



**RGNO - Regional Graduate Network in Oceanography**  
SAM NUJOMA CAMPUS & MARINE and COASTAL RESEARCH CENTER and  
NATIONAL MARINE INFORMATION AND RESEARCH CENTER

## Scientific Knowledge applied to the sustainable Use and Management of marine upwelling and coastal Ecosystems and their Resources

Workshop on Research Needs in Ocean Sciences and Presentation of Results of the RGNO Capacity Building Course 2016

Symposium Program, Wednesday, June 1, 2016, 09.15 -17.15

**RGNO Open Symposium Day** hosted by Nat MIRC in Swakopmund.

07.30 *Depart from Namsof Residence*

09.15 *Welcome and Outlook for Research Collaborations at NatMIRC*, Hannes Holtzhausen, NatMIRC, MFMR

09.35 *Introduction to the 2016 RGNO Symposium*, Kurt Hanselmann, ETHZ, Switzerland

09.40 Written statements: *Namibia Fisheries*, by Jan Arnold, Bidvest Namibia Fisheries Holdings (Pty) Limited AND *Needs for future investigations and capacity building in Ocean Geobiosciences from GSN's point of view* by Aphary Muyongo, Israel Hasheela, Ewereth Muvangua, Gloria Simubali, Geological Survey of Namibia.

**Morning Session chaired by Edosa Omoregie**  
*Presentations last 25 minutes, discussion included*

09.45 *Current and Future Developments at SANUMARC and the Sam Nujoma Campus*  
Johannes A Iitembu, Dept. Fisheries and Aquatic Sciences of UNAM, Sam Nujoma Campus and SANUMARC, Namibia

10.10 *The Importance of integrated Studies and/or Research: What impacts what, how and when, and how does it affect my Understanding of my Work / Field of Research?*  
Frikki Botes, NatMIRC, Namibia

10.35 Break and Poster Session

11.00 *Research Requirements for the Mariculture Industry*  
Jacobus Blaauw, Mariculture Industries, Namibia

11.35 *Benthos Research Needs - The Role of Benthos in Ocean Ecosystem Functioning*  
Bronwen Currie, MFMR, Namibia

12.00 *Science prospects for NatMIRC in collaboration with.....*  
Deon Louw, Nat MIRC, Namibia

12.30 *The global Ocean Acidification Network- where does the Benguela Upwelling System fit in?*  
Chibo Chikwililwa, SANUMARC, Namibia

**Afternoon Session chaired by Kurt Hanselmann**  
*Presentations last 20 minutes, discussion included*

14.00 *Concentration and Dissolution of Trace Metals from known Dust Sources in Namibia - How Namibian Deserts are fertilizing the Ocean from above*

Kaukurauee Ismael Kanguuehi, University of Stellenbosch, Earth Science Department, Stellenbosch, South Africa

14.20 *Microbial Formate Dehydrogenase Activity in Shelf Sediments of the Benguela Upwelling Ecosystem - Formate, a link between Sulfide Production and Methanogenesis*

Philip Eickenbusch, ETH Zurich, Department of Environmental System Sciences, Switzerland

14.40 *Composition of Nematodes in Comparison with Annelids Distribution across the Northern Benguela Upwelling System in Namibia - Why are Nematodes good Indicator Organisms to study benthic-pelagic Food-Chain Interactions*

Beth Wangui Waweru, Kenya Marine and Fisheries Research Institute, Mombasa, Kenya

15.00 Break and Poster Session

15.20 *Distribution of Macrobenthos across the Oxygen Minimum Zone in the Northern Benguela Upwelling System - How tolerant are Organisms towards Hypoxia?*

Said Mohamed Hashim, University of Nairobi, School of Biological Sciences, Nairobi, Kenya

15.40 *Spatio-temporal Variability and vertical Distributions of Picophytoplankton in the Southern Benguela as compared to the Northern Benguela - What makes Picophytoplankton major Primary Producers in our Oceans?*

