

L'Animation Scientifique



séminaire exceptionnel

> MERCREDI 16 MAI 2018, 13h15 à SÈTE

Building the French connection with the new Ocean Science Campus at the Nelson Mandela University, South Africa

This presentation will inform IRD of developments at the newly established Ocean Science Campus, Nelson Mandela University in Port Elizabeth, South Africa, and the intention to establish an "Innovation Bridge" between IRD and NMU. It also aims to attract interested researchers and postdoctoral fellows to become involved and assist in building expertise at NMU through the innovation bridge.

Until recently, marine science in South Africa has been centred in Cape Town owing to a huge focus on the west coast fisheries and the presence of major marine science institutions such as the University of Cape Town, Department of Forestry and Fisheries (DAFF), Department of Environment Affairs (Oceans & Coasts - DEA) formerly the Sea Fisheries Research Institute, Cape Peninsula University of Technology, University of the Western Cape, and the CSIR. Underpinning this research capability are four research vessels based in Cape Town which are owned by DAFF and DEA. Naturally, international engagements have been attracted to this hub of marine science. Both the IRD (France) and IMR in Norway have built formal collaborations with UCT through the ICEMASA programme and the Nansen Tutu Centre, respectively. These collaborations have involved the deployment of staff, postdocs and students at UCT — powerfully building expertise and research capacity in the Dept. of Oceanography.

By comparison the 2500 km east coast has had little attention by the South African Government, with no research vessels based in any of the ports. This lack of funding and infrastructure has limited east coast institutions in size and research capabilities, and resulted in small research groups scattered along the coast mostly undertaking coastal work reliant on small boats. This has resulted in a huge gap in knowledge of shelf, slope and open-ocean oceanography and ecosystems not only on the east coast of South Africa, but also in the SWIO region.

In 2015 however, the Nelson Mandela University made the decision to change this situation. Taking advantage of its unique geographic position between the productive Agulhas Bank and the warm oligotrophic Agulhas Current marine environments, as well being on the doorstep of the Western Indian Ocean — it has embarked on a very ambitious program of building a large-scale regional Ocean Science Campus (OSC) which embraces the fields of oceanography, marine biology, marine spatial planning, law of the sea, ocean governance, scientific diver training and operations, and maritime studies. The campus is supported by a new centre for marine robotics maintained by the Engineering Faculty. Construction of the first stage of the OSC was completed in September 2017. Three research groups have moved into these premises — namely the Chair in Shallow Water Ecosystem (Prof. Renzo Perrisnotta), Chair in Ocean Science & marine Food Security (Prof. Michael Roberts), and the NRF-owned South African Environmental Observation Network (SAEON, Dr Tommy Bornman). This enables the university to seamlessly encompass the domains of estuaries, coastal and shelf, slope and open ocean. Between these three research groups, there are currently 23 post graduate students enrolled for studies in physical and biological oceanography, and marine biology. However, given the limited resources in South Africa, international help is now required to build the desired levels of research competence and critical mass necessary to tackle the regions challenges in ocean science and ecosystem functioning. IRD, being a world-class institution, has such competence. As a replacement of ICEMASA, the new ILOSA programme will initiate the South African School of Ocean Sciences and Technology which will be a main stay of French-SA collaboration. UCT will remain an important component of ILOSA, but the historically disadvantaged institutions on the east coast with the OSC being the champion, will for the first time feature prominently.

par Prof. **Michael Roberts** *Chair in Ocean Science & marine Food Security, Ocean Science Campus, Nelson Mandela University*

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