CITATION FOR MICHAEL BRUTON

Honorary graduand, Rhodes University, 12 April 2012

By Professor Paul Maylam

For non-scientists the whole scientific endeavour can often seem mystifying – a field in which scientists mostly speak to each other in ways seemingly incomprehensible to lay people. If the challenge is to make science more accessible to people at large, then Professor Michael Bruton has been at the forefront in meeting this challenge. Not only has he established a fine reputation as one of the country's leading icthyologists, but he has also done much to popularise science in general, making it both comprehensible and fun for ordinary people, young and old alike.

The element of fun was evident in his own childhood introduction to science. A son of the Eastern Cape, he grew up in East London – there developing an early fascination for ants, bees, animal skulls – and especially for fish, following upon fishing expeditions on the Nahoon River – an interest further stimulated after a meeting with Dr Marjorie Courtenay-Latimer, famous for her work on the coelacanth.

So when Michael Bruton enrolled as a student here at Rhodes in the 1960s it was no surprise that he was immediately drawn to the Department of Zoology, and would soon be nicknamed 'animal'. As a student he met the renowned ichthyologist, JLB Smith – and so was inspired to specialise in the study of fish. Through this department obtaining a masters degree in 1972 and a PhD in 1976 – the research conducted at the university's research station at Lake Sibaya in northern Zululand, with a particular focus on the natural ecology of two fish, the Mozambique tilapia and the sharptooth catfish.

After postdoctoral research in London Michael Bruton returned to Rhodes as the founding head of the Department of Icthyology and Fisheries Science, later becoming director of of the JLB Smith Institute of Icthyology (now the South African Institute for Aquatic Biodiversity), increasing the Institute's staff fourfold and its budget twentyfold during his twelve-year term of office. Among his gifts he is said to be a genius at fund-raising.

Following in the footsteps of JLB Smith, Professor Bruton established himself as an internationally recognised expert on African fish and aquatic conservation. There has been a particular interest in the biology and conservation of the coelacanth, which he has studied for many years off the east coast of Africa, as well as helping to launch an international campaign to save this iconic, prehistoric fish from extinction.

The conduct of this research often undertaken at great risk, in the face of considerable danger: descending to a depth of 230 metres in a research submersible; nearly drowning when becoming entangled in a fishing net; close encounters with crocodiles, hippos and snakes – once having to wrestle with a massive python.

Such has been the productivity of this eminent scientist that Professor Bruton has to his name over 120 peer-reviewed scientific papers and articles, and nineteen books, authored, co-authored or edited, as well as over forty postgraduate students supervised at the masters and doctoral levels. He has acted as an international consultant in matters relating to marine science, and served on several national and international scientific research committees.

Equally outstanding has been his role in popularising science, particularly in founding, or helping to found, science museums and science centres. Chief among these is the MTN Sciencentre in Cape Town, an informal, interactive learning site established by Professor Bruton in 2000 and visited by over

one million people in its first ten years of existence – a centre that has enabled school learners and members of the public to discover science, both basic and cutting-edge, and to meet with scientists. Through this centre's outreach programmes millions more have enjoyed its benefits throughout South Africa, as well as in Namibia and Botswana.

Professor Bruton's expertise has brought an international demand for his services in this field. So he played a key role in developing a science museum for the King Abdullah University of Science and Technology in Saudi Arabia – as well as setting up interactive exhibitions in Dubai and Istanbul – in the process becoming an expert in Islamic science and technology – the subject of many lectures that he has delivered at universities, conferences and science festivals across the world. Such is his international renown that last year Professor Bruton chaired the sixth Science Centre World Congress held in Cape Town.

He is currently Director of Imagineering at MTE Studios in Cape Town – providing consultancy services across the world for the design of science centres and museums, the conceptualisation of exhibitions and displays, and the development of science and teaching aids – all this in line with his deep-seated concern to promote an interest in science among young people and to encourage them to move into this sphere of learning and enquiry.

Due recognition has been accorded to Professor Bruton for his work as both an academic researcher and a populariser of science: a Fellow of the Linnaean Society of London; Fellow of the Royal Society of South Africa; the Captain Scott Medal, awarded by the British Association for the Advancement of Science; the French government's Chevalier dans l'Ordre des Palmes Academique; and a Lifetime Achievement Award from the National Science and Technology Forum.

Michael Bruton has had a lifelong interest in creativity, innovation and invention, and a curiosity about the socio-economic conditions that promote such creativity. His own life and career have been characterised by remarkable creativity and high energy – and still today he says that he feels forty years younger than his actual age.

Tonight Rhodes University is proud to honour one of its most distinguished alumni – an 'ideas man', conservationist, a scientist-entrepreneur, a scholar who is deemed to have had 'a major impact on the South African scientific scene', and is recognised as 'one of the world's leading museum and science centre professionals'.

Mr Chancellor, I have the honour to request you to confer on Michael Noel Bruton the degree of Doctor of Science, *honoris causa.*