and Costin, G.*

**Eales, H. and Costin, G.** (2012) Crustally Contaminated Komatiite: Primary Source of the Chromitites and Marginal, Lower, and Critical Zone Magmas in a Staging Chamber Beneath the Bushveld Complex. *Economic Geology.* 107 (4). p.645-665.

*Götz, A.E.*

**Götz, A.E.** and Feist-Burkhardt, S. (2012) Phytoplankton associations of the Anisian



# GEOLOGY

Peri-Tethys Basin (Central Europe): Evidence of basin evolution and palaeoenvironmental change. *Palaeogeography Palaeoclimatology Palaeoecology*. 337-338 (2012). p.151-158.

Sass, I. and Götz, A.E. (2012) Geothermal reservoir characterization: a thermofacies concept. *Terra Nova*. 24 (2). p.142-147.

Pérez-López, A., Pérez-Valera, F. and Götz, A.E. (2012) Record of epicontinental platform evolution and volcanic activity during a major rifting phase: The Late Triassic Zamoranos Formation (*Betic Cordillera*, S Spain). *Sedimentary Geology*. 247-248 (2012). p.39-57.

Schumann, A., Arndt, D., Wiatr, T., Götz, A.E. and Hoppe, A. (2012) Extraction management optimisation with TLS and 3D modelling. *Zkg International*. 65 (7). p.46-53.

Howarth, G.H. and Skinner, E.M.W.

Howarth, G.H. and Skinner, E.M.W. (2012) The geology and emplacement of the volcanoclastic infill at the Voorspoed Group II kimberlite (organeite) pipe, Kroonstad Cluster, South Africa. *Journal of Volcanology and Geothermal Research*. 231 (2012). p.24-38.

Moore, A.E.

Moore, A.E. (2012) The case for a cognate, polybaric origin for kimberlite olivines. *Lithos*. 128-131 (2012). p.1-10.

Moore, J.M., Polteau, S. and Tsikos, C.

Moore, J.M., Polteau, S., Armstrong, R., Corfu, F. and Tsikos, C. (2012) The age and correlation of the Postmasburg Group, southern Africa: constraints from detrital zircon grains. *Journal of African Earth Sciences*. 64 (2012). p.9-19.

## Research Papers Presented at

## Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

Büttner, S.H.

Bial, J., Schenk, V., Büttner, S.H. and Appel, P. Evidence for Mesoproterozoic UHT metamorphism and two metamorphic events in the central Namaqualand Metamorphic Complex (Kakamas Terrane), South Africa. *TSK14*. University of Kiel, Kiel. Germany. March 2012.

Fryer, L. and Tsikos, C.

Fryer, L., Tsikos, C., Poulton, S., Boyce, A. and Williams, H. Geochemical trends across the Palaeo-proterozoic Kuruman and Griquatown BIFs, Transvaal Supergroup, South Africa, and implications for the GOE. *Goldschmidt 2012*. Palais de Congress, Montreal. Canada. June 2012.

Götz, A.E.

Götz, A.E., Török, A., Hlavicka, V., Toth, M. and Sass, I. Thermophysical properties of potential geothermal reservoir rocks: an outcrop analogue study of the sedimentary series of the Buda Mts., Hungary. *EGU General Assembly*. Austria Center Vienna, Vienna. Austria. April 2012.

Götz, A.E. and Ruckwied, K. Palynofacies patterns of the northern Witbank Basin (South Africa): clue to decipher Permian palaeo-environmental and climate change. *PSSA Biennial Conference*. University of Cape Town, Cape Town. South Africa. September 2012.

Götz, A.E., Homuth, S. and Sass, I. Facies related thermo-physical characterization of the Upper Jurassic geothermal carbonate reservoirs of the Molasse Basin, Germany. *EGU General Assembly*. Austria Center Vienna, Vienna. Austria. April 2012.



Drs Steffen Büttner and Gabi Costin of Geology acknowledge the support of the NRF, represented here by Ms Jocelyne Mwabi (Programme Officer, Strategic Platforms Programme).

Photo: Desiree Schirlinger

Götz, A.E., Colombie, C., Badenas, B. and Aurell, M. Successions of eventites as a tool for high-resolution stratigraphic analysis (Late Kimmeridgian, NE Spain). *29th IAS Meeting of Sedimentology*. Congress Centre Schladming, Schladming. Austria. September 2012.

Götz, A.E. Palynology and its application in multidisciplinary research. *Palaeo Symposium 2012*. University of Fribourg, Fribourg. Switzerland. October 2012.

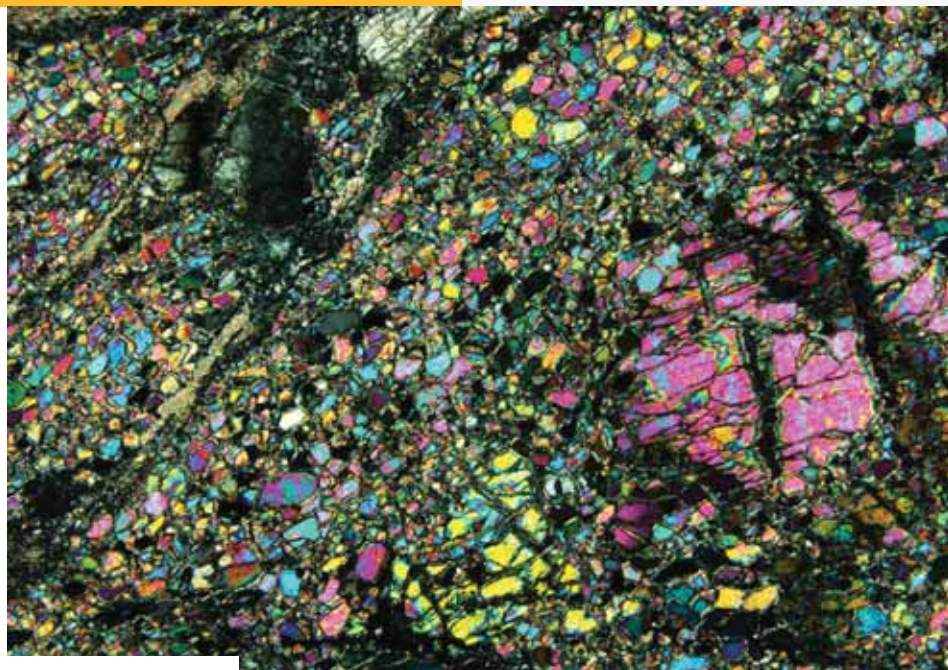
Götz, A.E. and Gast, S. Palynofacies patterns

of the Triassic--Jurassic boundary (NE Germany): record of palaeoenvironmental and climate change. *GeoHannover 2012 - GeoResources for the 21st Century*. Leibniz Universität Hannover, Hannover. Germany. October 2012.

Götz, A.E., Homuth, S. and Sass, I. Thermo-physical and facies-related characterization of the Upper Jurassic geothermal carbonate reservoirs of the Molasse Basin, Germany. *Proceedings of the 34th International*



# GEOLOGY



Olivine in peridotite

*Geological Congress 2012.* Brisbane Convention & Exhibition Centre, Brisbane. Australia. August 2012.

**Götz, A.E.** and Török, A. Assessment of the geothermal potential of the Pannonian Basin: an outcrop analogue study of the sedimentary series of the Buda Mts., Hungary. *Proceedings of the 34th International Geological Congress 2012.* Brisbane Convention & Exhibition Centre, Brisbane. Australia. August 2012.

**Götz, A.E.**, Ruckwied, K., Littke, R. and Hartkopf-Fröder, C. Facies, sedimentary organic matter content and coal petrography of the No. 2 coal seam, northern Witbank

Basin (South Africa). *Proceedings of the 34th International Geological Congress 2012.* Brisbane Convention & Exhibition Centre, Brisbane. Australia. August 2012.

**Götz, A.E.** and Ruckwied, K. Archives of palaeoenvironmental and climate change: the palynological record of coal deposits. *Proceedings of the 34th International Geological Congress 2012.* Brisbane Convention & Exhibition Centre, Brisbane. Australia. August 2012.

*Howarth, G.H. and Prevec, S.A.*

**Howarth, G.H.**, **Prevec, S.A.** and Zhou, M.-F. Magnetite crystallisation in the Panzhihua Intrusion, SW China: constraints from

petrography, geochemistry and H<sub>2</sub>O - fO<sub>2</sub> modelling. *Workshop on "Processes that control the composition of Fe-oxides in ore deposits", 22nd Annual V.M. Goldschmidt Conference proceedings.* UQAM campus, Montreal. Canada. June 2012.

**Howarth, G.H.**, **Prevec, S.A.** and Zhou, M.-F. Timing of magnetite crystallisation at the Panzhihua Intrusion, SW China: Implications for the genesis of massive magnetite layers. *Igneous & Metamorphic Studies Group, 4th annual meeting.* University of the Witwatersrand, Johannesburg. South Africa. January 2012.

*Prevec, R.*

Labandeira, C.C. and **Prevec, R.** Insect herbivore diversification after the end-Permian crisis: evidence from leaf miners. *17th Biennial Conference of the Palaeontological Society of Southern Africa.* Conference Centre, Cape Town. South Africa. August 2012.

Labandeira, C.C. and **Prevec, R.** Insect herbivore diversification after the end-Permian crisis: evidence from leaf miners. *Congress of the European Society for Evolutionary Developmental Biology.* Congress Centre, Lisbon. Portugal. July 2012.

Geissman, J.W., Gastaldo, R.A., Neveling, J., **Prevec, R.**, Kamo, S., Spencer, K. and Langwenya, M. Paleomagnetism of an uppermost Permian section in the Lootsberg Pass area, central Karoo Basin: What remanence signal is recorded in the Permo-Triassic boundary sequences in the Karoo Basin? *Abstract 1485197, Congress of the American Geophysical Union.* Conference Centre, San Francisco. U.S.A. December 2012.

*Prevec, S.A. and Viljoen, G.R.*

**Prevec, S.A.** and **Viljoen, G.R.**

Contamination, melting and sulphide mineralisation in the basal River Valley Complex, Canada. *22nd Annual V.M. Goldschmidt Conference proceedings.* Palais des Congrès, Montreal. Canada. June 2012.

**Prevec, S.A.** and **Viljoen, G.R.**

Contamination, melting and sulphide mineralisation in the basal River Valley Complex, Canada. *Igneous & Metamorphic Studies Group, 4th annual meeting.* University of the Witwatersrand, Johannesburg. South Africa. January 2012.

*Sciscio, L.*

**Prevec, R.**, **Sciscio, L.**, Looy, C. and Gastaldo, R.A. A reconstruction of the sphenophyte *Trizygia speciosa* from the Latest Permian Wapadsberg Pass locality in the Eastern Cape. *17th Biennial Conference of the Palaeontological Society of Southern Africa.* Conference Centre, Cape Town. South Africa. August 2012.

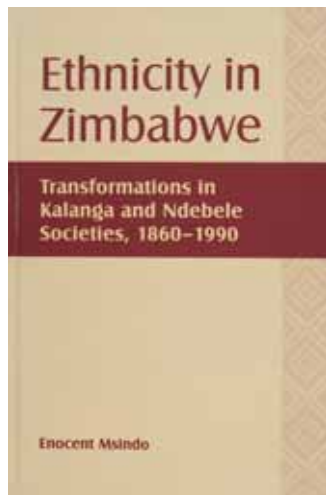
**Prevec, R.**, **Sciscio, L.**, Looy, C. and Gastaldo, R.A. Well-preserved impression/compressions of *Trizygia speciosa*, including the first cones and spores of this widespread Gondwanan sphenophyte, from the Latest Permian of South Africa. *International Organisation of Palaeobotany Congress.* Congress Centre, Tokyo. Japan. July 2012.

*Tsikos, C.*

**Tsikos, C.**, Vroon, P.Z., Van Der Wagt, B., Van Bergen, M., Eggins, S. and Kinsley, L. In situ silicon isotope analysis of Archean cherts and BIFs by laser ablation MC-ICPMS. *Goldschmidt 2012.* Palais de Congress, Montreal. Canada. June 2012.

# HISTORY

Department of  
**HISTORY**



Dr Enocent Msindo at the launch of his book, *Ethnicity in Zimbabwe*, in October 2012. To his right is Dr Dion Nkomo (School of Languages), and to his left, Dr Saleem Badat.

*Photo: Ettione Ferreira*



Staff members are actively engaged in producing research in a wide range of historical fields.

Highlights of the year were the publication of monographs authored by Professor Julie Wells and Dr Enocent Msindo.

The appointment of Post-Doctoral Fellow, Dr Nicole Ulrich, has added further gravitas to the Department's research profile.

The retirement of **Distinguished Professor Paul Maylam** after more than twenty years at the helm of the Department has not meant the loss of an erudite and respected scholar. Under Paul's leadership, the Department consolidated its reputation for producing high-quality and significant historical research.

Fortunately, Professor Maylam retains an association with the Department notwithstanding his re-location to Cory Library. From his new office here, he has embarked on a Mellon-funded project to write a history of Rhodes University.



# HISTORY

## Significant Research Aligned Events

The SANPAD-funded *South African War Veterans* project under the leadership of **Professors Gary Baines** and Lindy Wilbraham (of Psychology) has been absorbed into *The Legacies of the Apartheid Wars* (LAWs) project. A grant awarded by Atlantic Philanthropies has enabled the expansion of the latter project that is housed in the Department. Under the directorship of **Theresa Edlmann**, LAWs has established a number of collaborative working relationships with individuals and institutions working in the field in South Africa and abroad.

## Postgraduates/Graduations

**Carla Tsampiras** completed her PhD during the year and will graduate in 2013. The Department is now in a position where all staff members are qualified with doctorates.

The Department also boasted two further PhD graduates: **Ulrich van der Heyden** and **Vumile Nogemena**.

The number of postgraduates continues to grow. PhD candidates, namely **Theresa Edlmann** and **Kylie van Zyl**, published articles in the *South African Historical Journal*.

## Distinguished Visitors/ Overseas Visits

**Professor Wells** and **Dr Msindo** presented papers at the African Studies Association conference held in Philadelphia, USA.

**Professor Gary Baines**  
Head of Department

## Books/Chapters/Monographs

*Baines, G.F.*

**Baines, G.F.** (2012) The Freedom Park Fracas and the Divisive Legacy of South Africa's 'Border War'/Liberation Struggle. In: Sapire, H. and Saunders, C. (eds.). *Southern African Liberation Struggles: New local, regional and global perspectives*. Cape Town: UCT Press. p.188-209. ISBN: 9781919895932.

**Baines, G.F.** (2012) A Battle for Perceptions: Revisiting the Cassinga Controversy in Southern Africa. In: Dwyer, P.G. and Ryan, L. (eds.). *Theatres of Violence: Massacre, Mass Killing and Atrocity throughout History*. New York: Berghahn Books. p.226-241. ISBN: 9780857452993.

*Msindo, E.*

**Msindo, E.** (2012) *Ethnicity in Zimbabwe: Transformations in Kalanga and Ndebele Societies, 1860-1990*. Croydon: University of Rochester Press. ISBN: 9781580464185.

*Wells, J.C.*

**Wells, J.C.** (2012) *The Return of Makhanda. Exploring the Legend*. Durban: University of KwaZulu-Natal Press. ISBN: 9781869142384.

## Other Publications

*Baines, G.F.*

**Baines, G.F.** (2012) Afterword. In: *Somewhere on the Border*. Johannesburg: Wits University Press.

**Baines, G.F.** (2012) A Virtual Community? SADF Veterans Digital Memories and Dissenting Discourses. In: *African Studies Centre Working Paper No. 98/2012*. Leiden, Netherlands: African Studies Centre.

*Kirkaldy, A.*

**Kirkaldy, A.** (2012) Living with memories of past oppressions. In: de Jager, M. (ed.). *Trans: Narratives of Memory / History / Family in Maria's Story*. Grahamstown: Maureen de Jager.

*Msindo, E.*

**Msindo, E.** (2012) Kumalo Lobengula. In: *Dictionary*

*of African Biography*. Oxford: Oxford University Press.

**Msindo, E.** (2012) Changamire Dombo. In: E. Akyeampong and H.L. Gates Jr. (ed.) *Dictionary of African Biography*. Oxford: Oxford University Press.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Baines, G.F.*

**Baines, G.F.** (2012) The Saga of South African POWs in Angola, 1975-82. *Scientia Militaria: South African Journal of Military Studies*. 40 (2). p.102-141.

**Baines, G.F.** (2012) Replaying Cuito Cuanavale. *History Today*. 62 (9). p.3-4.

**Baines, G.F.** (2012) Vietnam Analogies and Metaphors: The Cultural Codification of South Africa's Border War. *Safundi: Journal of South African and American Studies*. 13 (1-2). p.73-90.

*Edlmann, T.M.*

**Edlmann, T.M.** (2012) Division in the (Inner) Ranks: The Psychosocial Legacies of the Border Wars. *South African Historical Journal*. 64 (2). p.256-272.

*Maylam, P.R.*

**Maylam, P.R.** (2012) A hundred years of History at Rhodes University: some reflections on the department's centenary colloquium, September 2011. *Historia*. 57 (1). p.165-171.

*Suttner, R.S.*

**Suttner, R.S.** (2012) Why feminism matters. Feminism lost and found. *African Historical Review (Kleio)*. 44 (1). p.127-128.

**Suttner, R.S.** (2012) The African National Congress centenary: a long and difficult journey. *International Affairs*. 88 (4). p.719-738.

**Suttner, R.S.** (2012) Understanding non-racialism as an emancipatory concept in South Africa. *Theoria: A Journal of Social and Political Theory*. 59 (130). p.22-41.

*Tsampiras, C.Z.*



# HISTORY

**Tsampiras, C.Z.** (2012) Sex in a Time of Exile: An Examination of Sexual Health, AIDS, Gender and the ANC, 1980-1990. *South African Historical Journal*. 64 (3). p.637-663.

*Van Zyl, K.*

**Van Zyl, K.** (2012) Lies, Damned Lies, and Statistics: A Comparison of the Construction of Authority and Responsibility in Two Cholera Epidemics. *South African Historical Journal*. 64 (2). p.221-235.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Baines, G.F.*

**Baines, G.F.** Disavowed by History: Military Veterans, Victimhood and the Politics of Memory in Post-Apartheid South Africa. *Politics of Memory Conference*. University of Zadar, Zadar. Croatia. September 2012.

*Jagarnath, V.*

**Jagarnath, V.** The Diary as 'the mirror of the self': The daily discipline of diary writing in shaping Gandhi's private ruminations and his public discourse. *Wits Institute of Social and Economic Research (WISER) Seminar*. University of the Witwatersrand, Johannesburg. South Africa. June 2012.

*Maylam, P.R.*

**Maylam, P.R.** Leadership (and Leadership Studies) in an 'age of catastrophe'. *Round-table on 'Cultivating Ethical Leadership'*. Rhodes University, Grahamstown. South Africa. October 2012.

*Msindo, E.*

**Msindo, E.** The Evolution of Southern Rhodesian Information Policy, 1939-1970. *African Studies Association*. Philadelphia, PA.

USA. November 2012.

*Tsampiras, C.Z.*

**Tsampiras, C.Z.** Two Tales about Illness, Ideologies, and Intimate Identities: Sexuality Politics and AIDS in South Africa, 1980-1995. *Histories of Health, Healing and Medicine in African Contexts*. Conference Centre, Midlands. South Africa. August 2012.

**Tsampiras, C.Z.** From Dark Country to Dark Continent: AIDS, Race, and Medical Research in the South African Medical Journal, 1980 1995. *African Studies Association Meeting*. Philadelphia, PA. USA. November 2012.

*Ulrich, N.*

**Ulrich, N.** Local Protest and International Radicalism: the 1797 Cape of Good Hope mutiny. *Maritime Radicalism in the Age of Revolution*. National Archive, Hague. Netherlands. May 2012.

**Ulrich, N.** From Servant to British Subjects: citizenship, labour and the making of modern imperialism at the Cape of Good Hope, 1652-1813. *Political Belonging and Community in Africa British East Africa Institute, 11- 12 July, Nairobi*. British East Africa Institute, Nairobi. Kenya. July 2012.

**Ulrich, N.** Trade Unions in the 1970s and Direct Democracy: lessons from history post-Marikana. *Politics at a Distance from the State*. Rhodes University, Grahamstown. South Africa. September 2012.

**Ulrich, N.** Heads of the Hydra in Southern Africa: rethinking subaltern community and traditions of protest in the Cape of Good Hope, c. 1652-1770. *Historical Studies Department Seminar Series*. University of Johannesburg, Johannesburg. South Africa. April 2012.

**Ulrich, N.** Seafarers, Community and

Proletarian Radicalism in Southern African seas and ports: the case of the Cape of Good Hope. *Community and the Sea in the Age of Sail*. Aalsborg, Aalsborg. Denmark. May 2012.

*Wells, J.C.*

**Wells, J.C.** The Future Role of Memory Work in Building Social Cohesion. *Strategies to Overcome Poverty & Inequality*. University of Cape Town, Cape Town. South Africa. September 2012.

**Wells, J.C.** Guided Remembering of a Painful Past: Grahamstown's 200 Years Project. *Keynote address to South African Museums Association East Cape Conference*. Albany Museum, Grahamstown. South Africa. February 2012.

**Wells, J.C.** In the Shadow of the Butcher: Guiding Public Remembrance 200 Years after Conquest in Grahamstown, South Africa. *Diversity in Organizations, Communities and Nations*. University of British Columbia, Vancouver. Canada. June 2012.

# HUMAN KINETICS & ERGONOMICS

Department of

## HUMAN KINETICS & ERGONOMICS

The Department of Human Kinetics and Ergonomics had a very productive 2012.

Lee Pote and Gareth Barford (both MSc students) measured physical, physiological, perceptual and performance responses of cricketers during match simulations.



The department graduated twenty (20) postgraduate students, and staff and students published in a number of books, journals, conference proceedings and other publications.

**Mr Andrew Todd** published a peer-reviewed journal article and presented his work at several national and international conferences.

The month of July 2012 saw **Dr Candice Christie** taking over as Head of Department from **Professor Matthias Göbel**. Professor Göbel will be going on a well earned sabbatical during 2013.

### Postgraduates/Graduations

The department graduated fifteen (15) honours students (1 with distinction) and five (5) MSc students (2 with distinction) in April 2012. **Ms Janet Viljoen**, PhD candidate in the department represented our department at the Medical Research Council (MRC) Emerging Scientists Conference which was held at the MRC headquarters in Tygerberg.

Ms Viljoen is partially funded by the MRC through a scholarship and Dr Christie has an MRC Self-Initiated Grant for research on 'Exercise is Medicine' with a specific focus on resistance training and cardiovascular health in post-menopausal women. This forms part of Ms Viljoen's PhD dissertation.

Ms Viljoen, **Ms Korte** and **Ms Huysamen** all represented our department by presenting their research at the Rhodes University Inter-Disciplinary Postgraduate Conference which was held in September 2012.

### Distinguished Visitors/ Overseas Visits

Professor Tim Noakes visited the department in November

# HUMAN KINETICS & ERGONOMICS

2012. Dr Christie is an ex-student of Professor Noakes and he came to the department to present on his Central Governor Hypothesis (to our undergraduate and postgraduate students).

In addition, he gave a public lecture on his new Low Carbohydrate/High Fat (LCHF) theory. Professor Noakes is an NRF A-rated scientist who received the NRF Lifetime Achievement Award in 2012.

## Significant Research Aligned Events

The department published one (1) book chapter and four (4) journal articles and presented at several national and international conferences.

Dr Christie organized a special session on Ergonomics at the *5th Clinical Sports Medicine Congress* which was held in Cape Town in October 2012. She, **Mr Andrew Todd** and **Ms Miriam Mattison** all presented on various aspects of Ergonomics at this conference. The main goal was to make researchers in the general field of Sports Science/Medicine and Health more aware of Ergonomics, its principles and its benefits.

Dr Christie also travelled to Bruges, Belgium to present some of her cricket related research - a research arm currently being funded by a NRF Competitive Fund for Rated Researchers Grant.

Mr Todd continued to represent both the department and the Ergonomics Society of South Africa (as their Chair) by being invited to give several presentations around the country on varying topics relating to Ergonomics. He also travelled to Rio de Janeiro in Brazil



Nokubonga Ngcamu (PhD student) investigated how fatigue develops during cognitive processes.

in August 2012 where he presented at both their local Ergonomics conference and guest lectured at their university.

**Dr Candice Christie**  
Head of Department



# HUMAN KINETICS & ERGONOMICS



Robert Jones (MSc student) investigated the impact of a soccer specific protocol on lower extremity fatigue.

## Books/Chapters/Monographs

*Christie, C.J.*

**Christie, C.J.** (2012) The Physical Demands of Batting and Fast Bowling in Cricket. In: Zaslav, K.R. (ed.). *An International Perspective on Topics in Sports Medicine and Sports Injury*. Croatia: InTech. p.321-332. ISBN: 9789535100058.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Christie, C.J.*

**Christie, C.J.** (2012) Straightforward Yet Effective Ergonomics Collaborations in South Africa. *Ergonomics in design*. 20 (4). p.39-42.

*Göbel, M.*

**Göbel, M.** (2012) Leistungsbeeinträchtigung durch visuelle Doppelbelastung bei der Fahrzeugführung. *Zeitschrift für Arbeitswissenschaft*. 66 (2-3). p.183-193.

*Göbel, M. and Zschoernack, S.*

**Göbel, M. and Zschoernack, S.** (2012) A systems concept for modelling the ergonomics design process within the product conceptualisation and development frame. *Theoretical Issues in Ergonomics Science*. 13 (2). p.169-186.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Todd, A.I.*

**Todd, A.I.** (2012) Impact of hand forces and start/stop frequency on physiological responses to three forms of pushing and pulling: A South African perspective. *Work-A Journal of Prevention Assessment & Rehabilitation*. 41 (1). p.1588-1593.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Christie, C.J.*

**Christie, C.J.** Putting the WORKER at the centre of the man-machine interface. *5th*

*Clinical Sport and Exercise Medicine*

*Conference*. Vineyard Hotel, Cape Town. South Africa. October 2012.

*Christie, C.J. and Armstrong, S.*

**Christie, C.J. and Armstrong, S.** Evidence of Pacing During Repeated Shuttle Sprints. *17th Annual Congress of the European College of Sport Science*. Universite Libre de Bruxelles and Vrije Universiteit Brussel, Bruges. Belgium. July 2012.

*Huysamen, K. and Göbel, M.*

**Huysamen, K. and Göbel, M.** The effects of different types of cognitive tasks in conjunction with circadian regulation on heart rate variability and performance parameters. *Rhodes University Inter-Disciplinary Postgraduate Conference*. Eden Grove, Grahamstown. South Africa. January 2012.

*Korte, J. and Göbel, M.*

**Korte, J. and Göbel, M.** South African anthropometric dimensions for the design of an ergonomic office chair. *Rhodes University Inter-Disciplinary Postgraduate Conference*. Eden Grove, Grahamstown. South Africa. January 2012.

*Mattison, M.C.*

**Mattison, M.C.** Musculoskeletal Disorders in the Workplace Theories and Risk Factors. *5th Clinical Sports and Exercise Medicine Conference*. Vineyard Hotel, Cape Town. South Africa. October 2012.

*Todd, A.I.*

**Todd, A.I.** A systems approach to safe and productive work environments. *South African Institute of Occupational Hygiene Conference*. Gallagher Estate, Johannesburg. South Africa. June 2012.

**Todd, A.I.** The Principles of Ergonomics: Developing a sustainable future for South

Africa. *5th Clinical sports medicine*

*conference*. Vineyard Hotel, Cape Town. South Africa. October 2012.

**Todd, A.I.** HIV/AIDS: A complex question in Ergonomics A South African Example.

*Jornada Internacional - ABERGO AND ULAERGO*. Centro de Convenções Sulamerica, Rio de Janeiro. Brazil. August 2012.

**Todd, A.I.** Ergonomics: A sustainable future for South Africa. *National Institute of Occupational Health conference*. Sunnyside Hotel, Parktown, Randburg. South Africa. May 2012.

**Todd, A.I.** Ergonomics and its role in developing a sustainable future for South Africa. South African Department of Labour. *Conference on Occupational Health and Safety Road to Zero Injuries and Diseases*. Birchwood Conference Centre, Johannesburg. South Africa. March 2012.

*Todd, A.I. and Davy, J.P.*

**Todd, A.I. and Davy, J.P.** Ergonomics Guidelines for Occupational health practice in South Africa. *5th Clinical sports medicine conference*. The Vineyard Hotel, Cape Town. South Africa. October 2012.

*Viljoen, J.E. and Christie, C.J.*

**Viljoen, J.E. and Christie, C.J.-A.** Progressive resistance training and body composition menopausal women. *MRC Emerging Scientists Conference*. MRC Headquarters, Tygerberg, Cape Town. South Africa. January 2012.

**Viljoen, J.E. and Christie, C.J.** The effect of progressive resistance training on cardiovascular risk factors in post-menopausal women. *Rhodes University Inter-Disciplinary Postgraduate Conference*. Eden Grove, Grahamstown. South Africa. January 2012.

# ICHTHYOLOGY & FISHERIES SCIENCE

## Department of **ICHTHYOLOGY & FISHERIES SCIENCE**

The Department continued to extend its research and outreach in Africa, visiting more than ten (10) African countries during 2012.

Rhodes University Ichthyology Honours students Elethu Duna (left), Nomonde Ndlangisa (centre) and Dylan Howell (right) getting ready to identify, weigh and measure a sample of fish captured from the Rondegat River.

The class is involved in river rehabilitation in the Cederberg as part of their curriculum, working with Cape Nature and the South African Institute for Aquatic Biodiversity.

*Photo: Cliff Jones*



Professor Warwick Sauer, Head of the Department, declared 2012 an excellent year for the DIFS, with thirty (30) MSc and twenty-one (21) PhD students registered, and thirty (30) peer-reviewed publications in accredited journals produced.

Professor Tony Booth continued with his research on the impacts of alien fishes, producing a number of publications.

Professor Horst Kaiser continued the research programme on aquatic animal health through projects that studied fish haematology, and collaboration with the University of Makerere, Uganda. A project on dusky kob culture in ponds was established in Mtunzini. Collaborations with other Universities included projects in fish health through novel methods of parasite treatment (University of the Western Cape), the health of catfish in the Kruger National Park (University of Pretoria), and a project on yellow fish hybridisation (South African Institute for Aquatic Biodiversity) in South Africa.

# ICHTHYOLOGY & FISHERIES SCIENCE



Ichthyology Honours students Matthew Farthing (right) and Kyle Lloyd (left) deploy a seine net from a rowing boat on the Swartvlei Estuary as part of the Honours teaching course and fish population monitoring program for South African National Parks.

Photo: Cliff Jones

**Professor Kevern Cochrane** joined the Department in May 2012. He has initiated work on the management and policy environment of fisheries in South Africa and is working on a number of activities on climate change impacts on fisheries and aquaculture in the southern African region, in collaboration with the Benguela Current Commission, Food and Agriculture Organization and other partners.

**Dr Cliff Jones** continued his work on the Water Research Commission funded project (supported also by SA Breweries and in collaboration with Institute for Environmental Biotechnology at Rhodes University) that aims to better understand the processes involved in nutrient removal from high rate algal ponds used to treat industrial effluent.

Dr Jones also supervised the investigation process into the possibility of using filter-feeding fish to “harvest” unicellular algae from these ponds. In addition to this, he collaborated with other staff members on a number of abalone physiology, behavior and nutrition projects that are aimed at supporting the growth and development of the local abalone farming industry in South Africa.

**Professor Peter Britz** initiated a THRIP-industry funded abalone ranching project to restore depleted abalone populations in the Eastern Cape for sustainable harvesting. He continued research on abalone and dusky kob diet development for aquaculture in partnership with industry and the Department of Agriculture, Forestry and Fisheries. In partnership with Professor Jen Snowball of the Department of Economics, he co-supervised Economics Masters student **James Kinghorn** who estimated the value of recreational fishing for alien trout and bass in the Amatola region.

**Dr Warren Potts** continued with the research program in Angola, working up the results of previous surveys, and planning a fish tracking project, in collaboration with the Ocean Tracking Network in Canada, to commence in 2013.

## Distinguished Visitors/ Overseas Visits

- A visit from Japanese researchers to collaborate on a research program on squid reproduction.
- A visit to Japan by Professor Sauer to present findings on a collaborative research project.
- A visit from Professor Shaw from Aberystwyth University, Penglais, Aberystwyth, Wales.

## Significant Research Aligned Events

A regional training plan for the western Indian Ocean was compiled as part of the Agulhas and Somali Large Marine Ecosystem Project.

**Professor Warwick Sauer**

Head of Department



# ICHTHYOLOGY & FISHERIES SCIENCE

## Other Publications

*Britz, P.J. and Rouhani, Q.A.*

**Britz, P.J. and Rouhani, Q.A.** (2012) Draft strategies for inland fishery development. In: *Water research Commission Project K/1957*. South Africa: Water Research Commission.

*Sauer, W.H.H.*

Vousden, D., Stapley, J.R., Ngoile, M.A.K., **Sauer, W.H.H.** and Scott, L.E.P. (2012) Climate Change and Variability of the Agulhas and Somali Current Large Marine Ecosystems in Relation to Socioeconomics and Governance. In: Sherman, K. and McGovern, G. (eds.). *Frontline Observations on Climate Change and Sustainability of Large Marine Ecosystems*. USA: UNDP.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Bennett, R.H. and Childs, A.-R.*

**Bennett, R.H., Cowley, P.D., Childs, A.-R. and Whitfield, A.** (2012) Area-use patterns and diel movements of white steenbras *Lithognathus lithognathus* in a temporarily open/closed South African estuary, inferred from acoustic telemetry and long-term seine-netting data. *African Journal of Marine Science*. 34 (1). p.81-91.

*Booth, A.J.*

**Nakin, M.D.V., Booth, A.J. and Mcquaid, C.D.** (2012) Species-specific effects of marine reserves: mortality and growth differ within and among heavily exploited and rarely exploited limpets. *Marine Ecology-Progress Series*. 445 (2012). p.53-63.

Smale, M.J., **Booth, A.J.**, Farquhar, M.R., Meyer, M. and Rochat, L. (2012) Migration and habitat use of formerly captive and wild raggedtooth sharks (*carcharias taurus*) on

the southeast coast of South Africa. *Marine Biology Research*. 8 (2). p.115-128.

*Britz, P.J.*

Namulawa, V.T., Rutaisire, J. and **Britz, P.J.** (2012) Whole body and egg amino acid composition of Nile perch, *Lates niloticus* (Linnaeus, 1758) and prediction of its dietary essential amino acid requirements. *African Journal of Biotechnology*. 11 (100). p.16615-16624.

Namulawa, V.T., Kato, C.D., Nyatia, E., **Britz, P.** and Rutaisire, J. (2011) Histomorphological Description of the Digestive System of Nile Perch (*L. niloticus*). *International Journal of Morphology*. 29 (3). p. 723-732.

*Chakona, A.*

**Chakona, A. and Swartz, E.R.** (2012) Contrasting habitat associations of imperilled endemic stream fishes from a global biodiversity hot spot. *BMC Ecology*. 12 (19). p.1-12.

Phiri, C., **Chakona, A.** and Day, P. (2012) Macroinvertebrates associated with two submerged macrophytes, *Lagarosiphon illicifolius* and *Vallisneria aethiopica*, in the Sanyati Basin, Lake Kariba, Zimbabwe: effect of plant morphological complexity. *African Journal of Aquatic Science*. 37 (3). p.277-288.

Phiri, C., **Chakona, A.** and Day, P. (2012) Body-size distribution, biomass estimates and life histories of common insect taxa associated with a submerged macrophyte *Lagarosiphon illicifolius* in the Sanyati Basin, Lake Kariba, Zimbabwe. *African Journal of Aquatic Science*. 37 (3). p.289-299.

*Chalmers, R.*

Solano-Fernandez, S., Attwood, C.G., **Chalmers, R.**, Clark, B.M., **Cowley, P.D.**, Fairweather, T., Fennessy, S.T., **Gotz, A.**,



Ichthyology Honours students seine-netting the Swartvlei Estuary, Sedgefield. Data collected in this teaching exercise is used as part of a long-term monitoring program for South African National Parks. Photo: Cliff Jones

Harrison, T.D., Kerwath, S.E., Lamberth, S.J., Mann, B.Q., Smale, M.J. and Swart, L. (2012) Assessment of the effectiveness of South Africa's marine protected areas at representing ichthyofaunal communities. *Environmental Conservation*. 39 (3). p.259-270.

*Coppinger, C.R.*

**Becker, A., Coppinger, C.R. and Whitfield, A.** (2012) Influence of tides on assemblages and behaviour of fishes associated with shallow seagrass edges and bare sand .

*Marine Ecology-Progress Series*. 456 (2012). p.187-199.

*Dicken, M.L. and Booth, A.J.*

**Dicken, M.L., Smale, M.J. and Booth, A.J.** (2012) Long-term catch and effort trends in Eastern Cape Angling Week competitions. *African Journal of Marine Science*. 34 (2). p.259-268.

*Ellender, B.R.*

**Ellender, B.R., Becker, A., Weyl, O. and Swartz, E.R.** (2012) Underwater video

# ICHTHYOLOGY & FISHERIES SCIENCE

analysis as a non-destructive alternative to electrofishing for sampling imperilled headwater stream fishes. *Aquatic Conservation-Marine and Freshwater Ecosystems*. 22 (1). p.58-65.

**Ellender, B.R., Weyl, O. and Winker, H.** (2012) Age and growth and maturity of southern Africa's largest cyprinid fish, the largemouth yellowfish *Labeobarbus kimberleyensis*. *Journal of Fish Biology*. 81 (4). p.1271-1284.

*Ellender, B.R. and Taylor, G.C.*

**Ellender, B.R., Taylor, G.C. and Weyl, O.** (2012) Validation of growth zone deposition rate in otoliths and scales of flathead mullet *Mugil cephalus* and freshwater mullet *Myxus capensis* from fish of known age. *African Journal of Marine Science*. 34 (3). p.455-458.

*Huchzermeyer, K.D.A.*

**Huchzermeyer, K.D.A., and van der Waal, B.C.W.** (2012) Epizootic ulcerative syndrome: Exotic fish disease threatens Africa's aquatic ecosystems. *Journal of the South African Veterinary Association* 83(1), Art.#204, 6 pages. <http://dx.doi.org/10.4102/jsava.v83i1.204>

*Kadye, W.T.*

**Kadye, W.T. and Chakona, A.** (2012) Spatial and temporal variation of fish assemblage in two intermittent streams in north-western Zimbabwe. *African Journal of Ecology*. 50 (2012). p.428-438.

*Kadye, W.T. and Booth, A.J.*

**Kadye, W.T. and Booth, A.J.** (2012) Detecting impacts of invasive non-native sharptooth catfish, *Clarias gariepinus*, within invaded and non-invaded rivers. *Biodiversity and Conservation*. 21 (8). p.1997-2015.

**Kadye, W.T. and Booth, A.J.** (2012) Integrating stomach content and

stableisotope analyses to elucidate the feeding habits of non-native sharptooth catfish *Clarias gariepinus*. *Biological Invasions*. 14 (4). p.779-795.

**Kadye, W.T. and Booth, A.J.** (2012) Inter-seasonal persistence and size-structuring of two minnow species within headwater streams in the Eastern Cape, South Africa. *Journal of Applied Ichthyology*. 28 (5). p.791-799.

*Magellan, K., Johnson, A.T., Williamson, L.A., Richardson, M.F., Watt, W. and Kaiser, H.*

**Magellan, K., Johnson, A.T., Williamson, L.A., Richardson, M.F., Watt, W. and Kaiser, H.** (2012) Alteration of tank dimensions reduces male aggression in the sword-tail. *Journal of Applied Ichthyology*. 28 (1). p.91-94.

*Mccafferty, J.R., Ellender, B.R. and Britz, P.J.*

**Mccafferty, J.R., Ellender, B.R., Weyl, O. and Britz, P.J.** (2012) The use of water resources for inland fisheries in South Africa. *Water SA*. 38 (2). p.327-344.

*Naylor, M.A., Kaiser, H. and Jones, C.L.W.*

**Naylor, M.A., Kaiser, H. and Jones, C.L.W.** (2012) The effect of dosing with sodium hydroxide (NaOH&8722;) on water pH and growth of *Haliotis midae* in an abalone serial-use raceway. *Aquaculture International*. 21 (2). p.467-479.

**Naylor, M.A., Kaiser, H. and Jones, C.L.W.** (2012) The effect of free ammonia nitrogen pH and supplementation with oxygen on the growth of South African abalone, *Haliotis midae* L. in an abalone serial-use raceway with three passes. *Aquaculture Research*. 2012 (2012). p.1-12.

*Potts, W.M.*

**James, N.C., Gotz, A., Potts, W.M. and Cowley, P.D.** (2012) Temporal variability of a temperate fish assemblage in Africa's oldest marine protected area. *African Journal of Marine Science*. 34 (1). p.15-26.

*Potts, W.M. and Sauer, W.H.H.*

**Henriques, R., Potts, W.M., Sauer, W.H.H. and Shaw, P.W.** (2012) Evidence of deep genetic divergence between populations of an important recreational fishery species, *Lichia amia* L. 1758, around southern Africa. *African Journal of Marine Science*. 34 (4). p.585-591.

*Richardson, T.J., Potts, W.M. and Sauer, W.H.H.*

**Richardson, T.J., Potts, W.M. and Sauer, W.H.H.** (2012) The biology of Barnard's dentex, *Dentex barnardi* (Teleostei:Sparidae), in southern Angola. *African Journal of Marine Science*. 34 (2). p.223-231.

*Robinson, G.*

**Eriksson, H., Robinson G., Slater, M.J., and Troell, M.** (2012) Sea Cucumber Aquaculture in the Western Indian Ocean: Challenges for Sustainable Livelihood and Stock Improvement. *AMBIO*. 41:109-121.

*Sauer, W.H.H.*

**Roberts, M., Downey, N. and Sauer, W.H.H.** (2012) The relative importance of shallow and deep shelf spawning habitats for the South African chokka squid (*Loligo reynaudii*). *ICES Journal of Marine Science*. 69 (4). p.563-571.

*Shaw, P.W., Stonier, T.A. and Sauer, W.H.H.*

**Shaw, P.W., Hendrickson, L., McKeown, N.J., Stonier, T.A., Naud, M.-J. and Sauer, W.H.H.** (2012) Population structure of the squid *Doryteuthis (Loligo) pealeii* on the eastern coast of the USA: Reply to Gerlach et al.

(2012). *Marine Ecology-Progress Series*. 450 (2012). p.285-287.

*Taylor, G.C.*

**Taylor, G.C. and Weyl, O.** (2012) Otoliths versus scales: evaluating the most suitable structure for ageing largemouth bass, *Micropterus salmoides*, in South Africa. *African Zoology*. 47 (2). p.358-362.

*Thornycroft, R.E. and Booth, A.J.*

**Thornycroft, R.E. and Booth, A.J.** (2012) Computer-aided identification of coelacanth, *Latimeria chalumnae*, using scale patterns. *Marine Biology Research*. 8 (3). p.300-306.

*Winker, H., Booth, A.J. and Ellender, B.R.*

**Winker, H., Weyl, O., Booth, A.J. and Ellender, B.R.** (2012) Life history strategy and population characteristics of an unexploited riverine cyprinid, *Labeo capensis*, in the largest impoundment in the Orange River Basin. *African Zoology*. 47 (1). p.85-99.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Britz, P.J.*

**Kinghorn, J.W., Snowball, J.D., Britz, P.J. and Weyl, O.** Estimating the economic impact of alien invasive fishes: recreational angling in the Amatola region. *South African Society of Aquatic Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Britz, P.J.** The Status of the South African Abalone Sector. *8th International Abalone Symposium*. Kings Hotel, Hobart. Australia. May 2012.

**Britz, P.J.** Aquaculture Globally and Prospects for South Africa. *Department of*



# ICHTHYOLOGY & FISHERIES SCIENCE

*Agriculture Forestry and Fisheries Critical Thinkers Policy Forum*. Shaka's Hotel, Ballito. South Africa. January 2012.

**Britz, P.J.** Abalone Reseeding and Ranching in Eastern Cape MPA's: What are the issues to consider? *Marine Protected Area (MPA) Forum*. Environmental Education Centre, Kei Mouth. South Africa. January 2012.

**Kinghorn, J.W., Snowball, J.D., Britz, P.J. and Weyl, O.** Evaluating the socio-economic benefits of alien invasive fishes: recreational angling in the Amatola region. *IIFET 2012: Visible Possibilities, International Institute for Fisheries Economics and Trade Symposium*. Hyatt Hotel, Dar es Salaam. Tanzania. July 2012.

*Britz, P.J. and Kemp, J.O.G.*

**Britz, P.J. and Kemp, J.O.G.** Abalone nutrition from an aquaculture perspective. *8th International Abalone Symposium*. Kings Hotel, Hobart. Australia. May 2012.

*Britz, P.J. and Rouhani, Q.A.*

Hara, M., **Britz, P.J. and Rouhani, Q.A.** Unlocking South Africa's Inland Fisheries Potential; the need for a developmental approach and revision of property and access rights. *IIFET 2012: Visible Possibilities, International Institute for Fisheries Economics and Trade Symposium*. Hyatt Hotel, Dar Es Salaam. Tanzania. July 2012.

*Cochrane, K.L.*

**Cochrane, K.L.** Developing an aquaculture policy in South Africa: keys issues and trends. *DAFF Aquaculture Investment and Policy Dialogue*. Durban, South Africa. October 2012.

**Cochrane, K.L.** Government, Fisheries Policy and Climate Change. *Olupale Leeshi: Namibia's National Fisheries Conference*. Swakopmund, Namibia. June 2012.

*Ellender, B.R.*

**Ellender, B.R., Weyl, O. and Nagelkerke, L.A.J.** Assessing the consequences of non-native fish invasion to the endangered border barb *Barbus trevelyani* in the Keiskamma River system, Eastern Cape, South Africa. *South African Society of Aquatic Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Weyl, O., Woodford, D.J. and Ellender, B.R.** Invasive alien smallmouth bass in the Rondegat stream: impacts, efficacy of removal and future prospects. *South African Society of Aquatic Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Ellender, B.R. and Weyl, O.** Impact of centrarchid invasion on an endangered South African fish *Pseudobarbus afer* in headwater streams. *International Conference on Ecology and Conservation of Freshwater Fish*. Vila Nova de Cerveira Conference Centre, Vila Nova de Cerveira. Portugal. May 2012.

*Jones, C.L.W.*

Yearsley, R.D., **Jones C.L.W., Britz P.J. and Winkler, A.** 2012. New formulated feed for abalone reduces fishmeal use and satisfies WWF Standards. *8th International abalone symposium* (6-11 May 2012), Hobart, Tasmania. p 61.

**Jones, C.L.W., Pieterse, K.M., Kaiser, H. and Yearsley, R.D.** 2012. Towards improved farm production through culling. *8th International abalone symposium* (6-11 May 2012), Hobart, Tasmania. p 146.

*Olds, A.A.*

**Olds, A.A., Weyl, O. and Smith, K.** The changes in ichthyofauna in the Wilderness Lakes system over 25 years and the implication for the conservation of fishes in estuaries. *South African Society of Aquatic*



Ichthyology Honours students being taught to sample fish from the Swartvlei Estuary, Sedgefield. Field techniques form part of the Honours curriculum. Photo: Cliff Jones

*Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

*Taylor, G.C.*

**Taylor, G.C., Weyl, O. and Cowley, P.D.** Biology of non-native largemouth bass *Micropterus salmoides* in Southern Africa. *International Conference on Ecology and Conservation of Freshwater Fish*. Vila Nova de Cerveira Conference Centre, Vila Nova de Cerveira. Portugal. May 2012.

**Taylor, G.C. and Weyl, O.** The validation of growth zone deposition rate in sagittal otoliths and an evaluation of scales as an alternative

ageing structure for South African largemouth bass (*Micropterus salmoides*) populations. *South African Society of Aquatic Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

*Van Der Walt, K.A.*

**Van Der Walt, K.A., Weyl, O. and Swartz, E.R.** Determining population level vulnerability of native fishes to largemouth bass invasions in the Groot Marico River, North West Province, South Africa. *South African Society of Aquatic Science*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.



# INFORMATION SYSTEMS

## Department of INFORMATION SYSTEMS

The department was delighted to have the continued support of industry partners Singular Systems, Business Systems Group (BSG) and Open Box.

Dr. Caroline Khene, Rhodes University Department of Informations Systems, speaks to Master's students Hafeni Mthoko, Erika Esterhuizen and Khanya Nkula.  
*Photo: Christine Nesbitt*



The Department of Information System's research focus areas include: Cloud Computing, Human-Computer Interactions, Health Informatics, Business Analysis, Social Networks, Virtual Partnerships, IT in Education, ICT for Development, Service Management, and IT Governance. These activities produced one (1) book chapter, six (6) journal articles, and nine (9) conference papers in 2012.

Staff and postgraduate students presented research at the following local and international conferences:

- 6th European Conference on Information Management and Evaluation, Cork, Ireland.
- 1st Pre-ECIS Special Interest Group for ICT in Global Development (SIG GlobDev) Workshop on ICT and Sustainable Development, Barcelona, Spain.
- 6th International Development Informatics Association, Istanbul, Turkey.

# INFORMATION SYSTEMS

- Elearning Update 2012, Johannesburg, South Africa.
- Emerge 2012, Johannesburg, South Africa.
- Strategies to Overcome Structural Poverty and Inequality in South Africa: Towards Carnegie III, Cape Town, South Africa.

## Postgraduates/Graduations

Staff and a total of forty-three (43) postgraduate students, (thirty (30) honours, eleven (11) masters and two (2) doctoral), engaged in a variety of research projects during the year. At the graduation ceremony in April 2012, we celebrated the graduation of one (1) Masters student (Bokang Mthupha) and thirty (30) Honours students.

## Distinguished Visitors/ Overseas Visits

**Ms Brenda Mallinson's** on-going appointment as a Research Associate bolstered the area of eLearning, whilst visiting Professor Sue Conger (University of Dallas) spent valuable time in the Department working and collaborating with staff and students on various research projects. In addition, visiting Professor Malcolm Sainsbury spent time in the department teaching in the area of Information Systems Management.

## Significant Research Aligned Events

The Department of Information Systems, in conjunction with Computer Science, again hosted the annual Eastern Cape ICT Research Rumble at the Gavin Relly PostGrad Village, Rhodes University. The event was a collaborative

meeting between the Departments of Computer Science and Information Systems at Rhodes University, Nelson Mandela Metropolitan University, Walter Sisulu University, and the University of Fort Hare. The conference was a great success and promises to foster greater research collaboration between these Universities.

**Dr Caroline Khene** participated in two research projects. In the Siyakhula Living Lab, she led the development of a sub-committee to support the ethical coordination of the project in rural areas. She also participated in the Sundays River Valley Municipality Workshop on Water, in collaboration with the Institute of Water Research at Rhodes University. This workshop brought together internal and external stakeholders of the municipality to identify challenges in water service delivery and propose possible solutions to address these challenges. Dr Khene participated as an Information Systems expert to discuss possible ICT initiatives to support service delivery operations within the municipality.

Finally, the department was delighted to have the continued support of industry partners Singular Systems, Business Systems Group (BSG) and Open Box who all contributed towards our Research and Development Fund. The fund continues to support research efforts and staff development in the department.

**Professor Greg Foster**

Head of Department

# INFORMATION SYSTEMS

## Books/Chapters/Monographs

*Conger, S.*

**Conger, S.** (2012) Service Quality: Status and Research Directions. In: Kajan, E., Dorloff, F.D. and Bedini, I. (eds.). *Handbook of Research on E-Business Standards and Protocols: Documents, Data and Advanced Web Technologies*. USA: IGI Global. p.537-566. ISBN: 9781466601468.

## Distinguished Visitors

**S Conger.** University of Dallas, Irving, USA. *Lecture and Research*. August 2012.

**Prof M Sainsbury.** OwlIT, Johannesburg, South Africa. *Lecture*. September 2012.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Khene, C.J.*

**Khene, C.J.** (2012) A needs assessment to identify the reality of two rural school cases in South Africa: potential for ICT4D or not? *International Journal of Education and Development Using ICT*. 8 (2). p.44-61.

*Khene, C.J. and Sewry, D.A.*

**Khene, C.J. and Sewry, D.A.** (2012) The Rural ICT Comprehensive Evaluation Framework: Implementing the First Domain, The Baseline Study Process. *Electronic Journal of Information Systems in Developing Countries*. 51 (8). p.1-34.

*Mufeti, T.K. and Foster, G.G.*

**Mufeti, T.K., Foster, G.G. and Terzoli, A.** (2012) Challenges Experienced in the First

Year of Implementation of a Teaching and Learning Virtual Partnership at the University of Namibia. *Journal of the Research Center for Educational Technology*. 8 (1). p.26-37.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Krauss, K.E.M.*

**Krauss, K.E.M.** (2012) Towards self-emancipation in ICT for Development research: narratives about respect, traditional leadership and building networks of friendships in rural South Africa. *African Journal of Information Systems*. 4 (2). p.46-60.

*Mthoko, H.T.W. and Khene, C.J.*

**Mthoko, H.T.W. and Khene, C.J.** (2012) Towards a theoretical framework on ethical practice in ICT4D programmes. *Information Development*. 29 (1). p.36-53.

*Schlenkrich, L. and Sewry, D.A.*

**Schlenkrich, L. and Sewry, D.A.** (2012) Factors for Successful Use of Social Networking Sites in Higher Education. *South African Computer Journal*. 49 (2012). p.12-24.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Alistoun, G. and Upfold, C.T.*

**Alistoun, G. and Upfold, C.T.** A Proposed Framework for Guiding the Effective Implementation of an Informal Communication System for Virtual Teams.

*Proceedings of the 6th European Conference on Information Management and Evaluation*. University College Cork, Cork. Ireland. September 2012.

*Fengu, N.C. and Krauss, K.E.M.*

**Fengu, N.C. and Krauss, K.E.M.** Introducing and implementing ICT4D training in a developing community in South Africa. *Strategies to Overcome Structural Poverty and Inequality in South Africa: Towards Carnegie III*. University of Cape Town, Cape Town. South Africa. September 2012.

*Freeme, D.M. and Gumede, P.S.*

**Freeme, D.M. and Gumede, P.S.** Determining the Maturity Level of eCommerce in South African SMEs. *Proceedings of the 6th European Conference on Information Management and Evaluation*. University College Cork, Cork. Ireland. September 2012.

*Khene, C.J.*

**Khene, C.J.** Assessing ICT4D Project Design: A Programme Theory Assessment of the Siyakhula Living Lab. *IDIA2012 Conference Proceedings*. Beykent University, Istanbul. Turkey. September 2012.

*Krauss, K.E.M.*

**Van Der Schyff, K.I. and Krauss, K.E.M.** Cloud Adoption: A South African Perspective. *First Pre-ECIS Special Interest Group for ICT in Global Development (SIG GlobDev) Workshop on ICT and Sustainable Development*. Avda. de Pedralbes, Barcelona. Spain. June 2012.

**Krauss, K.E.M.** "You can only interpret that which you are able to perceive:

Demonstrating critical reflexivity in ICT4D work. *First Pre-ECIS Special Interest Group for ICT in Global Development (SIG GlobDev) Workshop on ICT and Sustainable Development*. Avda. de Pedralbes, Barcelona. Spain. June 2012.

*Mallinson, B.J.*

**Mallinson, B.J. and Krull, G.E.** An Evaluation of the Supporting Infrastructure for Deployment of the Moodle Virtual Learning Environment (VLE) at Eight African Universities. *Emerge 2012*. Online. Johannesburg. South Africa. July 2012.

**Krull, G.E. and Mallinson, B.J.** Building Capacity to Support Online Learners at African Higher Education Institutions. *Elearning Update 2012*. Emperor's Palace, Johannesburg. South Africa. August 2012.

*Thorne, J.-P.*

**Thinyane, H.E. and Thorne, J.P.** An empirical investigation into the use of digital photo frames as low cost e-book readers. *SAICSIT 2012 Contemplate/Connect/ Collaborate Proceedings*. Irene Country Lodge, Centurion. South Africa. October 2012.



# JOURNALISM & MEDIA STUDIES

School of

## JOURNALISM & MEDIA STUDIES

The Mellon project on Media and Citizenship hosted a series of panels on media and citizenship at the Think!Fest series of public lectures during the National Arts Festival.

All photos taken by Journalism students in 2012

Cattle auctions are the most important marketing channel for livestock. The small stocks, such as these sheep, are sent through first and are sold according to their weight. They are weighed as a group and from that the average weight and price are determined to be sold to the highest bidder. September 2012, Grahamstown.

