

# Partnership to benefit Algoa Bay

ONE of Nelson Mandela Bay's leading assets, Algoa Bay, is set to benefit from a partnership between three leading research and monitoring organisations.

NMMU recently formalised its working relationship with the SA Institute for Aquatic Biodiversity (SAIAB) and the SA Environmental Observation Network (SAEON) in a wide range of initiatives to provide key research on the Indian Ocean inlet, and surrounding coastline.

According to Dr Tommy Bornman, manager of the SAEON Elwandle Node who has been instrumental in the negotiations, the signing of this Memorandum of Understanding (MoU) signals "the start of a new era of coastal and marine research" in the Eastern Cape and Southern Africa.

"It will give all involved a stronger platform from which to work in a number of areas."

Both SAEON and SAIAB are entities of the National Research Foundation (NRF), which also works closely with the university, and in this case, NMMU's Coastal and Marine Research Unit.

"We have always had a good working relationship with the two Grahamstown-based organisations. The MoU will allow us to further align our efforts," says Science Executive Dean **Prof Andrew Leitch**.

Algoa Bay, stretching from Cape Recife in the west to Cape Padron in the east, is already acknowledged as one of the best researched bays in southern Africa and is often referred to as a health yardstick for bays nationally.

*It will give all involved a stronger platform*

The Bay is home to Bird Island with the world's largest Cape gannet colony, the St Croix Island group, and 43% of the global population of African penguins. The Alexandria dune fields, spanning the western half of Algoa Bay, are one of South Africa's critical areas for sandy beaches.

Key stakeholders who attended the signing included NRF Chief Executive Officer Dr Albert van Jaarsveld, Vice-Chancellor **Prof Derrick Swartz**, Deputy Vice-Chancellor: Research and Engagement, **Prof Thoko Mayekiso**, SAIAB Managing Director Dr Angus Paterson, SAEON Managing Director Johan Pauw and Dr Bornman.

NMMU researchers Zoology's **Dr Linda Harris**, also from the Coastal and Marine Research Unit, and botany doctoral student Dimitri Veldkornet shared presentations on the effects of climate change in South Africa and marine ecosystems at the signing.

The Elwandle Node of SAEON which focuses on monitoring aquatic work and SAIAB with its particular bent towards long-standing research in estuaries and the coastal environment, will now formally pool their resources with NMMU in terms of knowledge, equipment and researchers.

"In terms of research platform provision, SAIAB has hosted the SAEON Elwandle Node for the last seven years and between us we have developed a range of research platforms such as the Algoa Bay Sentinel Site and the Remote Operated Vehicle Unit. We have been collaborating with NMMU researchers for many years," says SAIAB's Managing Director Dr Paterson.

These researchers include Botany's **Prof Janine Adams** and **Dr Derek du Preez** and Zoology's **Prof Tris Wooldridge** and **Dr Nadine Strydom** and the incumbent of NMMU's new Shallow Water Ecosystems research chair, **Prof Renzo Perissinotto**.



**AQUATIC EXPERT ...** MSc Zoology graduate Ryan Wasserman won the prestigious Bronze Medal for Excellence in Aquatic Science at MSc level for his work awarded at the recent 'SA Society of Aquatic Scientists' Conference. His thesis entitled 'The Importance of Estuarine Headwaters for Fishes in Selected Eastern Cape Systems' was supervised by Zoology's **Dr Nadine Strydom** and co-supervised by SAIAB's Dr Olaf Weyl. Ryan has shed new light on estuary-river interface waters as nursery areas for young fishes. He has published five scientific works from his MSc research, two of which are international research papers and all of which appear in ISI rated journals.

## Eskom research support

**IN A partnership between NMMU, Eskom and UCT, our Centre for High Resolution Transmission Microscopy (HRTEM) supports Eskom employees studying materials science, specifically for power plant materials.**

The partnership is part of Eskom's programme to develop competent research activities and human resources to participate in the Eskom Materials Science Programme.

The collaboration promotes research excellence in areas supporting the power generation industry, with specific focus on the high temperature behaviour of engineering materials. It also places emphasis on materials that are exposed to high temperature and high stress conditions in coal fired power plants.

As the only centre of its kind in Africa, NMMU's HRTEM centre, headed by **Prof Jan Neethling**, provides the high resolution electron microscopy facilities needed in this partnership for advanced materials characterisation of power plant materials.

**Dr Johan Westraadt** (above), a

PhD graduate from NMMU, joined the centre as senior research fellow and assists the students with materials characterisation in two current projects: the microstructure and property assessment of creep-aged stainless steel after welding, and life assessment of turbine rotor steel.



The first feedback session to the Eskom Power Plant Engineering Institute (EPPEI) Material Science Specialisation group was held on Mandela Day, 18 July, at NMMU, with Eskom managers, MSc students involved in the project, Professor Robert Knutsen from UCT's Materials Engineering Centre, an academic from Stellenbosch University and Prof Neethling and Dr Westraadt.

In their own special way, everyone at the meeting were doing their 67 minutes working towards a goal that will benefit all South Africans by providing affordable and reliable electricity and developing human capital as well as intellectual property for South Africa in South Africa, Prof Neethling said.