

science
& technology

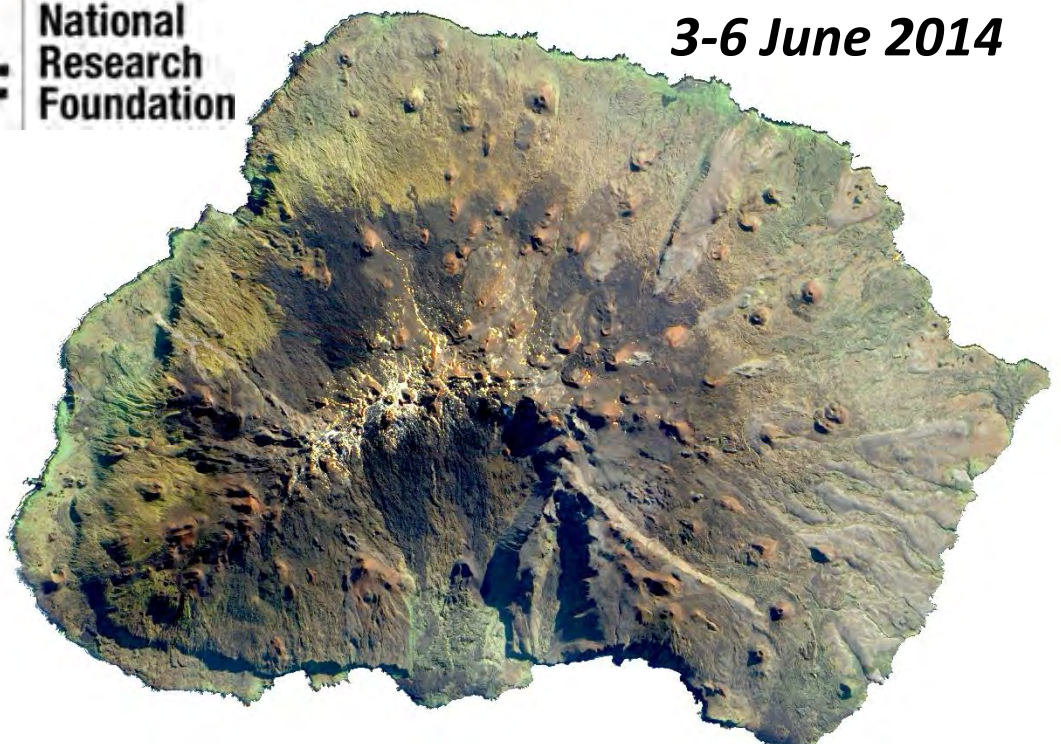
Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

**NRF SANAP
PI Symposium**

***The Highlander
10 Worcester St.
Grahamstown
3-6 June 2014***



**National
Research
Foundation**



SYMPOSIUM PROGRAMME

Tuesday, 3 June 2014

Arrival

13:30	15:30	Travel to Grahamstown	Blunden Coaches	Inbound Flights are at 12:45, 12:50 and 13:15
15:30	16:00	Transfer to overnight accommodation		
18:00	18:15	Transport to Royal Society talk		Meet at B&B's
18:30	19:30	Amy Jacot-Guillarmod Memorial Lecture (Royal Society of South Africa)	Dr Nico de Bruyn	Zoology Major Lecture Theatre, Biological Sciences Building, Prince Alfred St, Rhodes University Campus.
19:30	20:00	Cocktails		
20:00	20:45	Transport to accommodation		
			SCAR National Committee Meeting	
19:30	21:00	SANAC Meeting		Geography Department
21:00	21:15	Transport to accommodation		

Wednesday, 4 June 2014 Morning Paper & Poster Sessions

07:30	07:45	Delegates collected from accommodation		
08:00	08:15	Welcome	Rosemary Dorrington Peter Clayton (Deputy Vice-Chancellor: Research and Development, Rhodes University)	

PI Talks: Session 1 (Chairs: I Meiklejohn & W Nel)

08:15	08:30	P Monteiro	SOSCEX: a new approach to understand climate - carbon sensitivities of the Southern Ocean.
08:30	08:45	S Thomalla	Investigating the spring bloom initiation and net community production of the Sub-Antarctic.
08:45	09:00	T Mtshali	Global Compilation of dFe observations: focus on processes and distributions in the Southern Ocean.
09:00	09:15	K Findlay	An overview of, and future opportunities for, large whale research in the African Sector of the Southern Ocean.
09:15	09:30	N de Bruyn	Marion Island Marine Mammal Programme: 31-years and going strong.
09:30	09:45	A Makhado	At sea distributions of albatrosses from the Prince Edward Islands: do they partition feeding grounds?
09:45	10:00	P Ryan	An overview of bird research: past, present and future.
10:00	10:10	W Froneman	The Impact of global climate change on the inshore marine ecosystem of the Prince Edward Islands.
10:10	10:25	R Dorrington	Microbial diversity as a tool for studying ecosystem functioning.
10:30	10:45	Tea	