*Photo: Sara Garrun*



Staff from the School of Journalism and Media Studies have again produced varied outputs ranging from academic book chapters and journal articles to articles in newspapers, magazines and online media.

Several members of staff have been involved with the organisation of conferences, seminars and workshops, and some have also contributed to exhibitions.

Work continued in two funded research projects involving several members of staff. These are the Humanities Research Focus Area on Media and Citizenship, funded by the Andrew W. Mellon Foundation and a project on Youth Identity, Media Use and Consumption and the Public Sphere in South Africa, funded by the SA-Netherlands Partnership on Alternatives in Development (SANPAD).

Professor Herman Wasserman started work as a member of two funded projects around South African media within the emerging BRICS group of states.

# JOURNALISM & MEDIA STUDIES

The first of these, funded by the Academy of Finland, involves a team of researchers representing all five BRICS countries co-ordinated by Kaarle Nordenstreng from the University of Tampere, and is titled “Media Systems in Flux: The Challenge of the BRICS countries”. The second, funded by the Chiang-Ching Kuo Foundation for International Scholarly Exchange (Taiwan), focuses on “China’s Promotion of Soft Power in Africa: a study of emerging media and cultural relations between China and southern Africa”, and is carried out in collaboration with researchers from the University of Nottingham and Westminster University.

## Distinguished Visitors/ Overseas Visits

The Mellon project on Media and Citizenship hosted various guest speakers, including Professor Bob Mattes from the University of Cape Town, Dr Katrin Voltmer from Leeds University, UK and David Holwerk from the Kettering Foundation in Ohio, USA.

**Professor Herman Wasserman** was invited to give the keynote address at a conference titled *The Future of Global Communication and Journalism*, held at Tsinghua University in Beijing, China in December 2012. He was also an invited speaker at conferences in Kigali, Rwanda and Helsinki, Finland.

## Significant Research Aligned Events

The Mellon project on Media and Citizenship hosted a series of panels on media and citizenship at the Think!Fest series of public lectures during the National Arts Festival. The Think!Fest event was convened by **Professor Anthea Garman**.

Professor Wasserman was elected as head of the International Communication Section of the International Association for Media and Communication Research (IAMCR) at their annual conference in Durban, KwaZulu-Natal.

The annual Highway Africa conference was held in September 2012, on the theme *Africa Rising? How the media frame the continent’s geopolitics, trade and economic growth*. The conference was hosted in collaboration with the Global Forum for Media Development, and saw a record number of attendees. The conference was directed by **Chris Kabwato**, with several members of the School contributing to the programme.

**Professor Jane Duncan** made several contributions to the formulation of media policy. These include submissions to the Press Freedom Commission hearings on media regulation, to the Open Society Foundation (OSF) roundtable on the Regulation of Gatherings Act, the Independent Communications Authority’s regulatory review, the Parliamentary hearings on press transformation and the National Council of Provinces public hearings on the Protection of State Information Bill.

**Professor Herman Wasserman**

Deputy Head of Department



# JOURNALISM & MEDIA STUDIES

## Books/Chapters/Monographs

*Dalvit, L.*

**Dalvit, L., Sieborger, I.G. and Thinyane, H.E.** (2012) The expansion of the Siyakhula Living Lab: A holistic perspective. In: Popescu-Zeletin, R., Jonas, K., Rai, I.A., Glitho, R. and Villafiorita, A. (eds.). *E-Infrastructure and E-Services for Developing Countries: Third International ICST Conference, AFRICOMM 2011, Zanzibar, Tanzania, November 23-24, 2011, Revised Selected Papers*. London: Springer. p.228-238. ISBN: 9783642290923.

**Dalvit, L.** (2012) "Mayifike e-learning! Bringing African languages into the twenty-first century classroom through e-learning. In: McCabe, K. and van Wyk, K. (eds.). *Teaching and e-Learning in the South African Classroom*. Cape Town, South Africa: McMillan Press. p.137-148. ISBN: 9781779307599.

*Duncan, J.*

**Duncan, J.** (2012) Voice, Political Mobilisation and Repression under Jacob Zuma. In: Dawson, M.C. and Sinwell, L. (eds.). *Contesting Transformation: Popular Resistance in Twenty-First-Century South Africa*. London: Pluto Press. p.44-62. ISBN: 9780745332734.

*Garman, A.C.*

**Garman, A.C.** (2012) Troubling White Englishness in South Africa. In: Falkoff, N. (ed.). *On Whiteness*. Oxford, UK.: Interdisciplinary.net. p.263-273. ISBN: 9781848881051.

*Maweu, J.M.*

**Maweu, J.M.** (2012) Media Liberalization in Kenya: Who benefits what? In: Olatunji, R.W. (ed.). *Dimensions of Advertising Theory and Practice in Africa Dimensions of Advertising Theory and Practice in Africa*. Dakar: Amalion.

p.123-134. ISBN: 9782359260182.

*Prinsloo, J.-R.J.*

**Prinsloo, J.-R.J.** (2012) Seductive little girls on children's TV: Sexualisation and gender relations. In: Gotz, M. and Lemish, D. (eds.). *Sexy girls, heroes and funny losers*. Frankfurt: Peter Lang. p.69-90. ISBN: 9783631633199.

*Wasserman, H.J.*

**Wasserman, H.J.** (2012) Towards A Global Journalism Ethics Via Local Narratives: Southern African Perspectives. In: Ayish, M. and Rao, S. (eds.). *Explorations in Global Media Ethics*. p.1-2. ISBN: 9780415622851.

**Wasserman, H.J.** (2012) The Presence of the Past: The Uses Of History In The Discourses of Contemporary South African Journalism. In: Conboy, M. (ed.). *How Journalism Uses History*. London: Routledge. p.79-93. ISBN: 9780415622905.

**Ward, S.J.A. and Wasserman, H.J.** (2012) Toward an open ethics: implications of new media platforms for global ethics discourse. In: *Media Accountability: who will watch the watchdog in the Twitter age?* London: Routledge. p.1-2. ISBN: 9780415698399.

## Concerts, Exhibitions, Performances, Workshops, Events

*Dalvit, L.*

**Dalvit, L.** organised a workshop on "Mobile Technology and Digital Life" as part of Highway Africa 2012. Mobile Technology and Digital Life. *Highway Africa 2012*. Rhodes University, Grahamstown. South Africa. 1 January - 11 September 2012.

**Dalvit, L.** Lecturing. Social implications of mobile apps in Africa. *Maputo Summer School*. Maputo Living Lab, Maputo. Mozambique.



Wildlife veterinarian, Dr William Fowlds and Braam Malherbe tend to Thandiswa, a female rhino who was attacked by poachers on Kariega Game Reserve in the Eastern Cape, March 2012.

Photo: Sara Garrun

23 - 27 July 2012.

*Duncan, J.*

**Duncan, J.** Oral submission. Submission to the Press Freedom Commission hearings. *Press Freedom Commission hearings into press self-regulation, co-regulation or statutory regulation*. Braamfontein Civic Centre, Johannesburg. South Africa. 31 January 2012.

**Duncan, J.** Presentation. Presentation on the application of the Regulation of Gatherings Act. *OSF roundtable on the Regulation of Gatherings Act*. The Castle, Cape Town. South Africa. 7 February 2012.

**Duncan, J.** Oral submission. *Presentation on Icasa regulatory review issues paper. Icasa regulatory review*. Icasa offices, Johannesburg. South Africa. 11 May 2012.



# JOURNALISM & MEDIA STUDIES



Ethel Botha holds a photograph of her and her husband. 05 September 2012, Riebeeck East, Eastern Cape, South Africa. Ethel says the photograph is her most prized possession as it shows her and her husband as leaders in the church, which is how she wants to be remembered when she dies.

Photo: Stephanie Lloyd

**Duncan, J.** Oral submission. Oral submission on press transformation. *Parliamentary hearings on press transformation*. Independent Communications Authority of SA, Johannesburg. South Africa. 11 June 2012.

**Duncan, J.** Oral submission. Higher Education SA submission to National Council of Provinces on the Protection of State Information Bill. *National Council of Provinces public hearings on the Protection of State Information Bill*. Parliament, Cape Town. South Africa. 28 March 2012.

**Duncan, J.** Seminar paper. The role of the media in perpetuating a divided society. *Steve Biko Memorial panel debate, Umtapo Centre and the Durban University of Technology*. Durban University of Technology, Durban. South Africa. 21 September 2012.

**Duncan, J.** Presentation. Submission on Icasa's draft DTT regulations. *Independent Communications Authority of SA public hearings on draft digital terrestrial television regulations*. Icasa offices, Johannesburg. South Africa. 23 August 2012.

**Duncan, J.** Seminar paper. Voice, political mobilisation and repression under Jacob Zuma. *Centre for Civil Society seminar series*. University of KwaZulu/ Natal, Durban. South Africa. 18 July 2012.

**Garman, A.C.**

**Garman, A.C.** Delegate. *Franschoek Literary Festival*. Franschoek. South Africa. 11 - 12 May 2012.

**Garman, A.C.** Convenor of the programme. *Think!Fest*. Eden Grove, Grahamstown. South Africa. 29 June - 8 July 2012.

**Greenway, P.W.**

**Greenway, P.W.** Exhibition. *"Restitution: Seeing Past Loss and Abandonment"*. Alumni Gallery, Albany History Museum, Grahamstown, Eastern Cape, South Africa. 21 September-12 October 2012.

**Greenway, P.W.** Photographic coverage of Consulting Engineers South Africa (CESA)

annual conference. Durban, Kwa Zulu-Natal, South Africa. 9-11 November 2012.

**Greenway, P.W.** Workshop leader. *Photographic Training Workshop for African Impact and Limephoto*. Thanda Private Game Reserve, Mkuze, Kwa Zulu-Natal, South Africa. 12-16 November 2012.

**Hills, P.R.**

**Hills, P.R.** Participant. UNESCO/DW-AKADEMIE. *UNESCO/DW-AKADEMIE - Train the Trainer*. WSU-, East London. South Africa. 15 - 27 January 2012.

**Hills, P.R.** and Nesbitt Hills, C.A. co-facilitator. Improving your Photography. *Photojournalism Workshop*. Rhodes, Grahamstown. South Africa. 17 September 2012.

Nesbitt Hills, C.A. and **Hills, P.R.** Co - facilitator. Hostile Environments & Vulnerable Communities Awareness Workshop. *Hostile Environments Course*. Rhodes, Grahamstown. South Africa. 25 April 2012.

**Mavhungu, J.**

**Mavhungu, J.** Convenor, workshop on Media Management in Africa: reviewing drafts for book chapters. March 2012.

**Rennie, G.**

**Rennie, G.** Performer. Improv writer. *Read the Moment*. Rhodes Box Theatre, Grahamstown. South Africa. 13 November 2012.

**Rennie, G.** Delegate. *Franschoek Literary Festival*. Franschoek. South Africa. 11 - 13 May 2012.

**Wasserman, H.J.**

**Wasserman, H.J.** Presentation. The Role of Media in a Democracy. *Eastern Cape Provincial Legislature's Media Indaba*. Regent Hotel, East London. South Africa. 19 - 20 June 2012.

## Creative Writing

**Garman, A.C.**

**Garman, A.C.** (2012) Read the Signs. In: Jobson, I. (ed.). *The Sol Plaatje European Union Poetry Anthology Vol 2*. 2nd Ed. Johannesburg: Jacana Media (Pty) Ltd.

**Rennie, G.**

**Rennie, G.** (2012) Spring in New York. In: Jobson, L. (ed.). *Sol Plaatje European Union Poetry Anthology Vol II*. Johannesburg: Jacana Media (Pty) Ltd.

**Rennie, G.** (2012) Four Stages of Surgery. In: Jobson, L. (ed.). *Sol Plaatje European Union Poetry Anthology Vol II*. Johannesburg: Jacana Media (Pty) Ltd.

## Distinguished Visitors

**Prof D Buckingham.** Institute of Education, London University and Centre for the Study of Children, Youth and Media, London, United Kingdom. *Seminar*. August 2012.

**Prof A Villafiorita.** Bruno Kessler Foundation, Bruno, Italy. *Lecturer*. November 2012.

**Dr Katrin Voltmer.** University of Leeds, UK. *Visiting scholar*. July 2012.

## International Visits

**Dalvit, L.**

**Dalvit, L.** Maputo Living Lab, Lurdes, Mozambique. *ICT congress on media and communication*. 23 - 27 July 2012.

## Other Publications

**Duncan, J.**

**Duncan, J.** (2012) We're being ripped off. In: *The Witness*. Pietermaritzburg.

**Duncan, J.** (2012) Time right for a new party. In: Robertson, H. (ed.). *The Herald*. Port Elizabeth.

# JOURNALISM & MEDIA STUDIES

**Duncan, J.** (2012) Monitoring and defending internet freedom and privacy in South Africa. In: Liddicoat, J. (ed.). *Internet rights and democratisation*. South Africa: Association for Progressive Communications/ Hivos.

**Duncan, J.** (2012) South African television's accumulation by dispossession. In: Nevill, G. (ed.). *The Media Online*. Online publication.

**Duncan, J.** (2012) Lockdown: closing the research space. In: *Mail and Guardian*. Johannesburg.

**Duncan, J.** (2012) Academics missing in fight against Secrecy Bill. In: *SABC News.com*. Johannesburg: SABC News.

**Duncan, J.** (2012) The dangers of crying wolf on press freedom. In: Nevill, G. (ed.). *The Media Online*. Johannesburg.

**Duncan, J.** (2012) Moving out of the cycle of violence. In: Rantao, J. (ed.). *Sunday Tribune*. Durban.

**Duncan, J.** (2012) The turning point for internet freedom. In: Nevill, G. (ed.). *The Media Online*. Online publication.

**Duncan, J.** (2012) Slipping into a spiral of strife. In: Williams, M. (ed.). *The Star*. Johannesburg.

**Duncan, J.** (2012) Technology cannot drive change. In: Whitfield, C. (ed.). *Weekend Argus*. Durban.

**Duncan, J.** (2012) Battle of the boggle box. In: *The Witness*. Pietermaritzburg.

**Duncan, J.** (2012) Too many imponderables in the DTT switchover. In: Krost Mauder, P. (ed.). *The Media Magazine*. Johannesburg.

**Duncan, J.** (2012) Marikana and the problem of pack journalism. In: Matthews, J. (ed.). *SABC News.com*. Johannesburg: SABC News.

**Duncan, J.** (2012) Media underplaying state, police brutality. In: Rantao, J. (ed.). *Sunday Independent*. Johannesburg.

**Duncan, J.** (2012) Zuma is closing down our society. In: Dasnois, A. (ed.). *Cape Times*. Cape Town.

**Duncan, J.** (2012) Press self-regulation: dead or alive?. In: Dasnois, A. (ed.). *Cape Times*. Cape Town.

**Duncan, J.** (2012) Rise in police violence a symptom of social ills. In: *Daily Dispatch*. East London.

*Mavhungu, J.*

Thomas, H and **Mavhungu, J.** 2012. Investigating a sustainable model for implementing community television. *Research Report for the Department of Communications*. Pretoria.

**Mavhungu, J.** and Thomas, H. 2012. Can community television go the distance? In: Krost Mauder, P. (ed.): *The Media Magazine*. Johannesburg: Wag the Dog.

*Rennie, G.*

**Rennie, G.** (2012) When faced with an uncertain future, read! In: Garman, A. (ed.). *Rhodes Journalism Review*. Grahamstown: Rhodes University School of Journalism and Media Studies.

**Rennie, G.** (2012) The eloquence of wordlessness. In: *Cue*. Grahamstown: Rhodes University School of Journalism and Media Studies.

*Solomon, M.H. and Wasserman, H.J.*

**Solomon, M.H. and Wasserman, H.J.** (2012) Outcry and protest as South Africa passes new 'Secrecy Bill'. In: *The World Today*. London: Chatham House.

*Wasserman, H.J.*

**Wasserman, H.J.** (2012) China in South Africa: Another BRIC in the wall? In: Fuller,

M.B. and Nebbe, M. (eds.). *Africa Growth Report*. Zurich: Innovatio.

**Wasserman, H.J.** (2012) The need for nuance. In: *Rhodes Journalism Review*.

**Wasserman, H.J.** (2012) Reporting Mandela: Of vultures and watchdogs. In: Maunder, P. (ed.). *The Media Online*. Johannesburg: Wag the Dog.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Hills, P.R.*

**Hills, P.R.,** Steiner, L., McCaffrey, R. and Guo, J. (2012) The Wire and Repair of the Journalistic Paradigm. *Journalism: Theory, Practice and Criticism*. N/A (on-line). p.1-18.

*Prinsloo, J.-R.J.*

**Prinsloo, J.-R.J.** (2012) Mediated boyhoods: Boys, teens and young men in popular media and culture. *Journal of Children and Media*. 6 (2). p.276-279.

**Prinsloo, J.-R.J.,** Moletsane, R. and McLean, N. (2012) Cyberqueer sa: Reflections on internet usage by some transgender and lesbian South Africans. *Gender and Media Diversity Journal*. 10 (1). p.139-147.

*Steenveld, L.N.*

**Steenveld, L.N.** (2012) The pen and the sword: Media transformation and democracy after apartheid. *Ethical Space: The international journal of Communication and Ethics*. 9 (2). p.125-140.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Dewa, N. and Prinsloo, J.-R.J.*

**Dewa, N. and Prinsloo, J.-R.J.** (2012) "I

am a man! the Daily Sun campaign and gender violence". *Ecquid Novi-African Journalism Studies*. 33 (2). p.20-35.

*Gess, H.W.*

**Gess, H.W.** (2012) Climate change and the possibility of 'slow journalism'. *Ecquid Novi-African Journalism Studies*. 33 (1). p.54-65.

*Schoon, A.J.*

**Schoon, A.J.** (2012) Dragging young people down the drain: the mobile phone, gossip mobile website *Outoilet* and the creation of a mobile ghetto. *Critical Arts: A Journal of South-North Cultural and Media Studies*. 26 (5). p.690-706.

*Steenveld, L.N., Strelitz, L.N. and Wasserman, H.J.*

**Steenveld, L.N., Strelitz, L.N. and Wasserman, H.J.** (2012) The School of Journalism and Media Studies, Rhodes University, South Africa. *Journalism Studies*. 2012 (2012). p.1-11.

*Wasserman, H.J.*

**Wasserman, H.J.** (2012) China in South Africa: media' responses to a developing relationship. *Chinese Journal of Communication*. 5 (3). p.336-354.

*Wasserman, H.J. and Garman, A.C.*

**Wasserman, H.J. and Garman, A.C.** (2012) Speaking out as citizens: voice and agency in post-apartheid South African media. *Communitas: journal for Community Communication and Information Impact*. 17 (2012). p.39-57.

*Wasserman, H.J. and Mbatha, L.*

**Wasserman, H.J. and Mbatha, L.** (2012) Tabloid TV in Zambia: A reception study of Lusaka viewers of Muvi TV news. *Journal of African Media Studies*. 4 (3). p.277-293.



# JOURNALISM & MEDIA STUDIES



Sarah Pieters, from Riebeck East, although disabled and wheel-chair bound, loves to cook for her family. She has two small girls in the local kindergarden who enjoy her samp with beans and chicken. Photo: Jessica Kriedemann

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Amner, R.J. and Wasserman, H.J.*

**Amner, R.J. and Wasserman, H.J.** Ethics as 'public' and 'relational': teaching

'democratic listening' to South African journalism students. *Journalism Ethics: Individual, Institutional or Cultural?* Reuters Institute, University of Oxford, Oxford. United Kingdom. September 2012.

*Boshoff, P.A.*

**Boshoff, P.A.** The truth about witchcraft: representations of witchcraft in the Daily Sun. *International Association for Media and*

*Communication Research.* University of KwaZulu-Natal, Durban. South Africa. July 2012.

**Boshoff, P.A.** Capital or Critique? When Journalism Education Seeks to Influence the Field. *1st International Conference on Journalism Studies: Identity, changes and challenges of the profession in the 21st Century.* Telefónica Corporate Building, Avenida Providencia 111, Santiago. Chile. June 2012.

*Dalvit, L.*

**Magadza, A. and Dalvit, L.** Using narratives to explore the computer and mobile phones experiences of students at a South African institution. *The International Seminar on Narratives and Social Memory.* 29-30 June 2012. University Minho, Braga, Porto. Portugal. June 2012.

**Dalvit, L. and Magadza, A.** Building a Firm Foundation: Theory Informing Practice. *Assessing learners' computer ICT experiences in foundation programmes.* Pretoria, Pretoria. South Africa. June 2012.

**Gunzo, F.T., Dalvit, L., Sobeiraj, A. and Barahona, R.** E-learning for Global Citizenship with Conectando Mundos: A South African Experience. *eLmL 2012: The Fourth International Conference on Mobile, Hybrid, and On-line Learning.* Polytechnic University of Valencia, Valencia. Spain. January 2012.

**Hamwedi, A.M. and Dalvit, L.** E-learning and M-learning in African Languages: A Survey of Oshikwanyama Students at a Northern Namibian School. *eLmL 2012: The Fourth International Conference on Mobile, Hybrid, and On-line Learning.* Polytechnic University of Valencia, Valencia. Spain. January 2012.

**Dalvit, L., Sieborger, I.G. and Thinyane, H.E.** The Expansion of the Siyakhula Living

Lab: A Holistic Perspective. *e-Infrastructure and e-Services for Developing Countries: Third International ICST Conference, AFRICOMM 2011: LNICST 2012.* Zanzibar. Tanzania. November 2011.

**Gunzo, F.T. and Dalvit, L.** A Survey of Cell Phone and Computer Access and Use in Marginalised Schools in South Africa. *Proceedings of M4D 2012.* Mapple Emarald Hotel, New Dehli. India. February 2012.

**Dalvit, L., Gunzo, F.T. and Abel, S.R.** Using the What? So What? Now What? Reflection model to teach Grade 9 Financial Mathematics. *SAARMSTE.* Crossroads Hotel, Lilongwe. Malawi. January 2012.

*Dalvit, L. and Kromberg, S.G.*

**Dalvit, L. and Kromberg, S.G.** "Introducing NikaNOW: a Mobile Platform for Hyperlocal Media in South Africa". *AFRICOMM, 12-14 November 2012.* Yeorunde. Cameroon. November 2012.

*Du Toit, J.E.*

**Nosilela, B.B., Maseko, P. and Du Toit, J.E.** Promoting multilingualism at a South African University: a shared interdisciplinary experience. *2nd Language Teaching Colloquium on Teaching Languages as 2nd or Additional Languages in a Multilingual Context.* Rhodes University, Grahamstown. South Africa. October 2012.

*Dugmore, H.L.*

**Dugmore, H.L.** From desk(lap)top computers to tablets and smartphones: How are journalists responding to the mobile revolution? A view from Africa. *International Symposium on Online Journalism.* University of Texas, Austin. USA. April 2012.

**Dugmore, H.L.** Communities of Practice and the sustainability of Citizen Journalism:



# JOURNALISM & MEDIA STUDIES

lessons from a South African experiment. *International Association for Media and Communication Research Conference*. UKZN, Durban. South Africa. July 2012.

**Duncan, J.**

**Duncan, J.** "It's not just the unions that are cut off from the people, but the media too": reconstituting South Africa's mediated public sphere. *Rethinking the public in South Africa*. University of the Free State, Bloemfontein. South Africa. October 2012.

**Duncan, J.** Marikana and media transformation. *Lineages of freedom*. Rhodes University, Grahamstown. South Africa. January 2012.

**Duncan, J.** A political economy of press self-regulation: the case of South Africa. *International Association of Communications and Media Research*. University of KwaZulu-Natal, Durban. South Africa. July 2012.

**Duncan, J.** Internet freedom in South Africa. *Highway Africa conference*. Rhodes University, Grahamstown. South Africa. September 2012.

**Garman, A.C.**

**Garman, A.C.** Political 'blackness' and media 'whiteness'. *Challenging Institutional Whiteness in Postcolonial Times*. Leeds University, Leeds. United Kingdom. September 2012.

**Garman, A.C.** Peer Review and the creation of truly collegial North-South Conversations. *International Association of Media and Communication Researchers*. University of KwaZulu-Natal, Durban. South Africa. July 2012.

**Garman, A.C. and Wasserman, H.J.**

**Garman, A.C. and Wasserman, H.J.** Being South African and belonging: the status and practice of mediated citizenship in a new democracy. *The 7th Global Conference Pluralism, Inclusion and Citizenship*. Prague.

Czech Republic. March 2012.

**Garman, A.C. and Wasserman, H.J.**

Speaking out as Citizens: Voice, Agency and Participation in Post-Apartheid South Africa. *International Association of Media and Communication Researchers*. University of KwaZulu-Natal, Durban. South Africa. July 2012.

**Mare, A.**

**Mare, A.** Skating on thin ice: Tinkering with the nerve centre of democracy in transitional Zimbabwe. *Media Alliance of Zimbabwe, Media Stakeholders Conference*. Crowne Plaza, Harare. Zimbabwe. September 2012.

**Mare, A.** Social media and social protests in Southern Africa: A comparative analysis of Malawi, Zimbabwe, South Africa, Swaziland and Mozambique. *Highway Africa conference*. Rhodes University, Grahamstown. South Africa. September 2012.

**Mare, A.** Investigating the Popularity of the Zimbabwean tabloid newspaper H-Metro: A reception study of Harare readers. *Beyond Normative Approaches: Everyday Media Culture in Africa*. University of the Witwatersrand, Johannesburg. South Africa. February 2012.

**Mavhungu, U.J.**

**Mavhungu, U.J.** A qualitative study of mobile news services in South Africa: *World Media Economics and Management Conference*. Aristotle University of Thessaloniki, Greece. May 2012.

**Maweu, J.M.**

**Maweu, J.M.** Helping The Global Poor: Their Right Or Our Moral Obligation. *International Symposium organized by the Center for Human Rights and Peace, Dept. of Philosophy, University of Nairobi*. University of Nairobi, Nairobi. Kenya. February 2012.

**Maweu, J.M.** A Clash of Journalistic and

Capitalist Values? How Journalists Respond To Meddling Advertisers in Commercial Media in Kenya. *Beyond Normative Approaches: Media and Everyday Culture in Africa*. University of the Witwatersrand, Johannesburg. South Africa. February 2012.

**Maweu, J.M.** Money, Power and the Media: The nexus between Media Power and Market power. *Sino-Africa international conference*. Multimedia University, Nairobi. Kenya. July 2012.

**Maweu, J.M.** The Freedom to be Silent? A case of market censorship muzzling media freedom in Corporate media in Kenya. *International Association of Media and Communication Research (IAMCR)*. UKZN, Durban. South Africa. July 2012.

**Maweu, J.M.** Worthy and Unworthy Victims? How the Mainstream media in Kenya Covered the 'Ocampo Six' cases versus the IDP cases at The Hague. *International Peace Research Association (IPRA)*. Mie University, Japan. November 2012.

**Mbatha, L.**

**Mbatha, L.** Investigating the popularity of a Zambian Television station, Muvi TV: A reception study of Lusaka Viewers. *Beyond Normative Approaches: Everyday Media culture in Africa*. University of the Witwatersrand, Johannesburg. South Africa. February 2012.

**Schoon, A.J.**

**Schoon, A.J.** Experiments in teaching program journalism. *1st International Conference on Journalism Studies: Identity, changes and challenges of the profession in the 21st Century*. Telefonica Building, Providencia, Santiago de Chile. Chile. June 2012.

**Schoon, A.J.** Mixing with Mxit when you're mixed: Young people, hybrid identity and the mobile phone. *Beyond Normative*



Archbishop Emeritus Desmond Tutu addresses the students of the newly named Desmond Tutu Hall at Rhodes University in March 2012. Photo: Catherine Pennels

*Approaches: Everyday Media Culture in Africa*. University of the Witwatersrand, Johannesburg. South Africa. February 2012.

**Steenveld, L.N.**

**Steenveld, L.N.** Editor's impact on a news organization: A South African case study. *International Association of Media and Communication Research*. Kwa-Zulu Natal, Durban. South Africa. July 2012.

# JOURNALISM & MEDIA STUDIES

**Steenveld, L.N.** Limitations of the liberal view of news media's democratic role. *SAHUDA. Lineages of Freedom: Emancipatory Traditions Colloquium*. Rhodes University, Grahamstown. South Africa. October 2012.

**Steenveld, L.N.** The differences between the production of knowledge from media discourses and social science discourses. *Ahmed Kathrada Foundation and Wits Intercultural & Diversity Conference: Unity in Diversity: What it means for nation-building and non-racialism*. University of Johannesburg, Johannesburg. South Africa. October 2012.

*Tsarwe, S.Z. and Dugmore, H.L.*

**Tsarwe, S.Z. and Dugmore, H.L.** "Too tired to speak: voice and alienation in a small town's public sphere. *International Association for Media and Communication Research Conference*. UKZN, Durban. South Africa. July 2012.

*Wasserman, H.J.*

**Wasserman, H.J. and Rao, S.** Journalism in the New Media World Order: The changing face of journalism practices in China, India, and South Africa. *First International Conference on Journalism Studies*. Santiago. Chile. June 2012.

**Wasserman, H.J.** China in Africa: Another BRIC in the wall? *Annual conference of the International Association for Media and Communication Research (IAMCR)*. University of KwaZulu-Natal, Durban. South Africa. July 2012.

**Wasserman, H.J.** The ethics of the everyday:

towards cultural normativity of the South African media. Wasserman, H. 2012. *The ethics of the everyday: towards cultural normativity of the South African media. Conference 'Beyond Normative Approaches: Everyday Media Culture in Africa'*. University of the Witwatersrand, Johannesburg. South Africa. February 2012.

**Wasserman, H.J.** Academic journals and knowledge production: South-North conversations between editors. *Annual conference of the International Association for Media and Communication Research (IAMCR)*. University of Kwazulu-Natal, Durban. South Africa. July 2012.

**Wasserman, H.J.** Innovating in Journalism Studies: New Theoretical and Methodological Approaches. *International Communication Association annual meeting*. Arizona, Phoenix. United States. May 2012.

**Wasserman, H.J.** South Africa's membership of BRICS: media perspectives. *Moscow Readings conference*. Moscow State University, Moscow. Russia. November 2012.

**Wasserman, H.J.** Keynote address: South Africa and China as BRICS partners: media perspectives on geopolitical shifts. *The Future of Global Communication and Journalism*. Tsinghua University, Beijing. China. December 2012.

**Wasserman, H.J.** Media self-regulation: democratic ideals and contextual challenges. *Fourth National Dialogue on Media Development*. Media High Council, Kigali. Rwanda. November 2012.

**Wasserman, H.J.** South African media: local contests and global shifts. *How Emerging States are Re-Shaping the Global Order*. Finnish Institute of International Affairs, Helsinki. Finland. November 2012.

Faculty of  
**LAW**

The Law Faculty staff maintained a steady research output in 2012.



Mr Viren Raja and Mr Andrew Pattinson, competed in the 2012 LLB moot final on 28 March before a Bench of three judges comprising Judge Judith Roberson, Adv Gerald Bloem SC and Dr Gustav Muller (RU, Faculty of Law).

A total of nine (9) peer reviewed subsidy-earning and two (2) peer reviewed non-subsidy earning academic articles on a wide range of legal topics in both local and international journals, and one (1) book chapter, were published by staff in the Faculty of Law.

Staff delivered sixteen (16) papers at conferences, one of which was an international conference in North America, and another at an international conference in The Netherlands.

## Postgraduates/Graduations

Three students completed their LLM degrees in 2012, two with distinctions - **Leanne Janse van Rensburg** - thesis title: *The violence of language: Contemporary hate speech and the suitability of legal measures regulating hate speech in South Africa* and **Alex Johns** - thesis title: *A descriptive analysis of statements taken by police officers from child complainants in sexual offence cases that examines the degree to which the form and content of the statements accord with best practice across a range of variables*.



# LAW

One student, supervised by **Professor Juma**, completed his PhD degree in 2012: **James Tsabora** - thesis title: *The application of the Rome Statute of the International Criminal Court to illegal natural resource exploitation in the Congo conflict*.

Our students participated actively in research activities, resulting in the presentation of two papers at conferences.

## Distinguished Visitors/ Overseas Visits

During the fourth term students were able to enjoy the experience and insights of our visiting Professors: Judge Clive Plasket, Adv Wim Trengove SC and Mr Max Boqwana, who presented a number of lectures to law students from first to fifth year over a period of several days. Their knowledge and experience were wonderfully enriching.

Professor Juma was the core convenor of a workshop on "African Perspectives on International Criminal Justice", a joint research project between Rhodes and Utrecht Universities, on *Relieving tension between ICC and African States*, which took place at The Hague, Netherlands in October 2012.

## Significant Research Aligned Events

**Professor Glover** continued his excellent work as managing editor of the *South African Law Journal*.

**Dr Kruger** arranged weekly research seminars for staff and postgraduate students to inculcate a research culture in the Faculty.

**Mr Gordon Barker**

Deputy Dean of Faculty



Mr Viren Raja winner of the 2012 LLB final year internal moot competition.

Mr Viren Raja and Mr Andrew Pattinson, accompanied by Professor Juma, represented Rhodes at the 21st African Human Rights Moot Court Competition which took place from 1 to 6 October 2012 at the Univerdade Eduardo Mondlane (UEM) of Maputo, Mozambique. All the teams argued four times, twice on behalf of the applicants and twice on behalf of the respondents. Our team unfortunately did not qualify for the finals.

## Books/Chapters/Monographs

*Muller, G.*

**Muller, G.** (2012) Conceptualising “Meaningful Engagement” as a Deliberative Democratic Partnership. In: Liebenberg, S. and Quinot, G. (eds.). *Law and Poverty: Perspectives from South Africa and Beyond*. Cape Town: Juta & Co. p.300-316. ISBN: 9780702194450.

## Concerts, Exhibitions, Performances, Workshops, Events

*Campbell, J.*

**Campbell, J.** Participant. *Congress of the Society of Law Teachers of Southern Africa, Nelson Mandela Metropolitan University*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. 10 - 13 July 2012.

*Glover, G.B.*

**Glover, G.B.** Attendance. *Middle Temple and General Council of the Bar South Africa Conference*. Allebleue, Franschhoek. South Africa. 20 - 23 September 2012.

**Glover, G.B.** Attendance. *Should a restatement of the law of unjustified enrichment be done?* University of Cape Town, Cape Town. South Africa. 24 - 26 March 2012.

*Juma, L.O.*

**Juma, L.O.** Core convenor. African Perspectives on International Criminal Justice. *Joint research project on Relieving tension between ICC and African States of Rhodes and Utrecht Universities*. The Hague. The Netherlands. 29 - 30 October 2012.

**Juma, L.O.** Attendance. *Reading workshop on the novel Kileleshwa*. University of Cape Town, Cape Town. South Africa. 7 September 2012.

## Other Publications

*Glover, G.B.*

**Glover, G.B.** (2012) Updated “Divorce” Division D. In: Clark, B. (ed.). *LexisNexis Family Law Service*. Durban: LexisNexis (Pty) Ltd.

**Glover, G.B.** (2012) Produced the revised edition of Preliminary note: “Lease”. In: *Butterworths Forms and Precedents*. Durban: LexisNexis (Pty) Ltd.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Juma, L.O.*

**Juma, L.O.** and Okpaluba, C. (2012) Judicial intervention in Kenya’s Constitutional Review Process. *The Washington University Global Studies Law Review*. 11 (2). p.287-364.

**Juma, L.O.** (2012) Human Rights & Post-conflict peacebuilding in the Democratic Republic of Congo. *Lesotho Law Journal*. 19 (2). p.147-188.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Glover, G.B.*

**Glover, G.B.** (2012) Juta & Co and the South African Law Journal: A milestone. *South African Law Journal*. 129 (2012). p.5-8.

**Glover, G.B.** (2012) The end of the road for the Roman rule of risk in sale? *Tydskrif Vir Die Suid-Afrikaanse Reg*. 2012 (4). p.650-669.

*Goolam, N.*

**Goolam, N.** (2011) Law, Religion and organ transplants. Koers: *Bulletin for Christian Scholarship*. 76 (2). p.261-282.

*Juma, L.O.*

**Juma, L.O.** (2012) Normative and institutional approaches to the protection of property rights of IDPs in Kenya’s Rift Valley Province. *African Journal of International and Comparative Law/Revue Africaine De Droit International Et Compare*. 20 (2). p.251-280.

**Juma, L.O.** (2012) The Narrative of Vulnerability and Deprivation in Protection Regimes for the Internally Displaced Persons (IDPs) in Africa: An Appraisal of the Kampala Convention. *Law, Democracy and Development*. 16 (2012). p.219-252.

**Juma, L.O.** (2012) Nothing but a mass of debris: Urban evictions and the right of access to adequate housing in Kenya. *African Human Rights Law Journal*. 12 (2). p.470-507.

**Juma, L.O.** (2012) Mortgage Bonds and the Right of Access to Adequate Housing in South Africa: Gundwana v Stoke Development & Others 2011 (3) SA 608 (CC). *Journal for Juridical Science*. 37 (1). p.1-21.

**Juma, L.O.** (2012) Human rights and conflict transformation in Africa: Some thoughts on transformative values of human rights. *Speculum Juris*. 2012 (2012). p.1-21.

*Kruger, R.*

**Kruger, R.** and Govindjee, A. (2012) The recognition of unremunerated rights in South Africa. *Southern African Public Law (SA Public Law)*. 27 (1). p.195-209.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Glover, G.B.*

**Glover, G.B.** A tangled web: Issues surrounding unconscionability in the South

African Consumer Protection Act. *Private Law and Social Justice Conference*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. August 2012.

**Glover, G.B.** An unprecedented precedent? Phodclinics (Pty) Ltd v Pinehaven Private Hospital (Pty) Ltd. *Congress of the Society of Law Teachers of Southern Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

*Heideman, V.J.*

**Heideman, V.J.** Pineapples, cadmium and the SPS Agreement. *Congress of the Society of Law Teachers of Southern Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

*Juma, L.O.*

**Juma, L.O.** Africa and international adjudicatory organs: Some thoughts on structural impartiality paradigm. *The African and International Law Conference*. Albany Law School, New York. North America. April 2012.

**Juma, L.O.** Debating Africa’s role in International Criminal Justice System. *The symposium on Human Rights and International Criminal Justice*. The Netherlands School of Human Rights, University of Utrecht, Utrecht. The Netherlands. April 2012.

**Juma, L.O.** The Narrative of Vulnerability and Deprivation in Protection Regimes for the Internally Displaced persons (IDPs) in Africa: An Appraisal of the Kampala Convention. *Mobility, Migrations, Development and Environment Colloque*. UNISA, Pretoria. South Africa. May 2012.

**Juma, L.O.** Chieftaincy Succession and Gender Equality in the Kingdom of Lesotho: Discordant Offerings of Constitutional Customary Law. *Congress of the Society of Law of Teachers of Southern Africa*. Nelson

# LAW

Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

*Kruger, R.*

**Kruger, R.** The president, the Constitution, the advocate and the silk gown. *Congress of the Society of Law Teachers of Southern Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

*Mqoke, R.B.*

**Mqoke, R.B.** The Recognition of Customary Marriages Act 120 of 1998 in need of urgent review. *Congress of the Society of Law Teachers of Southern Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

*Muller, G.*

**Muller, G.** Developing the law of evictions and the common law of joinder. *Society for Law Teachers of South Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

**Muller, G.** Developing the law of evictions and the common law of joinder. *Inaugural Poverty and Injustice seminar*. University of Pretoria, Pretoria. South Africa. October 2012.

*Obura, K.O.*

**Obura, K.O.** Fighting corruption while respecting human rights: An analysis of the civil forfeiture mechanism under the South African Prevention of Organised Crimes Act of 1998. *Congress of the Society of Law Teachers of Southern Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

*Tsabora, J.*

**Tsabora, J.** The Regulation of Private Military Security under International Humanitarian Law. *International Committee of the Red Cross All Africa Advanced Seminar*. Sheraton Hotel, Pretoria. South Africa. November 2012.

*Van Coller, E.H.*

**Van Coller, E.H.** Gay Clergy: The Court versus the Church. Who should compromise? *Congress of the Society of Law Teachers of Southern Africa*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. July 2012.

**Van Coller, E.H.** Teaching Administrative Law: The WHAT and the HOW. *Challenges to the achievement of Administrative Justice in South Africa*. University of Cape Town, Cape Town. South Africa. January 2012.

**Van Coller, E.H.** Gay Clergy and same sex unions: practical implications from a theological and legal perspective / Leraars en die verbintenisse met lewensmaats: Beoordeling vanuit 'n Regs- en teologiese gesigspunt. *Church Law workgroup and conference*. University of Pretoria, Pretoria. South Africa. September 2012.



# MANAGEMENT

## Department of **MANAGEMENT**

The Department offers a structured research component in the Masters programme.



Management Department staff and students:

Front Row: Professor Terry Jackson (Visiting Professor); Ms Kudakwashe Chodokufa (PhD student); Linda Mabuza (MComm student); Professor Lynette Louw; Ms Fungai Chigwendere (PhD student)

Back Row: Mr Theus Louw (Senior Lecturer); Mr Ian Preston (MComm student); Mr Thinkwell Ndhlovu (MComm student); Ms Jelilat Oyetunji (PhD student); Mr Trevor Amos (Head of Department); Mr Stan Zindiye (Lecturer).

During 2012, the Department of Management continued to integrate the development of research skills into its teaching, particularly at the fourth-year level where students are exposed to a research methodology module.

## Postgraduates/Graduations

Sixteen (16) Masters students and four (4) PhD students were registered in the Department.

## Distinguished Visitors/ Overseas Visits

International visits by staff members of the Department took place during the year. This included **Mr Theus Louw** and **Professor Lynette Louw** who lectured in Shanghai, China; **Mr Hans-Peter Bakker**

# MANAGEMENT

at the University of Utrecht, Netherlands; and **Mr Mark Maritz** at the University of Applied Sciences, Germany.

International guests hosted included: Professor Dr. Claude Mayer from the University of Applied Sciences (HAW) in Hamburg, Germany; Professor Arie Buijs and Dr Peter van der Meer from the Utrecht University in the Netherlands; and Professor Terence Jackson from Middlesex University in the United Kingdom.

## Significant Research Aligned Events

Staff of the Department published their research work as chapters in books as well as in journals. They also presented their papers at local and international conferences.

**Professor Lynette Louw**, is pleased to report that in the first year of the *Sandisa Imbewu* project, entitled “Chinese organizations in Sub-Saharan Africa: New dynamics, new synergies” two (2) Masters students and one (1) PhD student were registered, three (3) conference papers were presented and three (3) articles were published in international journals.

**Mr Trevor Amos**

Head of Department

## Books/Chapters/Monographs

*Amos, T*

**Amos, T.** (2012) The dynamics of Leadership. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.370-403. ISBN: 9780195995602.

**Amos, T.** (2012) Motivating for performance. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.404-437. ISBN: 9780195995602.

*Louw, L.*

**Louw, L.** (2012) The development of management thought. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.100-138. ISBN: 9780195995602.

**Louw, L.** (2012) Managerial Competencies. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.62-99. ISBN: 9780195995602.

*Louw, M.J.*

**Louw, M.J.** (2012) Organisational Communication. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.438-472. ISBN: 9780195995602.

**Louw, M.J.** (2012) Organisational cultures and workforce diversity. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.503-536. ISBN: 9780195995602.

*Zindiye, S.*

**Zindiye, S.** (2012) Fundamentals of decision making. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.246-271. ISBN: 9780195995602.

**Zindiye, S.** and Perks, S. (2012) Functional areas of management. In: Hellriegel, D., Jackson, S.E., Slocum, J.W., Staude, G.E., Amos, T., Klopper, H.B., Louw, L., Louw, M.J., Oosthuizen, T., Perks, S. and Zindiye, S. (eds.). *Management: Fourth South African Edition*. 4th Ed. New York: Oxford University Press. p.62-99. ISBN: 9780195995602.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Louw, L. and Mayer, C.H.*

**Louw, L.** and **Mayer, C.H.** (2012) Health professionals' challenges in managing HIV/AIDS in South Africa. *Organisation Management Journal*. 9 (4). p.268-279.

*Mayer, C.H.*

**Mayer, C.H.** (2012) Promoting intercultural competences in intercultural engineering. *Interculture Journal: Online-Zeitschrift fur interkulturelle Studien*. 11 (18). p.17-26.

**Mahadevan, J.** and **Mayer, C.H.** (2012) Intercultural Engineering. *Interculture Journal: Online-Zeitschrift fur interkulturelle Studien*. 11 (18). p.5-16.

*Mayer, C.H. and Louw, L.*

**Mayer, C.H.** and **Louw, L.** (2012) Managing cross-

# MANAGEMENT

cultural conflicts in organizations. *International Journal for Cross-Cultural Management*. 12 (1). p.1-6.

*Zindiye, S.*

**Zindiye, S.**, Chiliya, N. and Masocha, R. (2012) The impact of Government and other Institutions' support on the Performance of Small and Medium Enterprises in the Manufacturing Sector in Harare, Zimbabwe. *International Journal of Business Management & Economic Research*. 3 (6). p.655-667.

Chiliya, N., Masocha, R. and **Zindiye, S.** (2012) Challenges Facing Zimbabwean Cross Border Traders Trading in South Africa: A Review of Literature. *Chinese Business Review*. 11 (6). p.564-570.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Jackson, T. and Louw, L.*

**Jackson, T.**, **Louw, L.** and Zhao, S. (2012) China in Sub-Saharan Africa: Implications for HRM policy and practice at organizational level. *International Journal of Human Resource Management*. 2012 (2012). p.1-22.

*Louw, L. and Chipumuro, J.*

Kwaramba, H.M., Lovett, J.C., **Louw, L.** and **Chipumuro, J.** (2012) Emotional confidence levels and success of tourism development for poverty reduction: The South African Kwam eMakana home-stay project. *Tourism Management*. 33 (4). p.885-894.

*Louw, L. and Dhaya, J.*

**Louw, L.**, Pearse, N.J. and **Dhaya, J.** (2012) The role of experience in the development of social competencies. *SA Journal of Human Resource Management*. 10 (1). p.1-9.

*Louw, L. and Mayer, C.H.*

**Louw, L.**, **Mayer, C.H.** and **Baxter, J.S.** (2012) Exploring relationship between value- and life-orientation and job satisfaction. *Acta CommercII*. 12 (2012). p.44-66.

*Louw, M.J.*

Farrington, S.M., Venter, D.J.L. and **Louw, M.J.** (2012) Entrepreneurial intentions: Demographic perspectives of South African business students. *South African Journal of Business Management*. 43 (3). p.41-49.

*Mayer, C.H. and Louw, L.*

**Mayer, C.H.** and **Louw, L.** (2012) Managerial Values in Transcultural Conflicts in South Africa: Findings from the Schwartz-Value-Model. *Journal of Intercultural Communication*. 2012 (30). p.1-19.

*Zindiye, S.*

**Zindiye, S.** and Roberts-Lombard, M. (2012) The influence of human investment on the performance of small and medium enterprises (SMEs) in the manufacturing sector of Harare, Zimbabwe. *African Journal of Business Management*. 6 (33). p.9431-9436.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Eaton, C.A., Trollip, J.F. and Maritz, M.*

**Eaton, C.A.**, **Trollip, J.F.** and **Maritz, M.** Transportation Risk in the Equine Industry in South Africa: A Risk Assessment. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012*. University of Stellenbosch, Stellenbosch. South Africa. September 2012.

*Gwala, N., Motlhageng, P.M., Bailey, L. and*

*Hefer, J.*

**Gwala, N.**, **Motlhageng, P.M.**, **Bailey, L.** and **Hefer, J.** Impact of Low Interest Rates on Asset Management: The Case of a South African Asset Management Company. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012*. University of Stellenbosch, Stellenbosch. South Africa. September 2012.

*Hefer, J.*

**Hefer, J.** The Reasons for Auditor's Unethical Actions: A Theory of Reasoned Action Approach. *SAAA Eastern Cape Regional Conference*. Katberg Hotel, Katberg. South Africa. September 2012.

*Jackson, T. and Louw, L.*

**Jackson, T.** and **Louw, L.** Chinese organizations in Sub-Saharan Africa - New dynamics, new synergies: A cross-cultural research agenda. *Chinese in /Africa / Africans in China: A working conference*. Monash University, Johannesburg. South Africa. August 2012.

*Kaliika, M.K. and Louw, L.*

**Kaliika, M.K.** and **Louw, L.** Employer Perceptions of Commerce Graduate' Competencies: An Exploratory Study. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012*. Stellenbosch University, Stellenbosch. South Africa. September 2012.

*Louw, L.*

Paterson, S. and **Louw, L.** The factors influencing the organisational commitment of local employees in Chinese organisations in South Africa. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012*. University of Stellenbosch, Stellenbosch. South Africa. September 2012.

*Louw, M.J.*

Pittorino, L. and **Louw, M.J.** The Relationship between Organisational Culture, Organisational Commitment and Individual Performance in a South African Electricity Utility. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012*. University of Stellenbosch, Stellenbosch. South Africa. September 2012.

*Louw, M.J. and Amos, T.L.*

**Louw, M.J.** and **Amos, T.L.** Student experiences of using an e-book within a higher education context: A pilot project. *Conference on Creative education (CCE2012)*. Shanghai. China. May 2012.

*Mabuza, L.T. and Louw, L.*

**Mabuza, L.T.** and **Louw, L.** The relationship between organizational culture, high commitment work systems and organizational commitment in selected Chinese organizations in Southern Africa. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012*. University of Stellenbosch, Stellenbosch. South Africa. September 2012.

*Mayer, C.H.*

**Mayer, C.H.** The connectedness of sense of coherence, culture and gender in a selected organisational context. *International Association of Cross-cultural Psychology (IACCP)*. Stellenbosch University, Stellenbosch. South Africa. July 2012.

**Mayer, C.H.**, Krause, C., Cilliers, F. and De Beer, M. Strengthening sense of coherence (SOC) in diverse settings: salutogenetic approaches in promoting mental health. *International Association on Cross-cultural Psychology (IACPP)*. Stellenbosch University, Stellenbosch. South Africa. July 2012.



# MANAGEMENT

**Mayer, C.H.** Male and female managerial perspectives on sense of coherence and concepts of identity. *Findings from a selected industrial organisation in South Africa. International Congress of Psychology (ICP).* Cape Town. South Africa. July 2012.

*Midgley, P.N., Louw, M.J. and Louw, L.*

**Midgley, P.N., Louw, M.J. and Louw, L.** Evoking E-Learning. A study on Post-Graduate participants learning experience of the online game, Urgent Evoke. *Conference on Creative Education (CCE2012).* Shanghai. China. May 2012.

*Muller, S.L., Mack, K.W. and Hefer, J.*

**Muller, S.L., Mack, K.W. and Hefer, J.** A Returns Based Analysis of the Euro Zone Sovereign Debt Crisis: A South African Investor's Perspective. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012.* University of Stellenbosch, Stellenbosch. South Africa. September 2012.

*Overy, T.L., Thomas, L. and Hefer, J.*

**Overy, T.L., Thomas, L. and Hefer, J.** The Relationship between the Dividend Payout Ratio and Sustainable Growth: A South African Perspective. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012.* University of Stellenbosch, Stellenbosch. South African. September 2012.

*Sabilika, K. and Hefer, J.*

**Sabilika, K. and Hefer, J.** Valuing Banks in Emerging Markets: A Review of the Literature. *SAAA Eastern Cape Regional Conference.* Katberg Hotel, Katberg. South Africa. September 2012.

*Sabilika, K., Mugova, L.K. and Hefer, J.*

**Sabilika, K., Mugova, L.K. and Hefer, J.** Partial Privatisation as an alternative to Debt Financing: The Case of Eskom. *SAAA Eastern*

*Cape Regional Conference.* Katberg Hotel, Katberg. South Africa. September 2012.

*Zindiye, S. and Phakathi, N.V.*

**Zindiye, S. and Phakathi, N.V.** The Effect of internal Marketing on Organisational Commitment in a Selected Retail Outlet in South Africa. *Conference Proceedings of the 24th Annual Conference of SAIMS - 2012.* Stellenbosch University, Stellenbosch. South Africa. September 2012.

*Zindiye, S. and Sibanda, Z.*

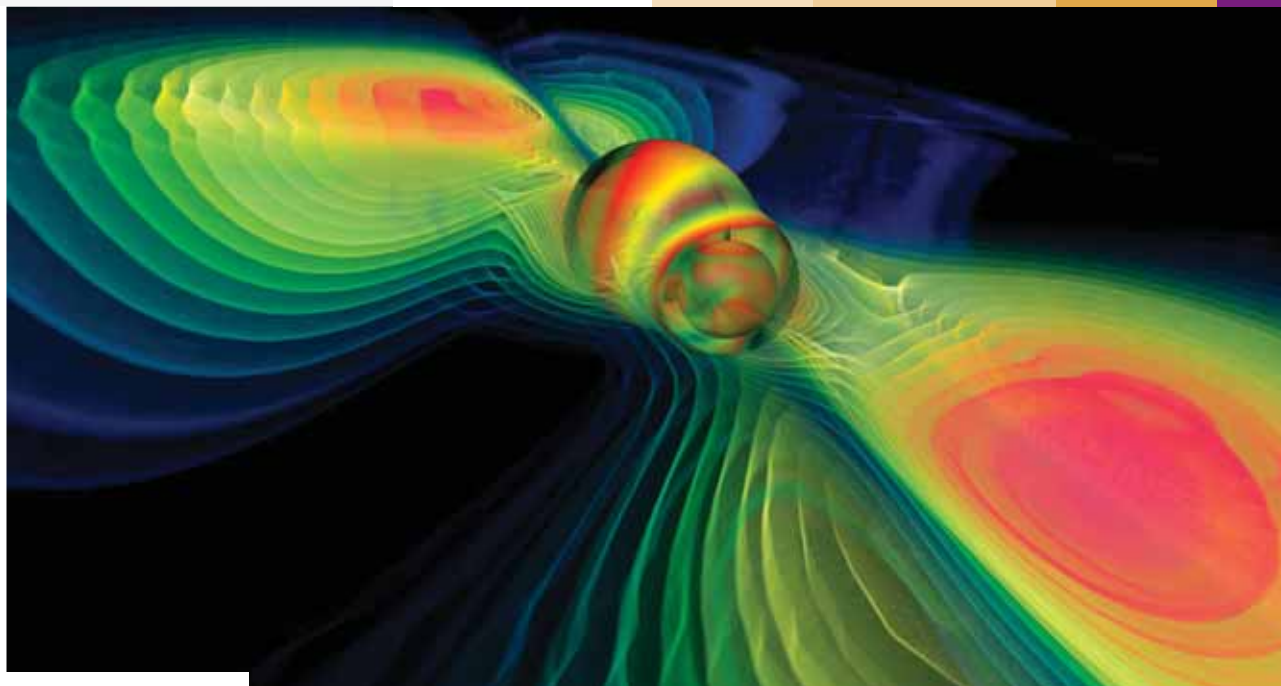
**Zindiye, S. and Sibanda, Z.** Angel networks as a business start-up option in South Africa. *The 14th West Lake Conference on Small and Medium Business.* The First World Hotel, Hangzhou. People's Republic of China. October 2012.

# MATHEMATICS

## Department of MATHEMATICS

The Department of Mathematics undertakes research in both Pure and Applied Mathematics.

A pair of black holes collide in a supercomputer simulation, demonstrating how gravitational waves are emitted in lobes from the central source. Coloured surfaces are the black hole 'event horizons', the surfaces of no-return from which no information can escape.



Members of the Department published ten (10) articles in accredited journals, and made four (4) presentations at international conferences, as well as two (2) presentations at South African conferences.

The areas of current research interest in the Department are:

- Fuzzy set theory.
- Functional analysis, including measure theory and martingales.
- Geometric control, particularly invariant optimal control problems on matrix Lie groups (of low dimension), primarily in aspects regarding controllability, geometry of extremals, stability, and integrability.
- Computational relativity, and in particular the calculation of gravitational waves from black hole interactions.

# MATHEMATICS

- Cosmology: general relativistic models, structure formation, alternative models of gravity.

## Postgraduates/Graduations

During 2012, the Department supervised nine (9) doctoral and five (5) Masters students.

## Distinguished Visitors/ Overseas Visits

Our academic staff made research visits to Germany, Hungary, Romania, Spain and the United Kingdom.

## Significant Research Aligned Events

- The Department hosted the annual Conference of the South African Gravity Society in September 2012.
- **Dr Denis Pollney** received a B2 rating from the National Research Foundation.

### Professor Nigel Bishop

Head of Department

## International Visits

*Bishop, N.T.*

**Bishop, N.T.** Max-Planck Institute for Gravitational Physics, Berlin, Germany. *Research collaboration.* 9 - 23 November 2012.

