

3. Western Indian Ocean and Agulhas Current Related activities

The Node is linked in with a number of national, regional and international projects working towards better monitoring of the SW Indian Ocean. The Node's key role in such projects includes representing South Africa, providing a platform for international scientists and forging relationships between key role players. One of the key projects – the Agulhas Current Transport project run by Dr Lisa Beal, will monitor the Agulhas Current for a period of 3 years and relate this to satellite observations. Although not directly involved, the Node has been assisting with the facilitation of this project and will hopefully remain involved in the many projects which are being initiated through this work.

3.1. The ASCLME (Agulhas Somali Current Large Marine Ecosystem; key collaborators, ASCLME)

The Node manager is the South Africa Data and Information Coordinator for the ASCLME. This involves attending numerous meetings (Grahamstown, Mauritius and Reunion for the WIOMSA meeting), coordinating the South Africa marine ecosystem diagnostic assessment (MEDA) and generally working closely with the ASCLME with regards to monitoring, research and capacity building in the SW Indian Ocean. SADCO is also involved in a data archiving capacity. The MEDA forms the basis for the contribution of each country to the Transboundary Diagnostic Analysis and hence the Strategic Action Plan. The South African MEDA is a 200 page document capturing essential information relating to the marine and coastal dynamic biophysical processes, including data information, gaps and needs. The SA MEDA has yet to be finalised but will be complete before the end of 2010. Numerous opportunities (in particular, the Nairobi Convention Clearing House and the Marine Atlas, see sections 7 and 8) have arisen from this partnership and it is hoped that this will be ongoing. Through work within the ASCLME the Node's network has expanded and many excellent contacts have been made with key East African scientists.



Fig. 3.1 Key ASCLME country representatives at Reunion meeting

3.2. The SCOR* working group – The Climatic Importance of the Greater Agulhas Current (key collaborators, SCOR and a number of international institutes represented by scientists on group)

The Node Manager attended a meeting in Kiel in early 2009 to discuss work around the Agulhas Current and, as a result of this, contributed to and was invited to be a working member of the SCOR group. This involves attending meetings and giving scientific input and contributing to the working group deliverables. The Node manager is also a key part of the working group in terms of

* Scientific Committee for oceanographic Research

regional knowledge and leading the 2011 workshop to be held in eastern Africa and to work towards building ocean capacity there. A paper has been published in EOS and a synopsis paper for Nature has been invited. Funding was also received for Juliet to attend the Ocean Sciences meeting in Oregon in early 2010.

3.3. Western Indian Ocean biodiversity hotspot (Key collaborators, WIOMSA, CORDIO, UCT, WIO-RISE)

This is a WIOMSA MASMA funded project, investigating the Comoros Gyre in the western Indian Ocean; there is little understanding of the oceanography of this region which is potentially a very important coral biodiversity hotspot and also is likely to influence Mozambique Channel eddies and hence the Agulhas Current. The project aims to answer a number of questions including the impacts of climate variability and change on this region. Juliet is a co-investigator on this project and has a PhD student working on it. It is anticipated that the modelling aspect of the project will contribute to the ASCLME and improved regional oceanographic knowledge. It is also hoped that the study will lead to a further comparison with South African coral biodiversity. This project comes to an end at the end of 2010 but the PhD student has another 2 years and is funded externally.

This project was also linked with the ASCLME and a cruise in the region occurred in late 2008. The PhD student took part in this cruise and is working with the ASCLME cruise coordinator to write up the oceanographic results for publication. The cruise data will also be used to help validate the model.

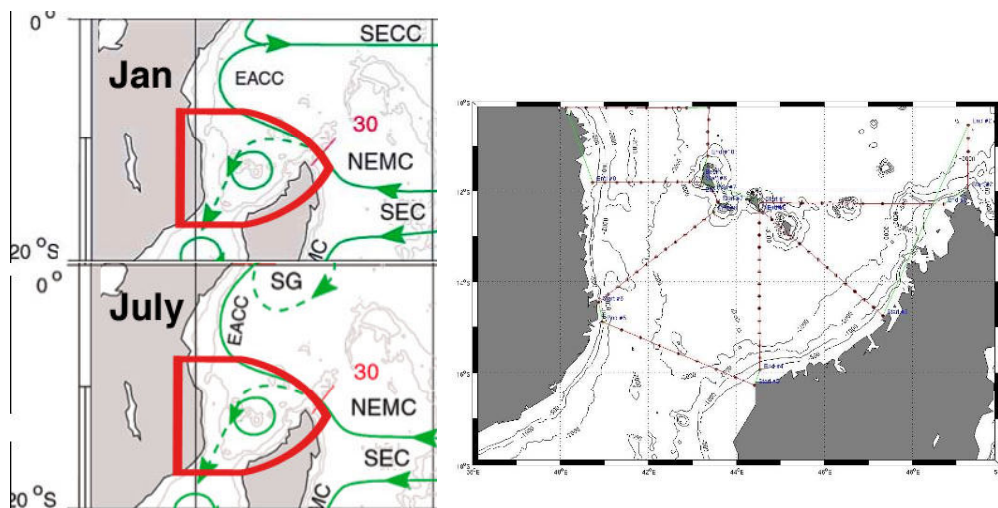


Fig. 3.2 left - The western Indian Ocean between 0 and 20°S. The red polygon outlines the hypothesized core region. From Schott and McCreary 2001; right – the ASCLME cruise track

3.4. African Coelacanth Ecosystem Project (Key collaborators, ACEP)

Egagasini runs the data component of ACEP II, this is currently progressing slowly but with Fiona Cuff (section 8) onboard to assist with the data management and with more data being submitted by scientists things will move forward.

3.5. Agulhas Return Current Cruises (Key collaborators, US Navy, ASCLME and UCT)

As a result of the SCOR working group, collaborations with the US Navy have been fostered and SAEON (alongside UCT and ASCLME) have been invited to be involved in upcoming cruises to investigate the Agulhas Return Current upstream of the Agulhas Plateau and also to investigate the Agulhas Plateau region. This will take place in late/early 2010/2011. It is hoped that a spin off

from this initial cruise will be long term monitoring of this region, but this needs further consideration.