

Professor Steven Chown awarded the first Martha T Muse Prize for Science and Policy in Antarctica

An outstanding researcher and world renowned advisor to the Antarctic Treaty System, **Professor Steven Chown of Stellenbosch University, South Africa**, has been named the inaugural recipient of the prestigious Martha T. Muse Prize for Science and Policy in Antarctica. Professor Chown is a widely published and cited authority on invasive species and the effect of climate change and human interactions on Antarctica. The Selection Committee of leading Antarctic scientists and policy makers cited his outstanding contributions to both science and policy in Antarctica. Professor Chown plays a critical role in Antarctic policy by leading the delegation of the Scientific Committee on Antarctic Research (SCAR) at the annual Antarctic Treaty Consultative Meetings (ATCMs). His advice and leadership has been pivotal in advising policy makers in a wide range of environmental stewardship issues before the ATCM's Committee on Environmental Protection.

The Martha T. Muse Prize (www.museprize.org) is awarded to individuals who have demonstrated excellence in Antarctic science or policy and who show clear potential for sustained and significant contributions that enhance our understanding of Antarctic science or policy and promote Antarctica's preservation for future generations. The Prize, which carries with it a US\$100,000 monetary award, is supported by the Tinker Foundation and administered by the Scientific Committee on Antarctic Research (SCAR), a non-governmental interdisciplinary scientific body of the International Council of Science (ICSU). The support of the US Polar Research Board and the National Academy of Sciences were instrumental in establishing the Prize. The Prize is inspired by Martha T. Muse's passion for Antarctica and is a legacy of the International Polar Year 2007-2008.

Professor Chown will be awarded the Prize and deliver the Muse Lecture at the Oslo International Polar Year Conference in June 2010 and will also be a guest of honor at the SCAR Open Science Conference in Buenos Aires in August 2010.

Professor Steven Chown: Further Details

Steven Chown is Director of the Centre for Invasion Biology and a Professor in the Department of Botany and Zoology at Stellenbosch University, South Africa. His research interests span a broad range of topics, including invasion biology, biogeographic and macroecological studies, evolutionary physiology, spatial ecology, as well as the integration of these fields. He has major interests in Antarctic and sub-Antarctic biology and conservation, and is Chief Officer of the Scientific Committee on Antarctic Research's Standing Committee on the Antarctic Treaty System. He was also the first Chair of the Prince Edward Islands Management Committee, a committee charged with overseeing the environmental management of these sub-Antarctic islands that are South Africa's

only Special Nature Reserve, and was lead author of the revised management plan for the islands.

Professor Chown has published more than 250 research papers in the primary scientific literature and written and co-authored numerous books and book chapters. Among many activities, the Antarctic research and policy area to which he has made the most important contribution is that on understanding the risks posed by non-native species, and the influence of climate change thereon. One of Professor Chown's first significant research papers demonstrated how climate change exacerbates the effects of non-native species. Using long-term data from the Prince Edward Islands he showed that by benefiting invasive mice, climate change was having substantial negative effects on key plants and animals on which mice feed.

Another significant paper demonstrated that energy availability is a key factor driving variation in native diversity across the Southern Ocean Islands, but that for non-native species, human visitor numbers and environmental temperature account for most variation in diversity. This work demonstrated that a major factor to be considered in the reduction of the risks posed by non-native species in the region is human visitor frequency, and particularly to areas that are warming rapidly (such as the Antarctic Peninsula). These findings were also applied more generally to the Antarctic region, demonstrating how spatially explicit information on native and non-native species can be used to prioritize conservation decisions, such as World Heritage Status across the Southern Ocean Islands.

As well as having trained several M.Sc. and Ph.D students in his own laboratory, Professor Chown has also run a USAID-funded, capacity development programme for graduates from South Africa's historically disadvantaged universities.

In summary, the scientific advances made by Professor Chown have had broad ranging implications for understanding evolutionary processes and have established a foundation for continuing research by scientists from many member nations in the Antarctic Treaty. His leadership in Antarctic conservation provides a framework for managing the expanding human presence in the Antarctic, an issue which will remain in the forefront of Antarctic Science and Policy.