*Remsing, C.C.*

**Remsing, C.C.** Institute of Mathematics, University of Debrecen, Debrecen, Hungary. *Research collaboration.* 24 - 26 June 2012.

**Remsing, C.C.** West University of Timisoara, Timisoara, Romania. *Research collaboration.* 21 - 23 June 2012.

**Remsing, C.C.** School of Systems Research, University of Reading, Reading, UK. *Research collaboration.* 9 June 2012.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Remsing, C.C., Biggs, R. and Adams, R.M.*

**Remsing, C.C., Biggs, R. and Adams, R.M.** (2012) Single-input control systems on the Euclidean group  $SE(2)$ . *European Journal of Pure and Applied Mathematics.* 5 (1). p.1-15.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Burton, M.H.*

**Mwila, C., Burton, M.H., Van Dyk, J.S. and Pletschke, B.I.** (2012) The effect of mixtures of organophosphate and carbamate pesticides on acetylcholinesterase and application of chemometrics to identify pesticides in mixtures. *Environmental Monitoring and Assessment.* 185 (3). p.2315-2327.

*Larena, J.*

**Larena, J. and Bruneton, J.-P.** (2012) Dynamics of a lattice Universe: the dust approximation in cosmology. *Classical and Quantum Gravity.* 29 (2012). p.1-12.

*Murali, V.*

**Mishra, S., Pant, R. and Murali, V.** (2012) Fixed point

theorems for a class of maps in normed Boolean vector spaces. *Fixed Point Theory and Applications.* 47 (2012). p.2012.

*Orpen, D.L.*

**Orpen, D.L. and Jager, G.** (2012) Lattice-valued convergence spaces: Extending the lattice context. *Fuzzy Sets and Systems.* 190 (2012). p.1-20.

*Pollney, D.O.*

**Ajith, P., Boyle, M., Brown, A.N., Bruggmann, B., Buchman, L.T., Cadonati, L., Campanelli, M., Chu, T., Etienne, Z.B., Fairhurst, S., Hannam, M., Healy, J., Hinder, I., Husa, S., Kidder, L.E., Krishnan, B., Laguna, P., Liu, Y.K., London, L., Lousto, C.O., Lovelace, G., MacDonald, I., Marraonetti, P., Mohapatra, S., Mosta, P., Muller, D., Mundim, B.C., Nakano, S., Ohme, F., Paschalidis, V., Pekowsky, L., Pollney, D.O., Pfeiffer, H.P., Ponce, M., Purrer, M., Reichenberger, G., Reisswig, C., Santamaria, L., Scheel, M.A., Shapiro, S.L., Shoemaker, D., Sopuerta, C.F., Sperhake, U., Szilagyi, B., Taylor, N.W., Tichy, W., Tsatin, P. and Zlochower, Y.** (2012) The NINJA-2 catalog of hybrid post-Newtonian/numerical-relativity waveforms for non-processing black-hole binaries. *Classical and Quantum Gravity.* 29 (2012). p.1-27.

**Damour, T., Nagar, A., Pollney, D.O. and Reisswig, C.** (2012) Energy versus Angular Momentum in Black Hole Binaries. *Physical Review Letters.* 108 (13). p.1-4.

*Remsing, C.C.*

**Remsing, C.C.** (2012) Optimal control on the rotation group  $SO(3)$ . *Carpathian Journal of Mathematics.* 28 (2). p.321-328.

*Remsing, C.C. and Biggs, R.*

**Remsing, C.C. and Biggs, R.** (2012) A category of control systems. *Analele Stiintifice Ale Universitatii Ovidius Constanta-Seria Matematica.* 20 (1). p.355-368.

*Remsing, C.C., Biggs, R. and Adams, R.M.*

**Remsing, C.C., Biggs, R. and Adams, R.M.** (2012) Equivalence of control systems on the Euclidean group  $SE(2)$ . *Control and Cybernetics.* 41 (3). p.1-12.

*Van Der Walt, P.J. and Bishop, N.T.*



# MATHEMATICS

**Van Der Walt, P.J. and Bishop, N.T.** (2012) Observational cosmology using characteristic numerical relativity: Characteristic formalism on null geodesics. *Physical Review D*. 85 (4). p.1-11.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Adams, R.M., Biggs, R. and Remsing, C.C.*  
**Adams, R.M., Biggs, R. and Remsing, C.C.** On the Equivalence of Control Systems on the Orthogonal Group SO (4). *Recent Researches in Automatic Control, Systems Science and Communications*. Instituto Superior de Engenharia do Porto (ISEP), Porto. Portugal. July 2012.

*Biggs, R. and Remsing, C.C.*  
**Biggs, R. and Remsing, C.C.** On the Equivalence of Cost-Extended Control Systems on Lie groups. *Recent Researches in Automatic Control, Systems Science and Communications*. Instituto Superior de Engenharia do Porto (ISEP), Porto. Portugal. July 2012.

*Bishop, N.T.*  
**Bishop, N.T.** The mathematics of gravitational radiation. *Eastern Cape Postgraduate Seminar in Mathematics*. NMMU, Port Elizabeth. South Africa. October 2012.

*Bishop, N.T. and Pollney, D.O.*  
**Bishop, N.T., Pollney, D.O. and Reisswig, C.** Characteristic numerical relativity at fourth order accuracy. *South African Mathematical Society Annual Congress*. University of Stellenbosch, Stellenbosch. South Africa. January 2012.

Reisswig, C., **Bishop, N.T. and Pollney, D.O.**

Numerical relativistic null-cone evolutions at 4th order accuracy. *Thirteenth Marcel Grossmann Meeting*. University of Stockholm, Stockholm. Sweden. July 2012.

*Larena, J.*

**Larena, J.** The fitting problem in a lattice Universe. *Relativity and Gravitation: 100 years after Einstein in Prague*, Prague, 25-29th June 2012.

*Van Der Walt, P.J. and Bishop, N.T.*

**Van Der Walt, P.J. and Bishop, N.T.** Modelling the past null cone using characteristic numerical relativity. *Thirteenth Marcel Grossmann Meeting*. University of Stockholm, Stockholm. Sweden. July 2012.

# MUSIC & MUSICOLOGY

Department of

## MUSIC & MUSICOLOGY & THE INTERNATIONAL LIBRARY OF AFRICAN MUSIC (ILAM)

The Department of Music and Musicology's contribution to creative output and traditionally recognized research production through publishing articles and presenting conference papers has continued apace in 2012.

Ethnomusicology students performing the Venda Tshikona reed pipe dance at ILAM Outreach Concert 16 September 2012.



The Department has increased its international footprint. Importantly, postgraduate students are part of this process and have presented at conferences. Nicole Germiquet, an honours student, was accorded first place in the national musical arts-related essay competition facilitated by the *Journal for the Musical Arts in Africa*; a congratulatory first for this Department and a tribute to her supervisor, Dr Lee Watkins.

## Postgraduates/Graduations

Students from the Department graduated with BMus and BA (Honours) degrees in music.

However, the Department's graduation trajectory extends to students who complete third year majors (Instrumental Music Studies, Ethnomusicology, Music History and Theory) as part of other degree programmes. This exciting aspect has made possible an increased number of applications for interdisciplinary studies at the honours level.

# MUSIC & MUSICOLOGY

## Distinguished Visitors/ Overseas Visits

The Department welcomed the following visitors who performed recitals, delivered master classes and presented academic papers: Professor Francois du Toit (UCT), Professor Austin Emielu (University of Ilorin, Nigeria), Professor Franklin Larey (UCT), Mark Nixon (London), Andre Petersen (Cape Town), Jill Richards (Johannesburg), Liesl Stoltz (UCT), Odeion String Quartet (University of the Free State), and Dr Hannes Taljaard (North-West University).

## Significant Research Aligned Events

In January 2012 the Department hosted an exciting indaba with numerous international guests and presenters: *Histories, Aesthetics and Politics of South African Jazz*. Professor Ingrid Monson (Harvard University) was the key-note speaker at this event.

**Dr Jeffrey Brukman**  
Head of Department

## Books/Chapters/Monographs

*Ramanna, N.*

**Ramanna, N.** (2012) On music: I remember gratefully. In: Mistry, J. and Ellapen, J. (eds.). *We Remember Differently: Race, Memory, Imagination*. Pretoria: UNISA Press. p.107-114. ISBN: 9781868886937.

*Watkins, L.W.*

**Watkins, L.W.** (2012) A genre coming of age: Transformation, difference, and authenticity in the rap music and hip hop culture of South Africa. In: Charry, E. (ed.). *Hip hop Africa: New African music in a globalising world*. Bloomington and Indianapolis: Indiana University Press. p.57-75. ISBN: 9780253005755.

## Concerts, Exhibitions, Performances, Workshops, Events

*Brukman, J.J.*

**Brukman, J.J.** Performer. Concert. *Lunch hour concert with Sandi Dlangalala and Brett de Groot*. Beethoven Room, Grahamstown. South Africa. 10 October 2012.

*Foxcroft, C.J.*

**Foxcroft, C.J.** CD Recording. CD Recording Brahms Piano quartet Op 25 in g minor. Dvorak Piano quintet Op 81 in A major. Performed with the Odeion String Quartet. *CD recording*. Enoch Sontonga Hall, Pretoria. South Africa. 20 April 2012.

**Foxcroft, C.J.** Lunch hour concert. *Lunch hour concert with Ms Bridget Rennie Salonen (flute)*. Department of Music and Musicology, Grahamstown. South Africa. 16 October 2012.

**Foxcroft, C.J.** Piano performance. *Piano Extravaganza 10 pianos*. Gala evening. Endler Hall, Stellenbosch. South Africa. 28 March 2012.

**Foxcroft, C.J.** Piano performance. Rachmaninoff Suite for 6 hands. *6 hands performance*. Endler Hall, Stellenbosch. South Africa. 26 March 2012.

**Foxcroft, C.J.** Brahms Piano quartet Op 25 in g minor. Dvorak Piano quintet Op 81 in A major. Chamber concert with UFS Odeion String Quartet. *UNISA Foundation*

*Concert Series*. Enoch Sontonga Hall, Pretoria. South Africa. 22 April 2012.

**Foxcroft, C.J.** Chamber concert. Opening concert of GMS competition. World premiere of work by Dr DJ Taljaard (NWU). *Chamber concert with Grahamstown sextet*. Department of Music and Musicology, Grahamstown. South Africa. 13 June 2012.

*Ramanna, N.*

**Ramanna, N.** piano performance. Rhodes Jazz Trio. *Jazz in Beethoven*. Rhodes University, Grahamstown. South Africa. 6 September 2012.

*Stolp, M.*

**Stolp, M.** Performer. *Lunch Hour concert: Mareli Stolp (piano) and Paul Richard (saxophone)*. Beethoven Room, Grahamstown. South Africa. 31 October 2012.

## Distinguished Visitors

**JJ Brukman.** Rhodes University, Cape Town, South Africa. *Chair adjudication panel: SAMRO-Hubert van der Spuy National Music Competition, 24 - 28 September 2012*. September 2012.

**Prof F Du Toit.** University of Cape Town, Cape Town, South Africa. *Recital 25 September 2012 and Masterclass 26 September 2012*. September 2012.

**Prof AM Emielu.** Prof Austin Maro Emielu, University of Ilorin, Ilorin, Kwara State, Nigeria. *Research and Public Lecture*. January 2012.

**CJ Foxcroft.** ATKV, Stellenbosch, South Africa. *Adjudicator ATKV National Music Competition*. September 2012.

**CJ Foxcroft.** University of Stellenbosch, Stellenbosch, South Africa. *Piano masterclasses*. March 2012.

**CJ Foxcroft.** UNISA, Pretoria, South Africa. *Adjudicator UNISA South African Music Scholarship Competition*. October 2012.

**Prof F Larey.** Prof Franklin Larey, University of Cape Town, Cape Town, South Africa. *Recital 18 September 2012 and Masterclass 19 September 2012*. September 2012.



# MUSIC & MUSICOLOGY

**Mr M Nixon.** Mark Nixon, internationally acclaimed concert pianist and pedagogue, London, United Kingdom. *Recital 20 August 2012 and Masterclass 21 August 2012.* August 2012.

**Mr A Petersen.** Andre Petersen Trio including Shane Cooper and Kesivan Naidoo, internationally acclaimed performing artists, Cape Town, South Africa. *Recital 9 October 2012 and Masterclass 10 October 2012.* October 2012.

**N Ramanna.** Independent, Cape Town, South Africa. *Concert and masterclass.* October 2012.

**Ms J Richards.** Jill Richards, internationally acclaimed concert pianist, Johannesburg, South Africa. *Recital 15 May and Masterclass 16 May 2012.* May 2012.

**M Stolp.** Samro, Johannesburg, South Africa. *Adjudicator Samro International Scholarship Competition.* August 2012.

**Dr L Stoltz.** University of Cape Town, Cape Town, South Africa. *Recital 25 September 2012 and Masterclass 26 September 2012.* September 2012.

**Ms D Sutton.** Odeion String Quartet, University of the Free State, Bloemfontein, South Africa. *Recital 18 April 2012 and Masterclass 19 April 2012.* April 2012.

**Dr H Taljaard.** North-West University, Potchefstroom, South Africa. *Lecture and demonstration, 16 May 2012.* May 2012.

## Other Publications

*Brukman, J.J.*

**Brukman, J.J.** (2012) Obituary: Leon Hartshorne. In: Roos, J.S. (ed.). *The South African Music Teacher.* Pretoria, South Africa: Oranje Drukkery PTA.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Brukman, J.J.*

**Brukman, J.J.** (2012) Dominant culture, Afrikaner nationalism and Cromwell Everson's Klutaimnestra. *Samus: South African Journal of Musicology.* 32 (2012). p.1-20.

*Ramanna, N.*

**Ramanna, N.** (2012) Thinking in jazz. *Journal of Southern African Studies.* 38 (4). p.1014-1015.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Foxcroft, C.J.*

**Foxcroft, C.J.** The performers experienced emotions while performing: Interviews with 5 concert pianists. *University of Stellenbosch International Piano Symposium.* Stellenbosch University, Stellenbosch. South Africa. March 2012.

**Foxcroft, C.J.** Exploring the role of the performer's emotional engagement with music during a solo performance. *Proceedings of the 12th International Conference on Music Perception and Cognition and the 8th Triennial Conference*

*of the European Society for the Cognitive Sciences of Music.* Porto Palace Conference Centre, Thessaloniki. Greece. July 2012.

*Heunis, D.*

**Heunis, D.** The Afrikaans folk song brand. *IASPM 16th International Conference Proceedings.* Rhodes University, Grahamstown. South Africa. June 2011.

*Ramanna, N.*

**Ramanna, N.** Jazz, space and power in apartheid South Africa: The army and the church. *IASPM 16th International Conference Proceedings.* Rhodes University, Grahamstown. South Africa. June 2011.

*Stolp, M.*

**Stolp, M.** Standards in Higher Education. *South African Association for Institutional Research Forum 2012.* University of the Free State, Bloemfontein. South Africa. October 2012.

*Watkins, L.W.*

**Watkins, L.W.** Public sector Ethno-musicology and praxis in Ntaba kaNdoda. *6th Annual Teaching and Learning Conference.* UKZN, Durban. South Africa. September 2012.

**Watkins, L.W.** Blackness transmuted and sinified by way of rap music and hip-hop in the new China. *IASPM 16th International Conference Proceedings.* Rhodes University, Grahamstown. South Africa. June 2011.

# INTERNATIONAL LIBRARY OF AFRICAN MUSIC

## THE INTERNATIONAL LIBRARY OF AFRICAN MUSIC (ILAM)

ILAM contributes to the advancement of teaching and learning, research, and community engagement.

Traditional dancers performing in the Traditional Dance Festival at ILAM during the National Arts Festival.



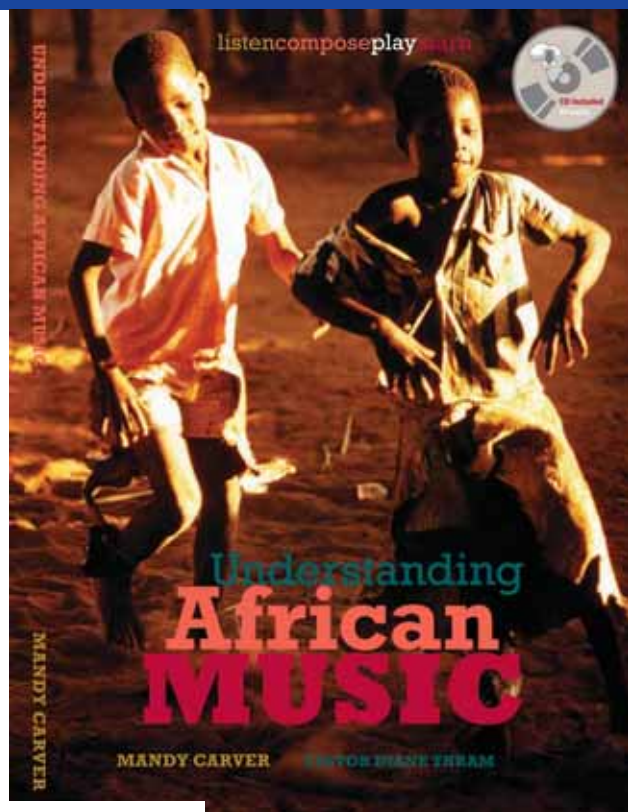
ILAM is a research institute and heritage archive dedicated to research on African music, to regular publications from research through its accredited annual journal, *African Music* and other publishing initiatives, to global dissemination of its holding through on-line access and on-line sales, to building its holdings through deposits of collections from field research and related material, and to providing audiovisual digitizing services to Rhodes University and the public sector.

ILAM contributes to the advancement of teaching and learning, research, and community engagement at Rhodes through its participation in the Ethnomusicology Programme in the Music Department and its research and community outreach initiatives such as the ILAM-Red Location Music History Project and the ILAM Music Heritage Project SA and its ILAM Outreach Concerts.

### Postgraduates/Graduations

ILAM's Director, Professor Diane Thram co-supervised the MMUS thesis of Luis Gimenez, who graduated in with a MMUS in Ethnomusicology in 2012.

# INTERNATIONAL LIBRARY OF AFRICAN MUSIC



Thram, D.J. (ed.) (2012) *Understanding African Music*. Grahamstown: International Library of African Music. ISBN: 9780620537018.

## Distinguished Visitors/ Overseas Visits

Visiting researcher from Seoul, Korea, Dr So Inhwa spent 2012 in residence at ILAM conducting research on music in the Zion Church and Xhosa ceremonies in Rhini.

Professor Thram launched the textbook *Understanding African Music* by M. Carver, edited by D. Thram and

published by ILAM, at the annual conference of the International Society for Music Education (ISME) in Thessaloniki, Greece 15-20 July 2012 and at the Symposium for Ethnomusicology at the University of Dar es Salaam 31 July - 4 August 2012.

ILAM's Director gave a presentation entitled "Dissemination of music archives through educational materials: the 'For Future Generations' exhibit and ILAM Music Heritage Project SA" at:

- 1) 7th Annual Symposium for Ethnomusicology at the University of Dar es Salaam 31 July - 4 August 2012 in Dar es Salaam, Tanzania.
- 2) 43rd Annual Conference of the International Association of Sound and Audiovisual Archives (IASA): 'In Transition: Access for All', 6 - 11 October 2012 in New Delhi, India.

## Significant Research Aligned Events

- Publication of the 2012 issue of ILAM's annual accredited journal *African Music* v9, n3 (2012). *African Music* is the only accredited academic journal in the world devoted to research on African music and enjoys broad circulation to university libraries and scholars internationally and throughout the continent.
- Publication of the textbook *Understanding African Music* and *Book Launch* - Thessaloniki, Greece and Dar es Salaam, Tanzania.
- With support from the National Arts Council for the 'ILAM Music Heritage Project SA', Diane Thram edited and ILAM published the textbook, *Understanding African Music* by **Mandy Carver** as a resource text for High School matric music majors and a general

interest audience. The book, intended to repatriate ILAM field recordings through the schools, fills an urgent need for teaching materials for African music. Richly illustrated with images from ILAM's photo archive, the book includes a media disc with 96 audio tracks from ILAM's collections and several video clips that illustrate the lessons.

**Professor Diane Thram**

Head of Centre



# INTERNATIONAL LIBRARY OF AFRICAN MUSIC

## Books/Chapters/Monographs

*Thram, D.J.*

**Thram, D.J.** (2012) Understanding Music's Therapeutic Efficacy: Implications for Music Education. In: Bowman, W. and Frega, A.L. (eds.). *The Oxford Handbook of Philosophy in Music Education*. New York: Oxford University Press. p.192-209. ISBN: 9780195394733.

**Thram, D.J.** (ed.) (2012) *Understanding African Music*. Grahamstown: International Library of African Music. ISBN: 9780620537018.

**Thram, D.J.** (ed.) (2012) *African Music V9, n3*. Grahamstown: International Library of African Music. ISSN: 0065-4019.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Thram, D.J.*

**Thram, D.J.** (2012) Remains of ritual: northern gods in a southern land. *Journal of Contemporary African Studies*. 31 (1). p.143-145.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Thram, D.J.*

**Thram, D.J.** Dissemination of Music Archives through Educational Materials: Launch of ILAM's Music Education Textbook *Understanding African Music. Readings in Ethnomusicology: A Collection of Papers Presented at Ethnomusicology Symposium 2012*. University of Dar es Salaam, Dar es Salaam. Tanzania. July 2012.

**Thram, D.J.** Performing the archive: The ILAM 'For Future Generations' exhibit, 'Music Heritage Project SA' and 'Red Location Music History Project'. *IASPM 16th International Conference Proceedings*. Grahamstown. South Africa. June 2011. Proceedings published 2012.

# PHARMACY

## Faculty of **PHARMACY**

The Pharmacy Faculty hosted two highly successful conferences in 2012. The mission of the Faculty is to promote pharmaceutical care through education, research, scholarship, creative endeavour and service.



From left to right: PhD student Ayesah Fauzee, Masters student Pedzisai Makoni, Professor Rod Walker, Dr Kasongo Wa Kasongo, and Masters student Samantha Mukazhiwa are photographed in the Pharmaceutics Research Group Laboratory.  
*Photo: Christine Nesbitt Hills*

The Faculty of Pharmacy had a highly productive year in terms of research outputs that included twenty-four (24) peer-reviewed journal articles, thirty-six (36) conference presentations and three (3) articles in professional publications by staff, research associates and students.

Staff and students travelled widely and presented their research findings at international and national conferences and workshops in the United States of America, Netherlands, France, United Kingdom, Czech Republic, Romania, Singapore, Turkey and Nepal.

## Postgraduates/Graduations

During the 2012 Graduation ceremonies, MSc (Pharmacy) degrees were conferred on **Maynard Chiwakata, Bianca**

# PHARMACY

**Dagnolo, Laura Magnus** (with distinction) and **Tatenda Munedzimwe**.

MPharm degrees were conferred on **Eldinah Hwengwere**, **Rudo Mupfumira** and a member of the academic staff of the Faculty, **Wendy Wrench**. A Doctor of Pharmacy degree was conferred on **Janine Munsamy** and a Doctor of Philosophy degree on **Michael Knott**.

## Distinguished Visitors/ Overseas Visits

The Faculty hosted several visitors including Professor Glass (Australia), Professor Parish (United States), Professor Svenson (Norway), Professor Verbeeck (Belgium), Dr Kertland (Canada), Dr Brown (Canada), Dr Patterson (United States) and Dr Rennie (Namibia).

## Significant Research Aligned Events

The Faculty hosted two highly successful conferences in 2012. *The 2nd Annual Meeting of the South African Society of Clinical Pharmacy* conference was held in June and was attended by approximately 100 delegates. *The 33rd Annual meeting of the South African Academy of Pharmaceutical Sciences* was held in September 2012 and attended by hundred and thirty-five (135) delegates and at which a record number of Rhodes University staff and students delivered papers. The Faculty also held its Annual Research day in October 2012 at which all postgraduate students presented their research updates.

**Professor Rod Walker**

Dean of Faculty

## Distinguished Visitors

**Prof BD Glass**. James Cook University, Townsville, Australia. *Collaboration*. February 2012.

**Prof R Parish**. University of Louisiana Monroe, Shreveport, United States of America. *Conference and Collaboration*. June 2012.

**Dr BJ Patterson**. North Dakota State University, Fargo, United States of America. *Collaboration*. February 2012.

**Dr T Rennie**. University of Namibia, Windhoek, Namibia. *Conference and Collaboration*. September 2012.

**Prof J Svenson**. University of Tromsø, Tromsø, Norway. *Collaboration/lecture*. October 2012.

**Prof R Verbeeck**. Catholique Universitat Louvain, Brussels, Belgium. *Conference and Research Collaboration*. September 2012.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Srinivas, S.C. and Wrench, W.M.*

**Srinivas, S.C. and Wrench, W.M.** (2012) Evaluation of a service-learning elective as an approach to enhancing the pharmacist's role in health promotion in South Africa. *African Journal of Health Professions Education*. 4 (2). p.107-111.

*Srinivas, S.C., Wrench, W.M. and Dukhi, N.*

**Srinivas, S.C., Wrench, W.M., Bradshaw, K.L. and Dukhi, N.** (2012) Hypertension: Preliminary Health Promotion Activity Based on Service-Learning Principles at a South African National Science Festival. *International Journal of Pharmacy Education and Practice*. 8 (2). p.1-11.

*Wrench, W.M.*

**Wrench, W.M.** (2012) Health Promotion: Pharmacy Students Involvement in the Fight against Tuberculosis. *South African Pharmacy Journal*. 79 (9). p.56-57.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Au, W.L., Skinner, M., Verbeeck, R. and Kanfer, I.*

**Au, W.L., Skinner, M., Benfeldt, E.M., Verbeeck, R. and Kanfer, I.** (2012) Application of dermal microdialysis for the determination of bioavailability of clobetasol propionate applied to the skin of human subjects. *Skin Pharmacology and Physiology*. 25 (1). p.17-24.

*Beukes, D.R.*

**Ragubeer, N., Limson, J.L. and Beukes, D.R.** (2012) Electrochemistry-guided isolation of antioxidant metabolites from *Sargassum elegans*. *Food Chemistry*. 131 (1). p.286-290.

*Chaibva, F.A. and Walker, R.B.*

**Chaibva, F.A. and Walker, R.B.** (2012) The use of response surface methodology for the formulation and optimisation of salbutamol sulphate hydrophilic matrix sustained release tablets. *Pharmaceutical Development and Technology*. 17 (5). p.594-606.

*Chiwakata, M.T. and Beukes, D.R.*

**De La Mare, J.A., Lawson, J.C., Chiwakata, M.T., Beukes, D.R., Edkins, A.L. and Blatch, G.L.** (2012) Quinones and halogenated monoterpenes of algal origin show anti-proliferative effects against breast cancer cells in vitro. *Investigational New Drugs*. 30 (6). p.2187-2200.

*Futter, W.T.*

**Anderson, C., Bates, I., Brock, T., Brown, A.N., Bruno, A., Futter, W.T., Rennie, T. and Rouse, M.J.** (2012) Needs-based education in the context of globalization. *American Journal of Pharmaceutical Education*. 76 (4). p.1-3.

*Kanfer, I.*

**Waldmann, S., Almukainzi, M., Bou-Chacra, N.A., Amidon, G.L., Lee, B.-J., Feng, J., Kanfer, I., Zuo, J.Z., Wei, H., Bolger, M.B. and Lobenberg, R.** (2012) Provisional Biopharmaceutical Classification of Some Common Herbs Used in Western Medicine. *Molecular Pharmaceutics*. 9 (4). p.815-822.

*Khamanga, S.M.M. and Walker, R.B.*

**Khamanga, S.M.M. and Walker, R.B.** (2012) In vitro dissolution kinetics of captopril from microspheres manufactured by solvent evaporation. *Dissolution*



# PHARMACY

*Technologies*. 19 (1). p.42-51.

**Khamanga, S.M.M. and Walker, R.B.** (2012) The use of response surface methodology in the evaluation of captopril microparticles manufactured using an oil in oil solvent evaporation technique. *Journal of Micro-encapsulation*. 29 (1). p.39-53.

*King'Ori, L.D. and Walker, R.B.*

**King'Ori, L.D. and Walker, R.B.** (2012) The Use of Response Surface Methodology to Evaluate the Impact of Level 2 SUPAC-IR Changes on the In Vitro Release of Metronidazole and Ranitidine from a Fixed-Dose Combination Tablet. *Dissolution Technologies*. 19 (2). p.28-36.

*Lancaster, R.A.*

Parrish, A. and **Lancaster, R.A.** (2012) Does the nose know? Amitraz poisoning and olfaction. *South African Medical Journal*. 102 (4). p.223-224.

*Luyt, C.D. and Tandlich, R.*

**Luyt, C.D., Tandlich, R., Muller, W.J. and Wilhelmi, B.S.** (2012) Microbial Monitoring of Surface Water in South Africa. *International Journal of Environmental Research and Public Health*. 9 (8). p.2669-2693.

*Muller, A.C., Patnala, S. and Kanfer, I.*

**Muller, A.C., Patnala, S., Kis, O., Bendayan, R. and Kanfer, I.** (2012) Interactions between Phytochemical Components of *Sutherlandia frutescens* and the Antiretroviral, Atazanavir In Vitro: Implications for Absorption and Metabolism. *Journal of Pharmacy and Pharmaceutical Sciences*. 15 (2). p.221-233.

*Oltmann, C.*

**Oltmann, C. and Boughey, C.M.** (2012) Using critical realism as a framework in pharmacy education and social pharmacy research. *Research in Social and*

*Administrative Pharmacy*. 8 (4). p.333-337.

*Samant, B.S.*

**Samant, B.S. and Kabalka, G.W.** (2012) Hydrogenolysis-hydrogenation of aryl ethers: selectivity pattern. *Chemical Communications*. 48 (69). p.8658-8660.

**Samant, B.S. and Bhagwat, S.** (2012) Spatial Orientation of Aromatics at Micellar Interface: Selectivity Enhancement in Oxochlorination. *Journal of Dispersion Science and Technology*. 33 (7). p.1030-1037.

**Samant, B.S. and Bhagwat, S.** (2012) Selectivity enhancement of aromatic halogenation reactions at the micellar interface: effect of highly ionic media. *Monatshefte Fur Chemie*. 143 (7). p.1039-1044.

*Samant, B.S. and Nyangari, N.*

**Samant, B.S. and Nyangari, N.** (2012) A novel microwave synthesis of quinoline-3-carboxylic acid derivatives for treatment against human African trypanosomiasis. *Molecular Diversity*. 16 (4). p.658-695.

*Srinivas, S.C.*

Ruud, K.W., **Srinivas, S.C.** and Toverud, E.L. (2012) Healthcare providers' experiences with adverse drug reactions and adherence challenges in antiretroviral therapy of HIV patients in the Eastern Cape Province, South Africa. *European Journal of Clinical Pharmacology*. 68 (9). p.1321-1328.

*Tandlich, R.*

Smogrovicova, D., Nadasky, P., **Tandlich, R., Wilhelmi, B.S.** and Cambray, G.A. (2012) Analytical and Aroma Profiles of Slovak and South African Meads. *Czech Journal of Food Sciences*. 30 (3). p.241-246.

*Tandlich, R. and Zuma, B.M.*

**Tandlich, R. and Zuma, B.M.** (2012) Mutual

relationship of Henry's law constants and aqueous phase concentrations for benzene, toluene and o-xylene at 30° C. *Fresenius Environmental Bulletin*. 21 (1). p.68-75.

*Verbeeck, R.*

**Verbeeck, R. and Musuamba, F.T.** (2012) The revised 2010 EMA guideline for the investigation of bioequivalence for immediate release oral formulations with systemic action. *Journal of Pharmacy and Pharmaceutical Sciences*. 15 (3). p.376-388.

Allabi, A., Horsmans, Y., Alvarez, J., Bigot, A., **Verbeeck, R.**, Yasar, U. and Gala, J. (2012) Acenocoumarol sensitivity and pharmacokinetic characterization of CYP2C9 \*5/\*8, \*8/\*11, \*9/\*11 and VKORC1\*2 in black African healthy Beninese subjects. *European Journal of Drug Metabolism and Pharmacokinetics*. 37 (2). p.125-132.

*Wa Kasongo, K. and Walker, R.B.*

**Wa Kasongo, K., Muller, R.H. and Walker, R.B.** (2012) The use of hot and cold high pressure homogenization to enhance the loading capacity and encapsulation efficiency of nanostructured lipid carriers for the hydrophilic antiretroviral drug, didanosine for potential administration to paediatric patients. *Pharmaceutical Development and Technology*. 17 (3). p.353-362.

*Walker, R.B.*

Kleyi, P., Walmsley, R.S., Gundhla, I.Z., Walmsley, T.A., Jauka, T.I., Dames, J.F., **Walker, R.B., Torto, N. and Tshentu, Z.R.** (2012) Synthesis, Protonation Constants and Antimicrobial Activity of 2-Substituted N-alkylimidazole Derivatives. *South African Journal of Chemistry-Suid-Afrikaanse Tydskrif Vir Chemie*. 65 (2012). p.231-238.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Beukes, D.R.*

**Olalekan, E.T., Watkins, G.M. and Beukes, D.R.** Co(II) and Cu(II) complexes of 2MT, 2MA and derivatives: Antimicrobial activity. *Bioinorganic Chemistry Gordon Research Seminar (GRS) Four Points*. Sheraton / Holiday Inn Express, Ventura, CA. USA. January 2012.

*Chakaingesu, C. and Samant, B.S.*

**Chakaingesu, C. and Samant, B.S.** Synthesis of naphthoquinone derivatives as potential anti-trypanosomal agents against Human African Trypanosomiasis (sleeping sickness). *The 33rd Annual Conference of the Academy of Pharmaceutical Sciences of South Africa*. Rhodes University, Grahamstown. South Africa. September 2012.

*Chakaingesu, C., Umumarungu, T.,*

*Olawode, E.O. and Samant, B.S.*

**Chakaingesu, C., Umumarungu, T., Olawode, E.O. and Samant, B.S.** Synthesis of potential antiparasitic agents. *Chemico-and Biomedical Research 1-Day Symposium*. Rhodes University, Grahamstown. South Africa. October 2012.

*Chanakira, T.J., Khamanga, S.M.M. and*

*Walker, R.B.*

**Chanakira, T.J., Khamanga, S.M.M. and Walker, R.B.** Development and assessment of mometasone furoate (MF) loaded nano-structured lipid carriers. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences*. Rhodes University, Grahamstown. South Africa. September 2012.

*Dowse, R. and Patel, S.*

# PHARMACY

**Dowse, R. and Patel, S.** Low healthy literacy patients in under-resourced systems: do they know what medicines information they need or want and where to source it? *72nd International Congress of FIP*. Amsterdam. Holland. October 2012.

**Patel, S. and Dowse, R.** Patients don't know what they should know. *The 33rd Annual Conference of the Academy of Pharmaceutical Sciences of South Africa*. Grahamstown. South Africa. September 2012.

*Dube, T.G., Khamanga, S.M.M. and Walker, R.B.*

**Dube, T.G., Khamanga, S.M.M. and Walker, R.B.** Development and assessment of immediate release tenofovir disoproxil fumarate capsules for adult use. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences*. Rhodes University, Grahamstown. South Africa. September 2012.

*Fakee, J. and Beukes, D.R.*

**Fakee, J., Beukes, D.R. and Bolton, J.J.** Isolation and characterisation of a new halogenated chamigrane from *Laurencia natalensis*. *The 33rd Academy of Pharmaceutical Sciences of South Africa*. Rhodes University, Grahamstown. South Africa. September 2012.

*Fauzee, A.F.B.F. and Walker, R.B.*

**Fauzee, A.F.B.F. and Walker, R.B.** Absorption kinetics and mechanism of clobetasol 17-propionate (CP) release from cream formulations using Franz diffusion cell. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences*. Rhodes University, Grahamstown. South Africa. September 2012.

*Irwin, Y.L., Porusingazi, G. and Oltmann, C.*  
**Irwin, Y.L., Porusingazi, G. and Oltmann, C.** Testing of Pictograms for the First Aid

Treatments of Epileptic Seizures. *South African Association of Hospital and Institutional Pharmacists*. Champagne Sports Resort, Drakensberg. South Africa. March 2012.

*Kanfer, I.*

**Kanfer, I.** BEST: A design for topical bioequivalence? Aspects of the Vaso-constrictor (VC) Assay, Microdialysis, and Skin Stripping Perspectives in Percutaneous Penetration 2012. *Thirteenth International Conference, La Grande Motte*. France. April 2012.

**Kanfer, I.** Generic Medicines: Efficacy and Implications for Substitution. *Independent Clinical Oncology Network (ICON) Conference 2nd ICON Congress, CTICC*. Cape Town. South Africa. January 2012.

*Kanfer, I. and Muller, A.C.*

**Kanfer, I., Muller, A.C. and Ducharme, M.** Interactions between *Sutherlandia frutescens*, an African Traditional Medicine and the antiretroviral protease inhibitor, atazanavir in human subjects. *AAPS Annual Meeting and Exposition*. McCormick Place, Chicago. USA October 2012.

*Kasongo, W.K.M. and Walker, R.B.*

**Kasongo, W.K.M. and Walker, R.B.** Statistical analysis of the stability of clobetasol 17-propionate cream formulation using a model-independent approach. *American Association of Pharmaceutical Scientists Annual Meeting and Exposition*. McCormick Place, Chicago. United States of America. October 2012.

*Khamanga, S.M.M. and Walker, R.B.*

**Khamanga, S.M.M. and Walker, R.B.** Application of Statistical Analysis in Characterization of Captopril Loaded Microparticles. *American Association of Pharmaceutical Scientists Annual Meeting*



From left to right: PhD student Ayesah Fauzee, Dr Kasongo Wa Kasongo, Masters student Samantha Mukazhiwa, Professor Rod Walker, and Masters student Pedzisai Makoni in the Pharmaceutics Research Group Laboratory. Photo: Christine Nesbitt Hills

*and Exposition*. McCormick Place, Chicago. United States of America. October 2012.

*Makoni, P.A., Walker, R.B. and Kasongo, W.K.M.*

**Makoni, P.A., Walker, R.B. and Kasongo, W.K.M.** Development and validation of an HPLC-ECD method for the analysis of efavirenz in pharmaceutical dosage forms. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences*. Rhodes University, Grahamstown. South Africa. September 2012.

*Mhaka, F.A., Khamanga, S.M.M. and*

*Walker, R.B.*

**Mhaka, F.A., Khamanga, S.M.M. and Walker, R.B.** Formulation development and manufacture of captopril beads using an extrusion-spheronization approach. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences*. Rhodes University, Grahamstown. South Africa. September 2012.

*Mubare, D.K., Beukes, D.R. and Kanfer, I.*

**Mubare, D.K., Beukes, D.R. and Kanfer, I.** Phytochemical studies of *Pelargonium sidoides* and *Pelargonium reniforme*. *The*

# PHARMACY

*33rd Annual Conference of the Academy of Pharmaceutical Sciences of South Africa.* Rhodes University, Grahamstown. South Africa. September 2012.

*Mukozhiwa, S.Y., Walker, R.B. and Khamanga, S.M.M.*

**Mukozhiwa, S.Y., Walker, R.B. and Khamanga, S.M.M.** Development of a capillary zone electrophoresis method for the quantitation of captopril in pharmaceuticals. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences.* Rhodes University, Grahamstown. South Africa. September 2012.

*Mwila, C., Khamanga, S.M.M. and Walker, R.B.*

**Mwila, C., Khamanga, S.M.M. and Walker, R.B.** Development and assessment of sustained release (SR) matrix tablets of nevirapine (NVP). *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences.* Rhodes University, Grahamstown. South Africa. September 2012.

*Nyambe, M.N., Goosen, E.D. and Beukes, D.R.*

**Nyambe, M.N., Goosen, E.D., Beukes, D.R., Koekemoer, T. and van de Venter, M.** An investigation of the potential antidiabetic activity of antioxidant compounds from marine algae. *The 33rd Annual Conference of the Academy of Pharmaceutical Sciences of South Africa.* Rhodes University, Grahamstown. South Africa. September 2012.

*Oltmann, C.*

**Oltmann, C.** Identifying undergraduate Pharmacy leadership opportunities. *2012 International Pharmaceutical Federation (FIP) Congress.* RAI, Amsterdam. The Netherlands.

October 2012.

*Samant, B.S.*

**Samant, B.S.** Research Model for Medicinal Chemistry. *Centre for Chemico-and Biomedical Research 1-Day Symposium.* Rhodes University, Grahamstown. South Africa. October 2012.

**Samant, B.S.** Synthesis and Structural Activity Relationship Study of Naphthoquinone Derivatives against Human African Trypanosomiasis. *The 33rd Annual Conference of the Academy of Pharmaceutical Sciences of South Africa.* Rhodes University, Grahamstown. South Africa. September 2012.

*Tandlich, R., Luyt, C.D. and Srinivas, S.C.*

**Tandlich, R., Luyt, C.D., Srinivas, S.C. and Gordon, A.K.** Concentrations of Indicator Organisms in the Stored Rainwater in the Makana Municipality, South Africa. *Air and Water Components of the Environment.* Universitatea Babeş, Bolyai, Cluj Napoca. Romania. March 2012.

*Walker, R.B.*

**Ikamati, P.M., Perrie, Y., Walker, R.B. and Kirby, D.J.** Development of a flow through dissolution test method for the evaluation of flucloxacillin release from a microparticulate dosage form. *The 18th United Kingdom Ireland Controlled Release Society (UKICRS) Symposium.* Aston University, Birmingham. United Kingdom. May 2012.

**Ikamati, P.M., Perrie, Y., Walker, R.B. and Kirby, D.J.** Determining surfactant effect in residual oil inclusion during the development of taste masked processing method. *The 4th European Formulation Initiative Conference.* Institute of Molecular Genetics of

ASCR, Prague. Czech Republic. September 2012.

**Ikamati, P.M., Perrie, Y., Walker, R.B. and Kirby, D.J.** The development of a flow through dissolution test method for the determination of flucloxacillin release properties of taste masked microspheres. *The 4th European Formulation Initiative Conference.* Institute of Molecular Genetics of ASCR, Prague. Czech Republic. September 2012.

**Walker, R.B.** Formulations for paediatric use. *The 26th South African Association of Hospital and Institutional Pharmacists (SAAHIP) Conference.* Champagne Sports Resort, Bergview. South Africa. March 2012.

**Walker, R.B.** Optimization of paediatric therapy: Challenges and opportunities. *Pharmaceutical Technology Symposium in Conjunction with the 15th Anniversary of GEANUS PPRL.* National University of Singapore. Singapore. May 2012.

**Walker, R.B.** Implications for pharmacy education of a paradigm shift in health care. *1st International Conference on Recent Advances in Pharmaceutical Science: Transferring Knowledge from Education to Practice.* Kathmandu University, Kathmandu. Nepal. February 2012.

**Walker, R.B.** The professional degree: Defining clinical pharmacy in the South African health care system. *The 2nd Annual Meeting of the South African Society of Clinical Pharmacy.* Rhodes University, Grahamstown. South Africa. June 2012.

**Walker, R.B.** HR Challenges in Pharmacy and Higher Education. *Human Resources for Pharmacy Seminar.* Pretoria. South Africa. September 2012.

*Wrench, W.M. and Magadza, C.*

**Wrench, W.M. and Magadza, C.** Health Promotion: Pharmacy Students Involvement in the Fight Against TB. *South African Association of Hospital and Institutional Pharmacists.* Champagne Sports Resort, Bergville, Drakensberg. South Africa. March 2012.

*Zindove, C.C., Khamanga, S.M.M. and Walker, R.B.*

**Zindove, C.C., Khamanga, S.M.M. and Walker, R.B.** Development and assessment of sustained release stavudine microcapsules. *The 33rd Annual Congress of the Academy of Pharmaceutical Sciences.* Rhodes University, Grahamstown. South Africa. September 2012.

*Zuma, B.M., Luyt, C.D., Chirenda, T.G. and Tandlich, R.*

**Zuma, B.M., Luyt, C.D., Chirenda, T.G. and Tandlich, R.** Flood Disaster Management in South Africa: Legislative Framework and Current Challenges. *International Conference on Applied Life Sciences (ICALS2012).* Konya. Turkey. September 2012.



# PHILOSOPHY

## Department of **PHILOSOPHY**

The Philosophy Department continues their active engagement with the philosophical community at home and abroad. Twenty-seven conference presentations were made in 2012.

Professor Tom Martin, Head of the Department of Philosophy, taking part in a post-graduate philosophy seminar.

*Photo: Christine Nesbitt Hills*



Staff and postgraduate students were active in research, publishing nine (9) articles in all, including two (2) authored by postgraduate students.

They also continued their active engagement with the philosophical community at home and abroad, with a total of twenty-seven (27) conference presentations.

## **Distinguished Visitors/ Overseas Visits**

The department hosted two overseas philosophers, Gerald Lang (University of Leeds, United Kingdom) and Chandra Kumar (York University, Canada), for extended visits, during which they both taught postgraduate students and presented research seminars.

# PHILOSOPHY

## Significant Research Aligned Events

2012 saw the opening of the Allan Gray Centre for Leadership Ethics. Housed within the Department of Philosophy and under the direction of **Professor Pedro Tabensky**, the centre aims to conduct and promote research in the area of ethical leadership. The centre will also be involved in teaching activities and community outreach.

**Professor Tom Martin**

Head of Department

## Books/Chapters/Monographs

*Vice, S.W.*

**Vice, S.W.** (2012) Politics, Moral Identity, and the Limits of White Silence. In: Yancy, G. and Jones, J. (eds.). *Pursuing Trayvon Martin*. USA: Lexington Books. p.205-213. ISBN: 9780739178829.

## Concerts, Exhibitions, Performances, Workshops, Events

*Vice, S.W.*

**Vice, S.W.** Presented paper. Reflections. *Workshop on 'How Do I Live In This Strange Place?'* Stellenbosch Institute for Advanced Study, Stellenbosch. South Africa. 29 October 2012.

## International Visits

*Tabensky, P.A.*

**Tabensky, P.A.** University of Richmond, Richmond, Virginia, USA. *Visit to Jepson School for Leadership Ethics*. 28 - 29 March 2012.

## Other Publications

*Vice, S.W.*

**Vice, S.W.** (2012) Review of Michael Slote, The Impossibility of Perfection. In: Gutting, G. and Gutting, A.F. (eds.). *Notre Dame Philosophical Reviews*. Notre Dame: University of Notre Dame.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Jones, W.E.*

**Jones, W.E.** (2012) Higher Education, Academic Communities, and Intellectual Virtues. *Educational Theory*. 62 (6). p.695-711.

*Vice, S.W.*

**Vice, S.W.** (2012) Beauty, Mourning, and the Commemoration of Evil. *Midwest Studies in Philosophy*. 36 (1). p.142-162.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Jones, W.E.*

**Jones, W.E.** (2012) A Lover's Shame. *Ethical Theory and Moral Practice*. 15 (5). p.615-630.

**Jones, W.E.** (2012) The Art of Dying. *Philosophical Papers*. 41 (3). p.435-454.

*Kelland, L.A.*

**Kelland, L.A.** (2012) A Narrative Model of Recovery. *South African Journal of Philosophy*. 31 (2). p.290-300.

*Lenferna, G.A.*

**Lenferna, G.A.** (2012) The Universal Declaration's Problematic Rights Justification. *South African Journal of Philosophy*. 31 (2). p.314-327.

*Martin, T.W. and Vice, S.W.*

**Martin, T.W. and Vice, S.W.** (2012) Editors' Introduction to Special Issue on Ageing and the Elderly. *Philosophical Papers*. 41 (3). p.331-333.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Flockemann, R.A.*

**Flockemann, R.A.** Believing without Reasons. *Philosophical Society of Southern African Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Flockemann, R.A.** Deliberation and Inquiry. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

*Glover, M.J.*

**Glover, M.J.** A Case for Pseudo-veganism. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

*Jones, W.E.*

**Jones, W.E.** Reviving the Therapeutic Aim of Philosophy. *Philosophy and the Moral Life*. University

# PHILOSOPHY

of the Witwatersrand, Johannesburg. South Africa. November 2012.

**Jones, W.E.** Philosophers and the Poor. *Workshop on Global Justice*. University of Cape Town, Cape Town. South Africa. January 2012.

**Jones, W.E.** The Art of Dying. *Philosophical Society of Southern Africa Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Jones, W.E.** "Epistemic Wisdom" as an Aim of Higher Education. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Kelland, L.A.**

**Kelland, L.A.** A Narrative Model of Recovery. *Philosophical Society of Southern Africa Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Lenferna, G.A.**

**Lenferna, G.A.** A Problematic Universal Declaration of Rights: Ironing out the Kinks. *Philosophical Society of Southern Africa Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Lenferna, G.A.** A Problematic Universal Declaration - Ironing Out the Kinks. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Martin, T.W.**

**Martin, T.W.** Engaging with Shoah. *Philosophical Society of Southern Africa Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Moore, J.A.**

**Moore, J.A.** "Relationship-based Partiality". *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September

2012.

**Oelofsen, M.C.**

**Oelofsen, M.C.** South African race relations and the embodied subject. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Paphitis, S.A.**

**Paphitis, S.A.** Mirrors, Portraits and the Alterity of Subjectivity. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Prinsloo, A.V.**

**Prinsloo, A.V.** The problematic uncertainty of ubuntu. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Tabensky, P.A.**

**Tabensky, P.A.** Agape or Philia?: A Critical Examination of Gabriel Marcel's Conception of Hope. Viterbo University, La Crosse, Wisconsin. USA. March 2012.

**Tabensky, P.A.** Therapeutic African Philosophy. *The Philosophy of DA Masolo*. University of Johannesburg, Johannesburg. South Africa. March 2012.

**Tabensky, P.A.** Philosophy as a Modality of Coping. *Philosophy and the Moral Life*. WITS, Johannesburg. South Africa. November 2012.

**Tabensky, P.A.** Virtue Ethics for Skin-Bags. *Handbook of Virtue Ethics Conference*. Deakin University, Melbourne. Australia. September 2012.

**Tabensky, P.A.** Agape or Philia?: A Critical Examination of Gabriel Marcel's Conception of Hope. *University of New South Wales Philosophy Seminar Series*. University of New South Wales, Sydney. Australia. September 2012.

**Tabensky, P.A.** Hopeful Leadership. *Africa Leads*. Speir Estate, Stellenbosch. South Africa. November 2012.



Photo: Christine Nesbitt Hills

**Tabensky, P.A.** Hopeful Leadership. *Allan Gray Centre for Leadership Ethics Roundtable Series: Cultivating Ethical Leadership*. Rhodes University, Grahamstown. South Africa. September 2012.

**Van Der Nest, M.**

**Van Der Nest, M.** Work In Progress: Fanfiction as a Mechanism for Social Change. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Vice, S.W.**

**Vice, S.W.** Beauty, Mourning, and the Commemoration of Evil. *Philosophical*

*Society of Southern Africa Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Vice, S.W.** The Ethics of Animal Beauty. *Philosophy Spring Colloquium*. Rhodes University, Grahamstown. South Africa. September 2012.

**Vice, S.W.** Paper. *Philosophical Society of Southern Africa Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

**Vice, S.W.** Paper. *Minding Animals*. Utrecht University, Utrecht. Netherlands. July 2012.



# PHYSICS & ELECTRONICS

## Department of **PHYSICS & ELECTRONICS**

The most important event for the Department of Physics and Electronics in 2012 was South Africa's successful bid for the SKA.

Head of the Department of Physics and Electronics, Professor Makaiko Chithambo, with DVC Research and Development, Dr Peter Clayton, launching the Luminescence spectrometer on 5 April 2012

*Photo: Desiree Shirlinger*



Radio Astronomy, Experimental Solid State Physics, Nuclear Physics and General Relativity were the main activities of the various research groups in the Department of Physics and Electronics.

## Radio Astronomy

The SKA will be the most advanced radio telescope in the world. The telescope itself will be a spider-web of separate dishes located far and wide, reaching as far as Ghana in West Africa. Rhodes University organised a celebratory event for the award on 27 August 2012 which was attended by the then Minister of Science and Technology, Ms Naledi Pandor and various other dignitaries from the SKA office and the national and provincial government, Deputy Vice

# PHYSICS & ELECTRONICS

Chancellors, Deans, academics and students. Of particular note is that **Professor Justin Jonas**, Professor of Physics in the Department of Physics and Electronics, plays a prominent role in the international Square Kilometre Array (SKA) radio telescope project, both nationally and internationally and was involved in preparation of South Africa's bid to host this massive telescope.

The department was also pleased to welcome **Professor Oleg Smirnov** who assumed his position as the prestigious SARCHI SKA Chair in Radio Astronomy Techniques & Technologies at Rhodes University.

The South African Research Chairs Initiative (SARCHI) was established in 2006 by the Department of Science and Technology (DST) and is managed by the National Research Foundation (NRF) of South Africa. Its aim is to attract and retain excellence in research and innovation at South African universities. Professor Oleg Smirnov was previously at the Netherlands Institute for Radio Astronomy where he worked as a scientific software developer, software architect and researcher. His research interests span many areas including development of new radio interferometric techniques and calibration methods, development of the MeqTrees system for simulation and calibration of radio interferometers (<http://www.astron.nl/meqwiki>) as well as ionospheric modelling and flagging tools.

## Experimental Solid State Physics

**Professor M L Chithambo** went on a research visit to the University of Milano-Bicocca, Milan, Italy in May 2012 under the auspices of the Italy-South Africa Cooperation Programme. The visit was concerned with joint colla-

borative research now underway. During the same trip, Professor Chithambo also went to the Italian Institute of Technology in Genoa, Italy, to make exploratory measurements on the dynamics of luminescence in quartz. Professor Chithambo also organised the 3rd International Symposium on Luminescence which was held in Port Elizabeth, South Africa from the 1st to the 6th of July 2012. This was the third in a series of meetings that started in Bern, Switzerland in 2007. The 2012 meeting, which was opened by the Deputy Vice Chancellor for Research, Dr Clayton, focused on the basic physical processes and materials characteristics of natural and synthetic quartz as used in optically and thermally stimulated luminescence and related techniques. Participants included students and experts from South Africa, Poland, Italy, Israel, Nigeria, the USA and Hong Kong.

**Dr Nsengiyumva**, a member of the solid state physics group, went on a research trip to the Oak Ridge National Laboratory, USA, from the 4th of April to the 5th May 2012. The purpose of the visit was to run an experiment to study the electrical properties of printed electronic layers using extended Q-range small angle neutron scattering. In late June, Dr Nsengiyumva visited iThemba Labs in Cape Town to use their Rutherford Backscattering Spectrometry facility to investigate the elemental composition in ion-implanted quartz samples. He then participated in the International symposium on luminescence held in Port Elizabeth, South Africa in early July.

## Nuclear Physics

**Dr Roux** has been working on various manuscripts on the nucleus  $^{72}\text{Ge}$  and presented some results on  $^{72}\text{Ge}$  at



Head of the Department of Physics and Electronics, Professor M L Chithambo at the SKA event. Minister of Science and Technology, Ms Naledi Pandor joined Rhodes University on Monday, 27 August 2012 to celebrate South Africa's successful bid to host the Square Kilometer Array (SKA) telescope.

the July 2012 *South African Institute of Physics* conference in Pretoria. A paper written for the conference proceedings is to be published. During May and June 2012 he was involved in two experiments at Ithemba Labs, one to study the spectroscopy of  $^{231}\text{U}$  and the other to study photon strength functions in  $^{74}\text{Ge}$ . He also has projects on  $^{167}\text{Lu}$  and the spectroscopy of  $^{168}\text{Lu}$ .

## General Relativity

During both the Summer and Winter academic break periods of 2012, **Dr Joey Medved** was an academic visitor at the Physics Department at Ben Gurion University in Beer Sheva, Israel. In both cases, the trip was about six weeks long. He visits Ben Gurion University regularly to work directly with his primary collaborator, Professor

# PHYSICS & ELECTRONICS

Ram Brustein, who is a leading authority on what are Dr Medved's fields of expertise, quantum field theory and gravitational theory. Professor Ram Brustein is also a leading expert in string theory and string cosmology.

During the Winter break, their collaboration lead to three outputs, one of which was published in Physical Review D and the other two are under review. One of these reports is relevant to the heavy-ion scattering experiments (which produced the quark-gluon plasma, a strongly coupled fluid) going on in places like CERN in Geneva and RHIC in New York State. Another of his works was recently reviewed on the Scientific American website.

Please see: <http://blogs.scientificamerican.com/critical-opalescence/2012/12/18/physicists-find-a-backdoor-way-to-do-experiments-on-exotic-gravitational-physics/>.

Dr Medved also presented seminars to the High-Energy Theory Group at Ben-Gurion University on both trips, and attended many seminars presented by other guest speakers.

