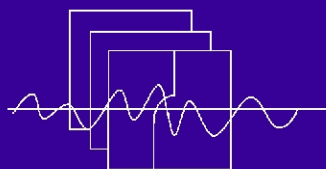


# SADCO

Vol 16 No 4 - December 2005

# SADSO

## 2005 is out, 2006 is in!



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Oceanography  
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*SADCO is sponsored by ...*

Department of Environmental Affairs  
& Tourism  
SA Navy  
CSIR Environmentek  
NRF (SA Universities)  
Namibian Ministry for Fisheries & Marine  
Resources

And how the time has flown!

The past year has probably been one of the most dramatic for SADCO for many years. This has largely been brought about by the decision to undertake the establishment of the marine biodiversity database for sub-Saharan Africa. This database will be the regional node for OBIS (Ocean Biogeographic Information System) of the Census of Marine Life. The creation of the database was followed by an extensive liaison exercise with marine organisations throughout Africa.

There have also been discussions on the role that SADCO can play in the offshore marine node of SAEON (South African Environmental Observation Network). 2006 will see the implementation of decisions in this regard.

The SADCO Steering Committee membership was augmented by the addition of Prof Charles Griffiths (UCT), specifically to advise on OBIS related issues. Also for the first time, a representative from Angola, Mr Quilanda Fidel, attended the SADCO meeting.

May we wish all our sponsors and users a prosperous 2006!



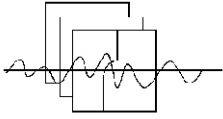
Mr Quilanda Fidel, Angola



Prof Charles Griffiths, UCT



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## Loading CTD data submitted by NatMIRC

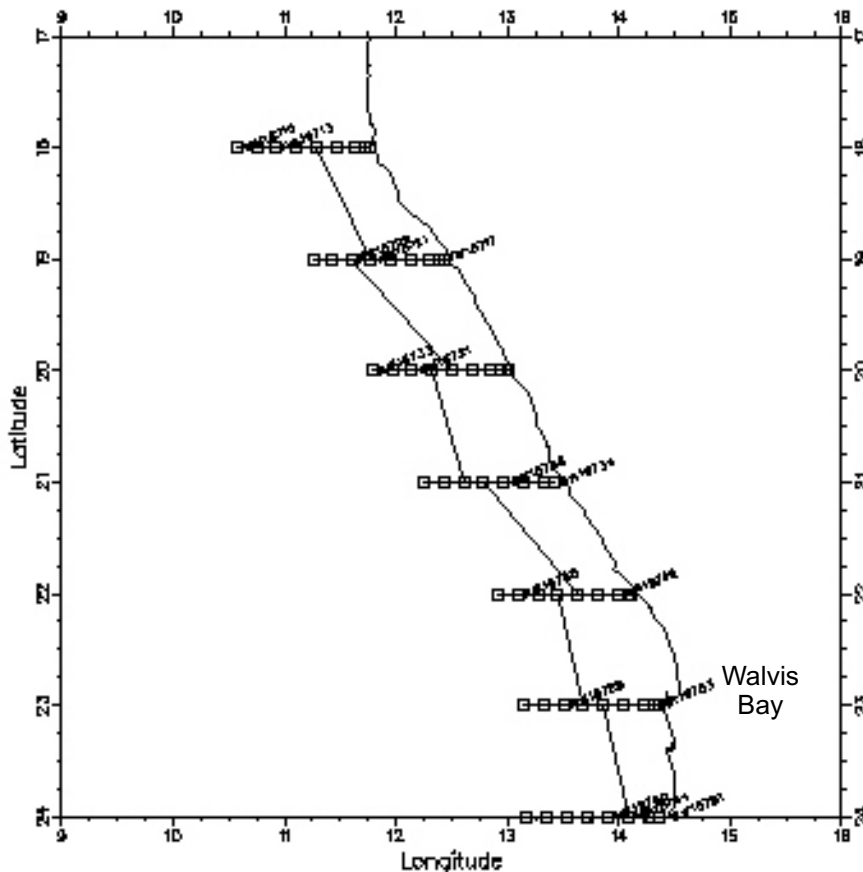
SADCO received two sets of data from NatMIRC (the National Marine and Information Research Centre) in Swakopmund, Namibia.

