

Monthly Update

June 2013

I. Overview

1. Key achievements: June 2013

- Submission of the 2013 – 2016 SRIG proposal
- Successfully completed five LTER and CMP maintenance field trips to Algoa Bay and the estuaries
- Dr Albrecht Götz nominated for Kudu Award, SANParks, Garden Route Section
- Several field trips attended for Phuhlisa students (ACEP)
- WIOMSA funding application successful

2. Key activities proposed: July 2013

- Monthly LTER field trips to sample the Pelagic Ecosystem in Algoa Bay and Kromme Estuary.
- Monthly maintenance of estuarine CMP Network
- CMP deployment and maintenance field trips in Algoa Bay and St Francis Bay
- DST Parliamentary Portfolio Committee visit
- Tsitsikamma National Park MPA fieldtrip: winter sampling
- National Science week talks and workshops

II. Achievements: June 2013

1. Management, Student and Staff Relations

- 3 June: Conference call between SAIAB, SAEON and the NRF (Dr Albert van Jaarsveld and Dr Andrew Kaniki) regarding a consultant to review marine science.
- 3 June: Shaun Deyzel met with Ms Penny Haworth (SAIAB) to discuss cleaning services at SAEON offices.
- 5 June: Tommy met with Alistair McInnes (PhD student from Percy FitzPatrick, UCT) regarding penguins in Algoa Bay.
- 5 June: Tommy met with Prof Eileen Campbell (NMMU) regarding Phytoplankton in Algoa Bay.
- 6 June: Elwandle staff meeting to discuss High Performance Teams.
- 11 June: Shaun and Tommy attended the Sancor Forum meeting at NMMU.
- 13 June: Tommy attended the field trip to collect sediment samples from Algoa Bay for the BSc Honours project from UFH (ACEP Phuhlisa Programme) on geomorphology.
- 19 June: Tommy, Ali and Anthony met to discuss MPA-LTER plans.
- 19 June: Tommy, Angus and Penny met to discuss the showcasing of Marine Platforms during the 75th Coelacanth celebrations.
- 25 June: SRIG Conference Call with Node Managers.
- 25 June: Tommy met with Prof Rosie Dorington (RU) to discuss a joint research application on freshwater input into Algoa Bay for submission to WRC.
- 28 June: Tommy analysed diatom samples on the SEM at the High-Resolution Transmission Electron Microscopy unit at NMMU.

2. Monitoring Platforms

a. *Algoa Bay LTMRP*

- 5 June: Shaun and collaborators (Dr Peter Teske – Flinders University, Australia/University of Johannesburg; Prof Bettine Jansen van Vuuren – UJ) submitted a proposal entitled **“Barcoding of zooplankton in Algoa Bay”** to the Integrated Biodiversity Information Programme – Small Grants 2013
- 8 June: Monthly PE-LTEMRP conducted successfully using the SAIAB/ACEP research vessel uKwabelana. Shaun, Tommy and DST interns Mfundo Bizani, Athi Mafikile and Nick Riddin participated. An additional location (Site 8) was sampled in the vicinity of Cape Recife.

b. *St Francis Bay Estuaries LTMRP*

- 20 June: Tommy, Nick, Mfundo and Ntando serviced the Gamtoos Estuary CT loggers and two new loggers deployed.
- 21 June: Nick, Mfundo and Ntando attended the Kromme LTER and CMP service field trip.

c. *Estuaries LTMRP*

- 13 June: Shaun collected *Nassarius kraussianus* (Mollusca) specimens from the Kowie Estuary for sequencing/barcoding by SAIAB researcher Dr Gavin Gouws (in collaboration with Dr Peter Teske). This component forms part of a larger collaborative project investigating gene flow barriers along the former Transkei coastline.
- 20 June: Gamtoos plankton sampling trip 1 conducted by Shaun Deyzel and DST interns Yolanda Qhaji, Bomikazi Tsingana and Mfundo Bizani (SAIAB). Sampling involved day (YSI, nutrients, phytoplankton) and night work (zooplankton).
- 21 June: Monthly Kromme sampling by DST interns Nick Riddin, Mfundo Bizani and Ntandokazi Mndela.

