

SANCOR Bulletin

26 January 2017

SANCOR Awards – Call for Nominations

Every 3 years SANCOR awards excellent performers in science in the marine and coastal environment. Nominations are invited, providing an opportunity to acknowledge the sterling efforts of our deserving colleagues. Click here for more information on the various categories.

Send your nomination by 28 Feb.

SANCOR Newsletter Article

Email your article to sancor@daff.gov.za. Click here for [guidelines](#).

Events

- **MA-RE SANCOR Seminar on Monday, 30 January**
Speaker: Mr Robert Schlegel, University of the Western Cape,
Department of Biodiversity and Conservation Biology
Topic: Climate change in coastal waters: time series properties affecting trend
estimation ([Abstract here](#))
Venue: UCT Oceanography Department
Time: 1pm
- **[Workshop](#): Identifying and Co-ordinating Research as an Adaptation
to Climate Change in the South African Marine Fisheries and Marine
Aquaculture Sectors**
14-16 March, Cape Town
Send Expressions of Interest by 10 Feb
- **[SAMSS 2017](#)**
(4-7 July 2017, Port Elizabeth)
Abstract submissions due 17 Feb
- **[International WCRP/IOC Conference 2017](#) on Regional Sea Level
Changes and Coastal Impacts**
10-14 July 2017, New York
Abstract submission and application for financial support close 15 Feb
- Click on the link for a [list of upcoming events/conferences](#). Send me an
email to list a conference.

Training & Student Opportunities

Opportunity	Institution	Closing Date
FREE ROMS Course 6-10 Feb, UCT The Department of Oceanography at UCT is offering a one-week course on ocean regional modelling with ROMS for researchers and postgrads.	UCT	26 Jan
PhD opportunity – Coastal and Estuarine Ecology (Processes)	SAIAB	31 Jan
PhD opportunity working on the eDNA of seagrass communities in South Africa	Stellenbosch University	5 Feb
Observing and modelling ocean waves - a short course 13-16 February 2017, University of Cape Town	UCT	n/a
GODAE OceanView International School "New Frontiers in Operational Oceanography" 2-13 October 2017, Mallorca, Spain	GOV	28 Feb
Ten month training course in Observational Oceanography Starts October 2017	NF-POGO	6 Mar
IOI-SA Training Course: Ocean Governance for Africa 4-29 September 2017 in Cape Town	IOI-SA	13 Apr
Summer School for PhD students: "Crash Course on Data Assimilation Theoretical foundations and advanced applications with focus on ensemble methods", June 6-9, 2017, Bergen (Norway)	NERSC	15 Apr
MSc in Physical Oceanography : The main focus of the project is to assess all available historical physical oceanography data, and that which will be collected over the next two years, and determine a mean state for the KZN Bight in order to assist with MPA decision making processes currently underway for the region.	SAEON/DEA	n/a
Available MSc Project on Kelp forest mapping	UCT	n/a

Vacancies

Position	Organisation	Location	Closing date
Climate Modelling Scientist	NERSC	Norway	31 Jan
Postdoc position : Offshore Marine Biodiversity	SAEON	Cape Town	31 Jan
Principal Researcher – Earth Systems Modelling	CSIR	Pretoria	31 Jan
Executive Director	Future Earth	Canada	3 Feb
Research Assistant	SANCCOB	Western Cape	10 Feb
Programme Coordinator - Communications, Monitoring & Evaluation	NRF	Pretoria	14 Feb
Postdoc position - application of stable isotopes & biomarkers as proxies for palaeoenvironmental reconstruction	Stellenbosch University	Western Cape	15 Feb
Competence Area Manager : Ecosystems Services	CSIR	Pretoria or Stellenbosch	17 Feb
Four new information systems positions related to a national Marine Management System and oceanographic information products. <ul style="list-style-type: none"> • Senior Linux Administrator • Senior Developer Python Java Linux Systems • Junior Linux Expert • Data Curation Specialist 	SAEON	Western Cape	17 Feb
Postdoctoral researcher - climate change impact on African Penguin ecology	NMMU	Eastern Cape	17 Feb
Postdoctoral position to study Southern Ocean phytoplankton acclimation strategies to changes in trace metal availability	Stellenbosch University	Stellenbosch	Start Jul
Marine Science positions	AIMS	Australia	various