10:45 12:30 Poster Session 1

CSIR/SU Geology

- S Fietz Southern Ocean phytoplankton: adaption to mimicked future changes in light and iron availability, molecular bases and modelling. **(1)**
- N van Horsten Photosynthetic response to Southern Ocean phytoplankton under iron and light limitations: Bioassay experiment. **(2)**

CSIR/UCT Oceanography

- P Mongwe Seasonal cycle of CO₂ fluxes in the southern Indian Ocean: a model spatial scale sensitivity analysis. **(3)**
- W Joubert The sensitivity of primary productivity to interseasonal mixed layer variability in the sub-Antarctic zone of the Atlantic Ocean. **(4)**
- N Chang Towards high resolution ocean-ice biogeochemical modelling of the South Atlantic-Southern Ocean. **(5)**
- C Smith Phytoplankton cell size and carbon content: a bio-optical approach. **(6)**
- S Nicholson Identification of physical processes driving variability in Southern Ocean primary production: a state of art high resolution numerical modelling study. **(7)**
- L Gregor Resolving Inter annual CO₂ fluxes in the Southern Ocean: a statistical learning approach. **(8)**
- M du Plessis Using autonomous ocean gliders to bridge the gap in understanding Southern Ocean mixing dynamics. **(9)**

UP Mammals

- K Venter Preliminary results of the South African Antarctic Blue Whale Cruise. **(10)**
- M Postma Population status and body size of a large marine mammal. **(11)**
- C Tosh Environmental determinants of Southern Elephant Seal movements. **(12)**
- R Reisinger Social structure of killer whales (*Orcinus orca*) at Marion Island. **(13)**
- C Oosthuizen Detecting change in marine systems through monitoring of predator populations. **(14)**
- M Wege Population changes of sympatric sub-Antarctic and Antarctic fur seals at Marion Island. **(15)**

DEA Birds

- T Miya Re-evaluation of the taxonomic status of three *nototheniid* fishes that are distributed on both sides of the Antarctic Polar Front. **(16)**
- R Crawford Penguins and cormorants at Marion Island: factors affecting their conservation status. **(17)**
- B Dyer Night strikes of the burrowing petrels at Marion Island-trends and possible means to mitigate. **(18)**
- T Carpenter-Kling Foraging, diet and breeding of the Gentoo Penguin at Marion Island. **(19)**

UCT Oceanography

- K Hutchinson Investigating the thermohaline variability of the ACC south of Africa using a GEM proxy technique. **(20)**
- A Treasure Land-sea interactions and consequences for marine food webs: a test of ECOTRAN in the sub-Antarctic. **(21)**

Rhodes Microbiology

- L Chauke The role of insect gut-associated microbial communities in terrestrial nutrient cycling. **(22)**
- G Matcher Bacterial diversity profiles associated with patterned ground features on inland nunataks in Dronning Maud Land, Antarctica. **(23)**
- P Mokgokong Characterising seasonal changes in soil microbial communities on Marion Island. **(24)**
- R Dorrington Temporal shifts in the diversity and population structure of marine microbial diversity; understanding the ecosystem functioning of Sub-Antarctic island systems. **(25)**

Afternoon Paper & Poster Sessions

12:30 13:30 Lunch

PI Talks: Session 2 (Chairs: R Dorrington & A Makhado)

13:30	13:45	D Cowan Microbial ecology of Antarctic dry valley soils.
13:45	14:00	B Jansen van Vuuren Genetic diversity at diversity spatial scales.
14:00	14:15	V Smith Plant ecological research at Marion Island: 1965-2014.
14:15	14:30	I Meiklejohn Landscape processes in Antarctic ecosystems.
14:30	14:45	G Grantham The structural geology of Straumnsnutane area, Western Dronning Maud Land, Antarctica: implications for the amalgamation of Gondwana.
14:45	15:00	P Cilliers Polar space weather studies: achievements and opportunities.
15:00	15:30	TEA
15:30	15:45	S Lotz The southern polar cap index as an indicator of GIC activity.
15:45	16:00	H Moraal The cosmic ray programme of SANAP.
16:00	16:15	J Rash The SANAE HF Radar: what it does and what it tells us.
16:15	16:30	Break

16:30 18:00 Poster Session 2

UP Microbiology

M van Goethem Moisture sufficiency shapes cyanobacterial communities in a polar hyperarid desert. **(26)**

SU Plant Sciences

M Rossouw Spatial Variation in Plant nutrient composition on Marion Island. **(27)**