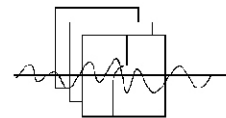
### Welwitchia data

This data set contains 15 cruises with 297 CTD stations of the *Welwitchia*. The list below provides insight into the dates of the cruises (2003/2004) and their locations. Two examples of the cruise tracks (downloaded from the SADCO inventory) are given in the enclosed Figures.

Date Range	Description	Latitude Range	Longitude Range	Stations
2003-12-10 to 2003-12-10	ww200312en	22.98330 to 23.00000	13.13330 to 14.36670	9
2003-11-04 to 2003-11-04	ww200311en	23.00000 to 23.00000	13.13330 to 14.30000	8
2004-01-27 to 2004-01-29	ww200401en	22.99930 to 23.00080	13.14450 to 14.36750	8
2004-01-15 to 2004-02-23	ct200401_02hk	17.30617 to 29.29267	11.30383 to 16.20533	84
2004-06-29 to 2004-06-30	ww200407en	22.99980 to 23.00000	13.14470 to 14.36970	9
2004-05-12 to 2004-05-12	ww200405en	22.99870 to 23.00050	13.14380 to 14.36780	9
2004-02-10 to 2004-04-13	ww200403pl	17.99870 to 23.00150	10.75330 to 14.36970	29
2003-12-11 to 2003-12-12	ww200312sl	22.16830 to 22.85050	14.06650 to 14.47280	4
2004-06-01 to 2004-06-02	ww200406en	23.00000 to 23.00000	13.14820 to 14.36700	9
2004-07-26 to 2004-07-29	ww200407or	22.50000 to 26.56670	12.67220 to 13.64980	29
2004-08-04 to 2004-08-10	ww200408en	18.00000 to 24.00200	10.58230 to 14.41850	63
2004-09-29 to 2004-09-29	ww200410en	23.00000 to 23.00000	13.14430 to 14.37050	9
2004-08-31 to 2004-08-31	ww200409en	23.00000 to 23.00000	13.14470 to 14.36950	9
2004-11-30 to 2004-12-01	ww200412en	23.00000 to 23.00000	13.14330 to 14.37050	9
2004-11-02 to 2004-11-02	ww200411en	23.00000 to 23.00000	13.14280 to 14.36900	9