## Postgraduates/Graduations

MSc graduates were: **Emirant Bertillas Amabayo**, **Racheal Athieno** and **Katharine Rose Henninger**.

PhD graduates were: **Stefanus Ignatius Lotz**, **Chigomezoyo Ngwira**, **Laura Lee Richter** and **Jean Uwamahoro**.

**Professor Makaiko Chithambo**

Head of Department

## Concerts, Exhibitions, Performances, Workshops, Events

*Chithambo, M.L.*

**Chithambo, M.L.** Organiser. The 3rd International Symposium on Luminescence. *The 3rd International Symposium on Luminescence*. Courtyard Hotel, Port Elizabeth. South Africa. 1 - 6 July 2012.

## International Visits

*Chithambo, M.L.*

**Chithambo, M.L.** University of Milano-Bicocca, Milan, Italy. *Dynamics of luminescence in quartz*. 12 - 19 May 2012.

**Chithambo, M.L.** Italian Institute of Technology, Genoa, Italy. *Dynamics in luminescence quartz*. 17 - 18 May 2012.

*Medved, A.J.M.*

**Medved, A.J.M.** Ben Gurion University Department of Physics, Beer Sheva, Israel. *Collaboration in theoretical physics; high-energy and gravitational theory*. 16 June - 2 August 2012.

**Medved, A.J.M.** Ben Gurion University Department of Physics, Beer Sheva, Israel. *Collaboration in theoretical physics; high-energy and gravitational theory*. 27 November - 11 January 2012.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Amabayo, E.B. and Mckinnell, L.A.*

**Amabayo, E.B., Mckinnell, L.A.** and Cilliers, P.J. (2012) Ionospheric response over South Africa to the geomagnetic storm of 11-13 April 2001. *Journal of Atmospheric and Solar-Terrestrial Physics*. 84-85 (2012). p.62-74.

*Chithambo, M.L.*

**Chithambo, M.L.** (2012) Dosimetric features and kinetic analysis of thermoluminescence from ultra-high molecular weight polyethylene. *Journal of Physics*

*D-Applied Physics*. 45 (2012). p.1-13.

**Feathers, J.K., Casson, M.A., Schmidt, A.H. and Chithambo, M.L.** (2012) Application of pulsed OSL to fine-grained samples. *Radiation Measurements*. 47 (3). p.201-209.

*Jonas, J.L.*

**Peel, M., Dickinson, C., Davies, R., Banday, A., Jaffe, T. and Jonas, J.L.** (2012) Template fitting of WMAP 7-year data: anomalous dust or flattening synchrotron emission? *Monthly Notices of the Royal Astronomical Society*. 424 (1). p.2676-2685.

*Mcalpine, K.*

**Mcalpine, K., Smith, I., Jarvis, M., Bonfield, D. and Fleuren, S.** (2012) The likelihood ratio as a tool for radio continuum surveys with Square Kilometre Array precursor telescopes. *Monthly Notices of the Royal Astronomical Society*. 423 (2012). p.132-140.

**Camera, S., Santos, M.G., Bacon, D.J., Jarvis, M.J., Mcalpine, K., Norris, R., Raccanelli, A. and Rottgering, H.** (2012) Impact of redshift information on cosmological applications with next-generation radio surveys. *Monthly Notices of the Royal Astronomical Society*. 427 (3). p.2079-2088.

*Mckinnell, L.A.*

**Uwamahoro, J., Mckinnell, L.A.** and Harbarulema, J.B. (2012) Estimating the geoeffectiveness of halo CMEs from associated solar and IP parameters using neural networks. *Annales Geophysicae*. 30 (6). p.963-972.

**Sindelarova, T., Mosna, Z., Buresova, D., Chum, J., Mckinnell, L.A.** and Athieno, R. (2012) Observations of wave activity in the ionosphere over South Africa in geomagnetically quiet and disturbed periods. *Advances in Space Research*. 50 (2). p.182-195.

*Medved, A.J.M.*

**Brustein, R. and Medved, A.J.M.** (2012) Graviton n-point functions for UV-complete theories in Anti-de Sitter space. *Physical Review D*. 85 (8). p.840281-840289.



# PHYSICS & ELECTRONICS

Brustein, R. and Medved, A.J.M. (2012) Gravitational entropy and thermodynamics away from the horizon. *Physics Letters B*. 715 (1-3). p.267-270.

*Ngwira, C.M. and Mckinnell, L.A.*

**Ngwira, C.M., Mckinnell, L.A.**, Cilliers, P.J. and Yizengaw, E. (2012) An investigation of ionospheric disturbances over South Africa during magnetic storm on 15 May 2005. *Advances in Space Research*. 49 (2). p.327-335.

*Roux, D.G.*

Zhang, Y.C., Ijaz, Q.A., Ma, W.C., Hagemann, G.B., Carpenter, M.P., Chowdhury, P., Cullen, D.M., Djongolov, M.K., Hartley, D.J., Janssens, R.V.F., Khoo, T.L., Kondev, F.G., Lauritsen, T., Ngiojoi-Yogo, E., Ødegård, S., Riedinger, L.L., Rigby, S.V., **Roux, D.G.**, Scholes, D.T., Yadav, R.B. and Zhu, S. (2012) High-spin proton alignments and evidence for second band with enhanced deformation in 171Hf. *Physical Review C*. 85 (6). p.1-17.

*Roux, D.G. and Henninger, K.R.*

**Roux, D.G., Henninger, K.R.**, Bark, R.A., Bvumbi, S., Gueorguieva-Lawrie, E.A., Lawrie, J.J., Mullins, S.M., Murray, S.H.T., Ntshangase, S.S., Masiteng, L.P. and Shirinda, O. (2012) In-beam spectroscopy of <sup>72</sup>Ge. *European Physical Journal A*. 48 (99). p.1-14.

*Smirnov, O.M.*

de Gasperin, F., Orru, E., Murgia, M., Merloni, A., Falcke, H., Beck, R., Beswick, R., Birzan, L., Bonafede, A., Bruggen, M., Brunetti, G., Chyzy, K., Conway, J., Croston, J.H., Ensslin, T., Ferrari, C., Heald, G., Heidenreich, S., Jackson, J.M., Macario, G., McKean, J., Miley, G., Morganti, R., Offringa, A., Pizzo, R., Rafferty, D., Rottgering, H., Shulevski, A.,

Steinmetz, M., Tasse, C., van der Tol, S., van Driel, W., van Weeren, R.J., van Zwieten, J.E., Alexov, A., Anderson, C., Askegar, A., Avruch, M., Bell, M.R., Bentum, M., Bernadi, G., Best, P., Breitling, F., Broderick, J.W., Butcher, A., Ciardi, B., Dettmar, R.J., Eisloffel, J., Frieswijk, W., Gankema, H., Garrett, M., Gerbers, M., Griessmeier, J.M., Gunst, A.W., Hassall, T.E., Hoeft, M., Horneffer, A., Karastergiou, A., Kohler, J., Koopman, Y., Kuniyoshi, M., Kuper, G., Maat, P., Mann, G., Mevius, M., Mulcahy, D.D., Munk, H., Nijboer, R., Noordam, J., Paas, H., Pandey, A.K., Pandey, V.N., Polatidis, A., Reich, W., Schoenmakers, A.P., Sluman, J., **Smirnov, O.M.**, Sobey, C., Stappers, B., Swinbank, J., Tagger, M., Tang, Y., van Bemmell, I., van Cappellen, W., van Duin, A.P., van Haarlem, M., van Leeuwen, J., Vermeulen, R., Vocks, C., White, S., Wise, M., Wicknitz, O. and Zarka, P. (2012) M 87 at metre wavelengths: the LOFAR picture. *Astronomy & Astrophysics*. 547 (A56). p.2012.



Professor Justin Jonas and Professor Oleg Smirnov Photo: Sophie Smith

# POLITICAL & INTERNATIONAL STUDIES

Faculty of

## POLITICAL & INTERNATIONAL STUDIES

Significant events in the Department of Political & International Studies were the Thinking Africa Colloquium and the annual Teach-In.



Front Row - L-R : Dr Simon Howell (Post-Doc); Ms Georgina Barrett (Lecturer); Ms Zuziwe Msomi (Teaching Assistant); Ms Odette Cumming (Administrator); Ms Siphokzai Magadla (Lecturer); Dr Sally Matthews (Senior Lecturer); Professor Paul-Henri Bischoff (HoD); Dr Tony Fluxman (Senior Lecturer); Mr Richard Pithouse (Lecturer).

Back Row - Professor Jacques Depelchin (Hugh Le May Fellow); Professor Leonard Praeg. *Photo supplied by FotoFirst*

The Department of Political and International Studies was host to a number of national and international visiting academics in 2012, providing a rich intellectual environment for students and staff alike and reflecting the intense engagement between research and teaching that has characterised the department's mode of operation in recent years.

## Postgraduates/Graduations

Honours: twenty-six (26) - eight (8) distinctions  
Masters: seven (7) - six (6) distinctions  
PhD: one (1).

The *Ubuntu: Curating the Archive* winter school took place in July 2012. It incorporated a seminar series facilitated by Professor Lewis Gordon as well as seminars by Celine Bankumuhari, an advocate for law reform in the field of gender sexual violence in armed conflict, and Lyn Ossome who is a researcher in the fields of feminist theory, land and agrarian studies and postcolonial studies, among others.

# POLITICAL & INTERNATIONAL STUDIES

## Distinguished Visitors/ Overseas Visits

**Sally Matthews** presented a paper entitled '*Privileged Actors and Social Justice Movements in South Africa: A View from Grahamstown*' at the African Studies Association of the United Kingdom (ASAUk) Biennial Conference held in Leeds, UK, 6-8 September 2012.

The Second Thinking Africa public lecture was delivered by Achille Mbembe, research professor in history and politics at the University of the Witwatersrand and visiting professor at Duke University's Department of Romance Studies.

**Richard Pithouse** was invited to give a presentation at the *Urban Revolutions* conference in Jakarta on 18 March 2012. This conference was organized by Ananya Roy, a world leader in her field.

Richard Pithouse gave a public lecture in Madrid hosted by Museo Reina Sofia on the 15th of June 2012 and participated in a public debate with Jan Bremmen in Madrid.

## Significant Research Aligned Events

The Department's annual Thinking Africa colloquium seeks to bring together scholars who are invited to take part in a conversation on the chosen theme for the year. In 2012 this theme was '*Ubuntu: Curating the Archive*'. The guiding question for the colloquium had to do with the possible contribution of critical humanism in general and Ubuntu in particular, to emancipatory praxis in post-apartheid South Africa.

Participants from outside of Rhodes included:

- Lewis Gordon, Director of the Institute for the Study of Race and Social Thought and Director of the Centre for Afro-Jewish Studies and a Laura H. Carnell Professor of Philosophy at Temple University and President of the Caribbean Philosophical Association.
- M. M. Ramose, M.B. Extraordinary Professor (UNISA) MSc (London School of Economics), DLitt et Phil (Katholieke Universiteit Leuven) and author of numerous articles in Theoretical and Applied Ethics, Social and Political Philosophy, Philosophy of Liberation, African Philosophy, Philosophy of International Relations.
- A. Biney, author of *The Political and Social Thought of Kwame Nkrumah* (Palgrave Macmillan, 2011).
- M.F Murove, a senior lecturer in the School of Religion, Philosophy and Classics at the University of KwaZulu-Natal, Pietermaritzburg Campus and editor of the anthology *African Ethics: An Anthology of Comparative and Applied Ethics* (UKZN Press), the first of its kind in the development of African ethics.
- I. Shivji, who has served as advocate of the high court and the Court of Appeal of Tanzania since 1977 and as advocate of the high court in Zanzibar since 1989. He has devoted most of his life to addressing issues on the exploitation of Tanzanians through both the national and the international economic and legal orders. He presently occupies the Mwalimu Julius Nyerere Research Chair in Pan-African Studies of the University of Dar es Salaam.

The proceedings of this colloquium have been collected together in a volume edited by **Leonhard Praeg** and

**Siphokazi Magadla** which will be published by UKZN Press.

Three editions of the *Thinking Africa Newsletter* were published in 2012. Every edition of the newsletter contains a 1 000 word piece written by a scholar - international or national - on a topical issue in African studies. Past contributors include Drucilla Cornell, Nigel Gibson, and Lewis Gordon. The newsletter can be found at: [www.ru.ac.za/thinkingafrica/publications/newsletters/](http://www.ru.ac.za/thinkingafrica/publications/newsletters/).

The Department hosted its annual Teach-In -- a week of public lectures which bring a particular issue of interest and concern in the public sphere to the attention of the University and the wider community. In 2012, the series was on the topic of a 'Second Transition' in South Africa with national speakers including Mandy Rossouw, Joel Netshitenzhe, Steven Friedman, Pierre de Vos, Catherine Burns and Verashni Pillay.

**Louise Vincent** is one of the principle investigators in the Critical Studies in Sexualities and Reproduction research area. The project incorporates multidisciplinary research teams working with partner researchers from Rhodes, Stellenbosch, the University of the Western Cape and York University among others. An investigation of sexuality in life orientation school curricula funded by SANPAD formed a significant part of this project's work in 2012.

The year also saw a visit by Merran Toerien of York University who will be partnering with South African members of the research team in a new initiative that will be looking at exchanges between health providers and clients seeking termination of pregnancy services.



# POLITICAL & INTERNATIONAL STUDIES

**George Barrett**, with colleagues from the University of the Free State and the University of the Witwatersrand, was the organiser of a conference which took place from the 11 to the 14th of September 2012 titled "Old Land, New Practices: The Changing Face of Land and Conservation in Postcolonial Africa".

Participants included academics, government, NGO and social movement representatives from across the continent, and from Europe and Australia. The outcomes of the conference included an award for the best student paper to **Lennox Olivier** for his paper on the RasTafari Bossiedokters and the Challenges of Transforming Nature Conservation in the Boland Area. Proceedings were published in a special issue of the *Journal of Contemporary African Studies* guest edited by Ms Barrett - a timely contribution in the context of the centenary of the Land Act in South Africa.

**Professor Louise Vincent**

Acting Head of Department

## Books/Chapters/Monographs

**Acharya, A.**

**Acharya, A.** (2012) *The Making of Southeast Asia: International Relations of a Region*. 2nd Ed. Singapore: ISEAS Publishing. ISBN: 9789814311229.

**Acharya, A.** (2012) Ideas, norms and regional orders. In: Paul, T.V. (ed.). *International Relations Theory and Regional Transformation*. Cambridge: Cambridge University Press. p.183-209. ISBN: 9781107020214.

**Magadla, S.**

Godwyll, F. and **Magadla, S.** (2012) Educating Postconflict Societies: Lessons from Rwanda and Liberia. In: Ensor, M.O. (ed.). *African Childhoods: Education, Development, Peacebuilding, and the Youngest Continent*. Basingstoke: Palgrave Macmillan. p.187-200. ISBN: 9781137024695.

**Pithouse, R.M.**

**Pithouse, R.M.** (2012) Move from and not on the Occult Zone (Where the People Dwell): An Argument for the Political Priority of Solidarity with Popular (and Largely Situated) Mobilization by the Poor over Transnational Organization by Civil Society. In: *Kratke, S., Wildner, K. and Lanz, S. (eds.). Transnationalism and Urbanism*. London: Routledge. p.197-223. ISBN: 9780415898638.

**Vincent, L.D.**

**Vincent, L.D.**, Steyn-Kotze, J. and Hamilton, L. (2012) *Puzzles in contemporary political philosophy: An introduction for South African students*. Pretoria: Van Schaik Publishers. ISBN: 9780627029745.

**Vincent, L.D.** (2012) From Suffrage to Silence: The Afrikaner Nationalist Women's Parties, 1915-1931. In: Blee, K. and McGee Deutsch, S. (eds.). *Women of the Right: Comparisons and Interplay Across Borders*. Pennsylvania: The Pennsylvania State University Press. p.132-146. ISBN: 9780271052151.

## Distinguished Visitors

**Prof A Archarya.** American University, Washington DC, USA. *Taught a postgrad course and gave seminar*. May 2012.

**Prof A Atta-Asamoah.** Institute for Security Studies (ISS), Pretoria, SA. *Taught a postgrad course and gave seminar*. August 2012.

**Prof C Bankumuhari.** Daystar University, Nairobi, Kenya. *Colloquium - Thinking Africa*. July 2012.

**Dr J Cherry.** NMMU, Port Elizabeth, SA. *Seminar*. March 2012.

**Dr E Chitando.** University of Zimbabwe, Harare, Zimbabwe. *Colloquium - Thinking Africa*. July 2012.

**Justice D Davis.** High Court of Cape Town, Cape Town, SA. *Colloquium - Thinking Africa*. January 2012.

**Prof J Depelchin.** University of Brazil, Garcia Salvado, Brazil. *Seminar & lectures*. September 2012.

**Prof L Gordon.** Institute for the Study of Race and Social Thought, Pretoria, SA. *Colloquium - Thinking Africa*. July 2012.

**Dr PS Handy.** Institute for Security Studies (ISS), Pretoria, SA. *Taught a course in the Postgraduate Diploma level*. August 2012.

**Prof M Huchzermeyer.** WITS, Johannesburg, SA. *Seminar*. March 2012.

**Prof I Keevy.** University of Free State, Free State, SA. *Colloquium - Thinking Africa*. July 2012.

**Prof A Mbembe.** WITS, Pretoria, South Africa. *Colloquium - thinking Africa*. July 2012.

**Dr MF Murove.** University of KwaZulu-Natal, Pietermaritzburg, SA. *Colloquium - Thinking Africa*. July 2012.

**Prof G Prevost.** St. John's University, Minnesota, USA. *Critical Studies Seminar*. March 2012.

**Prof MB Ramose.** UNISA, Pretoria, SA. *Colloquium - Thinking Africa*. July 2012.

**Dr J Rose.** University of London, London, UK. *Lectured postgrad course and seminar*. February 2012.

**Dr D Ruiz.** Spain. *Critical Studies seminar*. March 2012.

# POLITICAL & INTERNATIONAL STUDIES

## Other Publications

*Magadla, S.*

**Magadla, S.** (2012) Simply having a female president will not rescue the ANC. In: Haffajee, F. (ed.). *City Press Newspaper*. South Africa: City Press Newspaper.

**Magadla, S.** (2012) Silence on Gbowee is deafening. In: Haffajee, F. (ed.). *City Press Newspaper*.

**Magadla, S.** (2012) The problem with independent women. In: *Mail & Guardian Online Newspaper*. South Africa: Mail & Guardian Online Newspaper.

*Pithouse, R.M.*

**Pithouse, R.M.** (2012) We are Drifting to Authoritarianism. In: *The Cape Times*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Education, Like Stadiums, Can be Fixed. In: *The Cape Times*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) We Can No Longer Look to the ANC for Freedom. In: *The Star*.

**Pithouse, R.M.** (2012) Bruce Springsteen's call for Battle. In: *Daily News*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) The Wretched of the Earth. In: *Red Pepper*. London: Red Pepper.

**Pithouse, R.M.** (2012) ANC document has serious limits. In: *Cape Times*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) We need to change focus from eradicating slums'. In: *The Mercury*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Inhabiting Orwell's Animal Farm. In: *Sunday Argus*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Bill doesn't augur well

for democracy. In: *The Cape Times*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Lula Moment Cover for ANC Degeneration Under Zuma. In: *Cape Argus*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Even the Dead. In: *The Daily Dispatch*. Johannesburg: Avusa.

**Pithouse, R.M.** (2012) The New Struggle in South Africa. In: *The Daily News*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Self-organisation, not magic, the drive behind mine action. In: *The Herald*. Johannesburg: Avusa.

**Pithouse, R.M.** (2012) Democracy in SA still Elusive. In: *Daily Dispatch*. Johannesburg: Avusa.

**Pithouse, R.M.** (2012) Corruption at the Bottom of Society. In: *Cape Argus*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) At boiling point. In: *Sunday Tribune*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) No policy basis for a second transition. In: *Mail & Guardian*. Johannesburg: Independent Newspapers.

**Pithouse, R.M.** (2012) Building Without Racism. In: *Pretoria News*. Johannesburg: Independent Newspapers.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Good, K.*

**Good, K.** (2012) Democratisation from Portugal to Poland, 1970s-1990s, and in Tunisia and Egypt since 2010. *Interface*. 4 (2). p.383-423.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Acharya, A.*

**Acharya, A.** (2012) Comparative Regionalism: A field Whose Time has Come? *International Spectator*. 47 (1). p.3-15.

*Bischoff, P.*

**Bischoff, P.** (2012) What's been built in twenty years? SADC and Southern Africa's political and regional security culture. *Strategic Review for Southern Africa/Strategiese Oorsig Vir Suider-Afrika*. xxxiv (2). p.63-91.

*Friedman, S.*

**Friedman, S.** (2012) Democracy as an Open-ended Utopia: Reviving a Sense of Uncoerced Political Possibility. *Theoria: A Journal of Social and Political Theory*. 59 (130). p.1-21.

**Friedman, S.** (2012) Beyond the fringe? South African social movements and the politics of redistribution. *Review of African Political Economy*. 39 (131). p.85-100.

**Friedman, S.** (2012) Whose Liberation? A Partly-Forgotten Left Critique of ANC Strategy and its Contemporary Implications. *Journal of Asian and African Studies*. 47 (1). p.18-32.

*Magure, B.*

**Magure, B.** (2012) Foreign Investment, black economic empowerment and militarised patronage politics in Zimbabwe. *Journal of Contemporary African Studies*. 30 (1). p.67-82.

*Matthews, S.J.*

**Matthews, S.J.** (2012) Review of 'A Critical Psychology of the Postcolonial'. *African Identities*. 10 (4). p.472-475.

**Matthews, S.J.** (2012) White Anti-Racism

in Post-Apartheid South Africa. *Politikon*. 39 (2). p.171-188.

*McMichael, C.*

**McMichael, C.** (2012) 'Hosting the world': The 2010 World Cup and the new military urbanism. *City*. 16 (5). p.519-534.

*Pithouse, R.M.*

**Pithouse, R.M.** (2012) Thought Amidst Waste. *Journal of Asian and African Studies*. 47 (5). p.482-497.

**Pithouse, R.M.** (2012) Frantz Fanon Fifty Years Later: A Thinking Africa Conference. *Social Dynamics-A Journal of the Centre for African Studies University of Cape Town*. 37 (3). p.434-435.

*Vincent, L.D.*

**Vincent, L.D.** (2012) Shaking a hornets' nest: pitfalls of abortion counseling in a secular constitutional order - a view from South Africa. *Culture Health & Sexuality*. 14 (2). p.125-138.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Fluxman, A.*

**Fluxman, A.** Understanding Reification Today. *Philosophical Society of Southern Africa (PSSA) Annual Conference*. University of Cape Town, Cape Town. South Africa. January 2012.

*Matthews, S.J.*

**Matthews, S.J.** Writing from 'Traitorous' Social Locations. *Wildcoast Philosophy Symposium*. Crawfords, Cints. South Africa. May 2012.

**Matthews, S.J.** Privileged Actors and Social

# POLITICAL & INTERNATIONAL STUDIES

Justice Movements in South Africa: A View from Grahamstown. *African Studies Association of the United Kingdom 2012 conference*. University of Leeds, Leeds. United Kingdom. September 2012.

*Pithouse, R.M.*

**Pithouse, R.M.** South African peripheries and the struggle of the inhabitants of the Durban periphery. *This was a public lecture, not a conference* - see [www.museoreinasofia.es/programas-publicos/centroestudios/actividades/metropolis-actividades-publicas\\_en.html](http://www.museoreinasofia.es/programas-publicos/centroestudios/actividades/metropolis-actividades-publicas_en.html). Museo Reina Sofia, Madrid. Spain. June 2012.

**Pithouse, R.M.** Political Agency in South African Shack Settlements. *Urban Revolutions* - <http://blog.lib.umn.edu/marin013/jakarta2012/workshop-sessions.html>. The Interdisciplinary Center for the study of Global Change, Jakarta. Indonesia. March 2012.



# PSYCHOLOGY

## Department of PSYCHOLOGY

The most significant event in the 2012 Psychology calendar was the *30th International Congress of Psychology (ICP 2012)* which was held in South Africa, and attended by many Rhodes staff and students.

Professor Catriona Macleod with Tracey Feltham-King, a PhD student in the Psychology Department, who won the PsySSA/Discovery student presentation award at the International Congress of Psychology held in Cape Town from 22 to 27 July 2012. This congress, held every four years, attracted in the region of 5 500 psychologists from around the globe.

Ms Feltham-King's presentation, entitled 'The significance of gender in the abortion debate as represented in the South African newsprint media from 1978 to 2005', drew off research conducted within the ambit of the Critical Studies in Sexualities and Reproduction research programme in which Rhodes was awarded a SARChI chair earlier in 2012.



Staff, students and research associates produced twenty-four (24) subsidy-earning journal publications, five (5) book chapters and presented forty (40) papers at national and international conferences. These metrics represent a significant increase in all research categories from 2011.

Our Professors continue to provide inspirational research leadership as will be evident in the paragraphs that follow.

This research was richly varied across themed sub-disciplinary areas that included:

- Critical studies in sexualities and reproductive health;
- Masculinities, brothering and gender-based violence;
- Explorations of different psychotherapeutic practices and processes;
- Group-based public mental health interventions, and community psychology;
- Collecting cross-cultural normative data for various psychological assessment tests;
- Concussive injury and mental toughness in sport and performance psychology;
- Disability studies and living with HIV;
- Parenting and household studies;
- Student wellness, social media and alcohol/substance use;
- Biographical, narrative or genealogical case studies of the lives of individuals.

**Professor Catriona Macleod** has led (with Professor Louise Vincent from the Politics and International Studies Department) the research programme entitled *Critical studies in sexualities and reproductive health*. This multi-disciplinary and trans-institutional programme focuses on inter alia unsupportable pregnancy, abortion, sexuality education and gender-based violence, and has secured SANPAD and NRF funding, and in 2012 was awarded a prestigious SARChI Chair. Professor Macleod's book, *'Adolescence', pregnancy and abortion: Constructing a threat of degeneration*, was published by Routledge.

# PSYCHOLOGY

Hot on the heels of Professor Macleod being awarded the 2011 Distinguished Publication Award for this book by the American-based Association for Women in Psychology, she was given the Rhodes University Vice Chancellor's 2012 Book Award. In addition to these honours, Professor Macleod was appointed this year as the Associate Editor of the international journal, *Feminism & Psychology*. The journal's aim is to develop feminist praxis within and beyond psychology, and it is highly ranked in women's studies.

**Professor Charles Young** from our Department was promoted from Senior Lecturer to Associate Professor in 2012.

## Postgraduates/Graduations

The Psychology Department continues to have a steady stream of postgraduate students, from Honours through to Masters and PhD levels, and we receive many more applications for these postgraduate degrees than we are able to accommodate. There were thirty-nine (39) postgraduate graduations in 2012 - thirty-four (34) Honours, four (4) Masters and one (1) PhD. Our Doctoral graduate was **Dr Megan Campbell**, whose dissertation entitled *The adaptation of the 'Clinical Outcomes in Routine Evaluation - Outcome Measure' (CORE-OM) into a valid Xhosa measure of success*, was supervised by **Professor Charles Young**. Before her PhD in Psychology was conferred, Megan was awarded a SAVUSA scholarship (South Africa - Vrije Universiteit - Strategic Alliances) to study in the Netherlands for three months. The SKILL programme (Stimulating Knowledge Innovation through Lifelong Learning) allows postgraduate students to broaden their skills through continuing their studies in the Netherlands in academic programmes with strong societal

components. Megan's Doctoral research was concerned with the Xhosa translation of a diagnostic instrument used globally in counselling sessions. She worked with Professor Fons Van de Vijver at the University of Tilburg, an expert in cross-cultural assessment and psychometric tool adaptation, and Professor Joop de Jong at the University of Amsterdam, an expert in cross-cultural psychiatry and medical anthropology. Collaborative publications between Professors Van de Vijver, de Jong and Young, and Dr Campbell, will follow.

Professor Joop de Jong holds an honorary appointment as a Visiting Professor in the Psychology Department at Rhodes University from 2011 to 2013. We gratefully acknowledge his generous capacities for mentorship and collegiality, his inspirational publications, and his continuing interest in Rhodes University, and in African intervention research in areas of violence, war trauma and reconstruction of societies after destabilization.

## Distinguished Visitors/ Overseas Visits

The Department hosted two distinguished visitors during 2012, who presented public addresses and engaged with staff and students. **Professor Cheryl de la Rey** was awarded the Social Change Award. This award was instituted in 2008, with a view to acknowledging the contributions that psychologists make to social change in South Africa. Professor de la Rey, the Vice-Chancellor and Principal of the University of Pretoria, presented a lecture entitled *Psychology: private - public good*, in which she reviewed historical trends in South African psychology and reflected on debates about the role of psychology in post-apartheid South Africa. Dr Desmond Painter, a Senior

Lecturer from the Psychology Department at Stellenbosch University, presented the keynote address at the Psychology Department's Postgraduate Research Conference in October 2012, entitled *Everyday psychology / psychology every day*. His lecture explored the dialectic between psychology and everyday life, where psychological theory and research needed to be persistently informed by the richness, complexity and ambiguity of ordinary situations.

**Professor Charles Young** won a scholarship to attend a three-day experiential workshop in cognitive psychotherapy at the Beck Institute for Cognitive Behaviour Therapy in Philadelphia in the United States, in August 2012. The scholarship competition at this international training facility attracted more than 600 entries, so it was an acknowledgement of Professor Young's standing that he was selected as one of 16 workshop participants.

## Significant Research Aligned Events

Several staff and research associates presented research papers at international conferences in the United States, United Kingdom and Argentina during 2012. However, the most significant research aligned event was the *30th International Congress of Psychology (ICP2012)*, which was held in the International Convention Centre in Cape Town in July 2012. ICP2012 hosted 5500 delegates from 103 countries, and the event involved years of planning, with most Psychology Departments in South African universities involved in committee work to review abstracts, arrange local cut-price funding deals, and manage marketing. Rhodes University made generous amounts of funding available to support Psychology Department staff and Postgraduate student attendance, and this enabled a record number of thirty-three (33) papers to be

# PSYCHOLOGY

presented by us at ICP2012. There were many collaborative papers between staff and their students, which was gratifying; and first-timers had the exciting opportunity to present their research to an international audience. For conference delegates, the value of ICP2012 was the exposure to global issues of psychology, and a structure that allowed interesting and relevant public debates, networking and follow-up conversations.

Two highlights of the ICP2012 for our Department were as follows. **Emeritus Professor Ann Edwards** chaired an invited neurocognitive assessment symposium on sports concussion research and management. Results were presented from three Doctoral and three Masters theses conducted with South African rugby players under her supervision at Rhodes University over the past eight years. Taken overall, these findings created a sense of disquiet about the advisability of participation in contact sports, and collected South African normative data using various neurocognitive assessment tools. Discussion was lively and long. And as the cherry on the cake, **Ms Tracey Feltham-King**, a Doctoral student in the Psychology Department under the supervision of Professor Catriona Macleod, won the PsySSA/Discovery student presentation award at the ICP2012. Her paper was entitled: *The significance of gender in the abortion debate as represented in the South African newsprint media from 1978 to 2005*. This content analytic research, which tackled how the gender of commentators about abortion in newspapers "position" the debate, was based on her Masters thesis for which she was awarded a distinction and from which she and Professor Macleod have published as co-authors in the international journal, *Culture, Health & Sexuality*, in 2012.

**Professor Lindy Wilbraham**

Head of Department

## Books/Chapters/Monographs

*Edwards, D.J.A.*

Arntz, A. and **Edwards, D.J.A.** (2012) Schema Therapy in Historical Perspective. In: van Vreeswijk, M., Broersen, J. and Nadort, M. (eds.). *The Wiley-Blackwell Handbook of Schema Therapy: Theory, Research and Practice*. Chichester, UK: Wiley-Blackwell. p.3-26. ISBN: 9780470975619.

*Edwards, D.J.A., Drake, B. and Young, C.*

**Edwards, D.J.A.**, Rossouw, J., **Drake, B.** and **Young, C.** (2012) CBT in South Africa. In: Naeem, F. and Kingdon, D. (eds.). *Cognitive behaviour therapy in non-Western cultures*. New York: Nova Science Publishers, Inc. p.137-148. ISBN: 9781612099941.

*Fouten, E.S.*

Shefer, T. and **Fouten, E.S.** (2012) Being a young parent: The gendered sharing of care work. In: Morrell, R., Bhana, D. and Shefer, T. (eds.). *Books and Babies: Pregnancy and young parents in school*. Cape Town: HSRC Press. p.149-168. ISBN: 9780796923653.

*Macleod, C.I.*

**Macleod, C.I.** (2012) Feminisms and psychologies forged in location: an international perspective. In: Rutherford, A., Capdevila, R., Undurti, V. and Palmari, I. (eds.). *Handbook of International Perspectives on Feminism*. New York: Springer. p.565-568. ISBN: 9781441998682.

**Macleod, C.I.** (2012) Feminist Health Psychology and Abortion: Towards a Politics of Transversal Relations of Commonality. In: Horrocks, C. and Johnson, S. (eds.). *Advances in Health Psychology*. UK: Palgrave Macmillan. p.153-166. ISBN: 9780230275386.

## Concerts, Exhibitions, Performances, Workshops, Events

*Donaldson, N.*

**Donaldson, N.** Public Address. LGBT and human rights: Are we human after all? *World Social Justice Day*. Rhodes University, Grahamstown. South Africa. 20 February 2012.

*Donaldson, N. and Macleod, C.I.*

**Donaldson, N.** and **Macleod, C.I.** Workshop. Gender

dynamics. *Orientation Week Workshop*. Rhodes University, Grahamstown. South Africa. 2 February 2012.

*Meehan, T.*

**Meehan, T.** Performer and collaborator (assisted with linking theory to performance practice). *Polis*. Nun's Chapel, Grahamstown. South Africa. 3 - 7 July 2012.

**Meehan, T.** Performer and collaborator (assisted with conceptualising and facilitating the performance). *Retellings - an Interdisciplinary Performance Event*. Rhodes Box Theatre, Grahamstown. South Africa. 31 May 2012.

*Steele, G.I.*

**Steele, G.I.** Workshop presentations. *Mental skills training: Workshops for senior and academy teams*. Buffalo Park, East London. South Africa. 1 February - 27 November 2012.

## Distinguished Visitors

**Prof C De la Rey**. Vice Chancellor of University of Pretoria, Pretoria, South Africa. *Social Change Award recipient*. April 2012.

**Dr DW Painter**. Stellenbosch University, Grahamstown, South Africa. *Keynote address at Rhodes University Department of Psychology Postgraduate Research Conference*. October 2012.

## International Visits

*Young, C.*

**Young, C.** Beck Institute, Philadelphia, USA. *Beck Institute Scholarship Competition - Student and Faculty Workshop*. 13 - 15 August 2012.

## Other Publications

*Wilbraham, L.A.*

**Wilbraham, L.A.** Essay in exhibition catalogue, p. 35-43. Familiar and unfamiliar narratives, in Maureen de Jager's catalogue - *Trans: Narratives of memory/history/family in Maria's Story*. Albany Museum, Grahamstown. South Africa.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications



# PSYCHOLOGY

*De Jong, J.T.V.M.*

**De Jong, J.T.V.M.** (2012) Mindfulness, mist of mirakel? *Maandblad Geestelijke Volksgezondheid*. 67 (5). p.246-252.

**De Jong, J.T.V.M.** (2012) Essay: DSM-5 en cultuur. *Tijdschrift voor Psychiatrie*. 54 (9). p.807-818.

Hoenders, H.J.R., Appelo, M.T. and **De Jong, J.T.V.M.** (2012) Integrative medicine: A bridge between biomedicine and alternative medicine fitting the spirit of the age. *Sociology Mind*. 2 (4). p.441-446.

*Young, C.*

De Klerk, V.A. and **Young, C.** (2012) Changing the message from 'Don't' to 'Do': Awareness-raising strategies for responsible alcohol use at a South African University. *Theory and Practice in Language Studies*. 2 (2). p.224-232.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Andrews, K.A.H. and Shuttleworth-Edwards, A.B.*

**Andrews, K.A.H., Shuttleworth-Edwards, A.B. and Radloff, S.E.** (2012) Normative indications for Xhosa speaking unskilled workers on the Trail Making and Stroop Tests. *Journal of Psychology in Africa*. 22 (3). p.333-342.

*De Jong, J.T.V.M.*

De Haan, A.M., Boon, A.E., Vermeiren, R.R.J.M. and **De Jong, J.T.V.M.** (2012) Ethnic differences in utilization of youth mental health care. *Ethnicity & Health*. 17 (1-2). p.105-110.

Hoenders, H.J.R., Bos, E.H., **De Jong, J.T.V.M.** and de Jonge, P. (2012) Temporal dynamics of symptom and treatment variables in a lifestyle-oriented approach to

anxiety disorder: A single-subject time-series analysis. *Psychotherapy and Psychosomatics*. 81 (4). p.253-255.

Van Duiji, M., Kleijin, W. and **De Jong, J.T.V.M.** (2012) Are symptoms of spirit possessed patients covered by the DSM-IV or DSM-5 criteria for possession trance disorder? A mixed-method explorative study in Uganda. *Social Psychiatry and Psychiatric Epidemiology*. 2012 (2012). p.1-14.

Tol, W.A., Komproe, I.H., Jordans, M.J.D., Vallipuram, A., Sipsma, H., Sivayokan, S., Macy, R.D. and **De Jong, J.T.V.M.** (2012) Outcomes and moderators of a preventive school-based mental health intervention for children affected by war in Sri Lanka: A cluster randomized trial. *World Psychiatry*. 11 (2). p.114-122.

Berghout, C.C., Zevalkink, J., Katzko, M.W. and **De Jong, J.T.V.M.** (2012) Changes in symptoms and interpersonal problems during the first two years of long-term psychoanalytic psychotherapy and psychoanalysis. *Psychology and Psychotherapy - Theory, Research and Practice*. 85 (2012). p.203-219.

Jordans, M.J.D., Komproe, I.H., Smallegange, E., Ntamatumba, P., Tol, W.A. and **De Jong, J.T.V.M.** (2012) Potential treatment mechanisms of counseling for children in Burundi: A series of n = 1 studies. *American Journal of Orthopsychiatry*. 82 (3). p.338-348.

*Drake, B. and Edwards, D.J.A.*

**Drake, B. and Edwards, D.J.A.** (2012) Treatment of posttraumatic stress disorder following an armed robbery: A case study testing of the transportability of trauma-focused cognitive-behavioural therapy to urban Africans. *Journal of Psychology in Africa*. 22 (3). p.359-368.

*Fike, L.N., Knoetze, J.J. and Shuttleworth-Edwards, A.B.*

**Fike, L.N., Knoetze, J.J., Shuttleworth-Edwards, A.B. and Radloff, S.E.** (2012) Normative indications for Xhosa speaking unskilled workers on the Wechsler Memory Scale Associate Learning and Visual Reproduction subtests. *Journal of Psychology in Africa*. 22 (3). p.323-332.

*Gibson, A.F. and Macleod, C.I.*

**Gibson, A.F. and Macleod, C.I.** (2012) (Dis)allowances of lesbians' sexual identities: Lesbian identity construction in racialised, classed, familial, and institutional spaces. *Feminism & Psychology*. 22 (4). p.462-481.

*Guilfoyle, M.C.G.*

**Guilfoyle, M.C.G.** (2012) Towards a grounding of the agentive subject in narrative therapy. *Theory & Psychology*. 22 (5). p.626-642.

*King, B.*

**King, B. and Thatcher, A.** (2012) Attitudes towards software piracy in South Africa: Knowledge of intellectual property laws as a moderator. *Behaviour & Information Technology*. 2012 (2012). p.1-15.

*Knoetze, J.J. and Stroud, S.P.*

**Knoetze, J.J. and Stroud, S.P.** (2012) The psychological-bildungsroman: Exploring narrative identity, audience effect and genre in autobiographies of trainee-psychologists. *South African Journal of Psychology*. 42 (3). p.358-367.

*Macleod, C.I. and Feltham-King, T.J.*

**Macleod, C.I. and Feltham-King, T.J.** (2012) Representations of the subject 'woman' and the politics of abortion: An analysis of South African newspaper articles from 1978 to 2005. *Culture Health & Sexuality*. 14 (7). p.737-

752.

*Mckenzie, J.A. and Macleod, C.I.*

**Mckenzie, J.A. and Macleod, C.I.** (2012) Rights discourses in relation to education of people with intellectual disability: Towards an ethics of care that enables participation. *Disability & Society*. 27 (1). p.15-29.

*Meehan, T. and Farquharson, K.L.*

**Meehan, T. and Farquharson, K.L.** (2012) Community as outsider witness: Utilising community members in the reconstitution of problem-saturated Identities. *Journal of Psychology in Africa*. 22 (4). p.567-574.

*Morison, T.*

**Morison, T.** (2011) Doubly damned: The experience of HIV-positive maternity. *Psychology in Society*. 41 (2011). p.62-65.

*Padmanabhanunni, A. and Edwards, D.J.A.*

**Padmanabhanunni, A. and Edwards, D.J.A.** (2012) Treating complex post-traumatic stress disorder following childhood neglect, sexual abuse and revictimisation: Interpretative reflections on the case of Khuselwa. *Child Abuse Research - A South African Journal*. 13 (1). p.40-54.

**Padmanabhanunni, A. and Edwards, D.J.A.** (2012) Treating the psychological sequelae of proactive drug-facilitated sexual assault: Knowledge building through systematic case based research. *Behavioural and Cognitive Psychotherapy*. 2012 (2012). p.1-5.

*Shuttleworth-Edwards, A.B.*

**Shuttleworth-Edwards, A.B.** (2012) Guidelines for the use of the WAIS-IV with WAIS-III cross-cultural normative indications. *South African Journal of Psychology*. 42 (3). p.399-410.

*Shuttleworth-Edwards, A.B. and Whitefield-Alexander, V.J.*

# PSYCHOLOGY

**Shuttleworth-Edwards, A.B.** and **Whitefield-Alexander, V.J.** (2012) Cerebral damage in diving: Taking the cue from sports concussion medicine. *South African Journal of Sport Medicine*. 24 (1). p.27-29.

*Wilbraham, L.A.*

**Wilbraham, L.A.** (2012) On abjection, forfeiture and the remaking of sociality in lexisifo. *Psychology in Society*. 43 (2012). p.76-80.

**Wilbraham, L.A.** (2011) On resistance, reflexivity and reciprocity. *Psychology in Society*. 42 (2011). p.67-71.

*Young, C.*

**Young, C.** and **De Klerk, V.A.** (2012) Correlates of heavy alcohol consumption at Rhodes University. *Southern African Journal of Child and Adolescent Mental Health*. 24 (1). p.37-44.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Bohmke, W.R.*

**Bohmke, W.R.** and **Jearey-Graham, N.** Discourses of xenophobia: South Africans constructions of Black foreigners, national identity, and self. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Bohmke, W.R.** Rape is newsworthy: The reproduction of discourses of attribution in news media reports of sexual violence. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Boulind, M.J.*

**Boulind, M.J.** Being HIV-positive and living with HIV. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Boulind, M.J.** PTSD and HIV-related PTSD. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Clark, S.B. and Shuttleworth-Edwards, A.B.*  
**Clark, S.B., Shuttleworth-Edwards, A.B.** and **Radloff, S.E.** Neuropsychological profiles of provincial Rugby Union players diagnosed with concussion over one rugby season. *International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Donaldson, N. and Wilbraham, L.A.*

**Donaldson, N.** and **Wilbraham, L.A.** 'Because we're not straight': Interpretative repertoires of the value-less and compromising lesbian woman. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Donaldson, N.** and **Wilbraham, L.A.** 'We're designed that way': South African lesbian women's negotiation with heteronormativity around issues of reproduction. *Psychology Department Staff Seminar Series*. Rhodes University, Grahamstown. South Africa. August 2012.

*Edlmann, T.M.*

**Edlmann, T.M.** Accounting for courage, collusion and contradictions: The legacies of conscription into the SADF. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Edwards, D.J.A.*

**Edwards, D.J.A.** Strategic decision making

in treating posttraumatic stress disorder: Qualitative investigations of therapist responsiveness in a South African case series. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Edwards, D.J.A.** Overcoming obstacles to re-parenting the inner child. *Conference of the International Society for Schema Therapy*. World Trade Centre, New York. USA. May 2012.

*Farquharson, K.L. and Meehan, T.*

**Farquharson, K.L.** and **Meehan, T.** Stigma, schizophrenia and art: A discourse analysis. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Feltham-King, T.J. and Macleod, C.I.*

**Feltham-King, T.J.** and **Macleod, C.I.** The significance of gender in the abortion debate as represented in the South African newsprint media from 1978 to 2005. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Fouten, E.S.*

**Fouten, E.S.** and **Florence, M.** Measuring perceived individual and contextual factors associated with adolescent substance use. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Fouten, E.S.** Desiring to be unique: Female secondary school learners' construction of gender and sexual identities. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Guilfoyle, M.C.G.*

**Friis, K.L.** and **Guilfoyle, M.C.G.** The influence of the therapist's activities on client's

subject positioning with relation to gender in narrative couples therapy. *30th International Conference of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Guilfoyle, M.C.G.** Personal ethics as a guide to therapeutic practice. *30th International Conference of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Horsman, M.G., Shuttleworth-Edwards, A.B. and Smith, I.P.*

**Horsman, M.G., Shuttleworth-Edwards, A.B., Smith, I.P.** and **Radloff, S.E.** Normative data for adolescent rugby players on the Afrikaans version of the IMPACT programme. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Knoetze, J.J.*

**Knoetze, J.J.** Preparation of Rhodes University students for the Transnet-Phelophepa Health Care Train experience. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Macleod, C.I.*

**Macleod, C.I.** Teenage pregnancy: A feminist issue. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Macleod, C.I.** South African psychology: Relevance, methods and social issues. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

**Macleod, C.I.** Constructing a threat of degeneration: Teenage pregnancy in academic and popular rhetoric. *Association of Women in Psychology conference*. Hilton

# PSYCHOLOGY

Hotel, Palm Springs. USA. April 2012.

*Mcinerney, M.P. and Steele, G.I.*

**Mcinerney, M.P. and Steele, G.I.** The development and implementation of a mental toughness training programme for semi-professional cricketers. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Mcinerney, M.P., Friis, D.K., Meehan, T., Mbewe, M.N.L. and Chiweshe, M.T.*

**Mcinerney, M.P., Friis, D.K., Meehan, T., Mbewe, M.N.L. and Chiweshe, M.T.** Walking the walk: Students' talk about community psychology in practice, part 2. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Meehan, T.*

**Meehan, T.** Mad artists: Performing artist identity in a psychiatric hospital. *Performing the World: Can Performance Save the World?* All Stars Institute, New York. USA. October 2012.

*Meehan, T., Farquharson, K.L. and Holtzhausen, M.*

**Meehan, T., Farquharson, K.L. and Holtzhausen, M.** Re-creating self in schizophrenia: The value of art in the context of mental health. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Mkhize, S.L.V.*

**Mkhize, S.L.V.** A discourse analysis of young men's engagement with popular representations of brotherhood. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Morison, T.*

**Morison, T.** Heterosexual men and

parenthood decision-making in South Africa: Attending to the invisible norm. *International Sociological Association Forum*. Buenos Aires. Argentina. August 2012.

*Morison, T. and Macleod, C.I.*

**Morison, T. and Macleod, C.I.** Supplementing performativity with performance: Applying Butlerian theory. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Oosthuizen, J.L.*

**Oosthuizen, J.L.** Analysis of Rhodes University students experiences of Facebook: Relationships and social capital. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Padmanabhanunni, A.*

**Padmanabhanunni, A.** When the past visits the present: Imagery rescripting to update intrusive memories underlying PTSD and Avoidant Personality Disorder. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Salman-Godlo, N.C., Shuttleworth-Edwards, A.B. and Van Ommen, C.*

**Salman-Godlo, N.C., Shuttleworth-Edwards, A.B., Van Ommen, C. and Radloff, S.E.** Preliminary normative data on Xhosa-speaking high school learners on the ImPACT programme. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Shuttleworth-Edwards, A.B.*

**Shuttleworth-Edwards, A.B.** Use of the Wechsler intelligence tests in the South African context: A review of WISC-IV and WAIS-III cross-cultural normative data. *30th*

*International Congress of Psychology*.

International Convention Centre, Cape Town. South Africa. July 2012.

*Shuttleworth-Edwards, A.B., Whitefield-Alexander, V.J., Horsman, M.G. and Smith, I.P.*

**Shuttleworth-Edwards, A.B., Whitefield-Alexander, V.J., Horsman, M.G., Smith, I.P. and Radloff, S.E.** Practice effects reveal visuo-motor vulnerability in school and university rugby playing scholars at the end of the season. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Smithen, C.J. and Brunton, C.L.*

**Smithen, C.J. and Brunton, C.L.** Brothering and the construction of masculine identities. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Steele, G.I.*

**Steele, G.I.** Assessing mental toughness in a South African context: Investigating psychometric properties of three mental toughness inventories in a South African sample. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Steele, G.I., Fleming, T.L., Scott, S.J., Bell, C.L. and Nanabawa, S.*

**Steele, G.I., Fleming, T.L., Scott, S.J., Bell, C.L. and Nanabawa, S.** Sport psychology at Rhodes University. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Sweeney, S.S.K. and Saville Young, L.J.*

**Sweeney, S.S.K. and Saville Young, L.J.** Reflective functioning in parent-child interventions. *30th International Congress of Psychology*. International Convention Centre,

Cape Town. South Africa. July 2012.

*Van Niekerk, R.*

**Van Niekerk, R., Fouche, J.P. and Gogo, O.** Brenda Fassie: A psychobiographical study. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.

*Wilbraham, L.A.*

**Wilbraham, L.A.** Reconstructing Harry: A genealogical study of a colonial family 'inside' and 'outside' the Grahamstown Asylum, 1894-1918. *New Directions in the Histories of Health, Healing and Medicine in African Contexts*. Balgown, KwaZulu-Natal. South Africa. August 2012.

*Young, C.*

**Young, C.** Cognitive therapy in context (symposium). *40th Annual Conference of the British Association of Behavioural and Cognitive Psychotherapies*. University of Leeds, Leeds. UK. June 2012.

*Young, C. and Boulind, M.J.*

**Young, C. and Boulind, M.J.** Negative appraisals reported by HIV-positive South African participants: Implications for the practice of cognitive therapy in South Africa. *40th Annual Conference of the British Association of Behavioural and Cognitive Psychotherapies*. Leeds University, Leeds. UK. June 2012.

*Zoccola, D. and Shuttleworth-Edwards, A.B.*

**Zoccola, D., Shuttleworth-Edwards, A.B. and Radloff, S.E.** Neurocognitive effects in association with participation in club level rugby union over one rugby season. *30th International Congress of Psychology*. International Convention Centre, Cape Town. South Africa. July 2012.



# RHODES BUSINESS SCHOOL

## RHODES BUSINESS SCHOOL

2012 was a productive year for Rhodes Business School, with a number of colleagues presenting research papers.

Professors Owen Skae and Noel Pearse



Most significant for us has been the record intake of five (5) PhD students, three (3) of whom have an MBA from the School.

Our second ever highest number of MBA graduates was achieved, just one short of the record fifteen (15) achieved in 2011.

### Distinguished Visitors/ Overseas Visits

The Business School is privileged in that we have no difficulty getting a number of distinguished visitors to address our MBA and PDEM students every year. The diversity of speakers is enriching for the class

# RHODES BUSINESS SCHOOL

and this year was no different with visits from entrepreneurs, public sector officials, academics and civil society.

## Significant Research Aligned Events

We have initiated what we call 'Research Fora', where our MBA students are required to make formal presentations on the progress of their research. This is being done to encourage them to maintain progress. We hope that this will in turn have a positive impact on our throughput rates.

**Professor Owen Skae**

Director of School

## Books/Chapters/Monographs

*Skae, F.O.*

**Skae, F.O.** (ed.) (2012) *Managerial Finance*. 6th Ed. Durban: LexisNexis (Pty) Ltd. ISBN: 9780409107791.

## Distinguished Visitors

**Mr R Appelboom.** Self-employed - Business turnaround specialist, Rio de Janeiro, Brazil. *Lecture*. September 2012.

**Prof N Binedell.** Gordon Institute of Business Science, Johannesburg, South Africa. *Business Forum*. March 2012.

**Mr G Heron.** Earth Probiotic, Johannesburg, South Africa. *Business Forum*. February 2012.

**Mr A Lasarow.** Trimega Laboratories, Manchester, England. *Business Forum*. February 2012.

**Ms G Marcus.** South African Reserve Bank, Pretoria, South Africa. *Business Forum*. October 2012.

**Mr A Muir.** Wilderness Foundation, Port Elizabeth, South Africa. *Business Forum*. June 2012.

**Mr T Smith.** LIV Village, Durban, South Africa. *Business Forum*. March 2012.

**Prof P Van der Meer.** Utrecht University of Economics, Utrecht, Netherlands. *Lecture*. September 2012.

## Other Publications

*Pearse, N.J.*

**Pearse, N.J.** (2012) Strategic leadership and social capital in an era of responsible leadership: implications for research www.criticalthought.co.za. In: *Critical Thought*. Grahamstown: Rhodes Business School.

**Pearse, N.J.** (2012) Creating decent jobs through sustainable Human Resource Management. In: *pmr Africa*. Johannesburg: pmr Africa.

**Pearse, N.J.** (2012) Strategic leadership and social capital in an era of responsible leadership: implications for research. In: *Management Today magazine SA*. Johannesburg:

Management Today magazine SA.

**Pearse, N.J.** (2012) Creating decent jobs through sustainable Human Resource Management www.criticalthought.co.za. In: *Critical Thought*. Grahamstown: Rhodes Business School.

*Pearse, N.J. and Van Heerden, R.P.*

**Pearse, N.J. and Van Heerden, R.P.** (2012) Preparing organisations for change www.criticalthought.co.za. In: *Critical Thought*. Grahamstown: Rhodes Business School.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Pearse, N.J.*

**Louw, L., Pearse, N.J. and Dhaya, J.** (2012) The role of experience in the development of social competencies. *SA Journal of Human Resource Management*. 10 (1). p.1-9.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Greyling, L.M.*

**Greyling, L.M.** MBA Edu-Footprint? A framework used to assess the integration of sustainability in MBA programme at Rhodes Business School (South Africa). *2nd International Conference on Responsible Leadership*. Spier Wine Estate, Stellenbosch. South Africa. November 2012.

*Greyling, L.M. and Pearse, N.J.*

**Greyling, L.M. and Pearse, N.J.** Appraising the sustainability of a job: A multiple stakeholder perspective. *2nd International Conference on Responsible Leadership*. Spier Wine Estate, Stellenbosch. South Africa. November 2012.

*Kanyangale, M. and Pearse, N.J.*

**Kanyangale, M. and Pearse, N.J.** Weaving the Threads of Reflexivity: Coming to Terms with Grounded Theory Research. *Proceedings of the 11th European Conference on Research Methods*. University of Bolton, Bolton. UK. June 2012.

# RHODES BUSINESS SCHOOL

**Kanyangale, M. and Pearse, N.J.** Potential Pitfalls in Defining the Small and Medium Enterprise Concept and Implications for Research. *6th International Business Conference - Conference Proceedings*. Leisure Lodge Resort, Diani Beach, Mombasa. Kenya. August 2012.

*Pearse, N.J.*

**Pearse, N.J.** Utilising Assessment Tasks to Support the Research of MBA Students. *Proceedings of the 11th European Conference on Research Methods*. University of Bolton, Bolton. UK. June 2012.

*Van Heerden, R.P. and Pearse, N.J.*

**Van Heerden, R.P. and Pearse, N.J.** Local Government Reform in Western Australia: A Case Study on Change Readiness. *6th International Business Conference - Conference Proceedings*. Leisure Lodge Resort, Diani Beach, Mombasa. Kenya. August 2012.



# SCHOOL OF LANGUAGES

## SCHOOL OF LANGUAGES

The highlight of 2012 was the award of a SARCHI Chair: *Intellectualisation of African Languages, Multilingualism and Education.*

Front row: Dr Claire Cordell (Head of French Studies)

Second row (from left to right): Mr John Jackson (Head of Classics), Mrs Bulelwa Nosilela (Head of African Languages), Professor Patrice Mwepu (Head of the School of Languages) and Professor Ma Yue (Head of Chinese Studies)

Third row (from left to right): Ms Undine Weber (Head of German Studies), Professor Russell Kaschula (NRF SARCHI Chair) and Dr Godfrey Meintjes (Head of Afrikaans Studies).

Photo: Adrian Frost



The School of Languages includes six sections: African Languages, Afrikaans & Netherlandic Studies, Chinese, Classics, French and German.