3. Marine Protected Areas

- Dr Albrecht Götz’s student graduated during June, Ms Carolyn Sanguinetti - MSc degree, University of Cape Town, South Africa.
- Proposed stereo-RUV research at the uShaka and TwoOceans oceanariums approved by the oceanarium management
- Mapping equipment sent to Kyle Smith from SANParks to complete mapping of study site at Natures Valley and offshore Blaukranz
- Pondoland stereo-BRUV research project formulated between Elwandle and ORI (Bruce Mann and Jade Maggs)
- Sarah Halse: Stereo-BRUV analysis completed for Tsitsikamma summer collection on bait types in accordance with MSc research requirements.
- 31 May – 6 June: Dr Albrecht Götz Dry suit and underwater communication with full face mask dive training in Cape Town.

- 1 June: Denham Parker paper accepted. ***“Parker, D & Booth, AJ (2013) The tongue-replacing isopod *Cymothoa borbonica* reduces the growth of largespot pompano *Trachinotus botla*. *Marine Biology*. Accepted 1/06/2013”***.
- 17 June: Dr Albrecht Götz, Anthony Bernard, Denham Parker and Elodie Heyns - AdHoc field assistance, Invertebrate specimen collection on Riy Bank from Port Elizabeth (SCUBA diving and supervising).
- 20 June: Dr Albrecht Götz nominated for Kudu Award, SANParks, Garden Route Section.
- 21 June: Dr Anthony Bernard, funding received from WIOMSA – MARG I Grant June 2013 (US\$ 6,000).
- 24 June: Denham Parker PhD thesis Chapter 2 submitted. ***“Study Site, General Methodology and a Brief Description of the Ichthyofauna of Tsitsikamma National Park Marine Protected Area.”***
- 30 June – 4 July: Elodie Heyns Oral Presentation entitled: ***“Depth related changes in the benthic invertebrate community of warm temperate reefs in the Tsitsikamma Marine Protected Area.”*** South African Society of Aquatic Scientist, Arniston.
- 26 June 2013: Albrecht, Ant, Denham and Sarah undertook a trip to PE to clean moorings at PEDSAC and collect Mussell bait for July Tsitsikamma Field trip.

4. Data Management

- 12 June: Shaun and Tommy met with Dr Wayne Goschen to discuss data management and research strategies related to Algoa Bay Sentinel Site projects in general, CMP network and PE-LTEMRP in particular.
- PE-LTEMRP zooplankton database updated.

5. Education

- 3 June: Telephonic conversation with Hugh Van Niekerk of SAWS with regard to donation of rain gauges. SAWS will be assisting with installation and management of rainfall stations.
- 10 June: Prize giving at Kingswood college.
- 11 June: Meeting at Elwandle Node with Phumeza Kalipa (MSTE) of the Dept of Education with regard to National Science Week activities in Grahamstown .
- Article sent to be published in the SAEON e-newsletter.
- 20 and 26 June: Learners support re-expo project.

6. Parataxonomy Laboratory

- ACEP/ORI samples were successfully transported to Ms Fiona Mackay (ORI). Contract is now complete.

7. Technical: CMP Maintenance/SCUBA Diving/Boating

- pH meter re-installed onto the CTD and a new xml.con file made up for the newer calibration constants.