Cruise track of the *Welwitchia*, August 2004



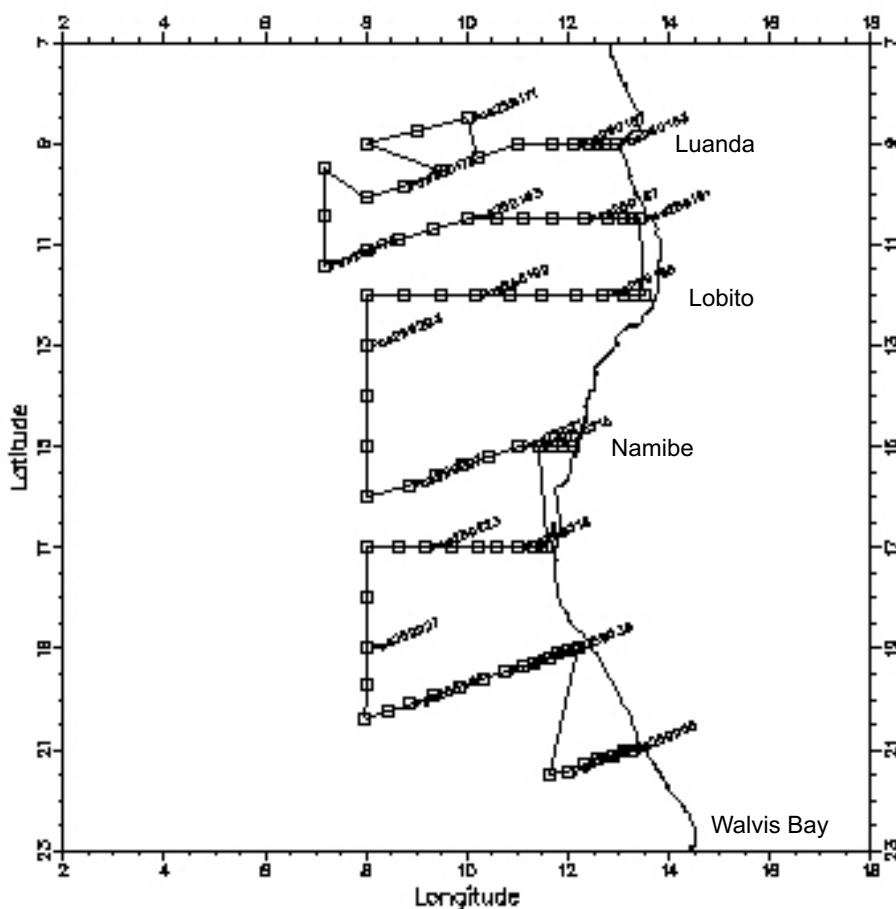


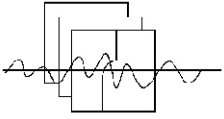
### German vessels

The second data set consists of cruises of German vessels. These vessels are the *Kottsov*, *Poseidon* and *Meteor* in the period 1997-2003. A total of 429 stations were loaded. The track of the *Poseidon* cruise in April 1999 is indicated.

Vessel	Date Range	Stations	Latitude Range	Longitude Range
Kottsov Ko97	1997-04-09 to 1997-05-10	62	13.48280 to 23.14965	9.36651 to 14.05144
Poseidon Pos250	1999-04-06 to 1999-04-26	86	8.50117 to 21.50133	7.16250 to 13.50050
Meteor M48/3	2000-08-27 to 2000-09-13	72	8.99985 to 20.31617	7.99884 to 13.70561
Meteor M48/5	2000-10-13 to 2000-10-30	123	18.75434 to 25.49943	11.11160 to 14.74432
Meteor M57/2	2003-02-11 to 2003-03-10	86	22.97515 to 26.75776	11.50104 to 14.36778

**Cruise track of the  
*Poseidon*,  
April 1999**





# The SADC Steering Committee

The SADC Steering Committee was first constituted in the late 1970's, and in its present format in 1990 (coinciding with the changes in the management and funding model).

## Composition of the Steering Committee

- A representative of each of the Sponsors (the funding organisations: presently there are 5)
- A representative of each of the Participating organizations (non-funding organisations, but nevertheless key stakeholders in SADC's functionality; presently 3).
- A representative of the National Research Foundation (NRF).
- The Manager of SADC *ex officio*;
- Specialist members, as the Committee may co-opt or invite.
- the Secretariat supplied by the NRF, and which also acts as Convenor for the meetings of the Committee.

## The role of the Steering Committee

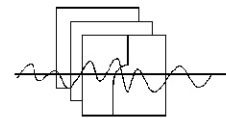
- To decide on the process to identify a suitable Data Base Agency, and to implement such a process.
- To actively solicit funds from the Sponsors and potential sponsors.
- To receive and consider reports from the Database Agency on its management of SADC and to advise the Database Agency on possible adaptations or changes to the system which it may require.
- To establish users' needs in terms of data, products and communication to ensure an optimal service.
- To establish broad policy for SADC (e.g. data holdings and bounds thereof, data compatibility etc).

- To ensure that major objectives and outlook of SADC give priority to the sponsor countries, but that these objectives are promoted internationally.
- To monitor international exchange of data by SADC.
- To guide the overall management of SADC.
- To advise on products and services for SADC.

Issues that are regularly discussed within the framework of the Steering Committee roles, include:

- Scouting for data, and data loading schedule
- Liaison with other organisations (southern Africa and elsewhere)
- Relevant developments in the data management domain (local and abroad)
- Progress on task list for a particular year (this could include aspects of quality control, access, programming, newsletters, etc). A comprehensive report is submitted annually to the Steering Committee by the database host organisation.
- Funding from the sponsors

The enclosed informal photographs of some of the Steering Committee members were taken during the lunch break of the Steering Committee meeting in November 2005.



**Chris Koch  
(South African Weather Services)**



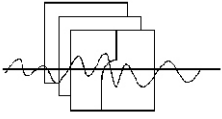
**Marten Grundlingh (SADCO Manager), and  
Ashley Johnson (MCM)**



**Pavs Pillay and Henda van der Berg  
(National Research Foundation)**



**Carl Wainman (Chairman, Institute for Maritime Technology),  
Raymond Roman (vice chairman, University of Cape Town), and  
Ashley Johnson (Marine and Coastal Management)**



## Global meeting of biogeographic data managers

Most physical oceanographers are largely unfamiliar with detail of the diversity of life in the oceans, and to come into contact with this aspect of the marine environment on a global scale is quite a profound experience.