The School has worked very hard this year and has achieved another milestone. Staff members were much involved in research activities as evidenced in this report.

Furthermore, the School of Languages has proved to be a place of choice for national and international debates on multilingualism and cultural diversity.

## Postgraduates/Graduations

Mr Daniel Malamis, who is a staff member in the Classical Studies Section, graduated with his MA degree in Classics, with Distinction. His thesis research focused on "Forms of dispute settlement in Homer's Iliad". Mr Malamis plans to register for his PhD degree next year.

The School of languages now has a considerable number of MA and PhD students registered in different sections of the School. The following staff members continue their research to complete their PhD theses: **Bulelwa Nosilela**, **Ntosh Mazwi** and **Undine Weber**.

## Distinguished Visitors/ Overseas Visits

During 2012, the School of Languages received a number of distinguished visitors including the following:

Professor Jeff Opland from the University of London was appointed Visiting Professor of African Languages in the African Languages Studies from July-September 2012. During this time he mentored staff and PhD students as a Mellon Senior Scholar and gave seminars.

Between 8 and 19 October 2012 the School of Languages hosted Dr Langa Khumalo (University of KwaZulu-Natal) on a Mellon Senior Scholars grant. During his visit, Dr Khumalo presented one seminar and one workshop. He also contributed to a curriculum design for Comparative isiNguni Studies, a course targeted at undergraduate students in isiXhosa or any other isiNguni languages.

The Rhodes University Language Committee invited Professor Somadoda Fikeni as the Guest Speaker at its Inaugural

# SCHOOL OF LANGUAGES

Multilingualism Awareness Campaign. During this visit, the African Language Studies students at undergraduate and postgraduate levels had the honour of being addressed by Professor Fikeni on the issues of multilingualism and social justice.

Classical Studies continued, as it has for several years, to benefit from visiting scholars: Professor David Wardle (University of Cape Town) and Professor Clive Chandler (University of Cape Town), visiting as Andrew Mellon Fellows, gave seminars to staff and postgraduate students. Professor Chandler and Mr Michael Lambert (University of KwaZulu-Natal, and Chairman of the Classical Association of South Africa) gave valued seminars and lectures to Classics students.

## Significant Research Aligned Visits

2012 will be remembered as a key year as the School was awarded a SARCHI Chair, and **Professor Russell Kaschula**, a Professor in African Languages Studies, was appointed to the Chair on *Intellectualisation of African Languages, Multilingualism and Education*. The Chair's focus is to develop African languages in order to enhance their effective interface with modern development, theories and concepts. The intellectualisation of African languages will now shine from the Rhodes University School of Languages before spreading across the country and the continent.

Research at the School of Languages culminated in the hosting of a colloquium on second or additional language learning. Sponsored by the Confucius Institute, Chinese Studies collaborated with the School of Languages, and the Rhodes Multilingual Committee jointly held this

colloquium at the end of October 2012 at Rhodes University. It should be noted that the colloquium was also in the form of a tribute which was paid by the School to the late Professor Neville Alexander for his involvement in languages debates. It is the first of its kind in Southern Africa and attracted more than 30 delegates from South Africa and abroad.

Two keynote speakers were invited, Professor Dong Yanping (Prof of Psycholinguistics at Guangdong University of Foreign Studies) and Professor Ekkehard Wolff (presently a visiting professor at Adama Science and Technology University in Ethiopia). Staff members of the School of Languages presented papers and featured prominently at this gathering.

In 2012, Professor Kaschula and **Dr Pamela Maseko** were appointed to lead the Ministerial Catalytic Project on Humanities and Concept Formation in African Languages. The project is described as "a national multidisciplinary project on how indigenous languages in South Africa could support the process of concept formation in the Humanities and Social Sciences, and furthermore, what know-hows in these languages could enrich social scientific thinking or pedagogy" (Report on the Charter for Humanities and Social Sciences, 2011: 20).

During the same year, **Professor Patrice Mwepu** from French Studies section was appointed to the Editorial Board of the journal *French Studies in Southern Africa* in the capacity of Deputy Editor. This is an accredited journal for French academics under the management of the French Embassy in Pretoria and the Association for French Studies in Southern Africa (AFSSA).

Lastly, the editors of a new book of Literary Criticism on the work of André Brink invited Dr Meintjes, from Afrikaans and Netherlandic Studies section, to combine and edit his previous journal articles and book chapters into a comprehensive critical overview of the prose of André Brink. The text titled *On the Contrary* is due to be launched at a Brink conference at the University of Pretoria in March 2013.

Furthermore, the editor of the standard Afrikaans literary historical publication *Perspektief en Profiel* invited **Dr Meintjes** to contribute a critical overview of prose texts written by Etienne van Heerden after 1996. This book is due to appear in 2013.

**Professor Patrice Mwepu**

Head of School of Languages

# SCHOOL OF LANGUAGES

## Books/Chapters/Monographs

*Kaschula, R.H.*

**Kaschula, R.H.** (2012) Technauriture: Southern African Poetry in the Digital Age. In: Gehrmann, S. and Veit-Wild, F. (eds.). *Conventions & Conversions: Generic Innovations in African Literatures*. Germany: Wissenschaftlicher Verlag Trier. p.25-39. ISBN: 9783868213829.

**Kaschula, R.H.** (2012) A contextual analysis of Xhosa iimbongi and their izibongo. In: Attridge, D. and Attwell, D. (eds.). *The Cambridge History of South African Literature*. Cambridge: Cambridge University Press. p.42-59. ISBN: 9780521199285.

**Kaschula, R.H.** (2012) Teaching Oral Literature in the 21st Century. In: Gohrisch, J. and Grunkemeier, E. (eds.). *Listening to Africa: Anglophone African Literatures and Cultures*. Heidelberg: Universitätsverlag Winter. p.313-333. ISBN: 9783825361198.

*Kaschula, R.H. and Maseko, P.*

**Kaschula, R.H. and Maseko, P.** (2012) Intercultural Communication and Vocational Language Learning in South Africa: Law and Healthcare. In: Paulston, C.B., Kiesling, S.F. and Rangel, E.S. (eds.). *The Handbook of Intercultural Discourse and Communication*. Oxford: Wiley-Blackwell. p.313-336. ISBN: 9781405162722.

## Concerts, Exhibitions, Performances, Workshops, Events

*Kaschula, R.H.*

**Kaschula, R.H., Dido, E.K. and Mtuze, P.** Paper Presentation. Cultural Cross-over: Is it happening? *Cradock Schreiner Karoo Writers Festival*. Olive Schreiner Museum,

Cradock. South Africa. 10 - 11 August 2012.

*Maseko, P.*

**Maseko, P.** Paper Presentation. Current Status of teaching and research in indigenous African languages in South Africa. *Ministerial Advisory Panel of African Languages in Higher Education*. OR Tambo International Southern Sun, Johannesburg. South Africa. 5 - 6 May 2012.

*Nkomo, D.*

**Nkomo, D.** Roundtable discussion. A New Turn for IsiXhosa Lexicography. *IsiXhosa National Lexicography Unit*. University of Fort Hare, Alice. South Africa. 14 September 2012.

## Distinguished Visitors

**Professor J Opland**, University of London, London, United Kingdom. *Research and Collaboration*. October 2012.

## International Visits

*Maseko, P.*

**Maseko, P.** University of London, School of Oriental and African Studies, London, United Kingdom. *IsiXhosa Oral Literature*. 8 October - 22 December 2012.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Kaschula, R.H.*

**Kaschula, R.H.** (2012) Towards an integrated model for the teaching of Oral Poetry. *Southern African Journal for Folklore Studies*. 22 (1). p.29-47.

*Nkomo, D.*

**Nkomo, D. and Khumalo, L.** (2012) Embracing the mobile phone technology: Its social and linguistic impact with special reference to Zimbabwean Ndebele. *African Identities*. 10 (2). p.143-154.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Kaschula, R.H.*

**Kaschula, R.H.** Teaching Technauriture in the 21st century. *International Society of Oral Literature in Africa*. University of Venda, Thohoyandou, Limpopo. South Africa. July 2012.

**Kaschula, R.H.** Teaching isiXhosa oral poetry to second language students in the twenty first Century. *2nd Language Teaching Colloquium on Teaching Languages as 2nd or Additional Languages in a Multilingual Context*. Rhodes University, Grahamstown. South Africa. October 2012.

*Maseko, P.*

**Maseko, P.** IsiXhosa for Pharmacy at Rhodes University: preparing students for optimal service learning. *National African Language Colloquium for Health Sciences*. University of KwaZulu-Natal, Durban. South Africa. August 2012.

**Maseko, P.** Teaching and learning of African languages in South African Higher Education: Reflecting on the last ten years. *Interim Conference of the African Language Association of Southern Africa*. University of Venda, Thohoyandou, Limpopo. South Africa. July 2012.

*Mazwi, N.R.*

**Mazwi, N.R.** Critical analysis of Umfi uJonathan Tunyiswa noCebani Mtoba as one of the unpublished biographical poems by SEK Mqhayi. *African Language Association of Southern Africa*. University of Venda, Thohoyandou, Limpopo. South Africa. July 2012.

*Nosilela, B.B.*

**Nosilela, B.B.** Ukuthwala marriage custom in fact and fiction. *African Language Association of Southern Africa*. University of Venda, Thohoyandou, Limpopo. South Africa. July 2012.

*Nosilela, B.B. and Maseko, P.*

**Nosilela, B.B., Maseko, P. and Du Toit, J.E.** Promoting multilingualism at a South African University: a shared interdisciplinary experience. *2nd Language Teaching Colloquium on Teaching Languages as 2nd or Additional Languages in a Multilingual Context*. Rhodes University, Grahamstown. South African. October 2012.

*Sam, M.S.*

**Sam, M.S.** Development of a bilingual (isiXhosa-English) website for the intellectualisation of African languages. *Fourth African Intellectuals Language Conference*. Walter Sisulu University, East London. South Africa. September 2012.

## Classics

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Malamis, D.*

**Malamis, D.** (2012) Crimes of the Agora: Corruption in Homer and Hesiod. *Acta Classica*. 4. p.17-25.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Van Schoor, D.J.*

**Van Schoor, D.J.** Metaphor, Ritual and Transformation: mantic happiness and



# SCHOOL OF LANGUAGES

skeptical misery. *13th UNISA Classics Colloquium 2012: Ancient Routes to Happiness*. UNISA, Pretoria. South Africa. October 2012.

**Van Schoor, D.J.** The loyalty of mountains: Mirrors and mountains in Narcissian and Dionysian Poetics. *The 9th Literature & Ecology Colloquium Mountains of the Mind South African and Related Landscapes and Ecology*. Nirox Foundation, Johannesburg. South Africa. October 2012.

## French Studies

Concerts, Exhibitions,  
Performances, Workshops,  
Events

*Mwepu, P.K.*

**Mwepu, P.K.** Workshop. Understanding Multilingualism in a Specific Context. French Title: Comprendre le multilinguisme dans un contexte spécifique. *Beyond Developing African Languages. French Title: Au-delà du développement des langues africaines*. University of Mbuji-Mayi, Mbuji-Mayi. DRC. 6 - 7 November 2012.

Peer Reviewed Non-Subsidy-  
Earning Journal Research  
Publications

*Mukenge, A.N.*

**Mukenge, A.N.** (2012) Une Realite Pour Une Fiction Dans Les Belles Tenebreuses De Maryse Condse. *Analyses textes et societies*. 15 (2012). p.121-126.

Research Papers Presented at  
Academic/Scientific Conferences  
(Proceedings, Booklets and  
Attendance)

*Cordell, C.J.*

**Cordell, C.J.** Too Boring for Words? Some Challenges of French 1 Curriculum Design at Rhodes University. *Teaching Languages as 2nd or Additional Languages in a Multilingual Context*. Rhodes University, Grahamstown. South Africa. October 2012.

*Mukenge, A.N.*

**Mukenge, A.N.** Les ecritures de la violence dans le roman francophone. *Imaginaire et urgence du social dans le texte francophone*. Laval University, Quebec. Canada. May 2012.

**Mukenge, A.N.** L'engagement ou la revolte dans les critiques africaines anticoloniales. *Les chemins de la critique africaine*. Omar Bongo University, Libreville. Gabon. January 2012.

*Mwepu, P.K.*

**Mwepu, P.K.** The Past and the Present. Political & Academic Approach of Language issue in Africa. French Title: Passé et présent. Aperçu politico-académique de la question linguistique en Afrique. *Promoting African Languages in a Globalising World. French Title: La promotion des langues africaines à l'ère de la globalization*. University of Mbuji-Mayi, Mbuji-Mayi. DRC. November 2012.

**Mwepu, P.K.** Teaching French in New South Africa from another Angle. *Teaching Languages as 2nd or Additional Languages in a Multilingual Context*. Rhodes University, Grahamstown. South Africa. October 2012.

## German Studies

Concerts, Exhibitions,  
Performances, Workshops,  
Events

*Domingo, R.S.C.*

**Domingo, R.S.C.** Attendance. *Workshop on Foreign Language Teaching and Learning*. North-West University, Potchefstroom. South Africa. 1 January - 18 August 2012.

Research Papers Presented at  
Academic/Scientific Conferences  
(Proceedings, Booklets and  
Attendance)

*Weber, U.S.*

**Weber, U.S.** The End of Literature, the End of Literacy, or: Why read German Literature at a South African University? *Colloquium on Critical Thinking*. University of the Witwatersrand, Johannesburg. South Africa. August 2012.

**Weber, U.S.** Austrian Women and the Aftermath of World War II. *AEIOU Global Austria. Annual conference of the Austrian Studies Association*. California State University, Long Beach, California. USA. April 2012.

**Weber, U.S.** Why Read German Literature in a South African University Context? *Colloquium on Teaching Languages as 2nd and/ or Additional Languages in a Multilingual Context*. Rhodes University, Grahamstown. South Africa. October 2012.

# SOCIOLOGY

## Department of **SOCIOLOGY**

Departmental staff members in Sociology were active in 2012 in organizing conferences and the department had a number of distinguished visitors during the year.

Professor John Holloway from the Autonomous University of Puebla in Mexico, brought to Rhodes as Mellon Senior Scholar, delivering the keynote presentation at the "Politics at a distance from the state" conference held in late September 2012.

To his immediate left: Hugh le May Fellow Professor Jacques Depelchin; to his far left: Mr Richard Pithouse from the Department of Political and International Studies; to his immediate right: Professor Lucien van der Walt from the Department of Sociology at Rhodes.



The Department of Sociology continues to be one of the largest academic departments in the Humanities Faculty at Rhodes University with regard to student numbers at both undergraduate and postgraduate levels.

It offers two separate programmes to its students, namely, General Sociology (with a strong focus on socio-economic development) and Industrial and Economic Sociology.

In relation to staff, the department warmly welcomed the addition of **Professor Lucien van der Walt** to our department in 2012. Lucien van der Walt is one of the leading industrial and economic sociologists in the country. He was formerly at the University of the Witwatersrand. He brings to the department deep theoretical insights into critical themes pertinent to industrial and economic sociology as well as an understanding of the richness and complexities of South African labour history.

Equally significant was the appointment of **Babalwa Magoqwana** and **Tarryn Alexander** as Lecturers in our

# SOCIOLOGY

department. Ms Magoqwana came through the Rhodes system from first year level, and Ms Alexander came to Rhodes at Honours level. They are both working on their PhDs. They are young scholars with tremendous intellectual potential and will no doubt contribute immensely to the department in the years to come.

In addition to these new staff members, the department had two post-doctoral fellows in 2012. **Dr Tu Huynh**, her PhD on people of Chinese origin in South Africa and was in the second year of her Post-doctoral Fellowship in 2012. The second post-doctoral fellow was **Dr Manase Chiweshe**, who had undertaken his PhD on fast track land reform in Zimbabwe.

Departmental staff members in Sociology were active in 2012 in organizing conferences and the department had a number of distinguished visitors during the year. It also continues to have a very large post-graduate programme from Honours to PhD.

## Postgraduates/Graduations

In 2012, we had close to fifty (50) Masters and PhD students (as well as twenty-five (25) Honours students). Besides South Africans, these students are from a wide number of countries elsewhere in Africa. The Masters and PhD programme is a critical part of the intellectual project within the department and the many students involved are pursuing a diverse range of topics, mainly on South Africa and Zimbabwe. The department encourages its PhD and Masters students to become integrated into the National Sociological Association in South Africa and, at the annual conference in 2012, eight (8) of our students presented papers based on their

thesis work. In April 2012, three (3) PhD and seven (7) Masters students graduated - some of their research topics included child soldiers in Africa and child support grants in South Africa.

## Distinguished Visitors/ Overseas Visits

The department was privileged to have a number of distinguished overseas visitors.

Professor John Holloway is based at the Autonomous University of Puebla in Mexico and was brought to Rhodes as a Mellon Senior Scholar. He contributed to our third year contemporary social theory course and gave a number of public talks and seminars. He is known globally for his work on theories of social and political emancipation. His visit was designed to provide the basis for a Memorandum of Understanding between Rhodes and his university, which will include - in future - exchanges at staff level, post-doctoral level and PhD and MA levels. This will entail research collaboration on Latin American-African studies.

Dr Yoon Park, from the United States of America, contributed to our Honours course on Chinese involvement in Africa. She is the convener of the Chinese in Africa/Africans in Chinese international research network, which has hundreds of members worldwide. She is also a Senior Research Associate attached to our department.

The Sociology department houses the Chinese in Africa/Africans in China international research network, based on a three-year Memorandum of Understanding.

It is hoped that the engagement with this network will facilitate the emergence of a systematic research programme at Rhodes on China/Africa studies.

Two of the most famous sociologists and philosophers internationally, Professors Margaret Archer and Roy Bhaskar from England, also visited our department. They are the founders of the Critical Realist school of thought which emerged in the 1970s, and their work is taught in our department.

## Significant Research Aligned Events

The department, in conjunction with the Faculty of Education at Rhodes, hosted the annual conference for the *International Association for Critical Realism*. The two founders of critical realist theory, Roy Bhaskar and Margaret Archer, were in attendance at the conference. This is the first time the conference has been held in Africa and, indeed, Rhodes is seen as the centre of critical realist thinking in Africa.

Departmental members organized the first of its kind conference in South Africa on autonomist politics. The conference, which took place in September, was called the *Politics At a Distance from the State* Conference. Visiting scholars, including Professor Holloway and Professor Jacques Depelchin (from the United States of America) made significant contributions. It was also attended by a large number of social movements from across South Africa.

**Associate Professor Kirk Helliker**

Head of Department



# SOCIOLOGY

## Books/Chapters/Monographs

*Klerck, G.*

**Klerck, G.** (2012) Firms, markets and the social regulation of capitalism in sub-Saharan Africa. In: Wood, G. and Demirbag, M. (eds.). *Handbook of Institutional Approaches to International Business*. Cheltenham, UK: Edward Elgar. p.555-593. ISBN: 9781849807685.

*Magoqwana, B. and Matatu, S.*

**Magoqwana, B. and Matatu, S.** (2012) Local government call centres: Challenge or opportunity for South African labour? In: Mosoetsa, S. and Williams, M. (eds.). *Labour in the global South: Challenges and alternatives for workers*. Geneva: International Labour Organisation. p.65-86. ISBN: 9789221262381.

*Park, Y.J.*

**Park, Y.J.** (2012) "Chinese South Africans Now Black!" Race and Belonging in the "New" South Africa. In: Fois, M. and Pes, A. (eds.). *Politics and Minorities in Africa*. Rome: Aracne. p.101-125. ISBN: 9788854857001.

## Other Publications

*Huynh, T.*

**Huynh, T.** (2012) What People, What Cultural Exchange? A Reflection on China-Africa. In: Grimm, S., Anthony, R. and McDonald, M. (eds.). *African East-Asian Affairs The China Monitor*. Stellenbosch: Centre for Chinese Studies.

*Magoqwana, B.*

**Magoqwana, B.** (2012) Local government call centres: People first or managing illusions. In: Chiwota, E. (ed.). *South African Labour Bulletin*. Johannesburg: South African Labour Bulletin.

*Van Der Walt, L.J.W.*

**Van Der Walt, L.J.W.** (2012) T.W. Thibedi (1888-1960): The Life of a South African Revolutionary Syndicalist. In: *Zabalaza: a journal of southern African revolutionary anarchism*. Johannesburg: Zabalaza Books.

**Van Der Walt, L.J.W.** (2012) Who Rules South Africa? An anarchist/syndicalist analysis of the ANC, the post-apartheid elite pact and the political implications. In: *Zabalaza: a journal of southern African revolutionary anarchism*. Johannesburg: Zabalaza Books.

**Van Der Walt, L.J.W.** (2012) Review: David Berry and Constance Bantman (eds.), "New Perspectives on Anarchism, Labour and Syndicalism: the Individual, the National and the Transnational". In: *Anarchist Studies*.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Huynh, T.*

**Huynh, T.** (2012) "We Are Not a Docile People": Chinese Resistance and Exclusion in the Re-Imagining of Whiteness in South Africa, 1903 - 1910. *Journal of Chinese Overseas*. 8 (2012). p.137-168.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Helliker, K.D.*

**Helliker, K.D.** (2012) Civil society and state-centred struggles. *Journal of Contemporary African Studies*. 30 (1). p.35-47.

**Helliker, K.D.** and Vale, P. (2012) Radical Thinking in South Africa's Age of Retreat. *Journal of Asian and African Studies*. 47 (4). p.333-347.

*Van der Walt, L.*

**Van der Walt, L.** and Pillay, D. (2011) Introduction: Assessing the Politics of Organized Labour in Asia, Africa and Latin America at the Start of the 21st Century. *Labour, Capital and Society/Travail, Capital Et Societe*. 44 (2). p.3-25.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Agbedahin, K.*

**Agbedahin, K.** Researching in an African war-torn zone: A walk in a minefield with war profiteers? *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Chikukwa, V.*

**Chikukwa, V.** The Child Support Grant in South Africa: A Case Study of the Eastern Cape Province. *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Drewett, M.D.*

**Drewett, M.D.** "Popular Musicians and the Economic Crisis in South African post-1994". *Crossroads in Cultural Studies 9th International Conference*. Paris. France. July 2012.

*Garayi, P.K.T.*

**Garayi, P.K.T.** Attitudes of South Africans towards migrant workers. *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Kheswa, N.S.*

**Kheswa, N.S.** "Fat cats vs. underdogs: a comparative assessment of income disparities and the quality of water and sanitation service delivery in Durban, Kwa-Zulu Natal". *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Magoqwana, B.*

**Magoqwana, B.** "Critical Perspective on the Call Centre Labour Process: Public Sector neglected Political Labour". *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Matatu, S.*

**Matatu, S.** "E-government in South African municipalities: a labour process perspective". *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Mosuo, T.P.*

**Mosuo, T.P.** Examining the influence of the living lab model in cultivating social capital in rural communities: the case of Siyakhula Living Lab (SLL) in Dwesa, in the Transkei region of the Eastern Cape. *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Ndlovo, A.A.J.L.*

**Ndlovo, A.A.J.L.** "Mozambique state autonomy in the context of the international aid system and European Union support". *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Roodt, J.J.*

**Roodt, J.J.** "The developmental impact of

# SOCIOLOGY

the Marine Living Resources Act of 1998 on coastal communities in the former Transkei". *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Sishuta, H.B.*

**Sishuta, H.B.** Post-Graduate supervision in Higher Education: A balancing act. *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

*Tanyanyiwa, P.*

**Tanyanyiwa, P.** Making the transition: Understanding the experiences and adjustment processes of extended studies students in their progression to the mainstream. *South African Sociological Association 18th Annual Congress*. University of Cape Town, Rondebosch. South Africa. July 2012.

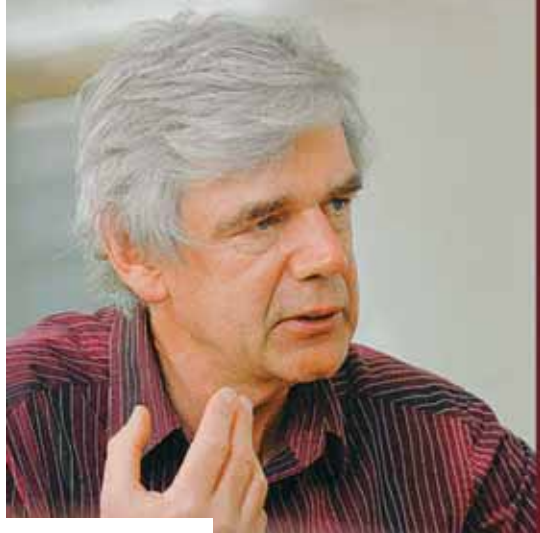
*Van Der Walt, L.J.W.*

**Van Der Walt, L.J.W.** Anarchism and Syndicalism in South Africa: the complicated history, and possible promise, of a radical tradition. *Lineages of Freedom colloquiu*. Rhodes University, Grahamstown. South Africa. October 2012.

**Van Der Walt, L.J.W.** Change the World by Making CounterPower: anarchism/ syndicalism, class struggle and the question of revolutionary transitions. *Politics at a Distance from the State*. Rhodes University, Grahamstown. South Africa. September 2012.

**Van Der Walt, L.J.W.** Adding Red to the Black Atlantic? Black revolutionary syndicalists and the South African Native National Congress's radicalisation, 1917-1920. *Critical Studies Seminar*. Rhodes University, Grahamstown. South Africa. August 2012.

The Andrew W Mellon Foundation  
Senior Scholar's Programme  
at Rhodes University  
is pleased to bring you



**Professor John Holloway**  
A great contemporary thinker  
on social emancipation

**We are the Crisis of Capital.  
And Proud of It.**

15 October 2012  
13h00  
Eden Grove Blue

Prof Holloway is a prolific author. His most recent publications include **Crack Capitalism** and **Change the world without taking power**, which is said to be one of the most significant and controversial books on the politics of human emancipation in the last decade.

For more information contact Verna Connan  
v.connan@ru.ac.za or x7459

# STATISTICS

## Faculty of STATISTICS

Research in both theoretical and applied statistics lead to a number of publications in 2012.

Postgraduate students with Professor Sarah Radloff in the Statistics PC Lab.



Members of the Department of Statistics were involved in research and joint research with the Departments of Zoology and Entomology, Management, Psychology and Geography.

This has led to co-authorship and single authorship of twenty-one (21) research publications in both theoretical and applied research in 2012.

**Professor Gunther Jäger** continued his research in compactification for lattice-valued convergence spaces, resulting in seven (7) publications during the year and **Dr Lizanne Raubenheimer** published a paper on Bayesian inferences on nonlinear functions of Poisson rates.

**Mr Jeremy Baxter** continued his research collaboration with the Department of Management and published a paper and **Professor Radloff's** research collaborations with the Departments of Zoology and Entomology, Psychology and



# STATISTICS

Geography resulted in twelve (12) peer-reviewed journal articles.

## Postgraduates/Graduations

The Department graduated six (6) Honours students in April 2012.

## Distinguished Visitors/ Overseas Visits

The Department hosted a distinguished visitor, Professor Paul Mostert, from the Department of Statistics and Actuarial Science at Stellenbosch University, who gave a series of lectures on Bayesian Statistics.

## Significant Research Aligned Events

Nine (9) papers were presented at national and international conferences. Dr Lizanne Raubenheimer presented her research at the International Society for Bayesian Analysis Conference in Kyoto, Japan and the 54th Annual SASA Conference held at NMMU in Port Elizabeth.

Professor Radloff's collaborative research papers in Psychology, Economics and Education were presented at international conferences in Cape Town, Italy and Australia, respectively.

### Professor Sarah Radloff

Head of Department

## Distinguished Visitors

**Prof P Mostert.** Stellenbosch University, Stellenbosch, South Africa. *Lectures.* September 2012.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Baxter, J.S.*

**Louw, L., Mayer, C.H. and Baxter, J.S.** (2012) Exploring relationship between value and life-orientation and job satisfaction. *Acta Commercll.* 12. p.44-66.

*Jager, G.*

**Jager, G.** (2012) A one-point compactification for lattice-valued convergence spaces. *Fuzzy Sets and Systems.* 190. p.21-31.

**Jager, G.** (2012) A Stone-Cech type compactification for convergence approach spaces. *Quaestiones Mathematicae.* 35 (2). p.209-217.

**Jager, G.** (2012) Largest and smallest T2-compactifications of lattice-valued convergence spaces. *Fuzzy Sets and Systems.* 190. p.32-46.

**Orpen, D.L. and Jager, G.** (2012) Lattice-valued convergence spaces: Extending the lattice context. *Fuzzy Sets and Systems.* 190. p.1-20.

**Jager, G.** (2012) Gähler's neighborhood condition for lattice-valued convergence spaces. *Fuzzy Sets and Systems.* 204. p.27-39.

**Jager, G.** (2012) Convergence approach spaces and approach spaces as lattice-valued convergence spaces. *Iranian Journal of Fuzzy Systems.* 9 (4). p.1-16.

**Jager, G.** (2012) A note on neighbourhoods for approach spaces. *Haceteppe Journal of Mathematics and Statistics.* 41 (2). p.283-290.

*Radloff, S.E.*

**Van Der Waal, B.W., Rowntree, K.M. and Radloff, S.E.** (2012) The effect of *Acacia mearnsii* invasion and clearing on soil loss in the Kouga Mountains, Eastern Cape, South Africa. *Land Degradation & Development.* 23 (6). p.577-585.

**Von Der Meden, C.E.O., Porri, F., Radloff, S.E. and Mcquaid, C.D.** (2012) Settlement intensification and coastline topography: understanding the role of habitat availability in the pelagic-benthic transition. *Marine Ecology-Progress Series.* 459. p.63-71.

**Vital, M.V.C., Hepburn, H.R., Radloff, S.E. and Fuchs, S.** (2012) Geographic distribution of Africanized honeybees (*Apis mellifera*) reflects niche characteristics of ancestral African subspecies. *Natureza & Conservacao.* 10 (2). p.1-7.

**Fike, L.N., Knoetze, J.J., Shuttleworth-Edwards, A.B. and Radloff, S.E.** (2012) Normative Indications for Xhosa Speaking Unskilled Workers on the Wechsler Memory Scale Associate Learning and Visual Reproduction subtests. *Journal of Psychology in Africa.* 22 (3). p.323-332.

**Andrews, K.A.H., Shuttleworth-Edwards, A.B. and Radloff, S.E.** (2012) Normative Indications for Xhosa Speaking Unskilled Workers on the Trail Making and Stroop Tests. *Journal of Psychology in Africa.* 22 (3). p.333-342.

**Pirk, C.W.W., Lattorff, H.M.G., Moritz, R.F.A., Sole, C.L., Radloff, S.E., Neumann, P., Hepburn, H.R. and Crewe, R.M.** (2012) Reproductive biology of the Cape honeybee: A critique of Beekman et al. *Journal of Heredity.* 103 (4). p.612-614.

**Adgaba, Nuru, Al-Ghamdi, A.A., Chernet, M.H., Ali, Y.A., Ansari, M., Radloff, S.E. and Hepburn, H.R.** (2012) An experiment on comb orientation by honey bees (*Hymenoptera: Apidae*) in traditional hives. *Journal of Economic Entomology.* 105 (3). p.777-782.

**Duangphakdee, O., Hepburn, H.R., Radloff, S.E., Pirk, C.W.W., Rodim, P. and Wongsiri, S.** (2012) Waggle dances in absconding colonies of the red dwarf honeybee, *Apis florea*. *Insectes Sociaux.* 59 (4). p.571-577.

**Tan, K., Yang, M., Wang, Z., Radloff, S.E. and Pirk, C.W.W.** (2012) The pheromones of laying workers in two honeybee sister species *Apis cerana* and *Apis mellifera*. *Journal of Comparative Physiology A-Neuroethology Sensory Neural*

# STATISTICS

and Behavioral Physiology. 198 (4). p.319-323.

Tan, K., Yang, M., Wang, Z.W., Li, H., Zhang, Z.Y., Radloff, S.E. and Hepburn, H.R. (2012) Cooperative wasp-killing by mixed-species colonies of honeybees, *Apis cerana* and *Apis mellifera*. *Apidologie*. 43 (2). p.195-200.

Tan, K., Yang, S., Wang, Z.W., Radloff, S.E. and Oldroyd, B.P. (2012) Differences in foraging and broodnest temperature in the honey bees *Apis cerana* and *A. mellifera*. *Apidologie*. 43. p.618-623.

Nuru, A., Awad, A.M., Al-Ghamdi, A.A., Alqarni, A.S. and Radloff, S.E. (2012) Nector of *Ziziphus spina-christi* (L.) WILLD (Rhamnaceae): Dynamics of Secretion and Potential for Honey Production. *Journal of Apicultural Science*. 56 (2). p.49-59.

*Raubenheimer, L.*

Raubenheimer, L. and van der Merwe, A.J. (2012) Bayesian inferences on nonlinear functions of Poisson rates. *South African Statistical Journal*. 46 (2). p.299-326.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Radloff, S.E.*

Clark, S.B., Shuttleworth-Edwards, A.B. and Radloff, S.E. Neuropsychological profiles of provincial Rugby Union players diagnosed with concussion over one rugby season. *International Congress of Psychology*. Cape Town International Convention Centre (CTICC), Cape Town. South Africa. July 2012.

Salman-Godlo, N.C., Shuttleworth-Edwards, A.B., Van Ommen, C. and

Radloff, S.E. Preliminary normative data on Xhosa-speaking high school learners on the ImPACT programme. *International Congress of Psychology*. Cape Town International Convention Centre (CTICC), Cape Town. South Africa. July 2012.

Botha, F., Snowball, J.D., De Klerk, V.A. and Radloff, S.E. Determinants of student satisfaction with campus residence life at a South African university. *11th Conference of the International Society of Quality of Life Studies: Investigating new frontiers in quality of life research*. Ca Foscari University, Venice. Italy. November 2012.

De Klerk, V.A. and Radloff, S.E. The use of surveys as a tool to inform intervention strategies to enhance social inclusion. *15th International First Year in Higher Education Conference*. Sofitel Brisbane Central, Brisbane. Australia. June 2012.

Shuttleworth-Edwards, A.B., Whitefield-Alexander, V.J., Horsman, M.G., Smith, I.P. and Radloff, S.E. Practice effects reveal visuo-motor vulnerability in school and university rugby playing scholars at the end of the season. *International Congress of Psychology*. Cape Town International Convention Centre (CTICC), Cape Town. South Africa. July 2012.

Zoccola, D., Shuttleworth-Edwards, A.B. and Radloff, S.E. Neurocognitive effects in association with participation in Club level Rugby Union over one rugby season. *International Congress of Psychology*. Cape Town International Convention Centre (CTICC), Cape Town. South Africa. July 2012.

Horsman, M.G., Shuttleworth-Edwards, A.B., Smith, I.P. and Radloff, S.E. Normative data for adolescent rugby players on the

Afrikaans version of the ImPACT programme. *International Congress of Psychology*. Cape Town International Convention Centre (CTICC), Cape Town. South Africa. July 2012.

*Raubenheimer, L.*

Raubenheimer, L. and van der Merwe, A.J. Bayesian inference on nonlinear functions of Poisson rates. *The International Society for Bayesian Analysis (ISBA) Conference*. Kyoto Terrsa Conference Center, Kyoto. Japan. June 2012.

Raubenheimer, L. and van der Merwe, A.J. Comparing two Poisson means: A Bayesian approach. *The South African Statistical Association (SASA) Conference*. Nelson Mandela Metropolitan University, Port Elizabeth. South Africa. November 2012.

# ZOOLOGY & ENTOMOLOGY

Department of

## ZOOLOGY & ENTOMOLOGY

2012 was yet another exceedingly productive research year for the Department of Zoology & Entomology.

MSc student Ms Ali Brassine tracking collared cheetahs in Mashatu Game Reserve as part of her work towards her degree. Her research is investigating the cheetah population density and potential conflict with rural communities in Botswana.



A total of seventy-four (74) subsidy-earning journal research publication papers on a diverse range of topics were published in both local and international peer-reviewed scientific journals by the staff, research associates and students of the department.

Staff within the department also contributed to three (3) book chapters, with several of these being invited contributions.

The staff and students travelled widely to attend and present their research findings at major international conferences and workshops in South Africa, United States of America, United Kingdom, Australia, Italy and South Korea. The high regard of the research academics within the department is reflected in the numerous invited lectures, keynote addresses and requests to chair sessions at both local and international conferences and workshops during the course of the year.

### Postgraduates/Graduations

The department continued to have a vibrant postgraduate school with no less than thirty-two (32) MSc and thirty-three (33) PhD students registered within the department. A total of fifteen (15) MSc and eight (8) PhD students graduated in 2012.

### Distinguished Visitors/ Overseas Visits

The department not only continued to attract postdoctoral researchers from around the globe, but also hosted a Fulbright Fellow, Professor Ray Newman from Minnesota University, USA. In addition, Dr Trevor Avery from Acadia University, Canada and Dr Sara Nahon of CRIIBE from French Polynesia were also hosted by the department.

### Significant Research Aligned Events

During the course of the year, a number of staff within the department received significant accolades. Professors Alan Hodgson and Martin Villet were



# ZOOLOGY & ENTOMOLOGY

awarded a B-rating by the National Research Foundation (NRF) in recognition of their outstanding world class research. In addition, Professor Hodgson was made a Honorary Member of the *International Invertebrate Reproduction and Development Society*. This is only the 5th such award since the inception of the society in 1975.

The staff within the department continued to forge strong research collaborations with international scientists from amongst others, France, Australia, Argentina, United States of America and the United Kingdom. Professor Alan Hodgson was a distinguished Visiting Scholar at the Darling Marine Centre, University of Maine and at the American University, Washington DC.

Finally, **Miss Isabel Collett**, an MSc student within the department won the best student poster prize at the Joint Conference of the South African Genetics Society and the Southern African Society for Bioinformatics and Computational Biology, held in Stellenbosch. (Title: *Identification of carrion beetles (Insecta: Coleoptera) using cytochrome oxidase I barcodes.*).

**Professor William Froneman**

Head of Department

## Books/Chapters/Monographs

*Bellingan, T.A.*

Gouws, E.J., Malan, D., Job, N., Nieuwoudt, H., Nel, J., Dallas, H. and **Bellingan, T.A.** (2012) Freshwater ecosystems. In: Turner, A.A. (ed.). *Western Cape Province State of Biodiversity 2012*. Stellenbosch: CapeNature. p.24-39. ISBN: 9780621414073.

*Froneman, P.W.*

Ansorge, I.J., **Froneman, P.W.** and Durgadoo, J.V. (2012) The Marine Ecosystem of the Sub-Antarctic, Prince Edward Islands. In: Cruzado, A. (ed.). *Marine Ecosystems*. Croatia: InTech. p.61-76. ISBN: 9789535101765.

*Orozco, J.*

**Orozco, J.** (2012) Monographic Revision of the American Genus *Euphoria* Burmeister, 1842 (*Coleoptera: Scarabaeidae: Cetoniinae*). USA: *The Coleopterists Society*. ISSN: 0010065.

## Concerts, Exhibitions, Performances, Workshops, Events

*Craig, A.J.F.*

**Craig, A.J.F.** Workshop. Migration in birds. *Focus Week*. Albany Museum, Grahamstown. South Africa. 20 - 24 August 2012.

**Craig, A.J.F.** Lectures. Bird migration. *University of the Third Age*. Grahamstown, Grahamstown. South Africa. 14 - 21 June 2012.

*Craig, A.J.F. and Hulley, P.E.*

**Craig, A.J.F. and Hulley, P.E.** Workshop. Bird ringing. *Scifest*. Grahamstown. South Africa. 16 - 17 March 2012.

*Hill, M.P.*

**Hill, M.P.** Lecture. Big returns from small organisms: from the lab bench to the field and improving the public understanding of science. *Talk*. Rotary Club, Grahamstown. South Africa. 27 February 2012.

**Hill, M.P.** Keynote Address. Good science is the key to understanding applied systems. *7th Citrus Research*

*Symposium*. Champagne Sports Resort, Central Drakensburg. South Africa. 20 - 22 August 2012.

**Hill, M.P.** Keynote Address. Examples of successful biological control of weeds in South Africa: Lessons for Brazil. *63rd Congresso Nacional De Botanica*. Joinville, Santa Catarina. Brazil. 12 - 16 November 2012.

## Other Publications

*Hill, J.M., Kaehler, S. and Coetzee, J.A.*

**Hill, J.M., Kaehler, S. and Coetzee, J.A.** (2012) A stable isotope approach for the early detection of identification of N loading in aquatic ecosystems. In: *Water Research Commission Report KV 280/11*. South Africa: Water Research Commission.

*Opoku-Debrah, J.K., Moore, S.D. and Hill, M.P.*

**Opoku-Debrah, J.K., Moore, S.D., Hill, M.P. and Knox, C.M.** (2012) Studies on existing and new isolates of *Cryptophlebia leucotreta granulovirus* (CrleGV) on FCM populations from a range of geographic regions in South Africa. In: *Citrus Research International (CRI), Group Summarised Annual Research Report*. South Africa: Citrus Research International.

*Robinson, C.G., Pretorius, T., Moore, S.D. and Hill, M.P.*

**Robinson, C.G., Pretorius, T., Moore, S.D. and Hill, M.P.** (2012) Monitoring attraction of fruit-feeding moths in citrus orchards to different fruit baits in the Eastern Cape Province. In: van Rooyen, C. (ed.). *South African Fruit Journal*. Paarl, South Africa: South African Fruit Journal.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Froneman, P.W.*

**Plön, S., Albrecht, K.H., Cliff, G. and Froneman, P.W.** (2012) Organ weights of three dolphin species (*Sousa chinensis*, *Tursiops aduncus* and *Delphinus capensis*) from South Africa: Implications for ecological

# ZOOLOGY & ENTOMOLOGY

adaptation? *Journal of Cetacean Research and Management*. 12 (1). p.265-276.

**Morris, D.B.**

**Clark, V.R.**, Perera, S.J., Stiller, M.J., Stirton, C.H., Weston, P.H., Stoev, P., **Coombs, G.**, **Morris, D.B.**, Ratnayake-Perera, D., **Barker, N.P.** and **Mcgregor, G.K.** (2012) *A rapid multi-disciplinary biodiversity assessment of the Kamdebooberge (Sneeuberg, Eastern Cape, South Africa): implications for conservation*. SpringerPlus. 1 (56). p.1-10.

**Villet, M.H.**

Kingu, H.J., Kuria, S.K., **Villet, M.H.**, Mkhize, J.N., Dhaffala, A. and Lisa, J.M. (2012) Cutaneous myiasis: Is *Lucilia cuprina* safe and acceptable for maggot debridement therapy? *Journal of Cosmetics, Dermatological Sciences and Applications*. 2 (2012). p.79-82.

## Peer Reviewed Subsidy-Earning Journal Research Publications

**Barnes, R.S.K.**

**Barnes, R.S.K.** and Ellwood, M.D.F. (2012) Spatial variation in the macrobenthic assemblages of intertidal seagrass along the long axis of an estuary. *Estuarine, Coastal and Shelf Science*. 112 (2012). p.173-182.

**Bernard, A.T.F.**

**Bernard, A.T.F.** and **Gotz, A.** (2012) Bait increases the precision in count data from remote underwater video for most subtidal reef fish in the warm-temperate Agulhas bioregion. *Marine Ecology-Progress Series*. 471 (2012). p.235-272.

**Bissett, C., Bernard, R.T.F. and Parker, D.M.**

**Bissett, C.**, **Bernard, R.T.F.** and **Parker, D.M.** (2012) The response of lions (*Panthera leo*) to changes in prey abundance on an

enclosed reserve in South Africa. *Acta Theriologica*. 57 (3). p.225-231.

**Bonnevie, B.T.**

**Bonnevie, B.T.** and Oschadleus, H.D. (2012) Adaptations in primary wing moult of southern African Viduidae and their hosts (Estrildidae). *Ostrich*. 83 (2). p.91-98.

**Bonnevie, B.T., Connan, M. and McQuaid, C.D.**

**Bonnevie, B.T.**, **Connan, M.** and **McQuaid, C.D.** (2012) Effects of re-breeding rates on population size estimation of biennial breeders: results from a model based on albatrosses. *Ibis*. 154 (3). p.499-507.

**Brassine, M.C. and Parker, D.M.**

**Brassine, M.C.** and **Parker, D.M.** (2012) Does the presence of large predators affect the diet of a mesopredator? *African Journal of Ecology*. 50 (2). p.243-246.

**Bulcao, C. and Hodgson, A.N.**

**Bulcao, C.** and **Hodgson, A.N.** (2012) Activity and feeding of *Dotilla fenestrata* (Brachyura: Ocypodidae) in a warm, temperate South African estuary. *African Journal of Aquatic Science*. 37 (3). p.333-338.

**Coetzee, J.A.**

**Coetzee, J.A.** (2012) Meteorological weather station data can be used in climate matching studies of biological control agents. *Biocontrol Science*. 22 (4). p.419-427.

**Coetzee, J.A. and Hill, M.P.**

**Coetzee, J.A.** and **Hill, M.P.** (2012) The role of eutrophication in the biological control of water hyacinth, *Eichhornia crassipes*, in South Africa. *Biocontrol*. 57 (2). p.247-261.

**Cole, V. and McQuaid, C.D.**

Liversage, K., **Cole, V.**, **McQuaid, C.D.** and Coleman, R.A. (2012) Intercontinental tests



Mr Philip Weyl, PhD student, releasing the weevil *Neohydronomus affinis*, a control agent of the invasive water lettuce, on the Berg River, Western Cape

of the effects of habitat patch type on the distribution of chitons within and among patches in intertidal boulder field landscapes. *Marine Biology*. 159 (12). p.2777-2786.

**Cole, V., Johnson, L. and McQuaid, C.D.**

**Cole, V.**, **Johnson, L.** and **McQuaid, C.D.** (2012) Effects of patch-size on populations of intertidal limpets, *Siphonaria spp.*, in a linear landscape. *Plos One*. 7 (12). p.1-11.

**Cole, V., McQuaid, K.A. and McQuaid, C.D.**

**Cole, V.**, **McQuaid, K.A.** and **McQuaid, C.D.** (2012) Examination of small- and large-scale influences on the diet of an omnivorous polychaete indicates weak effects of

upwelling. *Journal of Experimental Marine Biology and Ecology*. 436-437 (2012). p.28-35.

**Compton, S.**

Jauharlina, J., Lindquist, E.E., Quinnett, R.J., Robertson, H.G. and **Compton, S.** (2012) Fig wasps as vectors of mites and nematodes. *African Entomology*. 20 (1). p.101-110.

**Connan, M. and McQuaid, C.D.**

Moseley, C., Gremilet, D., **Connan, M.**, Ryan, P.G., Mullers, R.H.E., van der Lingen, C.D., Miller, T.W., Coetzee, J.C., Crawford, R.J.M., Sabarros, P., **McQuaid, C.D.** and Pichegru, L. (2012) Foraging ecology and eco-



# ZOOLOGY & ENTOMOLOGY



The weevil *Euhrychiopsis lecontei*, the potential agent for *Myriophyllum spicatum* that Dr Julie Coetzee and Professor Ray Newman collaborated on

physiology of Cape gannets from colonies in contrasting feeding environments. *Journal of Experimental Marine Biology and Ecology*. 422-423 (2012). p.29-38.

**Craig, A.J.F.**

**Craig, A.J.F.** (2012) Regular moult-breeding overlap in the Pale-winged Starling *Onychognathus nabouroup*. *Ostrich*. 83 (3). p.169-170.

**Craig, A.J.F.** (2012) Seasonal distribution, breeding season and wing moult in the Splendid Glossy Starling *Lamprotornis splendidus*. *Ostrich*. 83 (1). p.33-41.

Houdelier, C., Hausberger, M. and **Craig, A.J.F.** (2012) Songs of two starling species:

common traits versus adaptations to the social environment. *Naturwissenschaften*. 99 (12). p.1051-1062.

**Craig, A.J.F., Bonnevie, B.T and Hulley, P.E.**

**Craig, A.J.F., Bonnevie, B.T. and Hulley, P.E.** (2012) Wing moult and sexual dimorphism in the Lesser Honeyguide Indicator minor in the Eastern Cape, South Africa. *Ostrich*. 83 (1). p.59-61.

**Dalu, T.**

**Dalu, T., Clegg, B. and Nhiwatiwa, T.** (2012) Macroinvertebrate communities associated with littoral zone habitats and the influence of environmental factors in Malilangwe

Reservoir, Zimbabwe. *Knowledge and Management of Aquatic Ecosystems*. 406 (6). p.1-15.

**Dalu, T., Nhiwatiwa, T., Clegg, B. and Barson, M.** (2012) Impact of *Lernaea cyprinacea* Linnaeus 1758 (Crustacea: Copepoda) almost a decade after an initial parasitic outbreak in fish of Malilangwe Reservoir, Zimbabwe. *Knowledge and Management of Aquatic Ecosystems*. 2012 (406). p.2012.

**Froneman, P.W.**

**Whitfield, A., Bate, G.C., Adams, J.B., Cowley, P.D., Froneman, P.W., Gama, P.T., Strydom, N.A., Taljaard, H., Theron, A.K., Turpie, J.K., van Niekerk, L. and Woolridge, T.H.** (2012) A review of the ecology and management of temporarily open/closed estuaries in South Africa, with particular emphasis on river flow and mouth state as primary drivers of these systems. *African Journal of Marine Science*. 34 (2). p.163-180.

**Goble, T.A. and Hill, M.P.**

**Goble, T.A., Costet, L., Robene, I., Nibouche, S., Rutherford, R.S., Conlong, D.E. and Hill, M.P.** (2012) *Beauveria brongniartii* on white grubs attacking sugarcane in South Africa. *Journal of Invertebrate Pathology*. 111 (3). p.225-236.

**Hepburn, H.R.**

**Vital, M.V.C., Hepburn, H.R., Radloff, S.E. and Fuchs, S.** (2012) Geographic distribution of Africanized honeybees (*Apis mellifera*) reflects niche characteristics of ancestral African subspecies. *Natureza & Conservacao*. 10 (2). p.1-7.

**Adgaba, N., Al-Ghamdi, A.A., Chernnet, M.H., Ali, Y.A., Ansari, M., Radloff, S.E. and Hepburn, H.R.** (2012) An experiment on comb orientation by honey bees

(Hymenoptera: Apidae) in traditional hives. *Journal of Economic Entomology*. 105 (3). p.777-782.

**Duangphakdee, O., Hepburn, H.R., Radloff, S.E., Pirk, C.W.W., Rodim, P. and Wongsiri, S.** (2012) Waggle dances in absconding colonies of the red dwarf honeybee, *Apis florea*. *Insectes Sociaux*. 59 (4). p.571-577.

**Cao, L.F., Zheng, H.Q., Hu, F.L. and Hepburn, H.R.** (2012) Genetic structure of Chinese *Apis dorsata* population based on micro-satellites. *Apidologie*. 43 (2012). p.643-651.

**Cao, L.F., Zheng, H.Q., Chen, W.-J., Niu, D.F., Hu, F.L. and Hepburn, H.R.** (2012) Multivariate morphometric analyses of the giant honey bees, *Apis dorsata* F. and *Apis laboriosa* F. in China. *Journal of Apicultural Research*. 51 (3). p.245-251.

**Heshula, U.L.P. and Hill, M.P.**

**Heshula, U.L.P. and Hill, M.P.** (2012) Effect of previous feeding by *Falconia intermedia* (Hemiptera: Miridae) on subsequent feeding activity on the invasive shrub *Lantana camara* (Verbenaceae). *Biocontrol Science and Technology*. 22 (6). p.671-684.

**Hill, J.M. and Hill, M.P.**

**Hill, J.M., Kaehler, S. and Hill, M.P.** (2012) Baseline isotope data for *Spirodela* sp.: Nutrient differentiation in aquatic systems. *Water Research*. 46 (11). p.3553-3562.

**Hill, M.P.**

**Vaudo, A.D., Ellis, J.D., Cambray, G.A. and Hill, M.P.** (2012) The effects of land use on honey bee (*Apis mellifera*) population density and colony strength parameters in the Eastern Cape, South Africa. *Journal of Insect Conservation*. 16 (4). p.601-611.

**Vaudo, A.D., Ellis, J.D., Cambray, G.A. and**



# ZOOLOGY & ENTOMOLOGY

- Hill, M.P. (2012) Honey bee (*Apis mellifera capensis* A.M. *scutellata* hybrid) nesting behavior in the Eastern Cape, South Africa. *Insectes Sociaux*. 59 (3). p.323-331.
- Hill, M.P. and Coetzee, J.A.
- Hill, M.P., Coetzee, J.A. and Ueckermann, C. (2012) Toxic effect of herbicides used for water hyacinth control on two insects released for its biological control in South Africa. *Biocontrol Science and Technology*. 22 (11). p.1321-1333.
- Hodgson, A.N.
- Pinchuck, S.C. and Hodgson, A.N. (2012) Structure of the lateral pedal defensive glands of *Trimusculus costatus* (Gastropoda: Trimusculidae). *Journal of Molluscan Studies*. 78 (1). p.44-51.
- Hodgson, A.N., Hodgson, V. and Eckelbarger, K.J. (2012) Structure and formation of the unusual sperm *Patelloida latistrigata* (Mollusca: Patellogastropoda): implications for fertilization biology. *Biological Bulletin*. 222 (2). p.118-127.
- Hodgson, A.N. and Dickens, J.
- Hodgson, A.N. and Dickens, J. (2012) Activity of the mangrove snail *Cerithidea decollate* (Gastropoda: Potamididae) in a warm temperate South African estuary. *Estuarine, Coastal and Shelf Science*. 109 (2012). p.98-106.
- Humphries, A.T.
- Quan, W.-M., Humphries, A.T., Shi, L.-Y. and Chen, Y.-Q. (2012) Determination of trophic transfer at a created intertidal oyster (*Crassostrea ariakensis*) reef in the Yangtze River estuary using stable isotope analyses. *Estuaries and Coasts*. 35 (1). p.109-120.
- McClanahan, T.R. and Humphries, A.T. (2012) Differential and slow life-history responses of fishes to coral reef closures. *Marine Ecology-Progress Series*. 469 (2012). p.121-131.
- Kok, A.D. and Parker, D.M.
- Kok, A.D., Parker, D.M. and Barker, N.P. (2012) Life on high: the diversity of small mammals at high altitude in South Africa. *Biodiversity and Conservation*. 21 (11). p.2823-2843.
- Ludford, A., Cole, V., Porri, F. and McQuaid, C.D.
- Ludford, A., Cole, V., Porri, F., McQuaid, C.D., Nakin, M.D.V. and Erlandsson, J. (2012) Testing source-sink theory: the spill-over of mussel recruits beyond marine protected areas. *Landscape Ecology*. 27 (6). p.859-868.
- McQuaid, C.D.
- Pineda, M.C., McQuaid, C.D., Turon, X., Lopez-Legentil, S., Ordonez, V. and Rius, M. (2012) Tough adults, frail babies: An analysis of stress sensitivity across early life-history stages of widely introduced marine invertebrates. *Plos One*. 7 (10). p.46672.
- Nicastro, K.R., Zardi, G., McQuaid, C.D., Pearson, G.A. and Serrao, E.A. (2012) Love they neighbour: group properties of gaping behaviour in mussel aggregations. *Plos One*. 7 (10). p.1-12.
- Jackson, J.M., Rainville, L., Roberts, M.J., McQuaid, C.D. and Lutjeharms, J.R.E. (2012) Mesoscale biophysical interactions between the Agulhas Current and the Agulhas Bank, South Africa. *Continental Shelf Research*. 49 (2012). p.10-24.
- Midgley, J.M., Collett, I.J. and Villet, M.H.
- Midgley, J.M., Collett, I.J. and Villet, M.H. (2012) The distribution, habitat, diet and forensic significance of the scarab *Frankenbergerius forcipatus* (Harold, 1881) (Coleoptera: Scarabaeidae). *African Invertebrates*. 53 (2). p.745-749.
- Moore, G.R. and Hill, M.P.
- Moore, G.R. and Hill, M.P. (2012) A quantitative post-release evaluation of biological control of water lettuce, *Pistia stratiotes* L. (Araceae) by weevil *Neohydronomus affinis* Hustache (Coleoptera: Curculionidae) at Cape Recife Nature Reserve, Eastern Cape Province, South Africa. *African Entomology*. 20 (2). p.380-385.
- Nakin, M.D.V. and McQuaid, C.D.
- Nakin, M.D.V., Booth, A.J. and McQuaid, C.D. (2012) Species-specific effects of marine reserves: mortality and growth differ within and among heavily exploited and rarely exploited limpets. *Marine Ecology-Progress Series*. 445 (2012). p.53-63.
- Neumann, P.
- Dainat, B., Evans, L., Chen, Y.P., Gauthier, L. and Neumann, P. (2012) Predictive Markers of Honey Bee Colony Collapse. *Plos One*. 7 (2). p.2012.
- Dainat, B., van Engelsdorp, D. and Neumann, P. (2012) Colony collapse disorder in Europe. *Environmental Microbiology Reports*. 4 (1). p.123-125.
- Yanez, O., Zheng, H.Q., Hu, F.L., Neumann, P. and Dietemann, V. (2012) A scientific note on Israeli acute paralysis virus infection of Eastern honeybee *Apis cerana* and vespine predator *Vespa velutina*. *Apidologie*. 43 (5). p.587-589.
- Dainat, B., Evans, L., Chen, Y.P., Gauthier, L. and Neumann, P. (2012) Dead or Alive: Deformed Wing Virus and Varroa destructor Reduce the Life Span of Winter Honeybees. *Applied and Environmental Microbiology*. 78 (4). p.981-987.
- Neumann, P. and Hepburn, H.R.
- Pirk, C.W.W., Lattorff, H.M.G., Moritz, R.F.A., Sole, C.L., Radloff, S.E., Neumann, P., Hepburn, H.R. and Crewe, R.M. (2012) Reproductive biology of the Cape honeybee: A critique of Beekman et al. *Journal of Heredity*. 103 (4). p.612-614.
- Noyon, M.
- Noyon, M., Nancy, F., Gasparini, S. and Mayzaud, P. (2012) Ontogenic variations in fatty acid and alcohol composition of the pelagic amphipod *Themisto libellula* in Kongsfjorden (Svalbard). *Marine Biology*. 159 (4). p.805-816.
- Paterson, I.D., Hill, M.P. and Downie, D.
- Paterson, I.D., Hill, M.P. and Downie, D. (2012) The effect of host plant intraspecific genetic variation on the fitness of a monophagous biological control agent. *Biocontrol Science and Technology*. 22 (5). p.513-525.
- Pereira Da Conceicao, L.L., Hill, M.P. and Moore, A.E.
- Pereira Da Conceicao, L.L., Hill, M.P. and Moore, A.E. (2012) Development of a preoral, droplet-dose bioassay laboratory technique using a baculovirus for *Thaumetotibia leucotreta* (Lepidoptera: Tortricidae). *African Entomology*. 20 (1). p.187-190.
- Pereira Da Conceicao, L.L., Price, B.W., Barber-James, H. and Villet, M.H.
- Pereira Da Conceicao, L.L., Price, B.W., Barber-James, H., Barker, N.P., De Moor, F.C. and Villet, M.H. (2012) Cryptic variation in an ecological indicator organism: mitochondrial and nuclear DNA sequence data confirm distinct lineages of *Baetis harrisoni* Barnard (Ephemeroptera: Baetidae) in southern Africa. *Bmc Evolutionary Biology*. 12 (26). p.1-14.