Zimkhita Gebe, University of Cape Town, Department of Biological Sciences, South Africa

16.00 *Temporal and spatial Comparisons of Nutrient Limitation and Redox Stability in the Benguela Upwelling System - How Nitrogen Cycling and Nitrogen Loss can be studied applying stable Nitrogen Isotope Techniques*  
Leanne Grace Hancock, University of California Riverside, Department of Earth Science, Riverside, California, USA

16.20 *Spatial and vertical Distribution of Coccolithophores and its Relationship to Surface Water Dynamics in the Benguela Upwelling System - Environmental Control on calcifying Primary Producers off the Coast of Namibia*

Blanca Ausin, ETH Zurich, Dept. of Earth Sciences. Switzerland

13.00 Lunch Break. Standing Lunch at Nat MIRC offered by the RGNO

13.30 *Presentation of NatMIRC Facility and Aquarium*  
Bronwen Currie and Hannes Holtzhausen, NatMIRC

17.00 *Summary of RGNO Symposium and Compilation of future Research Needs*

Johannes A Iitembu, UNAM, Dept. of Fisheries and Aquatic Sciences

18.00 Bus departs from Nat MIRC for Henties Bay

**Sponsors of RGNO Course Activities 2016**



## Scientific Knowledge applied to the Sustainable Use of Coastal Upwelling Ecosystems

Microbial and Geochemical Oceanography in Upwelling Ecosystems

Symposium Program, Tuesday, June 2, 2015, 09.30 -18.00

**RGNO Open Symposium Day** hosted by NatMIRC in Swakopmund.

**08.00** Depart from Namsof Residence

**09.30** *Welcome at NatMIRC*

**Chris Bartholomae, NatMIRC, MFMR**

**09.35** *Introduction to the Symposium and  
Review of the RGNO 2015*

**Kurt Hanselmann, ETHZ, CH**

Morning Session chaired by

**Sam Mafwila, UNAM**

**09.40** *Phytoplankton of the northern Benguela  
Upwelling System*

**Deon Louw, Nat MIRC, MFMR, NA**

**10.10** *Benguela Upwelling Ecosystem - Metal  
Cycling and Pollution*

**Edosa Omoregie, SANUMARC, NA**

**10.40** Break

**11.00** *Metabolism in the giant bacteria  
Thiomargarita spp. assayed using a redox-  
sensitive dye*

**Jake Bailey, U. Minnesota, USA**

**11.30** *Variability of Copepod Abundance along  
the 201S Monitoring Transect from 2005 to  
2011*

**Richard Horaeb, Nat MIRC, MFMR, NA**

**12.00** Break, Standing Lunch offered by the  
RGNO

**12.45** Presentation of NatMIRC Facility in  
Groups

Richard Horaeb, NatMIRC

**13.30** Afternoon Session chaired by **Chibo Chikwililwa**

Presentations last 20 / 30 minutes, respectively, discussion included

**13.30** **Isabella Ueitele** (ZERI, Namibia) & **Lorenzo Lagostina** (ETHZ, CH)  
*Exploring the Ocean as a Source of Antibiotics?*

**14.00** **Stéphanie Follonier** (HES-SO Valais, Switzerland)  
*Isolation of Bioplastic-producing Microbes from the Benguela Upwelling System*

**14.20** **Sten Littmann** (MPI Bremen, Germany) & **Clara Loureiro** (U Azores,  
Portugal)  
*Microbiological Diversity and Primary Production in the Benguela Ecosystem*

**14.50** **Sally Johanna Shiindi** (NIS, Namibia)  
*A modular Approach for the Enrichment of Sulfate-reducing Microorganisms from  
organic-rich Sediments*

**15.10** Break

**15.30** **Kaarel Mänd** (U Tartu, Estonia)  
*Phosphatised Microstructures in ancient and modern Phosphorites*

**15.50** **Felipe Sales de Freitas** (UBristol, UK)  
*What controls Reactivity of sedimentary organic Matter across different depositional  
Settings: A Lipid Biomarker Approach?*