The Census of Marine Life (CoML) must be one the largest marine programmes in the world today. The SADC Manager had opportunity to attend a recent CoML meeting in Frankfurt, Germany, 4-7 November 2005, where the progress of the CoML programmes (there are 14) were discussed individually and collectively.

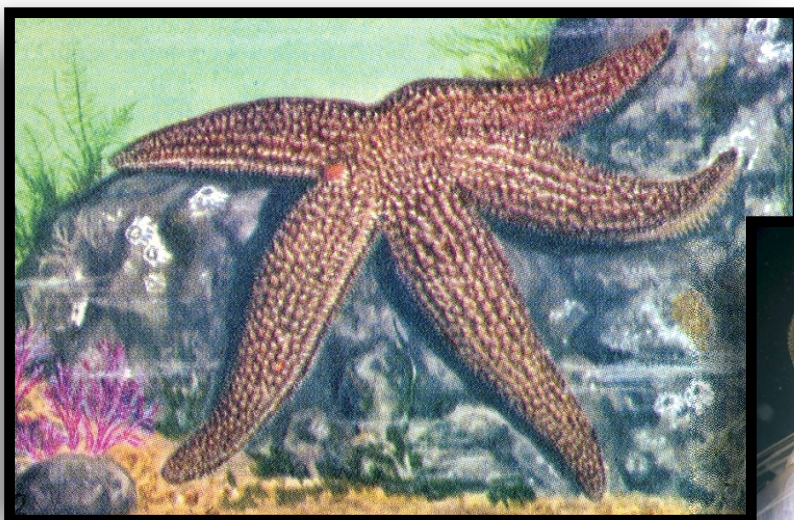
This progress is manifested by growth of all quantifiable components of the programme, including the number of identified species, number of data records (about 7 million), papers, communication, extent and impact of outreach, number of scientists, etc. Even the funding has been growing exponentially, with the cumulative funding expected to reach \$1b by 2010.

One of the CoML programmes is OBIS (Ocean Biogeographic Information System), which strives to collect, manage and disseminate the data provided by the other programmes, but also to establish all existing data into a useful, accessible, global database.

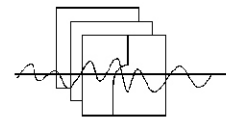
### ***Why is marine biology attracting so much attention?***

The reasons probably include:

- CoML also appeals directly to many stakeholders, such as politicians, the fishing industry, and the general public. Many governments have subscribed to preservation of (marine) biodiversity, as have various international organisations and platforms.
- A significant outreach programme is sensitising schoolchildren and the general public to aspects of marine life and biodiversity.
- General public has a greater affinity for living organisms in the sea than for physical aspects, as evidenced by the number of people that visit aquaria, or scrounge around the rocks on the beach, looking for small animals in the intertidal zone.





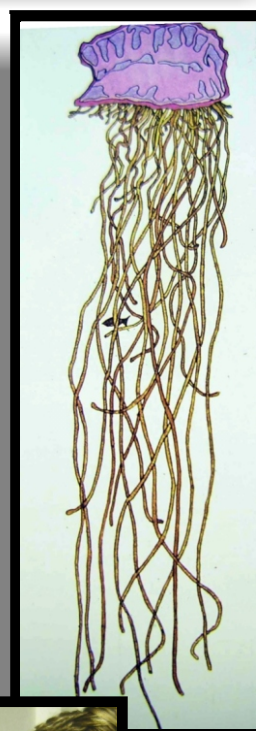


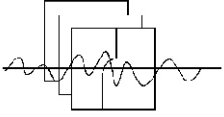
The enthusiasm among biologists at the Frankfurt meeting was almost tangible, especially around discoveries in the biodiversity domain. While a physical oceanographer has to collect thousands or even millions of data points to “discover” something new, a marine biologist only needs to have one, new marine organism in his/her hands to recognise that this one has never been seen before. To reach this point, the scientist obviously needs to have a very good insight into the taxonomic background of such an organism (e.g. in what HAD been recorded/discovered before).

It is also interesting to note that each data point contributing to the 7 million records mentioned above is based on a physical handling, dissecting and analysis of a single sample (which could take some time), thus representing a huge investment of human resource effort. This manual process is in stark contrast to the automated and high-speed processing involved with physical oceanographic data collection at sea, where individual data points are collected at a rate of 10 or more *per second*. Often the data collection/processing is so automated that the data is analysed *in situ* (could be underwater or on deck), and cruise data reports are produced while the cruise is still underway, ready for printing and distribution when the vessel reaches port.