# ZOOLOGY & ENTOMOLOGY



*Myriophyllum spicatum*, the submerged invasive aquatic plant that Professor Ray Newman and Dr Julie Coetzee were working on to find a suitable biological control agent

[Pinchuck, S.C. and Hodgson, A.N.](#)

**Bromley, C.L., Popplewell, W., Pinchuck, S.C., Hodgson, A.N. and Davies-Coleman, M.T.** (2012) Polypropionates from the South African marine mollusk *Siphonaria oculus*. *Journal of Natural Products*. 75 (3). p.497-501.

[Price, B., Liu, X. and Villet, M.H.](#)

**Price, B., Liu, X., De Moor, F.C. and Villet, M.H.** (2012) A review of the alderfly genus *Leptosialis* Esben-Petersen (Megaloptera, Sialidae) with description of a new species from South Africa. *Zookeys*. 201 (2012). p.27-41.

[Ray, P. and Hill, M.P.](#)

**Ray, P. and Hill, M.P.** (2012) Fungi associated with *Eichhornia crassipes* in South Africa and their pathogenicity under controlled conditions. *African Journal of Aquatic Science*. 37 (3). p.323-331.

**Ray, P. and Hill, M.P.** (2012) Impact of feeding by *Neochetina* weevils on pathogenicity of fungi associated with water hyacinth in South Africa. *Journal of Aquatic Plant Management*. 50 (2012). p.79-84.

[Schaal, G.](#)

**Schaal, G., Riera, P. and Leroux, C.** (2012) Food web structure within kelp holdfasts (*Laminaria*): a stable isotope study. *Marine Ecology-An Evolutionary Perspective*. 33 (3). p.370-376.

[Schapira, M., McQuaid, C.D. and Froneman, P.W.](#)

**Schapira, M., McQuaid, C.D. and Froneman, P.W.** (2012) Free-living and particle-associated prokaryote metabolism in giant kelp forests: Implication for carbon flux in a sub-Antarctic coastal area. *Estuarine, Coastal and Shelf Science*. 106 (2012). p.69-79.

**Schapira, M., McQuaid, C.D. and Froneman, P.W.** (2012) Metabolism of free-living and particle-associated prokaryotes: consequences for carbon flux around a Southern Ocean archipelago. *Journal of Marine Systems*. 90 (1). p.58-66.

[Sheppard, J. and Hill, J.M.](#)

**Sheppard, J., Whitfield, A., Cowley, P.D. and Hill, J.M.** (2012) Effects of altered estuarine submerged macrophyte bed cover on the omnivorous Cape stumpnose *Rhabdosargus holubi*. *Journal of Fish Biology*. 80 (3). p.705-712.

[Teske, P., Papadopoulos, I. and](#)

[McQuaid, C.D.](#)

**Teske, P., Papadopoulos, I., Barker, N.P. and McQuaid, C.D.** (2012) Mitochondrial DNA paradox: sex-specific genetic structure in a marine mussel - despite maternal inheritance and passive dispersal. *Bmc Genetics*. 13 (45). p.1-6.

[Villet, M.H.](#)

**Marinho, M.A.T., Junqueira, A.C.M., Paulo, D.F., Esposito, M.C., Villet, M.H. and Azeredo-Espin, A.M.L.** (2012) Molecular phylogenetics of *Oestroidea* (Diptera: Calyptratae) with emphasis on *Calliphoridae*: Insights into the inter-familial relationships and additional evidence for paraphyly among blowflies. *Molecular Phylogenetics and Evolution*. 65 (3). p.840-854.

**Picard, C.J., Villet, M.H. and Wells, J.D.** (2012) Amplified fragment length polymorphism confirms reciprocal monophyly in *Chrysomya putoria* and *Chrysomya chloropyga*: a correction of reported shared mtDNA haplotypes. *Medical and Veterinary Entomology*. 26 (1). p.116-119.

**Kuria, S.K. and Villet, M.H.** (2012) The role of ants and mammalian herbivores on the structure and composition of insect communities found on canopies of *Acacia drepanolobium*. *African Journal of Agricultural Research*. 7 (38). p.5317-5331.

[Von Der Meden, C.E.O., Porri, F. and McQuaid, C.D.](#)

**Von Der Meden, C.E.O., Porri, F., Radloff, S.E. and McQuaid, C.D.** (2012) Settlement intensification and coastline topography: understanding the role of habitat availability in the pelagic-benthic transition. *Marine Ecology-Progress Series*. 459 (2012). p.63-71.

[Von Der Meden, C.E.O., Porri, F. and](#)

**McQuaid, C.D.** (2012) New estimates of early post-settlement mortality for intertidal mussels show no relationship with meso-scale coastline topographic features. *Marine Ecology-Progress Series*. 463 (2012). p.193-204.

[Wasserman, R.J. and Pereira Da Conceicao, L.L.](#)

**Wasserman, R.J., Pereira Da Conceicao, L.L., Strydom, N.A. and Weyl, O.** (2012) Diet of *Anguilla mossambica* (Teleostei, Anguillidae) eelers in the Sundays River, Eastern Cape, South Africa. *African Journal of Aquatic Science*. 37 (3). p.347-349.

[Weyl, P.S.R. and Hill, M.P.](#)

**Weyl, P.S.R. and Hill, M.P.** (2012) The effect of previous feeding on water hyacinth leaf acceptability by three water hyacinth biological control agents measured with a simply Y-tube olfactometer. *African Entomology*. 201 (1). p.201-205.

**Weyl, P.S.R. and Hill, M.P.** (2012) The effects of insect-insect interactions on the performance of three biological control agents released against water hyacinth. *Biocontrol Science and Technology*. 22 (8). p.883-897.

[Wieters, E.](#)

**Kefi, S., Berlow, E.L., Wieters, E., Navarrete, S.A., Petchey, O.L., Wood, S.A., Boit, A., Joppa, L.N., Lafferty, K.D., Williams, R.J., Martinez, N.D., Menge, B.A., Blanchette, C.A., Iles, A.C. and Brose, U.** (2012) More than a meal... integrating non-feeding interactions into food webs. *Ecology Letters*. 15 (4). p.291-300.

[Wieters, E. and McQuaid, C.D.](#)

**Wieters, E., McQuaid, C.D., Palomo, G., Pappalardo, P. and Navarrete, S.A.** (2012) Biogeographical boundaries, function group

# ZOOLOGY & ENTOMOLOGY

structure and diversity of rocky shore communities along the Argentinean coast. *Plos One*. 7 (11). p.1-16.

**Yang, M. and Hepburn, H.R.**

Tan, K., **Yang, M.**, Wang, Z.-W., Li, H., Zhang, Z.-Y., **Radloff, S.E.** and **Hepburn, H.R.** (2012) Cooperative wasp-killing by mixed-species colonies of honeybees, *Apis cerana* and *Apis mellifera*. *Apidologie*. 43 (2). p.195-200.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

**Antonio, E. and Richoux, N.B.**

**Antonio, E.** and **Richoux, N.B.** Trophic ecology of common crustaceans in an oligotrophic South African estuary: a fatty acid and stable isotope approach. *2012 ASLO Aquatic Sciences Meeting, Association for the Sciences of Limnology and Oceanography*. Lake Biwa, Japan. Japan. July 2012.

**Baldanzi, S.B., Porri, F. and McQuaid, C.D.**

**Baldanzi, S.B., Porri, F.** and **McQuaid, C.D.** Investigating the maternal investment of a South African Sandhopper (Amphipoda, Talitridae): the influence of temperature on offspring. *50th ECSA Conference*. Venice, Venice. Italy. July 2012.

**Bell, C.M., McQuaid, C.D. and Porri, F.**

**Bell, C.M., McQuaid, C.D.** and **Porri, F.** Interspecific interaction on the rocky shores: positive, neutral and negative associations between barnacles and mussels. *Ezemvelo KZN Wildlife Symposium*. Howick. South Africa. October 2012.

**Bellingan, T.A. and De Moor, F.C.**

Woodford, D.J., Weyl, O., **Bellingan, T.A.**,

**De Moor, F.C.**, Day, P. and Gouws, E.J.

Monitoring the effects of piscicide operations on the invertebrate fauna of the Rondaegat River. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Canavan, K., Paterson, I.D. and Hill, M.P.**

**Canavan, K., Paterson, I.D.** and **Hill, M.P.** Herbivory associated with *Arundo donax* and *Phragmites australis* and the potential of the herbivor, *Tetramesa romana* as a biological control agent for *A. donax* in South Africa. *40th Annual Symposium on Management of Invasive Alien Plants*. Olive Grove Research Station, Stellenbosch. South Africa. April 2012.

**Collett, I.J. and Villet, M.H.**

**Collett, I.J.** and **Villet, M.H.** Identification of carrion beetles (Insecta: Coleoptera) using cytochrome oxidase I barcodes. *Joint Conference of the South African Genetics Society and the Southern African Society for Bioinformatics and Computational Biology*. Stellenbosch, Stellenbosch. South Africa. September 2012.

**Coombes, C.A., Hill, M.P. and Moore, S.D.**

**Coombes, C.A., Dames, J.F., Hill, M.P.** and **Moore, S.D.** Entomopathogenic fungi for control of soil-borne life stages of false codling moth, *Thaumatotibia leucotreta* (Meyrick) (Lepidoptera: Tortricidae). *7th Citrus Research Symposium*. Central Drakensburg, Drakensburg. South Africa. August 2012.

**Craig, A.J.F.**

**Craig, A.J.F.** Nectar feeding by weavers (Ploceidae) and their role as pollinators. *13th Pan-African Ornithological Congress*. Arusha. Tanzania. October 2012.

**Fitzgerald, C.E., Hill, M.P. and Moore, S.D.**

**Fitzgerald, C.E., Dames, J.F., Hill, M.P.**



A cheetah cub at Mashatu Game Reserve, Botswana. Photo: Ali Brassine

and **Moore, S.D.** Screening of entomopathogenic fungi against citrus mealybug and citrus thrips. *7th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensburg. South Africa. August 2012.

**Froneman, P.W.**

Venter, D.J.L., **Froneman, P.W.**, Smale, M.J. and **Plön, S.** Diet of humpback dolphins (*Sousa chinensis*) off the KwaZulu-Natal coastline, South Africa. *2nd Marine Mammal Colloquium*. Klienbaai, Western Cape. South

Africa. May 2012.

**Goble, T.A. and Hill, M.P.**

**Goble, T.A., Conlong, D.E.** and **Hill, M.P.** The susceptibility of *Schizonychia affinis* beetles to native strains of *Beauveria brongniartii* in South Africa. *85th Annual Congress of the South African Sugar Technologists' Association*. Durban, Durban. South Africa. August 2012.

**Goble, T.A., Costet, L., Robene, I., Nibouche,**



# ZOOLOGY & ENTOMOLOGY

S., Rutherford, S., Conlong, D.E. and Hill, M.P. *Beauveria brongniartii* fungus infecting white grubs attacking sugarcane in the KwaZulu-Natal Midlands North region. *85th Annual Congress of the South African Sugar Technologists' Association*. Durban, Durban. South Africa. August 2012.

Goble, T.A., Costet, L., Robene, I., Nibouche, S., Rutherford, S., Conlong, D. and Hill, M.P. Determining *Beauveria brongniartii* epizootics on white grubs attacking sugarcane in South Africa using molecular techniques. *45th Meeting of the Society of Invertebrate Pathology*. Buenos Aires. Argentina. August 2012.

Hill, J.M., Kaehler, S. and Hill, M.P.

Hill, J.M., Kaehler, S. and Hill, M.P. Baseline isotope data for freshwater plants: nutrient differentiation in aquatic systems. *2012 ASLO Aquatic Sciences Meeting, Association for the Sciences of Limnology and Oceanography*. Lake Biwa, Japan. July 2012.

Hill, M.P.

Ripley, B.S., Midgley, G.F. and Hill, M.P. The need for experimental data to understand natural ecosystem, invasive plant and crop responses to elevated CO<sub>2</sub> in southern Africa. *DST-NRF National Global Change Conference*. Johannesburg. South Africa. September 2012.

Kirstensami, Y., Heystek, F. and Hill, M.P. Releases and establishment of *Coeloccephalopion camarae*. *40th Annual Symposium on Management of Invasive Alien Plants*. Olive Grove, Stellenbosch. South Africa. April 2012.

Uyi, O., Zachariades, C. and Hill, M.P. Studies on the population dynamics of *Pareuchaetes insulata* introduced into South Africa for the biological control of *Chromo-*

*laena odorata*. *40th Annual Symposium on Management of Invasive Alien Plants*. Olive Grove Research Station, Stellenbosch. South Africa. April 2012.

Hodgson, A.N.

Randall, M.A., Pinchuck, S.C. and Hodgson, A.N. Structure of the scopulae of *Anyphops spenceri* (Arachnida: Selenopidae). *Microscopy Society of Southern Africa Proceedings*. University of Cape Town, Cape Town. South Africa. December 2012.

Humphries, A.T. and McQuaid, C.D.

Humphries, A.T., McClanahan, A. and McQuaid, C.D. Fishing down functional groups: transition between urchins and fishes affects algal dynamics on Kenyan reefs. *International Coral Reef Symposium*. Cairns, Cairns. Australia. July 2012.

Langa, S.F. and Hill, M.P.

Langa, S.F. and Hill, M.P. Socio-economic impact of invasive aquatic plants in the Incomati Basin River in Mozambique. *Incomati Basin Science Symposium, International Conference on Freshwater Governance for Sustainable Development*. Champagne Sports Resort, Drakensburg. South Africa. November 2012.

Love, C.N., Hill, M.P. and Moore, S.D.

Love, C.N., Hill, M.P. and Moore, S.D. Ovipositional preferences and host susceptibility of navel orange varieties by the false codling moth, *Thaumatotibia leucotreta* (Meyrick) (Lepidoptera: Tortricidae). *7th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensburg. South Africa. August 2012.

Martin, G.D. and Coetzee, J.A.

Martin, G.D. and Coetzee, J.A. The importance of investigating multitrophic interactions when considering potential

biological control agents: using the influence of herbivory and parasitism and its effect on the competitive ability of *Lagarosiphon* major as an example. *39th Biological Control of Weeds Workshop*. Stellenbosch. South Africa. April 2012.

McQuaid, C.D.

Pineda, M.C., McQuaid, C.D., Turon, X., Lopez-Legentil, S., Ordonez, V. and Ruis, M. Tough adults, frail babies: sensitivity to abiotic factors across early life-history stages of widely introduced marine invertebrates. *XVII SIEBM*. Denostia. Spain. January 2012.

Rius, M., Heasman, K.G. and McQuaid, C.D. Larval behaviour and retention allow coexistence of non-indigenous species over long periods. *10th International Larval Biology Symposium*. Berkley. USA. August 2012.

Rius, M., Pineda, M.C., McQuaid, C.D., Turon, X., Lopez-Legentil, S. and Ordonez, V. Abiotic factors mediating dispersal: an analysis of stress sensitivity across multiple life-history stages. *10th International Larval Biology Symposium*. Berkley. USA. August 2012.

McQuaid, C.D. and Porri, F.

Jackson, J., Rainville, L., Roberts, M., McQuaid, C.D., Porri, F., Durgadoo, J. and Biastoch, A. Mesoscale bio-physical interactions between the Agulhas Current and Agulhas Bank, South Africa. *Amer Geophys Union Chapman Conference*. Stellenbosch. South Africa. October 2012.

McQuaid, C.D., Porri, F., Cole, V. and Von Der Meden, C.

McQuaid, C.D., Erlandsson, J., Porri, F., Cole, V. and Von Der Meden, C. Interaction between algae and mussels prevents the recovery of overexploited mussel

populations. *50th ECSA Conference*. Venice. Italy. July 2012.

Morris, D.B. and Craig, A.J.F.

Morris, D.B., Craig, A.J.F. and Barker, N.P. The Drakensberg Rock-jumper: biology and future prospects of isolated populations. *Pan African Ornithological conference*. Arusha. Tanzania. October 2012.

Mostert, B.P., McQuaid, C.D. and Porri, F.

Mostert, B.P., Fusi, M., Giomi, F., McQuaid, C.D., Cannicci, S. and Porri, F. Maternal investment at the edge and centre of geographical range: thermal tolerance of females, embryos and larvae of marine ectotherms. *50th ECSA Conference*. Venice. Italy. June 2012.

Mostert, B.P., Porri, F. and McQuaid, C.D.

Giomi, F., Simoni, R., Mostert, B.P., Fusi, M., Porri, F., McQuaid, C.D., Portner, H.-O. and Cannicci, S. Biology of crab embryos in mangrove forests: from evolutionary trends to climate change perspectives. *3rd International Meeting on Mangrove Macrobenthos*. Galle. Sri Lanka. July 2012.

Mostert, B.P., Porri, F., McQuaid, C.D., Simoni, R., Fusi, M., Cannicci, S. and Giomi, F. Maternal investment at the edge and centre of geographical range in the face of climate change: thermal tolerance of females, eggs and larvae of marine ectotherms. *10th International Larval Biology Symposium*. Berkley. USA. August 2012.

Fusi, M., Giomi, F., Mostert, B.P., Porri, F., McQuaid, C.D. and Cannicci, S. Thermal response of mangrove macrobenthos: explaining processes in endangered coastal ecosystems. *3rd International Meeting on Mangrove Macrobenthos*. Galle. Sri Lanka. July 2012.

# ZOOLOGY & ENTOMOLOGY

*Ndhlovu, R.T. and Richoux, N.B.*

**Ndhlovu, R.T. and Richoux, N.B.** Trophic markers through time: grazers versus suspension-feeders in the rocky intertidal. *2012 ASLO Aquatic Sciences Meeting, Association for the Sciences of Limnology and Oceanography*. Lake Biwa, Japan. July 2012.

*Niland, D.P., Hill, M.P., Pretorius, T., Moore, S.D. and Kirkman, W.*

**Niland, D.P., Hill, M.P., Pretorius, T., Moore, S.D. and Kirkman, W.** Relative attractiveness of virgin female FCM from different regions to sterile FCM males. *7th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensburg. South Africa. August 2012.

*Opoku-Debrah, J.K. and Hill, M.P.*

**Opoku-Debrah, J.K., Moore, S.D., Hill, M.P. and Knox, C.M.** Studies on existing and new isolates of *Cryptophlebia leucotreta granulovirus* (CrleGV) on FCM populations from a range of geographic regions in South Africa. *7th Biennial Citrus Research Symposium*. Central Drakensburg. South Africa. August 2012.

*Paterson, I.D.*

Ciriaco de Cristo, S., **Paterson, I.D.**, Beal, L.C., Marquardt, R.T. and Vitorino, M.D. Identificacao de potenciais agents controladores da invasao da trepadeira limao (*Pereskia aculeata* Miller, Cactaceae) na Africa do Sul. *63rd Congresso Nacional de Botanica*. Joinville, Santa Catarina. Brazil. November 2012.

*Paterson, I.D. and Coetzee, J.A.*

**Paterson, I.D. and Coetzee, J.A.** Genetic diversity in biological control agents. *40th Annual Workshop on Biological and Integrated Control of Weeds*. Infruitec Research Station, Olive Grove, Stellenbosch. South Africa.

April 2012.

*Paterson, I.D. and Hill, M.P.*

**Paterson, I.D., Hill, M.P., Vitorino, M.D. and Ciriaco de Cristo, S.** Perspectives of biological control of *Pereskia aculeata*, a Brazilian plant invading South Africa. *63rd Congresso Nacional de Botanica*. Joinville, Santa Catarina. Brazil. November 2012.

*Porri, F. and McQuaid, C.D.*

Jackson, J.M., Rainville, L., Roberts, M.J., Porri, F., **McQuaid, C.D.** and Lutjeharms, J.R.E. Biophysical interactions between the Agulhas Current and the Agulhas Bank: An ACEP II Project. *Ocean Sciences*. Salt Lake City, Salt Lake City. USA. February 2012.

Babbini, S., Fusi, M., **Porri, F., McQuaid, C.D.**, Giomi, F. and Cannicci, S. Are mangrove crabs true intertidal ectotherms? Different thermal strategies to cope with climate change. *3rd International Meeting on Mangrove Macrobenthos*. Galle. Sri Lanka. July 2012.

*Porri, F., McQuaid, C.D. and Mostert, B.P.*

Fusi, M., Giomi, G., Babbini, S., **Porri, F.**, Cilio, S., **McQuaid, C.D.**, **Mostert, B.P.** and Cannicci, S. Thermal response of mangrove macrobenthos: measurement of population fitness in endangered coastal systems. *50th ECSA Conference*. Venice. Italy. July 2012.

*Porri, F., Von Der Meden, C. and*

*McQuaid, C.D.*

**Porri, F., Jackson, J., Von Der Meden, C. and McQuaid, C.D.** From general patterns to individual mechanisms: oceanographic determinants of offshore larval dispersal. *Amer Geophys Union Chapman Conference*. Stellenbosch. South Africa. October 2012.

*Pretorius, T., Hill, M.P. and Moore, S.D.*

**Pretorius, T., Hill, M.P. and Moore, S.D.**

The distribution of the Woolly whitefly, *Aleurothrixus floccosus* (Maskell) (Hemiptera: Aleyrodidae), and its parasitoid, *Encarsia sp.* (Hymenoptera: Aphelinidae), in the Eastern Cape. *7th Citrus Research Symposium*. Champagne Sports Resort, Central Drakensburg. South Africa. August 2012.

*Ray, P. and Hill, M.P.*

**Ray, P. and Hill, M.P.** Role of fungal pathogens of water hyacinth in integrated control of the weed in South Africa. *Biennial Conference of Indian Society of Weed Science*. Kerala Agricultural University, Thrissur (Kerala). India. April 2012.

**Ray, P. and Hill, M.P.** Insects can enhance the biocontrol potential of pathogens against weeds: A case study on aquatic weed, water hyacinth in South Africa. *24th International Congress of Entomology*. Daegu. Republic of Korea. August 2012.

*Richoux, N.B.*

Nahon, S., **Richoux, N.B.**, Kolasinski, J., Desmalades, M., Berteaux, V. and Planes, S. Effect of environmental parameters on scleractinin coral nutrition: a stable isotope study in French Polynesia Islands. *8th International Conference on Applications of Stable Isotope Techniques to Ecological Studies*. Brest. France. August 2012.

Nahon, S., **Richoux, N.B.**, Desmalades, M., Kolasinski, J., Berteaux, V. and Planes, S. Effects of environmental parameters on coral nutrition: evaluation of autotrophy vs heterotrophy in symbiotic scleractinin in corals of French Polynesia. *12th International Coral Reef Symposium*. Cairns, Queensland. Australia. July 2012.

*Ridgeway, J.A. and Timm, A.E.*

**Ridgeway, J.A. and Timm, A.E.** Genomic

effects of *Cryptophlebia leucotreta granulosis* virus on false codling moth larvae. *7th Citrus Research Symposium*. Central Drakensburg, Drakensburg. South Africa. August 2012.

*Schaal, G. and Richoux, N.B.*

**Schaal, G. and Richoux, N.B.** Lack of coupling between estuaries and coastal rocky shore-associated invertebrates in a semi-arid environment: Evidence through stable isotopes and fatty acid analysis. *8th International Conference on Applications of Stable Isotope Techniques to Ecological Studies*. Brest. France. August 2012.

*Timm, A.E.*

**Timm, A.E. and Reineke, A.** The genomic response of grapevine to phloem-feeding insect. *24th International Congress of Entomology*. Daegu. Korea. August 2012.

**Timm, A.E., Stamper, T., Dahlem, G. and DeBry, R.W.** Utility of COI, COII and ND4 genes for discriminating forensically important Diptera. *24th International Congress of Entomology*. Daegu. Korea. August 2012.

*Villet, M.H.*

**Villet, M.H.** Three forensic insights from a review of ecological succession on carrion. *24th international Congress of Entomology*. Daegu. South Korea. August 2012.

**Kelly, C.M.R., Branch, W.R., Barker, N.P., Barlow, A., Wuster, W. and Villet, M.H.** Species limits and the dynamics and drivers of diversification in the Berg adders (*Bitis atropos* complex, Serpentes: Viperidae). *10th meeting of the Southern African Society for Systematic Biology*. Arniston Hotel, Arniston. South Africa. July 2012.

**Barker, A.L., Barker, N.P. and Villet, M.H.** Phylogeny of African Bruchines associated with host plant Acacias. *10th meeting of the*

# ZOOLOGY & ENTOMOLOGY



Dr Julie Coetzee and Mr Philip Weyl on the Vaalharts Weir, Northern Cape, investigating the invasion of *Myriophyllum spicatum*

*Southern African Society for Systematic Biology*. Arniston Hotel, Arniston. South Africa. July 2012.

*Villet, M.H., Ridgeway, J.A. and Midgley, J.M.*

**Villet, M.H., Ridgeway, J.A. and Midgley, J.M.** Estimating postmortem intervals from development of *Thanatophilus* (Silphinae) beetles. *24th International Congress of Entomology*. Daegu, South Korea. South Korea. August 2012.

*Wasserman, R.J.*

**Wasserman, R.J., Strydom, N.A. and Weyl,**

**O.** The utilization of freshwater environments by young estuarine-and marine-spawned fish species: disturbance in connectivity between habitats. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

*Weyl, P.S.R. and Coetzee, J.A.*

**Weyl, P.S.R. and Coetzee, J.A.** The origins of *Myriophyllum spicatum* in Southern Africa. *40th Annual Symposium of Management of Invasive Alien Plants*. Olive Grove Research Station, Stellenbosch. South Africa. April 2012.

*Williams, K.A. and Villet, M.H.*

**Williams, K.A. and Villet, M.H.** Predicted geographic distributions of *Lucilia sericata* and *Lucilia cuprina* in South Africa. *The South African Society for Systematic Biology's 10th Meeting*. Arniston. South Africa. July 2012.

*Wolmarans, M.H.L., Hulley, P.E. and Craig, A.J.F.*

**Wolmarans, M.H.L., Smith, D., Hulley, P.E. and Craig, A.J.F.** Winter-flowering Aloe patches as a food source for birds: four seasons at one South African site. *13th Pan-African Ornithological Congress*. Arusha. Tanzania. October 2012.



# ALBANY MUSEUM

## ALBANY MUSEUM

Albany Museum is an affiliated research institute of Rhodes University.

Dr Helen James and MSc student Lyndall Pereira da Conceicao during a field excursion to the Nyu River, Japan, as part of the Joint XIII International Conference on Ephemeroptera, XVII International Symposium on Plecoptera held in Wakayama City, Japan, June 2012.



The Museum today consists of a family of seven buildings which includes the Natural Sciences Museum, the History Museum, the Observatory Museum, Fort Selwyn, the Old Provost military prison, Drostdy Arch and the Old Priest's House which is leased to the National English Literary Museum.

There are a number of Research Departments within the Albany Museum. All museum exhibitions and collections are curated by specialists in their fields. The Natural Sciences Museum houses permanent collections of terrestrial insects, freshwater invertebrates, freshwater fishes, a plant herbarium, birds, palaeontological fossils, rocks and minerals, ethnographic and archaeological material. The History Museum houses important exhibitions and collections of historical artefacts as well as a genealogical archive relating to the 1820 British Settlers. The Fine Art collection is also housed in the History Museum.

Albany Museum loans resources and provides education programmes ranging from GET, FET and HET for teachers, lecturers, students and learners through curriculum-based as well as broader interest museum lessons and outreach visits to farm schools. The Museum has an important scientific and historical library which houses rare books.

## Postgraduates/Graduations

Dr Helen James supervised MSc Entomology student Ms Lyndall Pereira da Conceicao.

## Distinguished Visitors / Overseas Visits

Dr Michael Dobson, Director of the Freshwater Biological Association (FBA) in Windermere, England spent two weeks doing field work on aquatic insects with Dr Helen James and MSc student Lyndall Pereira da Conceicao.

Visiting researcher, Dr Christian Albrecht from Justus

# ALBANY MUSEUM

Liebig University, Giessen, Germany, studied freshwater snails in the museum freshwater invertebrate collection.

Dr Steve Lowe, University of Glasgow, Scotland, brought aquatic insect specimens from Zambia for identification.

An important international scientist to the Albany Museum was Dr Conrad C. Labandeira of the American Museum of Natural History (Smithsonian Institute, Washington DC, US). Dr Labandeira was in residence at the Museum for over six months during his Hugh Kelly Fellowship tenure from April 1 to October 15, 2012. Dr Labandeira worked closely with Dr Rose Prevec studying fossil insect-plant interactions preserved in upper Permian rocks of the Karoo Basin.

Fieldwork was also undertaken with Professor Marion Bamford (University of the Witwatersrand), Dr Conrad Labandeira (Smithsonian, Washington DC) and Dr Rose Prevec to Shamwari Game Reserve to explore for lower Cretaceous plant fossils. Good fossil wood material was recovered and will be studied in the near future.

Professor Richard Butler and two of his Post-Doctoral Fellows, Drs Martin D. Ezcurra and Roland Sookias, of the GeoBio-Center, Ludwig Maximilian University, Munich, Germany, visited the Albany Museum to research Karoo therapsids in 2012.

Professor Michael Caldwell (University Alberta, Canada) and Dr Randal Nydam (Arizona University, USA) visited the Albany Museum to research early diapsid reptiles and in collaboration with Dr Billy de Klerk collected fossils and studied the geology in the lower Cretaceous Kirkwood Formation near Addo in July 2012.

## Significant Research Aligned Activities

Dr Helen James was awarded an NRF C3 rating in 2012.

Dr Helen James attended the NRF SABI forum meeting in Richard's Bay 9-11 May 2012 to discuss the future of the SABI funding programme.

Dr James convened the 2012 Eastern Cape SASS audit for River Health biomonitoring 26 September 2012.

**Drs de Moor and James** were confirmed as Honorary Research Associates of SAIAB.

The freshwater fish collection was transferred to SAIAB on a 100 year loan as research and curatorial staff within the Albany Museum could not be replaced due to a moratorium on posts being filled.

### Mr Phumlani Cimi

Acting Manager: Albany Museum

# ALBANY MUSEUM

## Books/Chapters/Monographs

*Dold, A.P. and Cocks, M.L.*

**Dold, A.P. and Cocks, M.L.** (2012) *Voices from the Forest*. Johannesburg: Jacana Media (Pty) Ltd. ISBN: 9781431402991.

## Concerts, Exhibitions, Performances, Workshops, Events

*de Moor, F.C. and Barber-James, H.M.*

**de Moor, F.C. and Barber-James, H.M.** Oral Paper Presentation. Effects of alien vegetation on lotic freshwater invertebrate species diversity in South Africa. *Workshop: Managing invasive alien plants, applying systematic planning techniques and conserving freshwater ecosystems*. SansParks and NMMU George Campus (Saasveld), George. South Africa. 1 August 2012.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Barber-James, H.M.*

**Barber-James, H.M.** and Gattolliat, J.-L. (2012) How well are Afrotropical mayflies known? Status of current knowledge, practical applications, and future directions. *Inland Waters*. 2 (1). p.1-9.

*de Moor, F.C.*

Pereira Da Conceicao, L.L., Price, B.W., **Barber-James, H.M.**, Barker, N.P., **de Moor, F.C.** and Villet, M.H. (2012) Cryptic variation in an ecological indicator organism: mitochondrial and nuclear DNA sequence data confirm distinct lineages of *Baetis harrisoni* Barnard (Ephemeroptera: Baetidae) in southern Africa. *Bmc Evolutionary Biology*. 12 (26). p.1-14.

Price, B., Liu, X., **de Moor, F.C.** and Villet,

M.H. (2012) A review of the alderfly genus *Leptosialis* Esben-Petersen (Megaloptera, Sialidae) with description of a new species from South Africa. *Zookeys*. 201 (2012). p.27-41.

*De Klerk, W.J.*

Choiniere, J.N., Forster, C.A. and **De Klerk, W.J.** 2012. New information on *Nqwebasaurus thwazi*, a coelurosaurian theropod from the Early Cretaceous Kirkwood Formation in South Africa. *Journal of African Earth Sciences*. Vol. 71-72; 1-17.

*Gess, F.W.*

**Gess, F.W.** (2012) The genus *Quartinia* Ed. Andre, 1884 (Hymenoptera, Vespidae, Masarinae) in Southern Africa. Part VI. New and little known species both with complete and incomplete venation. *Journal of Hymenoptera Research*. 24 (2012). p.95-115.

**Gess, F.W.** (2012) A new species of *Masarina* Richards 1962 from southern Africa, description of the female of *M. ceres* Gess 1997 and supplementary data on three other species of the genus (Hymenoptera, Vespidae, Masarinae). *Journal of Hymenoptera Research*. 25 (2012). p.83-92.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Barber-James, H.M. and de Moor, F.C.*

**Barber-James, H.M.** and **de Moor, F.C.** 2012 Mating behaviour and life history of the *Prosopistomatidae* (Ephemeroptera) derived from studies of morphology. *Joint XIII International Conference on Ephemeroptera, XVII International Symposium on Plecoptera*. Wakayama City. Japan. June 2012.

*De Klerk, W.J.*

Forster, C.A., Poole, K.E., **De Klerk, W.J.**, Chinsamy-Turan, A. & Roberts, E.M. A new taxon of iguanodontoid dinosaur from the Early Cretaceous (Valanginian) Kirkwood Formation, Eastern Cape Province, South Africa. Society of Vertebrate Paleontology (SVP), 72nd Meeting, October 2012, Raleigh, North Carolina, US. Abstract Volume.

Choiniere, J.N., Forster, C.A. & **De Klerk, W.J.** New information on *Nqwebasaurus thwazi*, a coelurosaurian theropod from the Early Cretaceous (Hauteriverian?) of South Africa. Society of Vertebrate Paleontology (SVP), 72nd Meeting, October 2012, Raleigh, North Carolina, US. Abstract Volume.

*de Moor, F.C.*

**de Moor, F.C.** and McIlhleron, W.G. Preliminary observation of flight activity of Trichoptera in the southern Cape, South Africa. *14th International Symposium on Trichoptera*. Avanta Hotel, Vladivostok. Russia. July 2012.

*de Moor, F.C., Barber-James, H.M.*

**de Moor, F.C.**, **Barber-James, H.M.** and Weeks, D.C. The Albany Museum's FWI National Aquatic Invertebrate Collection and its ongoing development. *SANBI Report Back Meeting*. Cape Town. South Africa. June 2012.

*Pereira da Conceicao, L.L. and Barber-James, H.M.*

**Pereira da Conceicao, L.L.** and **Barber-James, H.M.** A preliminary investigation of the diversity of *Teloganodidae* (Ephemeroptera) in South African rivers. *Joint XIII International Conference on Ephemeroptera, XVII International Symposium on Plecoptera*. Wakayama City. Japan. June 2012.

*Prevec, R.*

**Prevec, R.**, **Sciscio, L.**, Looy, C. and

Gastaldo, R.A. A reconstruction of the sphenophyte *Trizygia speciosa* from the Latest Permian Wapadsberg Pass locality in the Eastern Cape. *17th Biennial Conference of the Palaeontological Society of Southern Africa*. Conference Centre, Cape Town. South Africa. August 2012.

**Prevec, R.**, **Sciscio, L.**, Looy, C. and Gastaldo, R.A. Well-preserved impression/compressions of *Trizygia speciosa*, including the first cones and spores of this widespread Gondwanan sphenophyte, from the Latest Permian of South Africa. *International Organisation of Palaeobotany Congress*. Congress Centre, Tokyo. Japan. July 2012.

## Popular articles

*Prevec, R.*

**Prevec, R.** 2012. *The life of coal*. Quest 8(4):26-31.



Department of

## CENTRE FOR HIGHER EDUCATION, RESEARCH, TEACHING & LEARNING

The Centre for Higher Education Research, Teaching and Learning (CHERTL) produces research in the broad field of Higher Education Studies.

CHERTL staff from left to right: Dr Jo-Anne Vorster, Dr Lynn Quinn, Dr Sue Southwood, Ms Nompilo Tshuma, Professor Sioux McKenna, Mr Markus Mostert, Ms Dina Belluigi and Ms Nomfundo Siqwede.

*Photos: Christine Nesbitt*



Research on teaching and learning in higher education is a sub-set of this field although, as the research interests of students in the Centre's Doctoral Studies programme show, the field also encompasses work on leadership and management in higher education, on the sociology of knowledge and on the academic workplace.

## Postgraduates/Graduations

More than thirty (30) students are currently enrolled in the Doctoral Studies Programme co-ordinated by **Professor Sioux McKenna**. Of these, a number are involved in research, supported by an NRF Grant, which looks at social inclusion and exclusion in higher education. The 'social inclusion' project uses a framework developed from the work of Roy Bhaskar, Margaret Archer, Basil Bernstein and

# CHERTL

Karl Maton to allow doctoral candidates to explore the way a wide range of context and disciplinary areas impact on inclusion. The project involves researchers from other South African universities including Professor Jenni Case of the University of Cape Town, Professor Cecilia Jacobs of the University of Stellenbosch, Dr Clever Ndebele of the University of Venda and Dr Emmanuel Mgwashu of the University of KwaZulu-Natal.

2012 saw three (3) graduations from CHERTL's Doctoral Studies programme. **Dr Delia Layton, Dr Phillipa Kethro** and CHERTL staff member **Dr Amanda Hlengwa** all received their degrees at the Education Faculty's graduation ceremony.

## Distinguished Visitors/Overseas Visits

In 2012, CHERTL was fortunate to have Karl Maton as a distinguished visitor at one of its 'Doctoral Weeks'. Dr Maton, of the University of Sydney, gave a series of workshops and seminars on a set of tools, collectively known as 'Legitimation Code Theory' to CHERTL's Doctoral Studies Programme. 'Legitimation Code Theory' is used by researchers in the social inclusion project.

CHERTL was also fortunate in benefitting from Roy Bhaskar's and Margaret Archer's attendance at the conference of the International Association for Critical Realism held in Grahamstown from 18th - 20th July, 2012. Bhaskar is acknowledged as the 'founding father' of critical realism and Archer is renowned for her 'social realism'. Both Bhaskar and Archer facilitated workshops during the conference which were well attended both

by students and staff.

CHERTL also hosted the sixth Higher Education CloseUp conference, also in July 2012. Keynote speakers at this conference were Professor Melanie Walker of the University of the Free State, Professor Michalinos Zembylas of the Open University of Cyprus and Professor Paul Trowler of the University of Lancaster.

**Professor Chrissie Boughey** attended the Student Engagement in Research Universities symposium at the University of California's Berkeley campus in October, 2012.

## Significant Research Aligned Activities

As well as attending both the *Critical Realism* and *Higher Education CloseUp* conferences, CHERTL staff also attended the annual conference of the *Higher Education Learning and Teaching Association of Southern Africa* (HELTASA) in Stellenbosch in December 2012. This is an important annual event for those working to research and develop learning and teaching in higher education. Notable at this conference were papers presented by members of the Extended Studies Unit, which falls under the auspices of CHERTL.

CHERTL staff members **Lynn Quinn** and **JoAnne Vorster** were key members of the committee organizing the *International Association of Critical Realism* Conference in July 2012. CHERTL also hosted the Higher Education CloseUp6 conference in July.

**Professor Chrissie Boughey** and **Dr Lynn Quinn**

continued to participate in a research project led by Professor Brenda Leibowitz at the University of Stellenbosch. This project seeks to explore conditions enabling and constraining the development of staff as professional educators in higher education. This is a multi-institutional project involving researchers from a range of South African universities.

The most notable research achievement of 2012, however, was the publication of a collection of essays on the development of academic staff as educators in higher education edited by Lynn Quinn. The collection was launched at the HELTASA conference in December 2012 and includes work by CHERTL staff members **JoAnne Vorster, Sioux McKenna, Dina Belluigi, Sue Southwood** and **Markus Mostert**. The collection has been commended for the contribution it makes to understandings of staff development work in contemporary universities.

**Professor Chrissie Boughey**

Dean: Teaching and Learning



## Books/Chapters/Monographs

*Belluigi, D.Z.*

**Belluigi, D.Z.** (2012) Provoking ethical relationships. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.119-143. ISBN: 9781920338763.

*Boughey, C.M.*

**Boughey, C.M.** (2012) The significance of structure, culture and agency in supporting and developing student learning at South African universities. In: Dhunpath, R. and Vithal, R. (eds.). *Alternative Access to Higher Education: Underprepared students or underprepared universities?* Cape Town: Pearson Education South Africa (Pty) LTD. p.62-88. ISBN: 9781775784975.

*McKenna, S.M.*

**McKenna, S.M.** (2012) The context of access and foundation provisioning in South Africa.

In: Dhunpath, R. and Vithal, R. (eds.). *Alternative Access to Higher Education: Underprepared students or underprepared universities?* Cape Town: Pearson Education South Africa (Pty) LTD. p.51-61. ISBN: 9781775784975.

**McKenna, S.M.** (2012) Interrogating the academic project. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.15-26. ISBN: 9781920338763.

*Mostert, M. and Quinn, L.E.*

**Mostert, M. and Quinn, L.E.** (2012) Using ICTs in teaching and learning; reflections on professional development of academic staff. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.101-117. ISBN: 9781920338763.

*Quinn, L.E.*

**Quinn, L.E.** (2012) Introduction. In: Quinn,

L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.1-13. ISBN: 9781920338763.

**Quinn, L.E.** (2012) Enabling and constraining conditions for academic staff development. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.27-50. ISBN: 9781920338763.

*Southwood, S.L.*

**Southwood, S.L.** (2012) Spaces of development: a dialogical re-imagination. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.89-99. ISBN: 9781920338763.

*Vorster, J.E. and Quinn, L.E.*

**Vorster, J.E. and Quinn, L.E.** (2012) Theorising the pedagogy of a formal programme for university lecturers. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.51-69. ISBN: 9781920338763.

**Vorster, J.E. and Quinn, L.E.** (2012) Privileging knowledge, creating knowers: an analysis of a formal programme for university lecturers. In: Quinn, L. (ed.). *Re-Imagining Academic Staff Development: spaces for disruption*. Bloemfontein: SUN MeDIA. p.71-88. ISBN: 9781920338763.

## Other Publications

*Boughey, C.*

**Boughey, C.** (2012) Common sense fails our students. *Mail & Guardian*. 10 August 2012.

*Boughey, C. and McKenna, S*

**Boughey, C. and McKenna, S** (2012) Steer

Clear of Consultants' Conventions. *Mail & Guardian*. 7 September 2012. Co-authored by Chrissie Boughey, Sioux McKenna and Jenni Case.

*Quinn, L.E. and Vorster, J.E.*

**Quinn, L.E. and Vorster, J.E.** (2012) Training new academics is a complex challenge. *Mail & Guardian*. South Africa: Mail & Guardian Online Newspaper.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Boughey, C.M.*

**Boughey, C.M.** (2012) Social Inclusion and Exclusion in a Changing Higher Education Environment. *REMIE - Multidisciplinary Journal of Educational Research*. 2 (2). p.133-151.

*Southwood, S.L.*

**Southwood, S.L., Samson, D.A. and Sewry, J.D.** (2012) Investigating the nature of epistemological access afforded by a first year chemistry intervention programme: Towards a pedagogy of possibility! *Journal of Independent Teaching and Learning*. 7 (1). p.5-13.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Boughey, C.M.*

**Boughey, C.M.** (2012) Linking teaching and research: an alternative perspective? *Teaching in Higher Education*. 17 (5). p.629-635.

**Snowball, J.D. and Boughey, C.M.** (2012) Understanding student performance in a large class. *Innovations in Education and Teaching International*. 49 (2). p.195-205.



Bozalek, V. and **Boughey, C.M.** (2012) (Mis)framing higher education in South Africa. *Social Policy & Administration*. 46 (6). p.688-703.

**Oltmann, C.** and **Boughey, C.M.** (2012) Using critical realism as a framework in pharmacy education and social pharmacy research. *Research in Social & Administrative Pharmacy*. 8 (4). p.333-337.

*Boughey, C.M. and Niven, P.M.*

**Boughey, C.M.** and **Niven, P.M.** (2012) The emergence of research in the South African Academic Development movement. *Higher Education Research & Development*. 31 (5). p.641-653.

*McKenna, S.M.*

**Bharuthram, S.** and **McKenna, S.M.** (2012) Students' navigation of the uncharted territories of academic writing. *Africa Education Review (Educare)*. 9 (3). p.174-190.

*McKenna, S.M. and Quinn, L.E.*

**McKenna, S.M.** and **Quinn, L.E.** (2012) Lost in translation: Transformation in the first round of institutional audits. *South African Journal of Higher Education*. 26 (5). p.1033-1044.

*Mostert, M.*

**Mostert, M.** and **Snowball, J.D.** (2012) Where angels fear to tread: online peer-assessment in a large first-year class. *Assessment & Evaluation in Higher Education*. 2012 (2012). p.1-13.

*Niven, P.M.*

**Niven, P.M.** and **Grant, C.** (2012) PhDs by publications: an 'easy way out'? *Teaching in Higher Education*. 17 (1). p.105-111.

*Quinn, L.E.*

**Quinn, L.E.** (2012) Understanding resistance: an analysis of discourses in academic staff development. *Studies in Higher Education*.

37 (1). p.69-83.

*Tshuma, N.*

**Tshuma, N.** (2012) Blended learning model: Development and implementation in a Computer Skills course. *South African Journal of Higher Education*. 26 (1). p.24-35.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Ellery, K.*

**Ellery, K.** and **Baxen, M.J.** Arrival at the Academy: A narrative account of student agency. *Higher Education Learning and Teaching Association of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. December 2012.

*Hlengwa, A.*

**Hlengwa, A.** and **Lotz-Sisitka, H.** Seeding change: Reflexive professional development and morphogenesis in a higher education International Training Programme. *International Association for Critical Realism Conference*. Rhodes University, Grahamstown. South Africa. July 2012.

**Hlengwa, A.** and **Lotz-Sisitka, H.**

Professional Development Models. *Environmental Education Association of Southern Africa Conference*. Rhodes University, Grahamstown. South Africa. September 2012.

*Magadza, A.*

**Magadza, A.** and **Dalvit, L.** "Using narratives to explore the computer and mobile phones experiences of students at a South African institution. *The International Seminar on Narratives and Social Memory*. University Minho, Braga, Porto. Portugal. June 2012.

**Dalvit, L.** and **Magadza, A.** Building a Firm

Foundation: Theory Informing Practice.

*Assessing learners' computer ICT experiences in foundation programmes*. Pretoria. South Africa. June 2012.

*McKenna, S.M.*

**McKenna, S. M.** Untangling approaches to Extended Curriculum Studies (Invited Guest Speaker). Foundation Event, University of Pretoria, 2012.

*McKenna, S.M. and Boughey, C. M.*

**McKenna, S.M.** and **Boughey, C.M.** The Role of Knowledge in Social Inclusion. Seminar with five PhD scholars. *Higher Education Learning and Teaching Association of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. November 2012.

*Mostert, M. and Boughey, C.M.*

**Mostert, M., Boughey, C.M.** and **Snowball, J.D.** The role of culture in enabling or constraining the use of technology in higher education teaching and learning: The Commerce Curriculum Project. *Higher Education Close Up 6*. Rhodes University, Grahamstown. South Africa. July 2012.

*Tshuma, N.*

**Tshuma, N.** Can you lead from behind? Responses to Web 2.0 affordances in South African Higher Education Institutions. *Higher Education Learning and Teaching Association of Southern Africa*. Stellenbosch University, Stellenbosch. South Africa. November 2012.

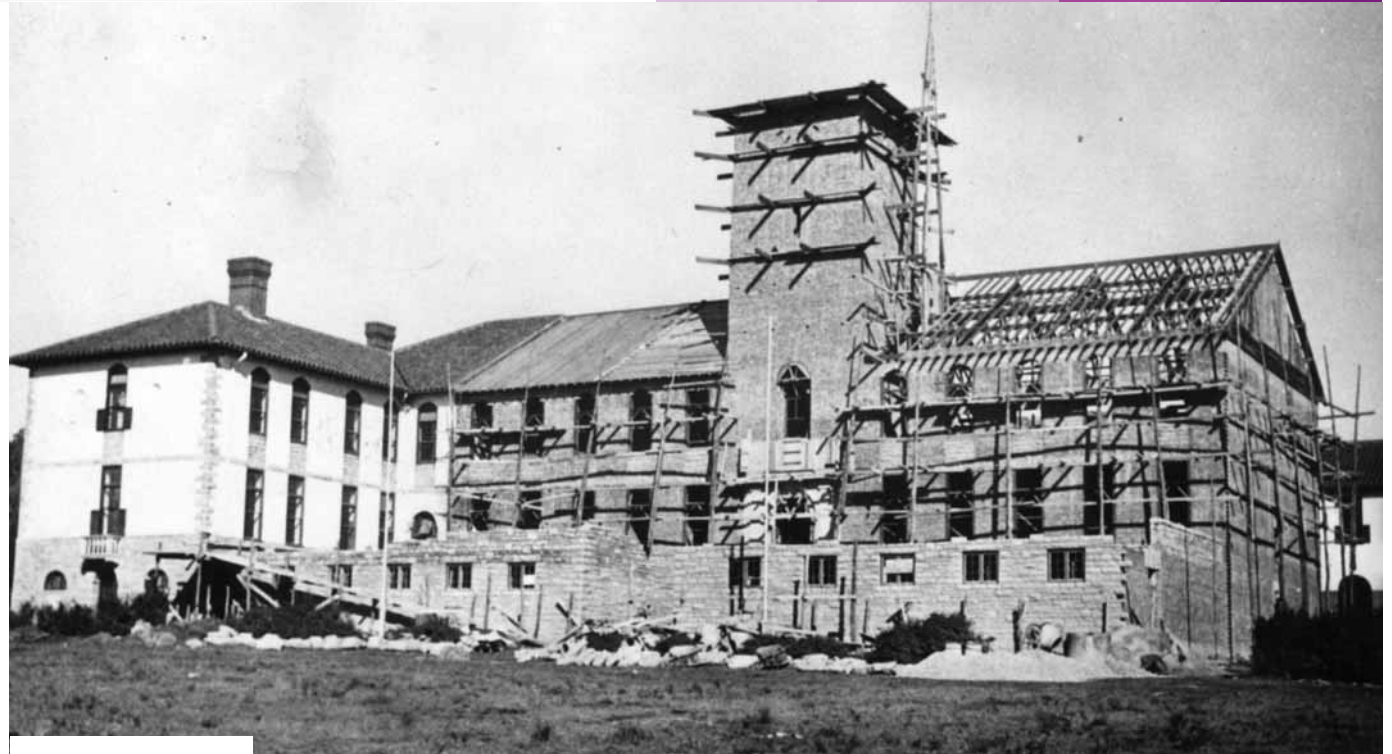
*Vorster, J.E. and Quinn, L.E.*

**Vorster, J.E.** and **Quinn, L.E.** Inducting the next generation of academic developers. *Heltasa Conference*. Stellenbosch University, Stellenbosch. South Africa. November 2012.

# CORY LIBRARY

## CORY LIBRARY for HUMANITIES RESEARCH

The library has now transcended its historical focus and supports primary (archival) research in the humanities.



Building the administration block and clock tower  
1936/7. Photo: JLB Smith, Cory Archives

The Cory Library was founded by George Cory - chemist, historian and ethnographer - with his personal bequest of books and manuscripts to Rhodes University in 1931.

The library has grown exponentially, adding all manner of Eastern Cape and southern African published works and manuscript materials.

Until recently, there was a perception that Cory Library is an Eastern Cape regional library. However, the scope of our collection has never been defined as Eastern Cape, only as "for historical research". The library has now transcended its historical focus and supports primary (archival) research in the humanities. As such Cory Library uses the appellation descriptor "for Humanities Research".

The library holds rich collections on a range of topics on the Eastern Cape and southern Africa, including history, biography, politics, society, anthropology, ethnology, art, architecture, photography, culture, music, religion, theology,

# CORY LIBRARY



Healdtown, Methodist Educational Institution near Fort Beaufort. Staff and students, 1906. Alumni of the school include Nelson Mandela. Cory Archives

genealogy, and family history. Cory Library welcomes manuscript materials in the languages of the Eastern Cape - English, isiXhosa, Afrikaans and German. To ensure growth and focused excellence Cory Library is strengthening its Eastern Cape holdings from the early colonial period up to the present to support interdisciplinary (humanities) research. It is envisaged that Cory Library will be a dynamic library and archive facility with autonomy to strengthen its role as the prime custodian of the history, heritage and all social aspects of the Eastern Cape and to be the pre-eminent site for the study of and research into the region's (and, to a lesser extent, southern Africa's) history and society.

Cory Library's mission is to support the teaching, research and community outreach mission of Rhodes University

through its library and archive services; to receive and serve researchers from all over South Africa and abroad. In addition, it continues to support remote researchers, especially in genealogical research and family history. It is part of the Library's mission to diversify its holdings to support research and publishing; to put in place policies and practices for the preservation and conservation of its holdings, to acquire "new" books and archives, to digitize as much of its holdings as possible to facilitate open access research in the long run; and run projects geared toward transforming itself into an income-generating centre.

In order to stream-line its operations (mission), Cory Library is loosely organized into five "divisions", being Library, Archives, Digitization, Retail, and Research.

## Distinguished Visitors/Overseas Visits

A number of distinguished scholars and writers visited Cory Library, including:

- **Colin Bundy**, distinguished historian, to launch his book, *Govan Mbeki*, Jacana, 2012;
- **David Culpin**, Reader in French at St Andrew's University, to launch his *Narrative of the Shipwreck of the French Vessel Eole*, National Library of South Africa, 2012;
- **Michael Tetelman**, American historian and management consultant, to launch his *We Can - Black Politics in Cradock, South Africa, 1945-1985*, Rhodes University, 2012;
- **Brian Willan**, scholar, to do research on "Shakespeare in Africa";
- **Professors Jeff Opland and Herman Giliomee** to do research;
- **Bishop Vuyani Ndobole**, General Secretary of the Methodist Church of Southern Africa, to discuss the Methodist Church Registers Digitization Project.
- Creative writers **Marguerite Poland** (author of *Shades*) and **Hazel Crampton** (author of *The Sunburnt Queen*) regularly do research in Cory Library.
- Also visiting Cory Library to do research were **Anil Nauriya** from New Delhi; **William Beinart** from the UK; **Gavin Williams**, Oxford University; and **Professor Kitagawa** from Japan.