**16.10** **Katharina Siedenberg** (U Münster, Germany)  
*The Application of Stable Isotopes to Reveal the Sedimentary Sulfur Cycle*

**16.30** **Hermína Namupala and Erastus Shilongo Uusiku** (NSI, Namibia)  
*Heavy Metals and PSTs along the Namibian Coast: A Baseline Study for Quality  
Assurance*

**17.00** **Jessica Confrancesco** (Oklahoma State University, USA)  
*Impact on the Trace Metal Contents of laterally re-deposited Sediments in the  
Benguela Upwelling System*

**17.20** **Victor Miti Libuku** (NatMIRC, Namibia) to be confirmed  
*Re-suspension and Deposition of Sediments from the Upper Namibian Shelf*

**18.00** Bus departs from Nat MIRC

### Sponsors



**An open Forum offered by  
The DISCOVERY CAMP – 2014  
of the Regional Graduate Research & Training Network in  
Oceanography**

on

# **Scientific Knowledge applied to the Sustainable Use of Coastal Upwelling Ecosystems**

**with Lectures and Discussions by Experts from the Region  
and visiting Scientists and  
Presentations by the Participants of the Discovery Camp  
about Research Results and Research Proposals**

**Tuesday, MARCH 25, 2014  
in the Auditorium of the**

**National Marine Information and Research Centre (Nat MIRC)  
in Swakopmund**

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The RGNO Research Discovery Camp is sponsored in addition by



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## PROGRAM

### Welcome at Nat MIRC

Rudi Cloete, Nat MIRC, MFMR

### *Introduction to the Symposium and Review of the RGNO 2014*

Kurt Hanselmann, ETHZ

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Morning Session chaired by Sam Mafwila, UNAM

#### ***Phosphate Mining - A Namibian Perspective***

Rudi Cloete, Nat MIRC, MFMR

09:25

#### ***Exploring the Role of Polyphosphate Metabolism in the Formation of phosphatic Mineral Deposits***

09:55

Jake Bailey, University of Minnesota

BREAK

10:30

#### ***The Dynamics of Phytoplankton in the Northern Benguela Current System***

10:50

Deon Louw, Nat MIRC, MFMR

#### ***A World of Giants! – The largest Bacteria come from Namibia***

11:25

Verena Salman, University of North Carolina

#### ***Long-term Environmental Trends in Namibia, using integrated Data Sets for Management***

12:00

Anja Van Der Plas, Nat MIRC, MFMR

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BREAK, Standing Lunch offered to all Participants by the RGNO

12:35

#### **Presentation of Nat MIRC Facilities in Groups**

13:15

Richard Horaeb, Nat MIRC, MFMR

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Afternoon Session chaired by Elsabe Julies, UNAM

#### **Student Presentation of RGNO Research Results and Research Proposals**

14:15

Przemysław Jerzy Dabek, Poland

#### ***Effects of salinity on growth of the planktonic diatom *Pleurosigma* sp. from the Benguela Upwelling System***

Kahe Johanna Dijerenge, Namibia

#### ***Can we get toxic phytoplankton species that grow better if we change the N:P ratio?***

Cathleen Deelie, Namibia

#### ***Polyphosphate in Diatoms***

Blessing Kamwi, Namibia

#### ***The Benthic-Pelagic Interaction***

BREAK

#### **Student Presentation of RGNO Research Results and Research Proposals cont.**

15:45

Marion Jaussi, Denmark

#### ***Hunting (or fishing) sulfate reducing ammonium oxidation in Namibian shelf sediments***

Maria Malakia, Namibia

#### ***Effects of dissolved organic carbon addition on microorganisms in the water column off the Namibian shelf***

Maria Papadatou, Greece

#### ***Thiomargarita - Namibia's sulfur pearl physiology***

Katherine French, USA

#### ***Molecular characterization of the sulfur cycle in the Benguelan upwelling zone***

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End of symposium

17:15