Research Calls

Call	Closing date
Marine Stewardship Council (MSC) offers the Global Fisheries Sustainability Fund . The fund supports fishery science research and projects aimed at assisting fisheries in their journey to achieving MSC certification.	13 Feb
South Africa-Canada Chairs Initiative (SACRI) in Natural Sciences and Engineering (NSE)	14 Feb
Evaluation and Rating of Individual Researchers 2017	15 Feb
Equipment-related Travel and Training Grants 2016/2017 Call for Applications	27 Feb
Incentive Funding for Rated Researchers 2017	28 Feb
Call for Research Chairs <ul style="list-style-type: none"> • Integrated Ecological Economics Modelling (page 19) • Inland Fisheries and Freshwater Ecology (page 21) 	7 Mar
The Belmont Forum and START are pleased to announce an opportunity for African scientists to participate in the upcoming Belmont Forum Collaborative Research Action on Sustainable Urban Global Initiative (SUGI): Food-Water-Energy Nexus.	15 Mar
PRE ANNOUNCEMENT: Joint Africa-EU Call on Food and Nutrition Security and Sustainable Agriculture and Aquaculture (LEAP-Agri). Launch: Feb 2017. Proposals due May 2017.	May 2017

Abstract

MA-RE SANCOR Seminar

– 30 Jan

Speaker: Robert Schlegel, University of the Western Cape

Topic: Climate change in coastal waters: time series properties affecting trend estimation

Abstract:

In South Africa 129 in situ temperature time series of up to 43 years are used for investigations of the thermal characteristics of coastal seawater. They are collected with handheld thermometers or underwater temperature recorders (UTRs) and are recorded at precisions from 0.5°C to 0.001°C . Using the natural range of seasonal signals and variability for 84 of these time series, their length, decadal trend and data precision were systematically varied before fitting generalized least squares (GLS) models to study the effect these variables have on trend detection. The variables that contributed most to accurate trend detection in decreasing order were: time series length, decadal trend, variance, percentage of missing data (%NA) and measurement precision. Time series > 30 years in length are preferred, and though larger decadal trends are modeled more accurately, modeled significance (p-value) is largely affected by the variance present. The risk of committing both type 1 and 2 errors increases when $\geq 5\%$ NA is present. There is no appreciable effect on model accuracy between measurement precision of 0.1°C to 0.001°C . Measurement precisions of 0.5°C require longer time series to give equally accurate model results. The implication is that the thermometer time series in this dataset, and others around the world, must be at least two years longer than their UTR counterparts to be useful for decadal scale climate change studies. Furthermore, adding older lower precision UTR data to newer higher precision UTR data within the same time series will increase their usefulness for this purpose.

Abstract

MA-RE SANCOR Seminar

– 20 Feb

Speaker: Dr. Alon Stern, Princeton University, Geophysical Fluid Dynamics Laboratory

Topic: Ice shelf melting and breaking: implications for Antarctic Climate

Abstract:

The freshwater flux from the Antarctic continent into the global ocean occurs through basal melting and the calving of icebergs off the edge of Antarctic ice shelves. The meltwater from basal melting affects local hydrography and plays a role in driving local ocean currents around Antarctica. In contrast, icebergs can drift long distances from their calving origins before melting entirely, depositing their meltwater remotely and affecting sea ice formation and climate away from the Antarctic coastline.

This talk focuses on the role of icebergs in the climate system, and considers how icebergs distribute freshwater around Antarctica. A fully-coupled general circulation model with an iceberg component is used to investigate how the partitioning of the Antarctic freshwater flux into basal melting and iceberg calving affects the greater climate system. These results highlight the importance of accurately representing ice shelf melting and ice shelf calving in numerical models. With this in mind, we discuss a (new) Lagrangian approach to modeling ice shelves, and present a discrete element ice shelf model which provides a unified framework for modeling ice shelves, ice shelf cavities and icebergs.