In addition, **Professor Jeff Peires** is a Senior Research Fellow in Cory Library, and the University Historian



# CORY LIBRARY

Distinguished Professor Paul Maylam has an office in the library.

## Significant Research Aligned Activities

In 2012, Cory Library edited, and published with the Institute of Social and Economic Research and under the Rhodes University imprint, Michael Tetelman's *We Can - Black Politics in Cradock, South Africa, 1945-1985*.

Cory Library's Head, **Cornelius Thomas**, brought out a non-peer-reviewed book - Time with Dennis Brutus - *Conversations, Quotations and Snapshots 2005-2009*, Wendy's Book Lounge, 2012.

**Dr C Thomas**

Head of Cory Library

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Peires, J.*

Peires, J. (2012) 'He Wears Short Clothes!': Rethinking Rharhabe (c.1715-1782). *Journal of Southern African Studies*. 38 (2). p.333-354.



Map of North East of the Cape Colony exhibiting the relative positions of the emigrant farmers and the "native tribes", drawn by WC Harris in 1837, Cory Archives



Formal photograph taken in 1912 of the Reverend Elijah Makiwane and his wife with their children. Elijah Makiwane was the second black minister trained in South Africa to be ordained in the Presbyterian Church. Rev Makiwane's daughter Cecilia, on the extreme right of the back row, became the first black registered nurse in South Africa, passing the Cape Colony Medical examinations in 1909.

# ENVIRONMENTAL BIOTECHNOLOGY

## THE INSTITUTE FOR ENVIRONMENTAL BIOTECHNOLOGY

The Institute for Environmental Biotechnology (EBRU) maintained a high profile both nationally and internationally during 2012.



In pond digester and facultative pond - component parts of the Integrated Algae Pond System used for the treatment of domestic waste water.

The Institute for Environmental Biotechnology (EBRU) maintained a high profile both nationally and internationally during 2012 particularly in regard to work on the rehabilitation of waste coal dumps and land disturbed by open cast coal mining and in commercialisation of the Integrated Algae Pond System (IAPS) for domestic waste water treatment. Concerning the latter, the Water Research Commission awarded Professor Keith Cowan and his group R1,5 million to examine the performance and efficacy of IAPS as a waste water treatment technology.

Anglo American Thermal Coal continued to support further development of Fungcoal as a rehabilitation strategy and will extend the project to allow for full commercial establishment of the technology. A joint venture between EBRU and Coastal & Environmental Services yielded novel biocatalysts for the treatment of hydrocarbon contaminated sites in particular soils and an international patent has been applied for. Several EBRU researchers participated in international events. Aspects of IAPS as a technology for waste treatment and energy derivation were presented by Professor Keith Cowan and co-workers at Algae World Asia, Singapore, the European Union Biomass



# ENVIRONMENTAL BIOTECHNOLOGY



High Rate Algae Oxidation Pond (Raceway) - a component of the Algae Integrated Pond System used for the treatment of domestic waste water.

Conference, Milan and the EC-EU Renewable Energy Conference, East London. **Michelle Isaacs**, a senior researcher, was selected to attend the 2nd International Phytoplankton Identification Workshop, Plymouth, UK.

## Postgraduates/Graduations

Eight (8) higher degree candidates and one (1) post-doctoral researcher were resident at EBRU during 2012 and actively involved themselves in research and consulting activities. **Dr Bonga Zuma** joined EBRU as a post-doctoral researcher and during 2012 he investigated the applicability of combining low-cost adsorbent materials and aquatic plants, such as duckweed, in biotechnological processes related to the treatment of various waste waters. Ph.D. candidate **Ms Prudence Mambo** attended the biennial Singapore International Water Week Conference and Exhibition in Singapore. **Ms Lwazikasi Madikiza**, a Masters student, visited Bonn University's

Institute for Microbiology and Biotechnology in North Rhine-Westphalia, where she met with researchers to discuss the bioconversion of coal to humic substances and other products with potential biotechnological applications.

## Distinguished Visitors/ Overseas Visits

Dr David van der Ha, a Belgian scientist at Ghent University's Faculty of Bioscience Engineering joined EBRU for three months to research the fate of methane which is generated by anaerobic processes in many wastewater treatment plants. EBRU's pilot IAPS provided the ideal system to undertake such studies as it provides an environment where both microbial anaerobic and aerobic processes involved in the treatment of wastewater integrate. Dr van der Ha hypothesised that a consortium

of methane-oxidizing bacteria, and algae, which produce oxygen, may have an important but as yet, unsubstantiated role in the destruction of methane produced by anaerobic methanogenic bacteria. Methane escapes from anaerobic zones in wastewater treatment plants, thus contributing to atmospheric greenhouse gas inventories, with methane having 22 times the global warming potential of carbon dioxide. A better understanding of the interaction between methane oxidizing bacteria, which need oxygen and oxygen producing algae, could lead to a better design of wastewater treatment plants, where algae could enhance in-situ methane oxidation to reduce the carbon footprint of wastewater works.

## Significant Research Aligned Events

Professor Keith Cowan continued to serve as Managing Editor on the boards of the *South African Journal of Botany and Plant Growth Regulation*. In addition, he was invited to join the editorial board of the international and interdisciplinary journal *CLEAN - Soil, Air, Water* (the successor journal of *Acta Hydrobiologica et Hydrochimica*). The journal with an impact factor of 2.17 (2011) covers all aspects of Sustainability and Environmental Safety and hosts an attractive mixture of peer-reviewed scientific reviews, research papers, and short communications. Combining environmental aspects of soil, air, water, and sustainability and technosphere, the journal focuses on prevention measures and forward oriented approaches rather than on remediation and pollution cleanup. Professor Cowan joined as Topical Editor for Biosciences, Biotechnology and Ecology.

### Professor A. Keith Cowan

Director of The Institute for Environmental Biotechnology



# ENVIRONMENTAL BIOTECHNOLOGY

## Concerts, Exhibitions, Performances, Workshops, Events

*Cowan, A.K.*

**Cowan, A.K.** Participant (Invited technology). *Water Research Commission / Department of Science and Technology 2012 Technologies Showcase* (Integrated algae pond coupled domestic wastewater and acid mine drainage treatment). Emperors Palace, Johannesburg, South Africa. 20 March 2012.

*Isaacs, M.L.*

**Isaacs, M.L.** Participant. *2nd International Phytoplankton Identification Workshop*. Marine Biological Association, Plymouth. United Kingdom. 2 - 13 July 2012.

**Isaacs, M.L.** Leader. *Algal Identification Workshop*. EBRU, Grahamstown. South Africa. 14 November 2012.

## Distinguished Visitors

**Dr D van der Ha.** Ghent University, Ghent, Belgium. *Research*. January 2012.

## Patents

*Horan, M.P., Igbinigie, E.E., Mukasa-Mugerwa, T.T. and Rose, P.D.*

**Dames, J.F., Horan, M.P., Igbinigie, E.E., Mukasa-Mugerwa, T.T. and Rose, P.D.** (2012) *Fungcoal*. South Africa. 2012. P6894ZA00.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Laubscher, R.K.*

**Edwards, S.L., Fogel, R., Mtambanengwe, K.T.E., Togo, C.A., Laubscher, R.K. and Limson, J.L.** (2012)

Metallophthalocyanine/carbon nanotube hybrids: extending applications to microbial fuel cells. *Journal of Porphyrins and Phthalocyanines*. 16 (7-8). p.917-926.

*Sekhohola, L.M., Igbinigie, E.E. and Cowan, A.K.*

**Sekhohola, L.M., Igbinigie, E.E. and Cowan, A.K.** (2012) Biological degradation and solubilization of coal. *Biodegradation*. 2012 (2012). p.1-14.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Cowan, A.K.*

**Cowan, A.K.** Biogas as a biofuel: Biogas projects and opportunities in the Eastern Cape Province. *EC-EU Renewable Energy Conference*. East London Convention Centre, East London, South Africa. November 2012.

**Cowan, A.K.** Integrated algae pond systems for waste water treatment and energy capture. *5th Algae World Asia Conference*. Novatel Singapore Clarke Quay. Singapore. November 2012.

Harvey, P.J., Psych, M., Kokossis, A., Abubakar, A.L., Trivedi, V., Swamy, R., **Cowan, A.K.**, Schroeder, D., Highfield, A., Reinhardt, G., Gartner, S., McNeil, J., Day, P., Brocken, M., Varrie, J. and Ben-Amotz, A. Glycerol production by halophytic microalgae: strategy for producing industrial quantities in saline water. *Proceedings of the 20th EU BC & E - Milan 2012*. Milano Convention Centre, Milan. Italy. June 2012.

*Mambo, M.P.*

**Mambo, M.P.** Towards the development of



Harvest of algae from the high rate oxidation pond after treatment of domestic waste water. Algae take up the nutrients and grow into a substantial biomass during treatment of waste water.

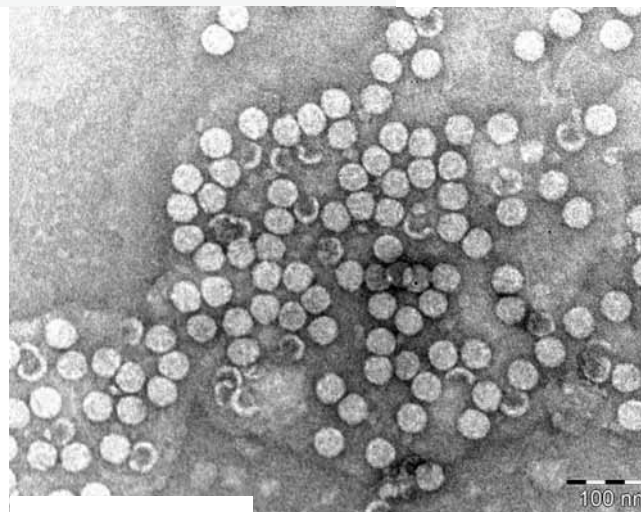
a sustainable waste water strategy. *Singapore International Water Week*. Marina Bay Sands. Singapore. July 2012.

# ELECTRON MICROSCOPE UNIT

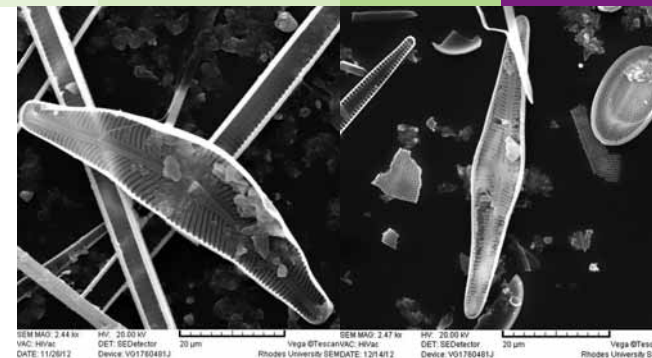
## ELECTRON MICROSCOPE UNIT

The Electron Microscope Unit made a significant contribution to the research output of the university, and the Eastern Cape.

This is an image of the Theiler's Murine Encephalomyelitis Virus (TMEV), taken with a transmission electron microscope.



From nanoparticles, to viruses, tissues, rocks, insects, molluscs and fish, the EM Unit staff facilitated the research efforts of academic staff and students from a number of Rhodes University science departments including Botany, Biochemistry, Microbiology, Biotechnology, Chemistry, Geology, Ichthyology and Fisheries Science, the Institute of Water Research, Pharmacy, and Zoology & Entomology.



Diatoms taken with a scanning electron microscope: The long rod like cells - *Fragilaria* sp. The main cell - *Gomphonema* sp. The small oval cell on the top left is *Cocconeis* sp.

Diatoms taken with a scanning electron microscope: Long rod like cells - *Fragilaria* sp. The main cell is *Cymbella* sp.

In addition, external researchers from the Albany Museum, South African Institute of Aquatic Biodiversity, East London Museum, University of Fort Hare and NMMU all made use of the facilities. In this way the unit made a significant contribution to the research output of the university, and the Eastern Cape.

## Significant Research Aligned Events

In May, the EM Unit took delivery of a Zeiss Libra 120 Plus Transmission Electron Microscope. This R6 Million state-of-the-art instrument, the only one of its kind in southern Africa, was funded by grants from the National Research Foundation and Rhodes University. It is a regional facility, and has been a great boost to the endeavours of researchers.

**Professor Alan Hodgson**

Director of Unit

# ELECTRON MICROSCOPE UNIT

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Pinchuck, S.C.*

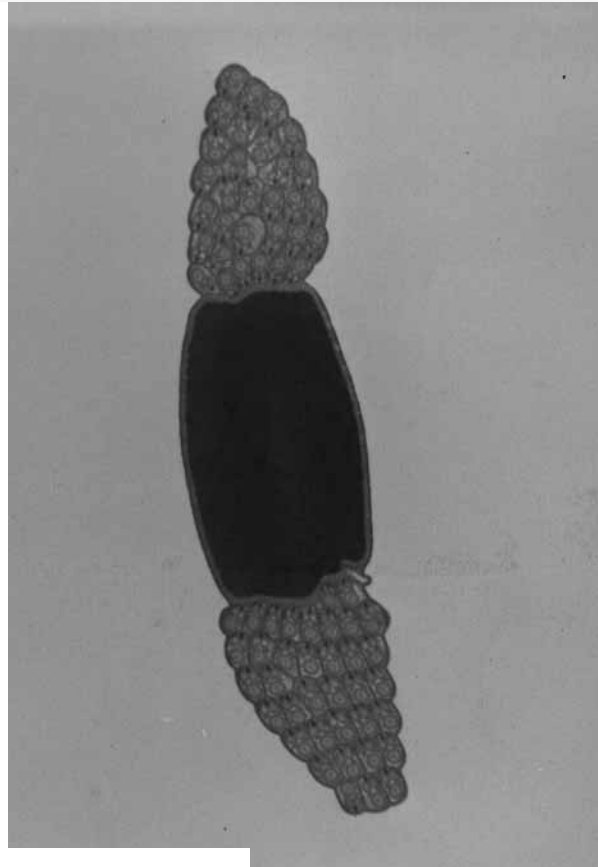
**Pinchuck, S.C. and Hodgson, A.N.** (2012) Structure of the lateral pedal defensive glands of *Trimusculus costatus* (Gastropoda: Trimusculidae). *Journal of Molluscan Studies*. 78 (1). p.44-51.

Bromley, C.L., Poppwell, W.L., **Pinchuck, S.C.** Hodgson, A.N., and Davies-Coleman, M.T. (2012) Polypropionates from the South African marine mollusc *Siphonaria oculus*. *Journal of Natural Products*. 75: 497-501.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Randall, M.A. and Pinchuck, S.C.*

**Randall, M.A., Pinchuck, S.C. and Hodgson, A.N.** Structure of the scopulae of *Anyphops spenceri* (Arachnida: Selenopidae). *Microscopy Society of Southern Africa Proceedings*. University of Cape Town, Cape Town. South Africa. December 2012.



This is a section through the spermozeugma (a special sperm bundle) of a beetle called *Pterostichus nigrita*. Taken with a transmission electron microscope.



# INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA

## INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA (ISEA)

Dame Janet Suzman and  
Professor Robert Gordon were  
keynote speakers at the  
conference, *Staging  
Shakespeare: Direction, Design,  
Reception*.



Keynote speakers at an international conference presented by the Shakespeare Society of Southern Africa, entitled *Staging Shakespeare: Direction, Design, Reception*, Dame Janet Suzman and Professor Robert Gordon of Goldsmiths' College, University of London, and conference convenor Warren Snowball (centre), President of the Shakespeare Society.



The year's highlights include the launch of *South Africa's Education Crisis: Views from the Eastern Cape*, a book based on the work of the Secondary Schools Language Project.

The book launch took place during the third biennial conference of the Eastern Cape English Educator's Association, *Networking Critical Literacy*, held in association with the Institute for the Study of English in Africa (ISEA) at the end of June 2012.

The Northern Cape teacher development initiative, in association with RUMEP and the CSD, and funded by the SISHEN Iron Ore Community Development Trust started in April 2012. A cohort of thirty-six (36) teachers has registered for the BEd in English Language Teaching, thirty-one (31) of them from the Northern Cape. The English programme component follows the educational format established for similar programmes run by ISEA in the Eastern Cape.

A successful international conference was hosted by the Shakespeare Society of Southern Africa, entitled *Staging Shakespeare: Direction, Design, Reception*, as part of the Society's 8th Triennial Congress. The event attracted delegates from Taiwan, India, Australia, the United Kingdom, Malawi, and Canada, in addition to South African delegates.

The MA in Creative Writing started its first full year of operation, and twenty-one (21) students registered for the programme, including twelve (12) on the new part-time stream over two years. This year also saw the start of a new Mellon-funded 'Writer-in-Residence' programme, the first incumbents being poet, Lesego Rampolokeng and novelist, Eben Venter.

Writing teacher Ingrid Winterbach won two major literary awards this year, the Groot Afrikaanse Romanwedstryd for her novel *Die aanspraak van lewende wesens* (Human & Rousseau, 2012), and the C.L. Engelbrecht Prize for her novel *Die boek van toeval en toeverlaat* (Human & Rousseau, 2006). In similar vein, Eben Venter, one of two visiting Mellon Writers-in-Residence, was shortlisted in the Groot Afrikaanse Romanwedstryd for his novel *Wolf, wolf*, and MA student **Vonani Bila** was runner-up in the Sol Plaatje European Union Poetry Award 2012, for his poem *'Boys from Seshego'*.

# INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA

## Postgraduates/Graduations

The Rhodes Masters in Creative Writing programme successfully graduated seven (7) fulltime students, two (2) with distinctions. A second book, *Tyhini 2012*, based on course-work exercises undertaken by the students in the first five months of the programme, was published by the Institute and launched in October. The book is edited by Robert Berold.

The BEd in English Language Teaching graduated thirty-three (33) out of a cohort of thirty-five (35) teachers. One of these, **Ms Neliswa Cita** of Mount Frere, graduated with distinction.

## Distinguished Visitors/ Overseas Visits

Prof Robert Gordon (Goldsmiths College, London),  
Keynote speaker.

Prof Hilary Janks (Wits), Keynote speaker,

Mrs Henrietta Magopane-Zulu, Deputy Minister for the  
Department of Women, Children and People with  
Disabilities,

Sphiwe Mahala, Director of Languages, National  
Department of Arts & Culture.

Mrs Mthitshana, Chairperson of the EC portfolio  
Committee for Arts and Culture.

Mrs Nkula, Department of Sport, Recreation, Art and  
Culture.

Mr Lesego Rampolokeng, Mellon Writer-in-Residence

Mrs Suki, Consul General of Indonesia.

Dame Janet Suzman, Keynote speaker.

Ms Xoliswa Tom, MEC for Sport, Recreation, Arts and  
Culture.

Mr Eben Venter, Mellon Writer-in-Residence.

## Significant Research Aligned Events

The third biennial Eastern Cape English Educators' Association conference took place towards the end of June 2012, with the theme *Networking Critical Literacy*. The conference was attended by over one hundred and fifty (150) delegates, mainly alumni of the teacher education programme. The keynote speaker, Professor Hilary Janks, presented a challenging, practical paper on critical visual literacy. A particularly proud moment of the conference was the launch of *South Africa's Education Crisis: Views from the Eastern Cape*. Edited by **Professor Wright** and containing chapters from most ISEA current staff members, with several of the chapters developed from material presented at the 2011 public seminar on *Rural Education in Context*.

A successful international conference presented by the Shakespeare Society of Southern Africa, entitled *Staging Shakespeare: Direction, Design, Reception*, as part of the Society's 8th Triennial Congress. The event attracted delegates from Taiwan, India, Australia, the United Kingdom, Malawi, and Canada, in addition to South African delegates. The keynote addresses were by Dame Janet Suzman, and Professor Robert Gordon of Goldsmiths' College, University of London.

## Professor Monica Hendricks

Director of Institute

# INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA



Lesego Rampolokeng, Mellon Writer-in-Residence. Photo: Desiree Schirlinger

## Books/Chapters/Monographs

*Fulani, N.C.*

**Fulani, N.C.** (2012) Language Textbooks and the Challenge of Equal Education. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.100-110. ISBN: 9781920033149.

*Fulani, N.C. and Hendricks, M.G.*

**Fulani, N.C. and Hendricks, M.G.** (2012) Lessons from Classroom Observation. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.124-138. ISBN: 9781920033149.

*Hendricks, M.G.*

**Hendricks, M.G.** (2012) Schooling and Resources in the Eastern Cape. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.19-32. ISBN: 9781920033149.

*Hendricks, M.G. and Wright, L.S.*

**Hendricks, M.G. and Wright, L.S.** (2012) 'Power bedevils everything': Improving Education in the Eastern Cape. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.33-48. ISBN: 9781920033149.

*Mbelani, M.*

**Mbelani, M.** (2012) Visual literacy: Reflections from Rural Schools. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.86-99. ISBN: 9781920033149.

*Mbelani, M. and Hendricks, M.G.*

**Mbelani, M. and Hendricks, M.G.** (2012) Surfacing opportunities taken and missed in teaching cartoons in English FAL classrooms. In: Osman, R. and Venkat, H. (eds.). *Research-led Teacher Education*. Cape Town: Pearson Education South Africa (Pty) LTD. p.88-108. ISBN: 9781775782162.

*Robinson, B.K.*

**Robinson, B.K.** (2012) Growing Out of Lengthening Shade: Don MacLennan's Search for Wisdom. In: Wylie, D. (ed.). *No Other World: Essays on the life-work of Don MacLennan*. Cape Town: Print Matters Heritage. p.194-218. ISBN: 9780987009524.

**Robinson, B.K.** (2012) A Letter to Don MacLennan. In: Wylie, D. (ed.). *No Other World: Essays on the life-work of Don MacLennan*. Cape Town: Print Matters Heritage. p.59-65. ISBN: 9780987009524.

*Wessels, P.*

**Wessels, P.** (2012) Graeme Feltham: Getting Squelchy, Naked and Yummy with Graeme Feltham and the Ordained Inevitable. In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLekSEM. p. 69-76. ISBN: 978-0-620-52779-8.

**Wessels, P.** (2012) Aryan Kaganof: The Politricks of Fiction for Life In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLekSEM. p. 96-101. ISBN: 978-0-620-52779-8.

**Wessels, P.** (2012) Ivan Vladislavic: What does he need me for? In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLekSEM. p.117-124. ISBN: 978-0-620-52779-8.

**Wessels, P.** (2012) Suicided by Art: Mark Hipper, His Art, & His Critics. In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLekSEM. p. 306-310. ISBN: 978-0-620-52779-8.

*Wright, L.S.*

**Wright, L.S.** (2012) Rural Teachers, Reading, and the Social Imagination. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.72-85. ISBN: 9781920033149.

**Wright, L.S.** (2012) Teachers as Heroes. In: Wright, L.S. (ed.). *South Africa's Education*

*Crisis: Views from the Eastern Cape.*

Grahamstown: NISC (Pty) LTD. p.139-142. ISBN: 9781920033149.

**Wright, L.S.** (2012) National Language Conundrums in the Rural Classroom. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*.

Grahamstown: NISC (Pty) LTD. p.111-123. ISBN: 9781920033149.

**Wright, L.S.** (2012) Notes from a Rhenish Mission: The Sparse code of a great song. In: Wylie, D. (ed.). *No Other World: Essays on the life-work of Don MacLennan*. Cape Town: Print Matters Heritage. p.148-173. ISBN: 9780987009524.

**Wright, L.S.** (2012) Origins of the Eastern Cape Education Crisis. In: Wright, L. (ed.). *South Africa's Education Crisis: Views from the Eastern Cape*. Grahamstown: NISC (Pty) LTD. p.1-18. ISBN: 9781920033149.

## Concerts, Exhibitions, Performances, Workshops, Events

*Mann, C.M.*

**Mann, C.M.** Performance. *The Reverence of Ordinary Things* (Read by Rachel King at funeral of Kenneth Victor Sykes). Loughborough Crematorium, Loughborough. England. 1 January 2012.

**Mann, C.M.** Performance. *Home from Home* (Performed with Janet Suzman and Julia Skeen). National Arts Festival, Grahamstown. South Africa. 1 January 2012.

**Mann, C.M.** Performance. Eastern Cape English Olympiad. *Home from Home*. St Andrew's College, Grahamstown. South Africa. 1 January 2012.



# INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA

**Mann, C.M.** Performance. *The Road to Emmaus*. St Edmund Hall, Oxford. England. 1 January 2012.

**Mann, C.M.** Performance. *Abseiling*. St Hugh's College, Oxford. England. 1 January 2012.

**Mann, C.M.** Performance. *Home from Home*. English Department University of Northumbria, Newcastle. England. 1 January 2012.

## Creative Writing

**Berold, R.**

**Berold, R.** (2012) wakey wakey. In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLeKSEM. ISBN: 978-0-620-52779-8.

**Berold, R.** (2012) the word comes out of the ground at the wavelength of earth. In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLeKSEM. ISBN: 978-0-620-52779-8.

**Berold, R.** (2012) how to put together a book of poems. In: Finlay, A and Wessels, P (eds) *donga*. Melville: BLeKSEM. ISBN: 978-0-620-52779-8.

**Leff, C.W.**

**Leff, C.W.** (2012) fireflies. In: Mckeown, J., Gowans, E. and van der nest, M. (eds.). *poem in Aerial*. 16th Ed. Grahamstown: Institute for the Study of English in Africa.

**Leff, C.W.** (2011) scenting. In: King, M. (eds.). *Poem in New Contrast*. South African Literary Journal Limited. Cape Town.

**Mann, C.M.**

**Mann, C.M.** (2012) Love and the Maladies of Time. In: Viljoen, H.M. (ed.). *Poem in Literator (Accredited Journal)*. Tlokwe: Bureau for Scholarly Journals, NWU.

**Mann, C.M.** (2012) Whale-watching. In: Smit, J. (ed.). *Poem in Alternation (Accredited journal)*. Durban: UKZN.

**Mann, C.M.** (2012) Still Life. In: Byrne, D.

(ed.). *Poem in Scrutiny2 (Accredited Journal)*. 17th Ed. Pretoria: UNISA Press.

**Mann, C.M.** (2012) Whale-watching. In: Jobson, L. (ed.). *Poem in book (Sol Plaatje European Union 2012 Award)*. Johannesburg: Jacana.

**Mann, C.M.** (2012) The Death of Keats. In: Byrne, D. (ed.). *Poem in Scrutiny2 (Accredited Journal)*. 17th Ed. Pretoria: UNISA Press.

**Mann, C.M.** (2012) Real Cricket. In: Kieswetter, G. (ed.). *Poem in Bishop's Cricket Tour Magazine*. Cape Town: Diocesan College.

**Mann, C.M.** (2012) Real Cricket. In: Lang, S. (ed.). *Poem in Grocott's Mail*. Grahamstown: David Rabkin Project.

**Mann, C.M.** (2012) Saying Goodbye to the Romans. In: Concilio, C. and Fazzini, M. (eds.). *Poem in Il Tolomeo (Accredited Journal)*. Venice: LT2.

**Mann, C.M.** (2012) A Brief Note on the Limits of Translation. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) Caritas. In: Cordell, C. (ed.). *Poem in The Spire*. Grahamstown: Grahamstown Cathedral.

**Mann, C.M.** (2012) Electric Ray. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) Granadilla. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) Bougainvillea. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) Scrub Honey, Dust and Aloes. In: Viljoen, H.M. (ed.). *Poem in Literator (Accredited Journal)*. Tlokwe: Bureau for

Scholarly Journals, NWU.

**Mann, C.M.** (2012) The Trinity of Being. In: Cordell, C. (ed.). *Poem in The Spire*. Grahamstown: Grahamstown Cathedral.

**Mann, C.M.** (2012) Where is the freedom for which we died. In: Sceffler, B. (ed.). *Poem in English for Life (Book Awaiting Publication)*. Pretoria: Best Books.

**Mann, C.M.** (2012) Dancing in the Royal Hotel. In: Lang, S. (ed.). *Poem in Grocott's Mail*. Grahamstown: David Rabkin Project.

**Mann, C.M.** (2012) Sunday Drive. In: Lang, S. (ed.). *Poem in Grocott's Mail*. Grahamstown: David Rabkin Project.

**Mann, C.M.** (2012) The Comrades Marathon. In: Lang, S. (ed.). *Poem in Grocott's Mail*. Grahamstown: David Rabkin Project.

**Mann, C.M.** (2012) Tea at Hlambeza Pool. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) 'Tradition' means male patronage. In: Dawes, N. (ed.). *Letter in Mail and Guardian*. Johannesburg: M&G Media.

**Mann, C.M.** (2012) Kariaga Metaphors. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) Eros. In: Cordell, C. (ed.). *Poem in The Spire*. Grahamstown: Grahamstown Cathedral.

**Mann, C.M.** (2012) Snorkels in the River. In: Concilio, C. and Fazzini, M. (eds.). *Poem in Il Tolomeo (Accredited Journal)*. Venice: LT2.

**Mann, C.M.** (2012) Tuscany. In: Concilio, C. and Fazzini, M. (eds.). *Poem in Il Tolomeo (Accredited Journal)*. Venice: LT2.

**Mann, C.M.** (2012) The Music of Ordinary Things. In: Mykytenko, O. (ed.). *Poem in Vsesvit (Accredited Journal)*. Ukraine: BCECBIT.

**Mann, C.M.** (2012) The Bower of Bliss. In: Concilio, C. and Fazzini, M. (eds.). *Poem in Il Tolomeo (Accredited Journal)*. Venice: LT2.

**Mann, C.M.** (2012) A Portrait of the Artist. In: Cordell, C. (ed.). *Poem in The Spire*. Grahamstown: Grahamstown Cathedral.

## Peer Reviewed Subsidy-Earning Journal Research Publications

**Crampton, H.**

**Crampton, H.** (2012) The Explorer Who Got Lost: Dr Andrew Cowan's Journal Found. *South African Historical Journal*. 64 (4). p.747-768.

**Leff, C.W.**

**Leff, C.W.** (2011) blurred edges of bohemia. *Scrutiny2 (UniSA English Studies)*. 16(2). p.69

**Wright, L.S.**

**Wright, L.S.** (2012) "Being present where are you": Guy Butler's Africanism (with notes on Kirkwood and Coetzee). *Current Writing: Text and Reception in Southern Africa*. 24 (1). p.2-15.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

**Fulani, N.C., Robinson, B.K. and Hendricks, M.G.**

**Fulani, N.C., Robinson, B.K. and Hendricks, M.G.** Classroom observation: Lessons learned, lessons applied. *Eastern Cape English Educators' Association*. Rhodes University, Grahamstown. South Africa. June 2012.

**Hendricks, M.G.**

**Hendricks, M.G.** Schooling, Resources and Teacher Professional Development. 21st

# INSTITUTE FOR THE STUDY OF ENGLISH IN AFRICA

*Southern African Comparative and History of Education Society*. Summerstrand Hotel, Port Elizabeth. South Africa. October 2012.

**Hendricks, M.G.** Evidence from classroom writing: language learning nuts and bolts. *19th International Conference on Learning*. Institute for Education, London. United Kingdom. August 2012.

**Hendricks, M.G.** English Writing: Evidence from Intermediate Phase Classrooms. *Reflections on Home-Language Based Bilingual Project Seminar*, University of Fort Hare East London. May 2012.

**Mbelani, M.**

**Mbelani, M.** Using Activity theory to identify contradictions in teaching of cartoons. *Eastern Cape English Educators' Association Conference*. Rhodes University, Grahamstown. South Africa. June 2012.

**Wright, L.S.**

**Wright, L.S.** The Eastern Cape Education Crisis. Education and societal dynamics; Possibilities for Educational Change in the Southern African Region. *21st South African Comparative and History of Education Conference*. Summerstrand Hotel, Port Elizabeth. South Africa. October 2012.

**Wright, L.S.** Irreplaceable Acting. Staging Shakespeare: Direction, Design, Reception. *8th Triennial Conference of the Shakespeare Society of Southern Africa*. Rhodes University, Grahamstown. South Africa. July 2012.



Eben Venter, Mellon Writer-in-Residence.

Photo: Desiree Schirlingner

# INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

## THE INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH (ISER)

The Institute of Social and Economic Research went through a period of consolidation and further development of its flagship social policy research programme in 2012, in particular on health policy and the developmental state.

Meeting with members of the Cradock Socio-Economic Transformation Forum to discuss a two day development summit in Cradock which will be focused on economic development. On the left: Dr Menzi Duka, Mr Mzi Zenezile and Ms Ziwe Ncayo. Right: Professor Robert van Niekerk and PhD Student Mr Langa Zita.



ISER's 2012 social policy programme also hosted a series of major research related public engagements focused on social policy in the Eastern Cape.

The ISER's internationally recognised research on bio-diversity and quality of life also reported very significant activity and continues to enjoy prestige amongst academic peers locally and internationally.

## Postgraduates/Graduations

The ISER is pleased to report the graduation of three of its Masters students in 2012. **Ulandi Du Plessis** completed her MA thesis entitled *Explaining the Endurance of Poverty and Inequality: The Social Division of Welfare and State Expenditure on Health in South Africa*. The degree was awarded with distinction. **Lydia Magano** completed her MA thesis entitled *Unearthing the essence of nature and the perception of the natural landscape among the amaXhosa in the Eastern Cape: An exploratory study*. **Lara Van Lelyveldt** completed her MA thesis entitled



# INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH



The 4th Dr AB Xuma Memorial Lecture 2012.

*Understandings of Citizenship in Policy and Amongst Matric Learners in Three Kwa-Zulu Natal Schools.*

## Distinguished Visitors/ Overseas Visits

The ISER was pleased to host Dr Gavin Williams, a leading scholar in the Sociology of Development and who retired from the University of Oxford in 2010. Dr Williams is a visiting professor at the ISER and contributed significantly to the development of the social policy research and teaching programme. Dr Williams was also awarded a DLitt by Rhodes University in recognition of his distinguished research and teaching contribution to the areas of sociology, politics and philosophy with reference to South Africa and Nigeria.

The ISER hosted Dr Rebecca Surender of the University of Oxford who is an ISER Senior Research Associate and collaborator on the *SANDISA IMBEWU* funded study on

health care reform in the Eastern Cape. Dr Surender undertook extensive field work with ISER colleagues on private medical doctors views of the National Health Insurance proposals of the government. This has now been written up.

The ISER also hosted Dr Yusuf Sayed of the University of Sussex. Dr Sayed is an educational specialist and senior research associate of the ISER. Dr Sayed works on research projects on social policy and ideology and alternatives to the developmental state. Dr Sayed undertook research, fieldwork, teaching and supervision while at the ISER.

Professor Robert van Niekerk and Dr Sayed were invited to present emerging findings of their SANPAD funded research project on social policy and ideology at the 40th anniversary conference of the Policy and Politics Journal, *Critical Reflections and Strategies for the Future*, held in Bristol in September 2012. Their paper was shortlisted out of more than 200 submissions at this prestigious two day international conference.

## Significant Research Aligned Events

### Social Policy

The key social policy publication for 2012 was the volume co-edited by Robert Van Niekerk and Greg Ruiters entitled *Universal Health Care in Southern Africa: Policy Contestation in Health System Reform in South Africa and Zimbabwe*. The book examines the scope for health care reform in South Africa and Zimbabwe. Based on extensive research, the contributors to this volume examine health care reform in historical context, analyse the views of key stakeholders and reflect on current proposals for better health financing and more people-centred health

systems based on the principles of universality and social solidarity. The book follows engagement on evidence-based research on social policy concerns such as the reform of health care in more egalitarian directions in the Eastern Cape.

Aligned with the focus on health care reform the ISER hosted Professor Di McIntyre of the Health Economics Unit at the University of Cape Town and ISER Visiting Professor. Professor McIntyre, a leading health policy specialist in South Africa, delivered the fourth Dr AB Xuma Memorial Lecture on the subject of *Universal Health Care in South Africa: Challenges and Prospects*.

The ISER also hosted its seventh Winter School sponsored by the Rosa Luxemburg Foundation. The Winter School focus was an assessment of the liberation movements such as the African National Congress in the democratic era, in the context of the 100th anniversary of the organization. Robust and engaged debate by more than 40 participants followed a range of critical presentations from internationally recognized academics such as Professor Colin Bundy and local grassroots intellectuals such as Mazibuko Jara. The Winter School aims to provide a space for an inclusive, critical dialogue on key social and political issues affecting the country. It was a highlight of the ISER's public engagement calendar for 2012.

In 2012, a two day colloquium was held on the Political Economy of Re-structuring South Africa (PERSA) programme. The focus of the colloquium was alternative strategies for economic transformation of South Africa with consideration of the role of social policy in such transformation. The programme co-ordinator was Professor Vishnu Padayachee, Professor Extra-ordinaire attached to the ISER. The colloquium brought together

# INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

20 of the leading specialists researching social policy and political economy in South Africa, including Professor Ben Fine of the School of Oriental and African Studies, London. The research of this programme is currently being written up by the researchers for dissemination in 2014.

The ISER's major research programmes in social policy focused on health, the state and ideologies of public policy, are in their final stages and the research results are also currently being written up. A journal article on the response of the private medical profession to the NHI proposals of the government has been written up and submitted to Health Policy and Planning, a leading international health policy journal.

## The Bio-cultural Diversity Conservation Program

The book *Voices from the Forest*, authored by **Michelle Cocks** (ISER) and **Tony Dold** (Botany Department) was published by Jacana Media in March 2012. Based on ten years of research, the book shows that both rural and urban South Africans still find great cultural and spiritual value in biodiversity. The book was launched in Port Elizabeth, Grahamstown and East London.

The publication of Dr Cocks' paper entitled "*God is my forest*" - *Xhosa cultural values provide untapped opportunities for conservation in 2012* reflects an interdisciplinary research approach and was accepted in a largely science-dominated journal. Dr Cocks was invited as one of twelve invited experts to participate in a two-day seminar entitled *Why Do We Value Diversity?* at the Hameau de l'Etoile, France.

Dr Cocks was invited to participate in a major two-day workshop on South African - Netherlands Academic

Partnerships in the Netherlands. The research initially focused on the importance of wild plant species for local communities, but it was gradually extended to also include the landscape dimension of biodiversity, as well as the cultural values and heritage expressions of biodiversity. The funding received from SANPAD has contributed to the development of three MA students and two PhD studies.

To mark the completion of the SANPAD funded project entitled: *Understanding modernized rural people's cultural landscapes: Implications for biodiversity and nature conservation in the context of the political and land-use history in South Africa*, Dr Cocks hosted a session entitled *Improving community landscape management through incorporation of cultural landscape values* at the *Old Lands: New Practices Conference in September 2012*. Four (4) papers were presented including two (2) co-authored by Dr Cocks, and one (1) by Jamie Alexander (PhD student) and one (1) by Professor William Beinart of the African Studies Unit, Oxford University.

The community engagement project, *Inkubeko Nendalo*, was invited to participate in the UNESCO International Biodiversity Learning Workshop: *Multiple Perspective Approaches to Biodiversity Education* in Paris. Following this engagement, a paper was submitted entitled *Interlinking Bio- and Cultural Diversity through education: The role of indigenous knowledge as part of special issue of the Journal of Education for Sustainable Development (JESD)*.

## Quality of Life Studies

ISER's quality of life studies programme received generous funding from the National Research Council (NRF) to

conduct a research project entitled: *Quality of Life in South Africa and Algeria: A Multi Method Approach*. The study has two thrusts, an experiment and a survey. The online experiment invites student participants to successively appraise the quality of life of unknown individuals given only information about three of their life domains. This approach will allow the study the mechanics used when combining satisfaction in life domains into imagined quality of life. The survey, conducted in the general population for representativeness, measures the lived experience of quality of life in South Africa and Algeria using a common set of standard and less conventional measures. Earlier studies conducted in South Africa found that quality of life and domains of life mirror the inequalities experienced by people from different walks of life and cultural backgrounds. The South African-Algerian project hopes to disentangle cultural factors from economic factors that determine levels of life satisfaction and happiness.

Rhodes University hosted the start-up workshop in February 2012 with Algerian, Belgian and South African research partners. The Algerian partners reported on six waves of quality-of-life surveys in their country. Belgian partners, Professor Peter Theuns and Barbara Barans, presented a university seminar outlining the experimental method, 'Understanding happiness - Scientific experiments to disentangle the contents of a complex phenomenon'. Their experiment was placed on the Rhodes website and students from the Psychology Department were invited to participate. The South African and Algerian surveys for the project were conducted through the Human Sciences Research Council's South African Social Attitudes Survey (SASAS) and through the University of Oran's annual quality-of-life survey. The Personal Wellbeing

# INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

Index (PWI) has been measured nationally in South African and Algeria in several consecutive annual surveys. The SASAS 2012 survey also allowed the extension of the trend line of life satisfaction and happiness in the South African Quality of Life Trends Study, which has tracked subjective well-being among South Africans from all walks of life since 1983. The results from the experiments and the survey will be analysed in 2013. In addition, further NRF Incentive funding was used to conduct a linked qualitative study to explore how well ten items in the Personal Wellbeing Index are understood in the isiXhosa translation.

The Research team consists of: Valerie Moller (project leader); Habib Theuns, University of Oran, Oran, (Algerian project leader); Benjamin Roberts (Human Sciences Research Council); Peter Theuns, Vrije Universiteit Brussel, Belgium, and colleagues in South Africa, Oran, Algeria, and Belgium.

**Associate Professor Robert Van Niekerk**

Director: ISER

## Books/Chapters/Monographs

*Cocks, M.L.*

**Dold, A.P. and Cocks, M.L.** (2012) *Voices from the Forest*. Johannesburg: Jacana Media (Pty) Ltd. ISBN: 9781431402991.

**Cocks, M.L. and Dold, A.P.** (2012) Perceptions and values of local landscapes: implications for bio-cultural diversity conservation and intangible heritage. In: Arts, B., Van Bommel, S., Ros-Tonen, M. and Verschoor, G. (eds.). *Forest-people interfaces: Understanding community forestry and biocultural diversity*. The Netherlands: Wageningen Academic Publishers. p.167-179. ISBN: 9789086861934.

*Ruiters, G.D.*

**Ruiters, G.D.** (2012) Public and private health care in South Africa. In: Ruiters, G.D. and Van Niekerk, R. (eds.). *Universal Health Care in Southern Africa: Policy contestation in health system reform in South Africa and Zimbabwe*. Durban: University of KwaZulu-Natal Press. p.67-81. ISBN: 9781869142360.

*Ruiters, G.D. and Van Niekerk, R.D.*

**Ruiters, G.D., McIntyre, D., Loewenson, R. and Van Niekerk, R.D.** (2012) Towards universal health coverage in southern Africa. In: Ruiters, G.D. and Van Niekerk, R. (eds.). *Universal Health Care in Southern Africa: Policy contestation in health system reform in South Africa and Zimbabwe*. Durban: University of KwaZulu-Natal Press. p.186-202. ISBN: 9781869142360.

**Ruiters, G.D., Shamu, S., Van Niekerk, R.D. and McIntyre, D.** (2012) Competing

policy choices and the debate on national health insurance in South Africa. In: Ruiters, G.D. and Van Niekerk, R. (eds.). *Universal Health Care in Southern Africa: Policy contestation in health system reform in South Africa and Zimbabwe*. Durban: University of KwaZulu-Natal Press. p.21-40. ISBN: 9781869142360.

**Ruiters, G.D. and Van Niekerk, R.D.** (2012) Inequality and health systems in context. In: Ruiters, G.D. and Van Niekerk, R. (eds.). *Universal Health Care in Southern Africa: Policy contestation in health system reform in South Africa and Zimbabwe*. Durban: University of KwaZulu-Natal Press. p.1-17. ISBN: 9781869142360.

*Van Niekerk, R.D.*

**Van Niekerk, R.D.** (2012) The historical roots of a national health system in South Africa. In: Ruiters, G.D. and Van Niekerk, R. (eds.). *Universal Health Care in Southern Africa: Policy contestation in health system reform in South Africa and Zimbabwe*. Durban: University of KwaZulu-Natal Press. p.41-54. ISBN: 9781869142360.

**Van Niekerk, R.D.** (2012) Health policy reform in the last days of apartheid and the dilemmas facing the ANC. In: Ruiters, G.D. and Van Niekerk, R. (eds.). *Universal Health Care in Southern Africa: Policy contestation in health system reform in South Africa and Zimbabwe*. Durban: University of KwaZulu-Natal Press. p.55-64. ISBN: 9781869142360.

*Wright, G.*

**Wright, G. and Barnes, H.** (2012) Defining child poverty in South Africa using the socially perceived necessities

approach. In: Minujin, A. (ed.). *Global Child Poverty and Well-Being: Measurement, Concepts, Policy and Action*. Bristol: The Policy Press. p.135-154. ISBN: 9781847424815.

*Wright, G. and Noble, M.*

**Wright, G. and Noble, M.** (2012) Spatial inequality: Persistent patterns of child deprivation. In: Hall, K., Woolard, I., Lake, L. and Smith, C. (eds.). *South African Child Gauge 2012*. Cape Town: Children's Institute, University of Cape Town. p.38-42. ISBN: 9780799224894.

## Concerts, Exhibitions, Performances, Workshops, Events

*Cocks, M.L.*

**Cocks, M.L. and Wiersum, K.F.** Invited participant. Bio-cultural diversity as a value-practice system. *Why Do We Value Diversity? A dialogue on the definitions, implications and uses of biocultural diversity*. Hameau de l'Etoile, Route de Frouzet. France. 26 - 28 May 2012.

**Cocks, M.L. and Dold, A.P.** Expert Consultant. *Inkubeko nendalo* Bio-cultural Diversity Education Programme. *Multiple Perspective Approaches to Biodiversity Education*. UNESCO HQ, Paris. France. 2 - 4 May 2012.

**Cocks, M.L. and Wiersum, K.F.** Key note speaker. Dance of Diversity: Implications for Cultural Landscapes. *Bio-cultural diversity: Future research challenges*. Capitulationzaal Hotel De Wereld, Wageningen. The Netherlands. 5 - 6 April 2012.



# INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH

Wiersum, K.F. and **Cocks, M.L.** Project leader. Use and cultural significance of biodiversity by amaXhosa in the Eastern Cape: Main outputs and outcomes of a SANPAD research and development programme. *South African Netherlands Academic Partnerships*. International Institute of Social Studies (Erasmus University), The Hague. The Netherlands. 2 - 3 April 2012.

## Distinguished Visitors

**Prof W Beinart.** Oxford University, Oxford, United Kingdom. *Collaboration*. September 2012.

**Professor KF Wiersum.** Wageningen, The Netherlands. *Collaboration*. September 2012.

## Other Publications

*Cocks, M.L.*

**Dold, A.P.** and **Cocks, M.L.** (2012) *Amaxesha Osuku* - Times of the day in Xhosaland. In: *Langscape*. Salt Spring Island: Terralingua.

*Moller, V.*

**Moller, V.** (2012) In: Moller, V., Dickow, H., Bauerle, P. and Hanf, T. (eds.). *Religion and attitudes towards life in South Africa: Pentecostals, Charismatics and Reborns*. Germany: Nomos.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

*Cocks, M.L. and Alexander, J.K.*

**Cocks, M.L., Alexander, J.K. and Dold, A.P.** (2012) *Inkcubeko Nendalo*: A Bio-cultural Diversity Schools Education Project in South Africa and its Implications for Inclusive

Indigenous Knowledge Systems (IKS) Sustainability. *Journal of Education for Sustainable Development*. 6 (2). p.75-86.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Cocks, M.L.*

**Cocks, M.L., Dold, A.P. and Vetter, S.** (2012) "God is my forest". Xhosa cultural values provide untapped opportunities for conservation. *South African Journal of Science*. 108 (5/6). p.1-8.

*Moller, V.*

Loyd-Sherlock, P., Barrientos, A., **Moller, V.** and Saboia, J. (2012) Pensions, poverty and wellbeing in later life: Comparative research from South Africa and Brazil. *Journal of Aging Studies*. 26 (3). p.243-252.

Cramm, J.M., **Moller, V.** and Nieboer, A.P. (2012) Individual-and neighbourhood-level indicators of subjective well-being in a small and poor Eastern Cape township: The effect of health, social capital, marital status, and income. *Social Indicators Research*. 105 (3). p.581-593.

*Noble, M. and Wright, G.*

**Noble, M. and Wright, G.** (2012) Using Indicators of Multiple Deprivation to Demonstrate the Spatial Legacy of Apartheid in South Africa. *Social Indicators Research*. 112 (2012). p.187-201.

**Noble, M. and Wright, G.** (2012) Ring of fire - socially perceived necessities in informal urban settlements in South Africa. *Policy and Politics*. 2012 (2012). p.1-19.

*Sayed, Y.*

**Sayed, Y. and Motala, S.** (2012) Equity and 'No Fee' Schools in South Africa: Challenges

and Prospects. *Social Policy & Administration*. 46 (6). p.672-687.

*Van Niekerk, R.D.*

**Van Niekerk, R.D.** (2012) Revisiting History: The Creation of Provinces and the Politics of Social Policy in a Democratic South Africa. *Social Policy & Administration*. 46 (6). p.617-635.

*Wright, G. and Noble, M.*

**Wright, G. and Noble, M.** (2012) Does Widespread Lack Undermine the Socially Perceived Necessities Approach to Defining Poverty? Evidence from South Africa. *Journal of Social Policy*. 2012 (2012). p.1-19.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Alexander, J.K. and Cocks, M.L.*

**Alexander, J.K., Cocks, M.L. and Shackleton, C.M.** Cultural environmental narratives and perceptions: potential for improved community connection to and protection of landscapes. *Old Lands: New Practices Conference*. Eden Grove, Grahamstown. South Africa. September 2012.

*Cocks, M.L.*

Wiersum, K.F. and **Cocks, M.L.** Enduring cultural landscapes of amaXhosa in former Ciskei. *Old Lands: New Practices Conference*. Eden Grove, Grahamstown. South Africa. September 2012.

**Cocks, M.L.** and Wiersum, K.F. Bio-cultural diversity as a value-practice system. *13th Congress of the International Society of Ethnobiology*. Le Corum Salon du Belvédère, Montpellier. France. May 2012.

# INSTITUTE FOR WATER RESEARCH

## INSTITUTE FOR WATER RESEARCH (IWR)

The IWR continues to focus on its three core activities: contract research, postgraduate student training and development, and the practical application of water science through consulting.

Professor Denis Hughes, Director of IWR.  
*Photo: Christine Nesbitt Hills*



We have seen tremendous growth in the numbers of post-graduate students over the last few years, partly as a result of the support from the Carnegie Foundation through the Regional Initiative in Science Education (RISE) programme and partly through the involvement of the Unilever Centre for Environmental Water Quality (UCEWQ) in important and connected research networks.

The latter include projects supported by the NRF (THRIP and SANPAD) as well as the Water Research Commission (WRC). At the end of 2012, the RISE programme will have been going for some 5 years. **Professor Hughes** (Academic Director) and **Dr Mantel** (Secretariat) began the process of bidding for an additional 3 years (2014 to 2016) so that the IWR can continue to offer post-graduate training to a number of students from throughout sub-Saharan Africa. **Professor**

# INSTITUTE FOR WATER RESEARCH

**Palmer** continues to serve on the National Water Advisory Committee, while **Professor Hughes** continues as a Vice President of the International Association of Hydrological Sciences and chair of the SACNASP Professional Advisory Committee for the Water Resources Science field of practice. These activities help to highlight the existence and the work of the IWR at home and abroad.

## Postgraduates/Graduations

At the end of 2012, the IWR had six (6) MSc and eleven (11) PhD students registered under Hydrology or Water Resources Science. Three (3) PhD students graduated at the 2012 Science Faculty ceremony (**Dr Ahmed Desai**, **Dr Andrew Gordon** and **Dr Raphael Tshimanga**). Dr Tshimanga, from the DRC, was the first of the Carnegie RISE students to obtain a PhD. A further three (3) PhD students had completed their examination process ready for graduation in 2013.

## Distinguished Visitors/Overseas Visits

Professor Hughes attended the planning meeting for the new science decade of the International Association of Hydrological Sciences (IAHS) in Nanjing, China during May 2012; the British Hydrological Society Symposium in Dundee, Scotland in July 2012; as well as the 90th Anniversary Symposium of IAHS in Delft, Netherlands during October 2012. Two of the IWR PhD students (Jane Tanner and Raphael Tshimanga) also attended the Delft meeting and presented papers. Professor Palmer attended the Resilience Alliance Science meeting in Montpellier, France during January 2012 and the Society for Ecotoxicology and Chemistry conference held in Brisbane,

Australia during July 2012. **Dr Slaughter** presented a paper at the 6th International Congress on Environmental Modelling and Software in Leipzig, Germany during July 2012.

## Significant Research Aligned Activities

Dr Slaughter was awarded a Water Research Commission research contract on the development of a water quality model, which provides him with the resources to move from a Post-Doctoral Fellowship position to a contract Research Officer position. Professor Palmer continues to be successful in attracting funding for transdisciplinary and complexity-based research practice that is part of the Southern African Programme for Ecosystem Change and Society (SAPECS). These research programmes involve many partners drawn from within Rhodes University as well as other Universities and Industry. They are all designed to develop methods for concurrent knowledge development and sharing across disciplinary boundaries and among communities, researchers and practitioners.

Professor Denis Hughes was awarded the Rhodes University Vice Chancellor's Distinguished Senior Research Medal for 2012.

### Professor Denis Hughes

Director of Institute



# INSTITUTE FOR WATER RESEARCH

## Books/Chapters/Monographs

*Hughes, D.A., Corral, M.E. and Muller, A.C.*  
**Hughes, D.A., Corral, M.E. and Muller, A.C.** (2012) Potential for the application of General Purpose Water Accounting in South Africa. In: Godfrey, J.M. and Chalmers, K. (eds.). *Water Accounting: International Approaches to Policy and Decision-making*. Cheltenham, UK: Edward Elgar. p.106-122. ISBN: 9781849807494.

## Peer Reviewed Subsidy-Earning Journal Research Publications

*Gordon, A.K. and Mantel, S.K.*

**Gordon, A.K., Mantel, S.K.** and Muller, N.W.J. (2012) Review of toxicological effects caused by episodic stress or exposure. *Environmental Toxicology and Chemistry*. 31 (5). p.1169-1174.

*Hughes, D.A.*

**Hughes, D.A.** (2012) Hydrological education and training needs in sub-Saharan Africa: requirements, constraints and progress. *Hydrology and Earth System Sciences*. 16 (2012). p.861-871.

*Kapangaziwiri, E. and Hughes, D.A.*

**Kapangaziwiri, E., Hughes, D.A.** and Wagener, T. (2012) Incorporating uncertainty in hydrological predictions for gauged and ungauged basins in southern Africa. *Hydrological Sciences Journal-Journal Des Sciences Hydrologiques*. 57 (5). p.1000-1019.

*Mantel, S.K.*

Rivers-Moore, N.A., **Mantel, S.K.** and Dallas, H.F. (2012) Prediction of water temperature metrics using spatial modelling in the Eastern and Western Cape, South Africa. *Water SA*. 38 (2). p.167-176.

*Mensah, P.K., Muller, W.J. and Palmer, C.G.*

**Mensah, P.K., Muller, W.J. and Palmer, C.G.** (2012) Using growth measures in the freshwater shrimp *Caridina nilotica* as biomarkers of Roundup(r) pollution of South African freshwater systems. *Physics and Chemistry of the Earth*. 50-52 (2012). p.262-268.

**Mensah, P.K., Muller, W.J. and Palmer, C.G.** (2012) *Acetylcholinesterase* activity in the freshwater shrimp *Caridina nilotica* as a biomarker of the herbicide Roundup(r) pollution of freshwater systems in South Africa. *Water Science and Technology*. 66 (2). p.402-408.

*Mensah, P.K., Palmer, C.G. and Muller, W.J.*

**Mensah, P.K., Palmer, C.G. and Muller, W.J.** (2012) Lipid peroxidation in the freshwater shrimp *Caridina nilotica* as a biomarker of Roundup(r) herbicide pollution of freshwater systems in South Africa. *Water Science and Technology*. 65 (9). p.1660-1666.

*Muller, W.J.*

**Luyt, C.D., Tandlich, R., Muller, W.J. and Wilhelmi, B.S.** (2012) Microbial Monitoring of Surface Water in South Africa. *International Journal of Environmental Research and Public Health*. 9 (8). p.2669-2693.

*Odume, O.N., Muller, W.J., Arimoro, F. and Palmer, C.G.*

**Odume, O.N., Muller, W.J., Arimoro, F. and Palmer, C.G.** (2012) The impact of water quality deterioration on macroinvertebrate communities in the Swartkops River, South Africa: a multimetric approach. *African Journal of Aquatic Science*. 37 (2). p.191-200.