A couple of other points from the meeting:

- At the meeting, a list was provided of the number of professional taxonomists in the world. Africa reported only one! Although this does not mean that Africa has no ability to identify marine life, it does indicate that Africa has a significant shortage compared to other parts of the world.
- It was quite clear that the distribution of data collected across the globe is not correlated with the institutes of the local regions (same as in physical oceanography). E.g. deep sea biodiversity samples of the continental margin originate from one single oceanographic institute, while large oceanographic organisations have collected data in remote regions all over the world.



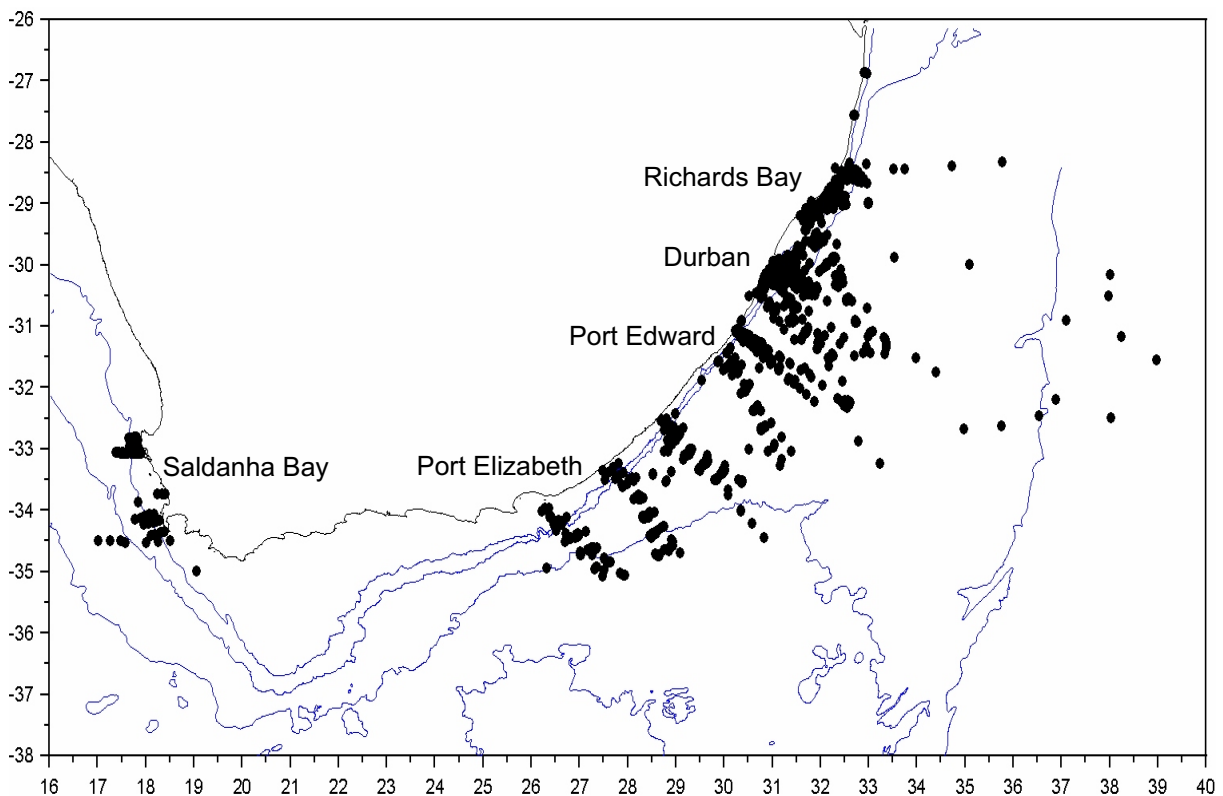


## Current measurements from the RV Meiring Naudé

In the previous Newsletter it was reported on the current velocities measured from the RV *Meiring Naudé* during the 1960's, 1970's and 1980's.

The Figure below indicates the station positions where these measurements were made, with the major contributing experiments located at:

- Richard Bay (1970's)
- Durban (late 1960's and 1970's)
- Port Edward (middle 1970's)
- East Coast (Cape St Lucia to Port Elizabeth)
- Saldanha Bay and Cape Town (1970's)



*Plot of station positions of current measurements of the Meiring Naudé*