J Tonkie Bryophyte fluorescence characteristics on Marion Island. **(28)**

A Muller Vascular Plant Functional types on Marion Island. **(29)**

Rhodes Geomorphology

C Hansen The characterisation of an openwork block deposit, Northern Buttress, Vesleskarvet, Dronning Maud Land, Antarctica. **(30)**

C Borg A refined model for sediment transport by diurnal frost processes in periglacial environments. **(31)**

R Dwight Geomorphic and climatic influences on lichen distribution in Western Dronning Maud Land, Antarctica. **(32)**

D Scott Using UAV's to model landscape features in Western Dronning Maud Land, Antarctica. **(33)**

E Rudolph The geomorphology of a rock glacier at Grojtøyra, Jutelsessen, Antarctica. **(34)**

C Kotze Characteristics of atmospheric vortices from the Prince Edward Islands. **(35)**

CGS/UJ Geology

- E Burger Inferring tectonic setting using granite sheet orientation, in HU Sverdrupfjella, West Dronning Maud Land, Antarctica. **(36)**
- N Moabi A Geochemistry of Straumnsnutane lavas (Justulstraumen Group) in Western Dronning Maud Land, Antarctica. **(37)**
- G Grantham Tectonic control on the Ordovician Sandstones and Permo-Carboniferous Dwyka Glaciation of Gondwana. **(38)**

SU Human Comfort

- K McMahan Human Comfort: 2013-2014. **(39)**
- K Soal Operational Modal analysis of the SA Agulhas II. Statistical Analysis of 2013-2014 Antarctica data. **(40)**

NWU Space Science

- H Krüger Introduction of NWU posters.
- G Bernadé Development of a state-of-the-art neutron monitors. **(41)**
- G Mosotho A study of the cosmic-ray modulation cycle. **(42)**
- A Mans Cosmic-ray stations and data handling. **(43)**

SANSA Space Science

- P Cilliers Digital upgrade of SuperDARN radar at SANA. **(44)**
- S Lotz VLF research infrastructure at SANA. **(45)**

18:00 18:30 Drinks Break

18:30 19:30 Dinner Lowlander

Evening Paper Session

New PI Talks (Chair: B Jansen van Vuuren)

- 19:30 19:40 **R Olivier**
The Antarctic Legacy Project.
- 19:40 19:50 **S Swart**
Ocean robots observe new scales of variability in the Southern Ocean.
- 19:50 20:00 **P Pistorius**
Current penguin research on Marion Island and the need for community level focus on top predators.
- 20:00 20:10 **T Makhwanyane**
Nitrogen biochemistry in cryptic Antarctic microbial communities.
- 20:10 20:20 **G Matcher**
Soil microbial biodiversity and ecosystem functioning of inland terrestrial habitats in Dronning Maud Land, Antarctica.
- 20:20 20:30 **P le Roux**
The role of microhabitat and biotic interactions in determining species fine-scale distribution and climate change responses.
- 20:30 20:40 **W Nel**
Synoptic classification and decadal change in air circulation patterns at Marion Island: The way forward.
- 20:40 20:50 **B Pletschke**
Mining psychrophilic microorganisms for industrially important enzymes.
- 20:50 21:00 **T Bornman**
Establishing the Marion Island long term ecological research (LTER) Sentinel site.
- 21:30 - *Transport back to accommodation*

Thursday, 5 June 2014
Keynote Address, Information Sessions and Workshops

08:30	08:45	<i>Delegates collected from accommodation</i>	
09:00	10:00	Antarctic Research in New Zealand's <i>Key Note Address</i>	G Wilson Introduction by: D Cowan
10:00	10:30	Tea	
10:30	11:00	SANAP & SCAR <i>Information Session & Workshop</i>	D Cowan
11:00	11:30	SA Antarctic Science Policy <i>Information Session</i>	P Skelton
11:30	12:00	New SANAP Call <i>Information Session</i>	G Siko & T Klarenbeek
12:00	13:00	Lunch	
13:00	14:30	Identifying New Research Questions <i>Workshop</i>	V Smith
14:30	15:00	Breakaway Group Discussions <i>Workshop</i>	
15:00	15:30	Tea	
15:30	17:00	Breakaway Group Discussions <i>Workshop</i>	
17:00	17:30	Closure/Summing Up	R Dorrington & I Meiklejohn
17:30	18:30	<i>Drinks and return to accommodation</i>	
18:30	19:00	<i>Transport to dinner venue</i>	
19:00		Dinner at Haricot's	

Friday, 6 June 2014
Return

06:30	07:00	<i>Transport from accommodation to departure point (Cape Town Flights)</i>
07:00	08:50	Passengers on Cape Town flights travel to Port Elizabeth
07:30	08:00	<i>Transport from accommodation to departure point (Johannesburg/Durban Flights)</i>
08:00	09:50	Passengers on Johannesburg/Durban flights travel to Port Elizabeth

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