*Odume, O.N., Muller, W.J., Palmer, C.G. and Arimoro, F.*

**Odume, O.N., Muller, W.J., Palmer, C.G. and Arimoro, F.** (2012) Mentum deformities in Chironomidae communities as indicators of anthropogenic impacts in Swartkops River. *Physics and Chemistry of the Earth*. 50-52 (2012). p.140-148.

*Palmer, C.G.*

Kefford, B.J., Hickey, G.L., Gasith, A., Ben-David, E., Dunlop, J.E., **Palmer, C.G.**, Allan, K., Choy, S.C. and Piscart, C. (2012) Global scale variation in the salinity sensitivity of riverine macroinvertebrates: Eastern Australia, France, Israel and South Africa. *Plos One*. 7 (5). p.1-12.

*Tshimanga, R. and Hughes, D.A.*

**Tshimanga, R. and Hughes, D.A.** (2012) Climate change and impacts on the hydrology of the Congo Basin: The case of the northern sub-basins of the Oubangui and Sangha Rivers. *Physics and Chemistry of the Earth*. 50-52 (2012). p.72-83.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Gordon, A.K.*

Tandlich, R., Luyt, C.D., Srinivas, S.C. and **Gordon, A.K.** Concentrations of Indicator Organisms in the Stored Rainwater in the Makana Municipality, South Africa. *Air and Water Components of the Environment*. Universitatea Babes, Bolyai, Cluj Napoca. Romania. March 2012.

# MATHEMATICS EDUCATION PROJECT

## RHODES UNIVERSITY MATHEMATICS EDUCATION PROJECT (RUMEP)

Sharing of experiences not only expands the teachers' knowledge of mathematics teaching and learning but also informs teachers who teach in similar school contexts.



A group of BEd 2 (Mathematics) in-service teachers investigate in a cooperative learning process how to find the total surface area and volume of a cone.

(L to R) Mr Faizel Panker; Mr Jacob Motlale and  
Mr Carl Miller

A highlight in 2012 was the *How I Teach conference* which took place in December 2012 and twenty one (21) teachers presented their small scale classroom research projects.

The purpose of this professional reflective practice conference is to develop and change practice while continuously thinking about that practice.

At the end of June 2012, **Dr Rose Spanneberg**, who had been at the helm of RUMEP for eleven years retired.

A further twelve (12) final year BEd 3 teachers were assisted in identifying an area of research within the teaching curriculum and were required to write a literature review chapter of the chosen area.

**Dr R. Spanneberg, Ms N. Tokwe and Ms F. Nobongoza-Mkhwane** attended a week long district CAPS Intermediate Phase training workshop in East London in May 2012, facilitated by the staff from

# MATHEMATICS EDUCATION PROJECT

the National Department of Education in Pretoria.

**Mr Tom Penlington** attended the Early Childhood Education Research and Development Week in September and presented a short paper on assessing the impact of an intervention strategy: The RUMEP Collegial Cluster Project.

## Postgraduates/Graduation

Fifty-seven (57) teachers graced the stage this year. Of these, twenty (20) Advanced Certificate in Education teachers (with one (1) distinction) graduated and thirty-seven (37) BEd (in-service) teachers graduated (with five (5) distinctions). This was a fine achievement and all were proud to be associated with RUMEP.

## Significant Research Aligned Events

The National Department of Basic Education in collaboration with the Japan International Cooperation Agency awarded RUMEP the tender to do a numeracy baseline survey in two provinces in South Africa, namely Mpumalanga and Kwazulu-Natal during the third term of the year. The aim of the survey was to design, implement, monitor, report and determine learners' basic competency levels in Mathematics (Grades 1-4) in accordance with the National Curriculum Statement and the Curriculum and Assessment Policy Statement. The results of this survey verified what the Annual National assessment (ANA) results have found over the last few years.

**Mr Tom Penlington**

Director of RUMEP

## Concerts, Exhibitions, Performances, Workshops, Events

*Nobongoza-Mkhwane, F.F., Tokwe, N.H. and Spanneberg, R.*

**Nobongoza-Mkhwane, F.F., Tokwe, N.H. and Spanneberg, R.** Workshop. CAPS Training for Intermediate Phase teachers. *Department of Education CAPS training session.* Kennaway Hotel, East London. South Africa. 7 - 10 May 2012.

*Penlington, T.H.*

**Penlington, T.H.** Workshop. Common Fractions in the Intermediate and Senior Phase. *Common Fractions.* Dawua Primary School, Debe Nek. South Africa. 16 February 2012.

**Penlington, T.H., Tokwe, N.H., Nobongoza-Mkhwane, F. F., Chikiwa, C. and Haywood, T.** Survey report. Baseline survey. *Report written for Department of Basic Education on baseline survey of learners' competency in Mathematics in Mpumalanga and Kwazulu-Natal.* St Peter's building, Grahamstown. South Africa. 15 June - 30 September 2012.

*Penlington, T.H., Tokwe, N.H. & Nobongoza-Mkhwane, F. F.*

**Penlington, T.H., Tokwe, N.H. and Nobongoza-Mkhwane, F. F.** Workshop. Mathematics Games. *Fun day for teachers.* Grahamstown Sports Centre, Grahamstown. South Africa. 31 July - 2 August 2012.

## Distinguished Visitors

**Mr Xola Bashman.** AngloGold Ashanti, South Africa. *Visit by funder to observe impact of Collegial Cluster Project.* August 2012.

**Ms J Funaki.** Japan International Cooperation Agency, Pretoria, South Africa. *Research visit.* June 2012.

**Mr H Wanenedeya.** Ericsson, Johannesburg, South Africa. *Visit by funder.* June 2012.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Penlington, T.H.*

**Penlington, T.H.** Assessing the impact of an intervention strategy in numeracy: The RUMEP Collegial Cluster Project. *Early Childhood Education Research and Development Week Programme and Proceedings: Numeracy in Early Learning.* Zoology Major & Seminar Rooms Steve Biko Building, Grahamstown. South Africa. September 2012.



# PUBLIC SERVICE ACCOUNTABILITY MONITOR

## PUBLIC SERVICE ACCOUNTABILITY MONITOR (PSAM)

The Public Service Accountability Monitoring (PSAM) is a rights-based research institute affiliated with the School of Journalism and Media Studies (JMS) at Rhodes University.



Informal settlement in Aliwal North.

PSAM is committed to the institutionalisation of the right to social accountability and the realisation of social and economic rights through effective management of public resources.

## Postgraduates/Graduation

- Ms Yeukai Mukorombindo obtained her Master of Social Science (with distinction) from Rhodes University.

## International and Regional Meetings and Workshops

### Gertrude Mugizi

- 7-24 August 2012 - Dodoma, Tanzania  
To prepare for and deliver Social Accountability Monitoring Training of Trainers course (country-

# PUBLIC SERVICE ACCOUNTABILITY MONITOR

specific version) and meetings with various stakeholders for Tanzania country partnership.

- 2-5 October 2012 - Dar es Salaam, Tanzania  
Participate in Lesson-learning Workshop for Social Accountability Stakeholders in Tanzania.
- 21-24 October - Harare Zimbabwe  
Initial meeting to discuss terms of PSAM partnership in Zimbabwe with potential partners.
- 2-8 November - Bangkok, Thailand  
International Budget Partnership (IBP) Initiative's Last Annual Meeting and Steering Committee meeting for the Global Movement for Budget Transparency, Accountability and Participation.

## Jay Kruise

- On the 14th and 15th of August 2012, Jay Kruise attended and delivered a paper at a seminar in Mexico City. The seminar was entitled *Human Rights, Public Budgets and Judicial Control* and was organized by Asociación Civil por la Igualdad y la Justicia (ACIJ), Fundar Centro de Análisis e Investigación, the Legal Research Institute of the Mexican National Autonomous University and the International Budget Partnership. Jay's paper considered the South African judiciaries approach to reviewing budgets and policies set by the executive.
- On the 16th and 17th August 2012, Jay Kruise participated in a workshop in Oaxaca, Mexico which involved accountability practitioners from across the world who are collaborating to prepare a booklet which will document various case studies aimed at advancing article 2 of the United Nations Covenant

for Economic, Social and Cultural Rights.

- Between 4th and 6th October 2012, Jay Kruise participated in an International Budget Partnership workshop held in Washington DC which explored findings and recommendations emanating from 15 case studies of civil society groups involved in promoting accountability and budget transparency within various governments across the world.

## Sandra Matatu

- 14-29 July 2012 Zambia for research and training.
- 22 October-2 November 2012 Zambia for research and training.

## Zuki Kota

- 2- 4 November 2012. Bangkok, Thailand.  
International Budget Partnership (IBP) Partners Meeting. The International Budget Partnership (IBP) runs a Partnership Initiative (PI) that is funded by the Bill and Melinda Gates Foundation. The PI seeks to enhance the impact of budget work in selected countries in sub-Saharan Africa, Asia, and Latin America. The PI is focused on developing or strengthening the work of over 35 civil society organizations (CSOs) to analyze budgets, monitor government programs, and increase the positive outcomes of public budgets on poor communities in their countries. The PSAM is a member of the PI. Zukiswa Kota represented the PSAM at the last annual PI meeting held in Bangkok, Thailand.

## Yeukai Mukorombindo

- Initiative (AEMI) Conference, 2-4 October 2012, Istanbul, Turkey.

- The Open Society Foundation invited PSAM to take part in a Civil Society Strategic Meeting titled *Combating and Preventing Corruption in Medicine Procurement. What can Civil Society Do?* from the 2nd to the 4th of October 2012. A total of forty (40) people from several civil society organisations from Ukraine, Kenya and South Africa were invited to take participate and make presentations at the meeting.
- Collaborative Africa Budget Reform Initiative (CABRI) - International Budget Partnership (IBP) Workshop on Fiscal Transparency and Participation, 21-24 November 2012, Accra, Ghana. CABRI is a professional network of senior budget officials of African Ministries of Finance and/or Planning which has joined forces with The International Budget Partnership (IBP) to support fiscal transparency and budget reforms in Africa. Participants included senior budget officials and CSOs from Kenya, South Africa, Liberia, CAR and Congo for the launch of a project on supporting Fiscal Transparency and Participation Reforms in Africa. The goals of the meeting were to present project goals and objectives as well as present and discuss the main findings of the CABRI-IBP research report.

## Laura Miti

- 6 to 8 August 2012 Tanzania - Policy Forum conference.
- 15 to 28 July 2012 Zambia - Zambia in country work.
- May 2012 Zambia - Zambia in country work.
- October 2012 Zambia - Zambia in country work.
- 2-5 October 2012 - Dar es Salaam, Tanzania  
Participate in Lesson-learning Workshop for Social Accountability Stakeholders in Tanzania.

# PUBLIC SERVICE ACCOUNTABILITY MONITOR

- 21-24 October 2012 - Harare  
Zimbabwe  
Initial meeting to discuss terms of  
PSAM partnership in Zimbabwe with  
potential partners.

Ms Christelle Hutchinson

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Miti, L.M. and Matatu, S.*

**Miti, L.M.** and **Matatu, S.** Why does the law  
matter? An exploration of the role of legislation  
for social accountability: a comparison of  
South Africa and Zambia. *The International  
Conference on Democratic Governance:  
challenges in Africa and Asia*. University of  
Philadelphia, Philadelphia. America. August 2012.



# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY

## SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY (SAIAB)

SAIAB is proud to be an Associated Research Institute of Rhodes University and a flagship National Facility of the National Research Foundation (NRF) in the Eastern Cape.

Retrieving acoustic receivers from ATAP's line in Algoa Bay from the SAIAB research vessel, *uKwabelana*.



Once again, SAIAB scientists, students, post-docs and honorary research associates have had an active and productive year.

Out of a total of twenty-nine (29) projects/programmes conducted during 2012, sixteen (16) were linked primarily to the Molecular Biology & Systematics focus and thirteen (13) dealt mainly with Conservation Biology & Ecology issues.

In addition, our researchers continued their efforts to communicate research information for use by managers, scholars and the wider public. This is evidenced by the eighteen (18) popular articles and other publications produced by SAIAB staff during 2012.

### Postgraduates/Graduations

Altogether five (5) BSc Honours, twenty-five (25) MSc and twenty (20) PhD projects were undertaken or completed in 2012, a fine achievement by a staff of only eight (8) full-time scientists. Apart from the graduating BSc Honours students, there were also six (6) MSc and one (1) PhD student who

# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY



*Barbus* with bright orange fins from the Okavango system, Angola. (Likely a new species).

obtained their degrees in April 2012. SAIAB was also host to three (3) Post-doctoral Fellows in 2012.

## Significant Research Aligned Events

### The Bio-cultural Diversity Conservation Program Quality of Life Studies

Despite being a relatively well studied area of South Africa, a hidden treasure from the Cape Floristic Region was recently discovered by **Dr Albert Chakona**. Attaining almost 20cm total length, the "Giant redfin" is currently the largest of all known species of the cyprinid genus *Pseudobarbus*. A formal description of this new species has been prepared and the manuscript was submitted to *Zootaxa* for publication. A paper highlighting contrasting habitat requirements of threatened stream fishes in the Breede River system was also published in 2012. Findings from this study clearly highlight that lack of detailed knowledge of species ecology may misdirect conservation prioritisation, and can potentially lead to a loss of biodiversity.

Alien invasive fishes play a major role in southern African aquatic ecosystems. Research led by **Dr Olaf Weyl** during

2012 remains strongly focused on detection of alien biota, and understanding their biology and the pathways through which they are introduced and spread. In some cases this requires the development of new methods, particularly in headwater streams where non-destructive sampling methods (e.g. underwater video cameras) are essential for assessing abundance of threatened native fishes (an indicator of the impacts of alien fishes).

The Rondegat rehabilitation project led by Dr Weyl is a good example of how alien fish invasions could be managed in South Africa. As is the case in many other South African rivers, in the Rondegat River the only impact on native fishes is the presence of invasive alien fish. By eradicating the alien fish, it is often possible to rehabilitate several kilometers of river, with very significant benefits for the endangered fish species present and for the associated aquatic biota. This strategy is regarded by South African fish conservation experts as the best and fastest way of improving the conservation status of highly threatened fishes. After a full Environmental Impact Assessment (EIA) process, Cape Nature treated a 4 km stretch of the river using the piscicide rotenone in February 2012. Our research team was awarded a contract to monitor the impact of this treatment and the recovery of the river ecosystem. Monitoring during the year demonstrated that bass were effectively removed from the treated section and that colonisation of the area by native fishes was rapid.

Another area of research focus, led by postdoctoral fellow **Dr Darragh Woodford**, has been the role of water transfer infrastructure in enabling fish invasions. This programme has used an irrigation network in the Sundays River catchment as a natural experiment to understand the drivers of fish species establishment. Our research has

shown that inter-basin water transfers provide corridors for the continuous passive introduction of fishes. This study has quantitatively validated a long-held theoretical hypothesis of freshwater fish invasions, and provides important insight into the danger posed by inter-basin water transfer to the biosecurity of recipient freshwater ecosystems.

Freshwater fish research beyond our borders continued in 2012. In May, **Professor Paul Skelton** and **Roger Bills** undertook a three week field trip to the Okavango River in Angola. This was a multidisciplinary expedition involving ichthyologists, herpetologists and entomologists. It aimed to provide baseline data on biodiversity for the Okavango's Integrated Natural Resource programme coordinated by Southern Africa Regional Environmental Programme (SAREP). The trip was exceptionally interesting, revealing biodiversity and distribution of species in the upstream reaches of a system that has never been available to SAIAB scientists. Several taxonomic queries emerging from the trip are being followed up. Further clarification of the Congo Basin species of the newly described *Congoglanis* genus (Family Amphiliidae) was obtained and published together with USA colleagues.

The International Barcode of Life (IBOL) barcoding project at SAIAB continued during 2012, managed by Biodiversity Institute of Ontario/ International Development Research Centre (IDRC-BIO) Post-doctoral Fellow **Tuuli Mäkinen**. A major new addition was the barcoding of over two hundred (200) Angolan fishes from the Okavango system: the results of this study are currently helping to identify previously unknown taxa for taxonomic description.

SAIAB has allocated considerable resources to the study of marine fishes in the Western Indian Ocean. A major

# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY

genetic stock assessment of the blue emperor (*Lethrinus nebulosus*), conducted in collaboration with the Oceanographic Research Institute (ORI) and on behalf of the South West Indian Ocean Fisheries Project (SWIOFP), was concluded and the final technical report submitted by **Dr Gavin Gouws**. This study, which has profound implications for the fisheries management of this species, identified two (2) genetic stocks occurring in the South Western Indian Ocean (SWIO). One stock may represent a new species, endemic to the subtropical bioregion of south-east Africa.

**Ofer Gon** had two major trips overseas during the year. In April-May he participated in the last cruise of the SA Agulhas to the Prince Edward Islands to look for *Notothenia coriiceps* using underwater video equipment. Over July-August Ofer participated in an International Union for the Conservation of Nature (IUCN) Red List Assessment workshop in Senegal in which marine fishes of the west coast of Africa were assessed. He then continued on to the USA and presented a talk on his Southern Ocean work at the Scientific Committee on Antarctic Research (SCAR) Open Science conference in Portland, Oregon. This was followed with two weeks at the National Museum in Wellington, New Zealand, where he worked on the bathylagid and microstomatid fishes of the New Zealand Exclusive Economic Zone (EEZ) for invited chapters for a book on the fishes of this area.

Also on the marine front, **Dr Phil Heemstra** was closely involved in the publication of a major book on the *Groupers of the World, A Field and Market Guide* as well as an important review of Atlantic and Eastern Pacific Anthiine fishes, with descriptions of two new genera. **Wouter Holleman** was also involved in the description of a new

marine species within the family Caesionidae and published a paper which highlighted that the klipvis *Clinus superciliosus* is in fact a complex of six species. Similarly, **Professor Alan Whitfield** showed that the cosmopolitan mullet *Mugil cephalus* actually comprises a suite of very closely related species. Professor Whitfield also led a review of the Remane diagram which tested the applicability of this widely used model to responses by biota to salinity gradients within estuaries.

In February 2012, **Dr Paul Cowley** joined researchers from the KwaZulu-Natal (KZN) Sharks Board on a fieldtrip to capture and tag juvenile Zambesi sharks in the Umzimvubu Estuary (Port St Johns). After deploying four automated data-logging receivers in the estuary, the research team caught six (6) juvenile sharks and surgically equipped them with acoustic transmitters. The team met again in March to download data from the receivers and were pleasantly surprised to find that the receivers had not been removed by a recent flood event. More importantly, the data revealed that the juvenile sharks still frequent the estuary under extremely fresh and turbid conditions. By the end of the year, the battery life on the transmitters expired and now the research team plan to tag more juveniles with long-life transmitters.

Conservation medicine is an emerging research field, which is highly interdisciplinary as it studies the relationship between human, animal and environmental health. While an increasing number of studies are carried out in this research area internationally, few have been conducted in the marine environment of South Africa. **Dr Stephanie Plön** is conducting a collaborative research project on the health of two coastal dolphin species commonly caught in the shark nets off the KwaZulu-Natal (KZN)

coast. While the first results are now available and indicate that the observed lesions are caused by parasites, this only presents the 'tip of the iceberg'. Results imply that the host-parasite interface must have changed for these lesions to be more prevalent - and indeed they seem to be on the increase.

Climate change may pose a threat to endemic or range restricted species where barriers to movement (such as upwelling cells) prevent range expansion, as well as to intensively exploited species whose genetic diversity is reduced. A study by **Drs Monica Mwale** and **Nikki James** used genetic analyses and species distribution models to explore (a) the genetic diversity and (b) range shifts in response to climate change of three endemic fisheries species of the subtropical South Western Indian Ocean (SWIO). Results from distribution modelling show that endemic fishes of the subtropical SWIO are likely to be increasingly threatened by climate change as thermal habitats become unsuitable, resulting in predicted range restrictions of between twelve (12) and thirty-five (35) percent by 2030.

In conclusion, the productivity of SAIAB research staff, students and Honorary Research Associates continued at a high level in 2012, with forty-nine (49) refereed scientific papers and fourteen (14) research reports appearing during the year. More than fifty (50) conference, workshop, seminar and public presentations were also delivered at a wide variety of national and international venues.

**Professor Alan Whitfield**  
Chief Scientist



# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY

**SAIAB Publications: All SAIAB's 2012 publications are listed. Only those co-authored by Rhodes staff and students are officially affiliated to Rhodes University.**

## Books/Chapters/Monographs

*Gon, O.*

**Gon, O.** and Allen, G.R. (2012) *Revision of the Indo-Pacific cardinalfish genus Siphamia (Perciformes: Apogonidae)*. Auckland, New Zealand: Magnolia Press. ISBN: 9781869778958.

## Other Publications

*Bills, R. and Impson, N.D.*

**Bills, R** and **Impson, N.D** (2012) Conservation biology and endangered freshwater fishes - linking conserving and endangered freshwater fishes with river conservation, focusing on the Cederberg. In: *WRC Report No. K8/592*.

*Bills, R., Skelton, P. and Almeida, F.*

**Bills, R., Skelton, P.** and **Almeida, F.** (2012) A survey of the fishes of Upper Okavango River System in Angola. In: *SAIAB Investigational Report No. 73: Report to Southern Africa Regional Program (SAREP), Maun, Botswana*. Grahamstown: SAIAB.

*Duncan, M., Mwale, M., James, N. and Fennessy, S.*

**Duncan, M., Mwale, M., James, N.** and **Fennessy, S.** (2012) The genetic assessment of slinger (*Chrysoblephus puniceus*) stocks in the South West Indian Ocean and the implications for management. In: *South West Indian Ocean Fisheries Project (SWIOFP) Preliminary Report*.

*Gouws, G.*

**Gouws, G.** (2012) Genetic Stock Assessment

of the Blue Emperor (*Lethrinus nebulosus*) in the South West Indian Ocean. In: *Report for and on behalf of the South West Indian Ocean Fisheries Project (SWIOFP)*.

*Haworth, P.*

**Haworth, P.** (2012) Not set in stone - Coelacanth: the fossil that really came to life. In: *Quest*. 8 (1). p. 16-20.

*James, N.*

**James, N.** (2012) Climate change and its impact on our coast: a full report. In: *GetSetGo!*

*Koper, R.P. and Plön, S.*

**Koper, R.P.** and **Plön, S.** (2012) The potential impacts of anthropogenic noise on marine animals and recommendations for research in South Africa. In: *EWT Research & Technical Paper No. 1*. Grahamstown: SAIAB.

*Makinen, T. and Swartz, E.R.*

**Makinen, T.** and **Swartz, E.R.** (2012) Faunal survey of the middle Kouga River and DNA barcoding of key species. In: *Final Report to Gamtoos Irrigation Board, Implementing Agency for Department of Environment Affairs*. Grahamstown: SAIAB.

*Murray, T.*

**Murray, T.** (2012) Movement patterns of poenskop (*Cymatoceps nasutus*). In: *Tagging News*. 25 (9).

*Mwale, M., James, N., Guissamulo, A.,*

*Erasmus, B., Halafo, J., Duncan, M.,*

*Coppinger, C. and Isemonger, D.*

**Mwale, M., James, N., Guissamulo, A.,**

**Erasmus, B., Halafo, J., Duncan, M.,**

**Coppinger, C.** and **Isemonger, D.** (2012)

Modelling the effects of climate change on the distribution of shared fishery species in the subtropical Western Indian Ocean. In: *WIOMSA/MASMA Technical Report*.

*Peel, R., Tweedle, D., Weyl, O., Chinyawezi, K. and Kalaluka, R.*

**Peel, R., Tweedle, D., Weyl, O., Chinyawezi, K.** and **Kalaluka, R.** (2012) Report 1: Fishery Frame Survey - Ecological and socio-economic baseline assessment of artisanal fishing in the Greater Liuwa Ecosystem, Western Zambia. In: *SAIAB Report prepared for Africa Parks, Zambia, Liuwa Plain National Park*. Grahamstown: SAIAB.

*Peel, R., Weyl, O. and Omoregie, E.*

**Peel, R., Weyl, O.** and **Omoregie, E.** (2012) Towards a holistic management strategy for the fisheries of the Zambezi River and Eastern Caprivi Floodplains. In: *Report on management recommendations for the fisheries of the Kavango and Caprivi Regions - Namibia Nature Foundation*. Grahamstown: SAIAB.

**Peel, R., Weyl, O.** and **Omoregie, E.** (2012) Comparative biology of three cichlid species in Lake Liambezi and the Kavango, Kwando and Zambezi River systems to make recommendations for the best source of fingerlings for stocking. In: *Namibia Nature Foundation*. Grahamstown: SAIAB.

*Plön, S.*

**Plön, S.** (2012) The humpback dolphins of Algoa Bay. In: *Bluewater Bay Chronicle*.

**Plön, S.** (2012) Dolphin pathology project: How healthy are our dolphins really? In: *SANCOR newsletter*.

**Plön, S.** (2012) Dolphin pathology project: How healthy are our dolphins really? In: *Otolith (PEM newsletter)*.

**Plön, S.** (2012) Interview on white southern right whale calf in Algoa Bay. In: *Die Burger*.

**Plön, S.** (2012) The humpback dolphins of

Algoa Bay. In: *Bluewaters Paddling Club Newsletter*.

**Plön, S.** and **Lane, E.** (2012) Dolphin pathology project: How healthy are our dolphins? In: *NRF Communique Newsletter*. November 2012.

*Taylor, G. and Weyl, O.*

**Taylor, G.** and **Weyl, O.** (2012) How often can a bass be caught? In: *SA Bass*. p.14-16.

*Tweedle, D.*

**Tweedle, D.** (2012) Phase 2: Western Iron Ore Concentrator Project. Fish and Fisheries in and around the ArcelorMittal Concession Area, 47059315. In: *Consultancy Report prepared for ArcelorMittal*.

**Tweedle, D.** (2012) Sustainable utilisation of the Caprivi floodplain fish resource. In: *Conservation and the Environment in Namibia 2012*. Venture Publications, Windhoek, Namibia. p. 34-35.

**Tweedle, D.** (2012) The true diversity of our fish. In: *Zambezi Traveller*.

[www.zambezitraveller.com/caprivi-kavango/research/true-diversity-our-fish](http://www.zambezitraveller.com/caprivi-kavango/research/true-diversity-our-fish).

**Tweedle, D.** (2012) Green light for first 'Fish Protection Areas'. In: *Zambezi Traveller*.

[www.zambezitraveller.com/caprivi-kavango/conservation/green-light-first-fish-protection-areas](http://www.zambezitraveller.com/caprivi-kavango/conservation/green-light-first-fish-protection-areas).

*Tweedle, D., Peel, R. and Weyl, O.*

**Tweedle, D., Peel, R.** and **Weyl, O.** (2012) Report 2: Ecological and socio-economic baseline assessment of artisanal fishing in the Greater Liuwa Ecosystem, Western Zambia. In: *Ichthyological diversity of the upper west Zambezi Game Management Area - African Parks Zambia, Liuwa Plain National Parks*. Grahamstown: SAIAB.

# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY

Weyl, O.

Weyl, O. (2012) Seeking answers on the future of fish. In: Zambezi News. [www.zambezitraveller.com/capri-kavango/research/seeking-answers-future-fish](http://www.zambezitraveller.com/capri-kavango/research/seeking-answers-future-fish).

Weyl, O. (2012) Zambezi shark fact file. In: *Zambezi Traveller*. 9. p.45.

Weyl, O. (2012) Fishing the Kwando River. In: *Fishing and Hunting Journal*. 45. p. 20-23.

Weyl, O. (2012) EUS now in South Africa. In: *SA Bass*. 32.

Weyl, O. (2012) Can we have our bass fisheries and still conserve endangered native fishes? In: *SA Bass*. p. 30-31.

Woodford, D.J., Weyl, O., Cunningham, M., Bellingan, T.A., de Moor, F.C., Barber-James, H.M., Day, J.A., Ellender, B.R. and Richardson, N.K.

Woodford, D.J., Weyl, O., Cunningham, M., Bellingan, T.A., de Moor, F.C., Barber-James, H.M., Day, J.A., Ellender, B.R. and Richardson, N.K. (2012) Monitoring the impact and recovery of the biota of the Rondegat River after the removal of alien fishes. In: *Water Research Commission Report No. KV304/12*.

## Peer Reviewed Non-Subsidy-Earning Journal Research Publications

Coetzer, W. and Gon, O.

Coetzer, W., Gon, O., Hamer, M. and Parker-Allie, F. (2012) A New Era For Specimen Databases and Biodiversity Information Management in South Africa. *Biodiversity Informatics*. 8 (2012). p.1-11.

Heemstra, P.C.

Heemstra, P.C. and Akhilesh, K.V. (2012) A review of the anthiine fish genus *Pseudanthias* (Perciformes: Serranidae) of the western Indian Ocean, with description of a new species and a key to the species. *aqua: International Journal of Ichthyology*. 18 (3). p.121-164.

Bariche, M. and Heemstra, P.C. (2012) First record of the blacktip grouper *Epinephelus fasciatus* (Teleostei: Serranidae) in the Mediterranean Sea. *Marine Biodiversity Records*. 5 (2012). p.1-3.

Plön, S.

Plön, S., Albrecht, K.H., Cliff, G. and Froneman, P.W. (2012) Organ weights of three dolphin species (*Sousa chinensis*, *Tursiops aduncus* and *Delphinus capensis*) from South Africa: Implications for ecological adaptation? *Journal of Cetacean Research and Management*. 12 (1). p.265-276.

## Peer Reviewed Subsidy-Earning Journal Research Publications

Anderson, M.E.

Anderson, M.E. (2012) A new species of *Pachycara Zugmayer* (Teleostei: Zoarcidae) from off Monterey Bay, California, USA, with comments on two North Pacific Lycenchelys species. *Zootaxa*. 3559 (2012). p.39-43.

Becker, A. and Whitfield, A.

Becker, A., Coppinger, C.R. and Whitfield, A. (2012) Influence of tides on assemblages and behaviour of fishes associated with shallow seagrass edges and bare sand. *Marine Ecology-Progress Series*. 456 (2012). p.187-199.

Becker, A., Weyl, O. and Swartz, E.R.

Ellender, B.R., Becker, A., Weyl, O. and Swartz, E.R. (2012) Underwater video



Professor Alan Whitfield and Mr Mandla Magoro seine netting in the Kariega Estuary to monitor the return of the estuarine pipefish to this system.

analysis as a non-destructive alternative to electrofishing for sampling imperilled headwater stream fishes. *Aquatic Conservation-Marine and Freshwater Ecosystems*. 22 (1). p.58-65.

Bills, R.

Valdesalici, S., Bills, R., Dorn, A., Reichwald, K. and Cellerina, A. (2012) *Nothobranchius niassa* (Cyprinodontiformes: Nothobranchiidae), a new species of annual killifish from northern Mozambique. *Ichthyological Exploration of Freshwaters*. 23 (1). p.19-28.

Bills, R. and Skelton, P.

Kramer, B., Bills, R., Skelton, P. and Wink, M. (2012) A critical revision of the churchill snoutfish, genus *Petrocephalus* Marcusen, 1854 (Actinopterygii: Teleostei: Mormyridae), from southern and eastern Africa, with the recognition of *Petrocephalus tanensis*, and

the description of five new species. *Journal of Natural History*. 46 (35-36). p.2179-2258.

Chakona, A.

Kadye, W.T. and Chakona, A. (2012) Spatial and temporal variation of fish assemblage in two intermittent streams in north-western Zimbabwe. *African Journal of Ecology*. 50 (2012). p.428-438.

Connell, A.

Connell, A. (2012) Evidence of hybridization with the genus *Chrysoblephus* and conserved nuclear sequences of South African sparids (Teleostei: Sparidae). *African Journal of Marine Science*. 34 (4). p. 505-510.

Conradie, W.

Conradie, W., Branch, W.R., Measey, G.J. and Tolley, K.A. (2012) A new species of *Hyperolius Rapp*, 1842 (Anura: Hyperoliidae) from the Serra da Chela mountains, south-



# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY



Roger Bills taking DNA samples and photographs of fish, on the side of the main Menongue-Huambo road, Cacuchi River catchment, Angola.

western Angola. *Zootaxa*. 3269 (2012). p.1-17.

Conradie, W., Tweedle, D., Makinen, T. and Bills, R.

Conradie, W., Tweedle, D., Makinen, T. and Bills, R. (2012) Description of the tadpole of *Hylarana darling* Boulenger 1902 (*Anura: Ranidae*) from the Mulanje Area, Malawi. *Zootaxa*. 3441 (2012). p.56-58.

Cowley, P.D.

Solano-Fernandez, S., Attwood, C.G., Chalmers, R., Clark, B.M., Cowley, P.D., Fairweather, T., Fennessy, S.T., Gotz, A., Harrison, T.D., Kerwath, S.E., Lamberth, S.J., Mann, B.Q., Smale, M.J. and Swart, L. (2012) Assessment of the effectiveness of South Africa's marine protected areas at representing ichthyofaunal communities. *Environmental Conservation*. 39 (3). p.259-

270.

Holbach, A., Cowley, P.D., Kramar, U. and Neumann, T. (2012) Otolith chemistry of fishes from Kosi Bay, South Africa: A preliminary multiple analytical methods approach to reconstruct fish migrations. *Estuarine, Coastal and Shelf Science*. 109 (2012). p.30-40.

Cowley, P.D. and Whitfield, A.

Bennett, R.H., Cowley, P.D., Childs, A.-R. and Whitfield, A. (2012) Area-use patterns and diel movements of white steenbras *Lithognathus lithognathus* in a temporarily open/closed South African estuary, inferred from acoustic telemetry and long-term seine-netting data. *African Journal of Marine Science*. 34 (1). p.81-91.

Ebert, D.A.

Bustamante, C., Lamilla, J., Concha, F.,

Ebert, D.A. and Bennett, M.B. (2012) Morphological Characters of the Thickbody Skate *Amblyraja frerichsi* (Krefft 1968) (*Rajiformes: Rajidae*), with Notes on Its Biology. *Plos One*. 7 (6). p.1-9.

Barnett, A., Braccini, J.M., Awruch, C.A. and Ebert, D.A. (2012) An overview on the role of Hexanchiformes in marine ecosystems: biology, ecology and conservation status of a primitive order of modern sharks. *Journal of Fish Biology*. 80 (5). p.966-990.

Filmlalter, J.D. and Forget, F.

Dagorn, L., Filmlalter, J.D., Forget, F., Amande, M.A., Hall, K.J., Williams, P., Murua, J., Ariz, J., Chavance, P. and Bez, N. (2012) Targeting bigger schools can reduce ecosystem impacts of fisheries. *Canadian Journal of Fisheries and Aquatic Sciences*. 69 (9). p.1463-1467.

Govinden, R., Jauhary, R., Filmlalter, J.D., Forget, F., Soria, M., Adam, S. and Dagorn, L. (2012) Movement behaviour of skipjack (*Katsuwonus pelamis*) and yellowfin (*Thunnus albacares*) tuna at anchored fish aggregating devices (FADS) in the Maldives, investigated by acoustic telemetry. *Aquatic Living Resources*. 2012 (2012). p.1-9.

Gennari, E.

Delaney, D.G., Johnson, R., Bester, M.N. and Gennari, E. (2012) Accuracy of Using Visual Identification of White Sharks to Estimate Residency Patterns. *Plos One*. 7 (4). p.1-5.

Heemstra, P.C.

Kaga, T. and Heemstra, P.C. (2012) First record of a rare sand whiting: *Sillago caudicula* (*Perciformes: Sillaginidae*), from Madagascar. *Marine Biology Research*. 9 (3). p.316-320.

Holleman, W.

Holleman, W. and Bogorodsky, S.V. (2012) A review of the blennioid fish family *Tripterygiidae* (*Perciformes*) in the Red Sea, with description of *Enneapterygius qirmiz*, and reinstatement of *Enneapterygius altipinnis* Clark, 1980. *Zootaxa*. 3152 (2012). p.36-60.

Holleman, W., Von Der Heyden, S. and Zsilavec, G. (2012) Delineating the fishes of the *Clinus superciliosus* species complex in southern African waters (*Blennioidei: Clinidae: Clinini*), with the validation of *Clinus arborescens* Gilchrist & Thompson, 1908 and *Clinus ornatus* Gilchrist & Thompson, 1908, and with descriptions of two new species. *Zoological Journal of the Linnean Society*. 166 (2012). p.827-853.

James, N.C. and Cowley, P.D.

James, N.C., Gotz, A., Potts, W.M. and Cowley, P.D. (2012) Temporal variability of a temperate fish assemblage in Africa's oldest marine protected area. *African Journal of Marine Science*. 34 (1). p.15-26.

Kaehler, S.

Kolasinski, J., Kaehler, S. and Jaquemmet, S. (2012) Distribution and sources of particulate organic matter in a mesoscale eddy dipole in the Mozambique Channel (south-western Indian Ocean): Insight from C and N stable isotopes. *Journal of Marine Systems*. 96 (97). p.122-131.

Naesje, T.F., Cowley, P.D. and Childs, A.-R.

Naesje, T.F., Cowley, P.D., Diserud, O.H., Childs, A.-R., Kerwath, S.E. and Thorstad, E.B. (2012) Riding the tide: estuarine movements of a sciaenid fish, *Argyrosomus japonicus*. *Marine Ecology-Progress Series*. 460 (2012). p.221-232.



# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY

*Sink, K.J.*

Currie, J.C., Sink, K.J., Le Noury, P. and Branch, W.R. (2012) Comparing fish communities in sanctuaries, partly protected areas and open-access reefs in South-East Africa. *African Journal of Marine Science*. 34 (2). p.269-281.

*Skelton, P.*

Vari, R.P., Ferraris, Jnr, C.J. and Skelton, P. (2012) New Species of Congoglanis (*Siluriformes: Amphiliidae*) from the Southern Congo River Basin. *Copeia*. 2012 (4). p.626-630.

*Swartz, E.R.*

Chakona, A. and Swartz, E.R. (2012) Contrasting habitat associations of imperilled endemic stream fishes from a global biodiversity hot spot. *BMC Ecology*. 12 (19). p.1-12.

Schwarzer, J., Swartz, E.R., Vreven, E., Snoeks, J., Cotterill, F.P.D., Misof, B. and Schliewen, U.K. (2012) Repeated trans-watershed hybridization among haplochromine cichlids (*Cichlidae*) was triggered by Neogene landscape evolution. *Proceedings of the Royal Society B-Biological Sciences*. 279 (1746). p.4389-4398.

*Tessier, E.*

Muths, D., Gouws, E.J., Mwale, M., Tessier, E. and Bourjea, J. (2012) Genetic connectivity of the reef fish *Lutjanus kasmira* at the scale of the western Indian Ocean. *Canadian Journal of Fisheries and Aquatic Sciences*. 69 (5). p.842-853.

*Turpie, J.K.*

Terorde, A.I. and Turpie, J.K. (2012) Use of a small, intermittently-open estuary by waterbirds: a case study of the East Kleinemonde Estuary, Eastern Cape, South



Researching freshwater biodiversity is important for understanding the response of introduced alien species to eradication efforts . Dr Bruce Ellender sampling the Gxulu River in the headwaters of the Keiskamma River system.

Africa. *African Journal of Aquatic Science*. 37 (2). p.183-190.

*Tweedle, D.*

Marr, S.M., Impson, N.D. and Tweedle, D. (2012) An assessment of a proposal to eradicate non-native fish from priority rivers in the Cape Floristic Region, South Africa. *African Journal of Aquatic Science*. 37 (2). p.131-142.

*Uiblein, F.*

Uiblein, F. and McGrouther, M. (2012) A new deep-water goatfish of the genus *Upeneus* (*Mullidae*) from northern Australia and the Philippines, with a taxonomic account of *U. subvittatus* and remarks on *U. mascarensis*. *Zootaxa*. 3550 (2012). p.61-70.

*Weyl, O.*

Mccafferty, J.R., Ellender, B.R., Weyl, O. and Britz, P.J. (2012) The use of water resources for inland fisheries in South Africa.

*Water SA*. 38 (2). p.327-344.

Ellender, B.R., Weyl, O. and Winker, H. (2012) Age and growth and maturity of southern Africa's largest cyprinid fish, the largemouth yellowfish *Labeobarbus kimberleyensis*. *Journal of Fish Biology*. 81 (4). p.1271-1284.

Ellender, B.R., Taylor, G.C. and Weyl, O. (2012) Validation of growth zone deposition rate in otoliths and scales of flathead mullet *Mugil cephalus* and freshwater mullet *Myxus capensis* from fish of known age. *African Journal of Marine Science*. 34 (3). p.455-458.

Taylor, G.C. and Weyl, O. (2012) Otoliths versus scales: evaluating the most suitable structure for ageing largemouth bass, *Micropterus salmoides*, in South Africa. *African Zoology*. 47 (2). p.358-362.

Winker, H., Weyl, O., Booth, A.J. and

Ellender, B.R. (2012) Life history strategy and population characteristics of an unexploited riverine cyprinid, *Labeo capensis*, in the largest impoundment in the Orange River Basin. *African Zoology*. 47 (1). p.85-99.

Wasserman, R.J., Pereira Da Conceicao, L.L., Strydom, N.A. and Weyl, O. (2012) Diet of *Anguilla mossambica* (*Teleostei, Anguillidae*) elvers in the Sundays River, Eastern Cape, South Africa. *African Journal of Aquatic Science*. 37 (3). p.347-349.

Lin, S.-H., Jessop, B.M., Weyl, O., Iizuka, Y., Lin, Y.-J., Tzeng, W.-N. and Sun, C.-L. (2012) Regional variation in otolith Sr: Ca ratios of African longfinned eel *Anguilla mossambica* and mottled eel *Anguilla marmorata*: a challenge to the classic tool for reconstructing migratory histories of fishes. *Journal of Fish Biology*. 81 (2). p.427-441.

# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY



Dr Paul Cowley tagging a dusky kob on the Woody Cape beach while being filmed for Inside Angling (a series of television shows focusing on the importance of catch-and-release angling).

Moravec, F., Taraschewski, H., Appelhoff, D. and Weyl, O. (2012) A new species of *Hysterothylacium* (Nematoda: Anisakidae) from the giant mottled eel *Anguilla marmorata* in South Africa. *Helminthologia*. 49 (3). p.174-180.

*Whitfield, A.*

Durand, J.-D., Shen, K.-N., Chen, W.-J., Jamandre, B.W., Blel, H., Diop, K., Nirchio, M., Garcia de Leon, F.J., **Whitfield, A.**, Chang, C.-W. and Borsa, P. (2012) Systematics of the grey mullets (*Teleostei: Mugiliformes:*

*Mugilidae*): Molecular phylogenetic evidence challenges two centuries of morphology-based taxonomy. *Molecular Phylogenetics and Evolution*. 64 (1). p.73-92.

Pillay, D., Williams, P. and **Whitfield, A.** (2012) Indirect effects of bioturbation by the burrowing sandprawn *Callichirus kraussi* on a benthic foraging fish, *Liza richardsonii*. *Marine Ecology-Progress Series*. 453 (2012). p.151-158.

**Whitfield, A.**, Elliott, M., Basset, A., Blaber, S.J.M. and West, R.J. (2012) Paradigms in estuarine ecology - A review of the Remane diagram with a suggested revised model for estuaries. *Estuarine, Coastal and Shelf Science*. 97 (2012). p.78-90.

**Whitfield, A.**, Panfili, J. and Durand, J.-D. (2012) A global review of the cosmopolitan flathead mullet *Mugil cephalus* Linnaeus 1758 (*Teleostei: Mugilidae*), with emphasis on the biology, genetics, ecology and fisheries aspects of this apparent species complex. *Reviews in Fish Biology and Fisheries*. 22 (3). p.641-681.

Harrison, T.D. and **Whitfield, A.** (2012) Fish trophic structure in estuaries, with particular emphasis on estuarine typology and zoogeography. *Journal of Fish Biology*. 81 (2012). p.2005-2029.

*Whitfield, A. and Cowley, P.D.*

Sheppard, J., **Whitfield, A.**, **Cowley, P.D.** and Hill, J.M. (2012) Effects of altered estuarine submerged macrophyte bed cover on the omnivorous Cape stumpnose *Rhabdosargus holubi*. *Journal of Fish Biology*. 80 (3). p.705-712.

*Whitfield, A. and James, N.C.*

Lombarte, A., Gordon, A., **Whitfield, A.**, **James, N.C.** and Tuset, V.M. (2012)

Ecomorphological analysis as a complementary tool to detect changes in fish communities following major perturbations in two South African estuarine systems. *Environmental Biology of Fishes*. 94 (4). p.601-614.

*Whitfield, A., Cowley, P.D. and Turpie, J.K.* **Whitfield, A.**, Bate, G.C., Adams, J.B., **Cowley, P.D.**, **Froneman, P.W.**, Gama, P.T., Strydom, N.A., Taljaard, H., Theron, A.K., **Turpie, J.K.**, van Niekerk, L. and Woolridge, T.H. (2012) A review of the ecology and management of temporarily open/closed estuaries in South Africa, with particular emphasis on river flow and mouth state as primary drivers of these systems. *African Journal of Marine Science*. 34 (2). p.163-180.

## Research Papers Presented at Academic/Scientific Conferences (Proceedings, Booklets and Attendance)

*Cowley, P.D.*

Maggs, J.Q., Mann, B.Q. and **Cowley, P.D.** Pondoland Marine Protected Area: effects of protection on the fish community. *EKZNW Symposium of Contemporary Conservation Practice*. Fern Hill Conference Centre, Howick, KwaZulu-Natal. South Africa. October 2012.

Maggs, J.Q., Mann, B.Q. and **Cowley, P.D.** Fish movements in the Pondoland Marine Protected Area: balancing conservation and fisheries management. *4th Marine Linefish Symposium*. Langebaan, Cape Town. South Africa. April 2012.

*Cowley, P.D. and Naesje, T.F.*

**Cowley, P.D.**, **Naesje, T.F.**, **Childs, A.-R.**, **Bennett, R.H.**, Thorstad, E.B., Chittenden, C.N. and Hedger, R. Does the restricted

movement paradigm apply to estuarine-dependent spotted grunter *Pomadasys commersonni*? *4th Marine Linefish Symposium*. Langebaan, Cape Town. South Africa. April 2012.

*Cowley, P.D., Gouws, G. and Naesje, T.F.* **Bennett, R.H.**, **Cowley, P.D.**, **Childs, A.-R.**, **Gouws, G.**, Reid, G., Bloomer, P. and **Naesje, T.F.** Movement patterns and genetic stock structure of an estuarine-dependent overexploited fishery species, white steenbras *Lithognathus lithognathus* (*Teleostei: Sparidae*). *4th Marine Linefish Symposium*. Langebaan, Cape Town. South Africa. April 2012.

**Bennett, R.H.**, **Cowley, P.D.**, **Childs, A.-R.**, **Gouws, G.**, Reid, G., Bloomer, P. and **Naesje, T.F.** A multi-disciplinary approach to assess movement and mixing at different life stages of an endemic coastal fishery species in South Africa. *2012 Ocean Science Meeting*. Salt Lake City, Utah. USA. February 2012.

*Filmlalter, J.D., Forget, F. and Cowley, P.D.* **Filmlalter, J.D.**, **Forget, F.**, Potier, M., **Cowley, P.D.** and Dagorn, L. The role of FADs in the ecology of juvenile silky sharks. *Mitigating impacts of fishing on pelagic ecosystems: towards ecosystem-based management of tuna fisheries*. Montpellier. France. October 2012.

*Forget, F., Filmlalter, J.D. and Cowley, P.D.* **Forget, F.**, **Filmlalter, J.D.**, Govinden, R., Soria, M., **Cowley, P.D.** and Dagorn, L. Can the fishing time at FADs be adjusted to reduce bycatch by purse seiners? *Mitigating impacts of fishing on pelagic ecosystems: towards ecosystem-based management of tuna fisheries*. Montpellier. France. October 2012.



# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY

**Forget, F., Filmlalter, J.D., Cowley, P.D.** and Dagorn, L. The behavioural ecology of two major bycatch species of the tuna purse-seine fishery: the oceanic triggerfish and the rainbow runner. *Mitigating impacts of fishing on pelagic ecosystems: towards ecosystem-based management of tuna fisheries*. Montpellier. France. October 2012.

**Gouws, G. and Cowley, P.D.** Murray, S.H.T., **Gouws, G., Cowley, P.D.**, Maggs, J.Q. and Mann, B.Q. Movement behavior and genetic stock delineation of poenskop *Cymatoceps nasutus* (Teleostei: Sparidae). *4th Marine Linefish Symposium*. Langebaan, Western Cape. South Africa. April 2012.

**James, N.C.**

**James, N.C.** and van Niekerk, L. Potential climate change effects on South African estuaries and estuary-associated fishes. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**James, N.C. and Whitfield, A.** Lamberth, S.J., **James, N.C.**, van Niekerk, L. and **Whitfield, A.** The effects of climate change on fish and fisheries in the cool/warm temperate and warm temperate/subtropical biogeographical region transition zones. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Koper, R.P. and Plön, S.**

**Koper, R.P. and Plön, S.** Occurrence, group size and habitat use of the Indo-Pacific humpback dolphin (*Sousa chinensis*) in Algoa Bay, South Africa. *2nd Marine Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

**Mwale, M. and James, N.C.**

Duncan, M., **Mwale, M., James, N.C.** and Fennessy, S.T. The genetic stock structure of *Chrysoblephus puniceus*, a commercially important sparid in the South Western Indian Ocean. *4th South African Marine Linefish Symposium*. Langebaan, Western Cape. South Africa. April 2012.

Isemonger, D.N., **Mwale, M. and James, N.C.** Modelling the effects of climate change and genetic diversity on the distribution of the Scotsman (*Polysteganus praeorbitalis*). *4th Marine Linefish Symposium*. Langebaan, Western Cape. South Africa. April 2012.

**Peel, R., Weyl, O. and Omoregie, E.**

**Peel, R., Weyl, O. and Omoregie, E.** Age, growth and maturity and three cichlid species from the Kavango and Caprivi regions, Namibia. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Plön, S.**

De Wet, M., Lane, E., Wohlsein, P., Siebert, U., Thompson, P. and **Plön, S.** Preliminary pathological findings in by-caught *Tursiops aduncus* and *Sousa chinensis* from the KwaZulu-Nata coast. *2nd African Marine Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

Pistorius, P.A., Chaidez, V., **Plön, S.** and Hofmeyr, G.J.G. Skull morphometry Risso's dolphin (*Grampus griseus*) in relation to sex and geographic distribution along the coast of South Africa. *2nd Marine Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

Thwaites, T., Pistorius, P.A., **Plön, S.** and Hofmeyr, G.J.G. Spatial and temporal patterns of *odontocete* strandings in the Eastern Cape, South Africa. *2nd Marine*

*Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

Venter, D.J.L., **Froneman, P.W.**, Smale, M.J. and **Plön, S.** Diet of humpback dolphins (*Sousa chinensis*) off the KwaZulu-Natal coastline, South Africa. *2nd Marine Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

Ngqulana, S.G., Hofmeyr, G.J.G. and **Plön, S.** Sexual dimorphism in long-beaked common dolphins (*Delphinus capensis*) off the KwaZulu-Natal coastline, South Africa. *2nd Marine Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

Hofmeyr, G.J.G. and **Plön, S.** The Marine Mammal Collection at the Port Elizabeth Museum: history, diversity and value. *2nd Marine Mammal Colloquium*. Kleinbaai, Western Cape. South Africa. May 2012.

**Tweedle, D. and Weyl, O.**

**Tweedle, D., Cowx, I. and Weyl, O.** Challenges in fisheries assessment and management in the great rivers of Africa, with particular emphasis on the Zambezi River system. *6th World Fisheries Congress: Sustainable Fisheries in a Changing World*. Edinburgh. UK. May 2012.

**Tweedle, D., Peel, R. and Weyl, O.**

**Tweedle, D., Peel, R., Weyl, O.** and Hay, C. Lake Liambezi, Namibia: Fishing community assumes management responsibility. *6th World Fisheries Congress: Sustainable Fisheries in a Changing World*. Edinburgh. UK. May 2012.

**Weyl, O.**

**Ellender, B.R. and Weyl, O.** Impact of centrarchid invasion on an endangered South African fish *Pseudobarbus afer* in headwater streams. *International Conference on Ecology*

*and Conservation of Freshwater Fish*. Vila Nova de Cerveira Conference Centre. Portugal. May 2012.

**Weyl, O., Woodford, D.J. and Ellender, B.R.** Invasive alien smallmouth bass in the Rondegat stream: impacts, efficacy of removal and future prospects. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Olds, A.A., Weyl, O.** and Smith, K. The changes in ichthyofauna in the Wilderness Lakes system over 25 years and the implication for the conservation of fishes in estuaries. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Taylor, G.C. and Weyl, O.** The validation of growth zone deposition rate in *sagittal otoliths* and an evaluation of scales as an alternative ageing structure for South African largemouth bass (*Micropterus salmoides*) populations. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

Woodford, D.J., **Weyl, O.** and Hui, C. Patterns of introduced fish establishment across an artificial irrigation network: a model system for understanding fish invasions. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

Woodford, D.J., **Weyl, O., Bellingan, T.A., De Moor, F.C., Day, P. and Gouws, E.J.** Monitoring the effects of piscicide operations on the invertebrate fauna of the Rondaegat River. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.



# SOUTH AFRICAN INSTITUTE FOR AQUATIC BIODIVERSITY



Postdoctoral Fellow, Dr Darragh Woodford (centre) assisted by Ms Nkosinathi Mazungula (Research Field Assistant) and Ms Amanda Gura (SANBI Intern) to pull a seine net in a dam along the Sundays River channel.

**Wasserman, R.J., Strydom, N.A. and Weyl, O.** The utilization of freshwater environments by young estuarine-and marine-spawned fish species: disturbance in connectivity between habitats. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**McHugh, K.J., Smit, N.J. and Weyl, O.** A fishy tale of three man-made impoundments. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Appelhoff, D., Weyl, O. and Taraschewski, H.** An assessment of helminth parasite communities in two co-occurring eel species in the Umngazi and Umzimvubu Rivers, Eastern Cape, South Africa. *49th Congress of the Southern African Society of Aquatic*

*Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Kinghorn, J.W., Snowball, J.D., Britz, P.J. and Weyl, O.** Estimating the economic impact of alien invasive fishes: recreational angling in the Amatola region. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Ellender, B.R., Weyl, O. and Nagelkerke, L.A.J.** Assessing the consequences of non-native fish invasion to the endangered border barb *Barbus trevelyani* in the Keiskamma River system, eastern cape, South Africa. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Kinghorn, J.W., Snowball, J.D., Britz, P.J. and Weyl, O.** Evaluating the socio-economic benefits of alien invasive fishes: recreational angling in the Amatola region. *IIFET 2012: Visible Possibilities, International Institute for Fisheries Economics and Trade Symposium*. Hyatt Hotel, Dar es Salaam. Tanzania. July 2012.

*Weyl, O. and Bills, R.*

**Huchzermeyer, M., Weyl, O. and Bills, R.** Bangwelu Wetlands: floodplain conservation management for biodiversity and livelihoods. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

*Weyl, O. and Cowley, P.D.*

**Taylor, G.C., Weyl, O. and Cowley, P.D.** Biology of non-native largemouth bass *Micropterus salmoides* in Southern Africa. *International Conference on Ecology and Conservation of Freshwater Fish*. Vila Nova de Cerveira Conference Centre. Portugal. May 2012.

**Taylor, C.L., Weyl, O. and Cowley, P.D.** Biology of non-native largemouth bass *Micropterus salmoides* in Southern Africa. *Ecology and Conservation of Freshwater Fish*. Vila Nova de Cerveira Conference Centre. Portugal. June 2012.

*Weyl, O. and Swartz, E.R.*

**Van Der Walt, K.A., Weyl, O. and Swartz, E.R.** Determining population level vulnerability of native fishes to largemouth bass invasions in the Groot Marico River, North West Province, South Africa. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

*Whitfield, A.*

**Whitfield, A.** Coastal research overview and some opportunities for the future. Water Research Commission Workshop: Situation analysis regarding the coastal research and development requirements for South Africa. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

**Whitfield, A.** Conservation and connectivity of the globally distributed flathead mullet, *Mugil cephalus Linnaeus 1758*. *49th Congress of the Southern African Society of Aquatic Scientists*. Cape St Francis Resort, Cape St Francis. South Africa. July 2012.

A publication of the Rhodes Research Office

Tel: 27 - 46 - 603 8756/7572

email: [j.roberts@ru.ac.za](mailto:j.roberts@ru.ac.za)  
[t.mantolo@ru.ac.za](mailto:t.mantolo@ru.ac.za)

[www.ru.ac.za](http://www.ru.ac.za)



**RHODES UNIVERSITY**  
*Where leaders learn*