8. Research support / platform provision

- YSI, Secchi, Pop-bottle water sampler made available to Ryan Palmer for Phuhlisa research programme (Swartkops Estuary)
- 11-13 June: Sean Bailey assisted Anchor Consultants CC with ADCP servicing in Algoa Bay. SAEON vessel Honchenii was used for this purpose and Sean served as skipper as well as supplying technical support.
- 14 June: Shaun held the monthly scientific reading and writing course with Elwandle Node DST interns.
- 18 June: Shaun Deyzel commented on draft manuscript due for publication: Wasserman et al. (in prep) Hyperbenthic and pelagic predators regulate alternate key zooplanktonic copepods in shallow temperate estuaries. SAEON is acknowledged for invertebrate identification and comments of manuscript.
- 19 June: Shaun downloaded physico-chemical data from YSI multi-parameter probe and sent it to Ryan Palmer (Phuhlisa Programme, ACEP/SAIAB).

9. Stakeholder Relations

a. Joint ACEP Marine Platform Operations

- The ACEP Marine Platform has been operating well and has undertaken 5 trips during June:
 - a. SAEON Plankton Run
 - b. ACEP Open Call Shark Tagging
 - c. ACEP Phuhlisa Geology
 - d. ACEP Phuhlisa Biochemistry
 - e. SAIAB ATAP/OTN servicing
- Estuarine sampling also took place on the Swartkops Estuary for the Phuhlisa microbiology MSc project, an on-going monthly sample is planned for this project.

b. SAIAB-ACEP/SAEON/UFH/WSU Collaboration

- 11 June: SANCOR forum – Garth presented on the theme of transformation. 18 students and interns from SAEON and SAIAB attended.
- 13 June: Ken Liu and Afika Zwele undertook fieldtrip with Ryan Palmer on uKwabelana to collect sediment.
- 25th June: Garth, Ryan and Sive Bukani went on fieldtrip to collect water samples at Swartkops for her MSc study.

10.Challenges and corrective measures

- Three DST/NRF interns completed their internship at Elwandle on 30 June. This left the Node with a shortage of skills for the remainder of the year. Corrective measure: Two of the interns (GIS and data management) were offered short term contracts for 6 months to complete their work and assist the Node. Helping hands will especially be needed if the SRIG application is successful.

11. Risks description, impacts and mitigation

- Winter always results in considerably less weather windows available in which to sample. This could result in a sampling trip being cancelled for the month. Weather risks are mitigated by sending more than one team out into the field on the suitable days.

III. Proposed Activities: July 2013

1. Scheduled appointments

- 2 – 3 July: Tommy to meet with DWA on water quality and water level recordings in the sentinel site.
- 4 July: Tommy to attend the DEA Coastal Management Workshop, Port Elizabeth
- 5 July: Tommy to meet with a) Prof Andrew Leitch and Prof Eileen Campbell from NMMU re SAEON/SAIAB/NMMU MoU and b) Prof Renzo Perissinotto from NMMU regarding collaboration with SAEON.
- 8 July: Elwandle staff meeting and technical planning meeting.
- 21 – 23 July: Tommy to attend NRF NMDP Study Block.
- 24 – 25 July: DST Parliament Portfolio Committee visit to SAEON Elwandle and SAIAB.
- 31 July: Tommy to present at National Science Week seminar day in Port Elizabeth.
- Shaun Deyzel to meet with Zeiss SA representative regarding microscope / imagery options.

2. Monitoring Platforms and CMP Maintenance

- New mooring to be deployed at Cape Recife ADCP.
- UTR's Bird Island inner and outer service.
- 8-10 July: Monthly PE-LTEMRP sampling
- PE-LTEMRP meeting in PE
- Kromme monthly sampling
- Swartkops, Gamtoos and Kariega CMP maintenance

3. Marine Protected Areas

- Tsitsikamma National Park MPA fieldtrip: winter sampling

4. Data Management

- Update online projects database
- SANParks project registration

5. Education

- 03 July: Expo workshop at Assegaai trails.
- 18 July: Learner workshop at Ntaba Maria. Sibongile of National Office will be attending as well.
- 19 July: Regional Expo will be held at Rhodes University. Sibongile co-judge with Nozi on environmental science project. Elwandle Node will sponsor an award (environmental change book and a certificate).
- 29 July -02 August: National science week workshops to be held at SAIAB in Grahamstown.