

Monthly Update
September 2013

I. Overview

1. Key achievements: September 2013

- Successfully completed four LTER and CMP maintenance field trips to Algoa Bay, St Francis Bay and the estuaries
- Grade 11 Science Camp
- Meeting of stakeholders to discuss the deployment of surface moorings by DEA in the Algoa Bay Sentinel Site
- Submitted two PDP applications and reviewed four bursary and grant applications

2. Key activities proposed: October 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
- RSET Fieldtrip to Kromme and Knysna estuaries
- National Marine Week
- Grade 10 Science Camp

II. Achievements: September 2013

1. Management, Student and Staff Relations

- 1-6 September: Tommy on Paternity Leave.
- 3 Sept: Shaun and Sean attended monthly SAIAB/SAEON Field Integration meeting at SAIAB.
- 9 September: Tommy attended the DEA White Paper meeting in Cape Town.
- 10 September: Tommy, Shaun, Sean and Koos participated in a tour of the available facilities in the Port of PE together with TNPA, SAMSA and NMMU.
- 17 September: Tommy attended a conference call with Dr Gansen Pillay.
- 19 September: Tommy attended the iSimangaliso GEF recommendations meeting on the St Lucia Estuary Project in Durban.
- 23 September: Tommy opened the Grade 11 Science Camp at the Willows Resort in Port Elizabeth
- 25 September: Tommy attended a meeting with DWA and NMMU to discuss the long term monitoring strategy for the Swartkops Estuary
- 26 September: Tommy attended the DST-NRF Marine Research Planning meeting in Pretoria.

- 27 September: Tommy organised and chaired a meeting of stakeholders for the proposed deployment of surface moorings in Algoa Bay by DEA Oceans and Coasts. DEA, SAWS, SAMSA, SANParks and NMMU attended.
- 27 September: Tommy attended a research meeting with Prof Renzo Perissinotto.

2. Monitoring Platforms

a. *Algoa Bay LTMRP*

- 13 September: Monthly PE-LTERP sampling conducted successfully (uKwabelana). Shaun Deyzel, Tommy, Athi Mfikile and Mfundo Bizani (DST Intern) participated.

b. *St Francis Bay LTMRP*

- 17 September: The five St Francis UTR strings were serviced by Sean, Athi and Mfundo.

c. *Estuaries LTMRP*

- 6 September: Gamtoos and Swartkops loggers were serviced by Sean, Athi and Mfundo.
- 24 & 25 September: Mbashe and Mbanyana CT loggers were serviced by Sean.

3. Marine Protected Areas

Fieldtrips:

- 10 August – 16 October: Dr. Albrecht Gotz - Antarctica Cruise on FS Polarstern – Krill diving surveys.
- 14 September: Tsitsikamma Winter field trip completed by Dr. Anthony Bernard, Denham Parker, Elodie Heyns and Sarah Halse.
 - o 8 scuba dives
 - o 58 baited remote underwater stereo-video (stereo-BRUVs) samples
 - o 16 Controlled angling stations
 - o Ten fish tissue samples for fatty acid, stable isotope and metal contamination studies

Technical Reports, Proposals and Scientific Presentations:

- GÖTZ, A., BERNARD, A., HEYNS, E. DE VOS, L., PARKER, D. and S. HALSE (2013) A long-term monitoring strategy for South Africa's reef ecosystems - Separating climate change from anthropogenic impacts. Seminar Series Polarstern, FS Polarstern, **29th September 2013**.
- Albrecht Götz -South African Marine Linefish Status Report (submitted) Species profiles compiled for roman (*Chrysoblephus laticeps*), Cape stumpnose (*Rhabdosargus holubi*) and blue stingray (*Dasyatis chrysonota*). Oceanographic Research Institute, (peer reviewed) Special Publication.
- Denham Parker - South African Marine Linefish Status Report (submitted) Species profiles compiled for largespot pompano (*Trachinotus botla*). Oceanographic Research Institute, (peer reviewed) Special Publication.

- Western Indian Ocean Marine Science Association (WIOMSA) Marine and Coastal Science for Management (MASMA) Programme: *The use of macro-ecological patterns in Reef Fish distribution to inform resource management in the face of global change – Oceanic-basin scale comparisons between high latitude WIO and EIO regions to identify global trends.*
- National Research Foundation Competitive Programme for rated researchers 2013: *Addressing fundamental knowledge gaps in sub-tidal reef monitoring techniques and sampling designs to enable effective long term monitoring for sustainable management of reef fisheries and conservation of reef biodiversity.*

4. Data Management

- 2 September: Project registration documents were sent to Prof Igor Litvine (Director at Centre of Expertise in Forecasting, NMMU). Prof Litvine applied for access to current data in Algoa Bay for use in a study investigating suitability of current regimes for electricity generation. This application was referred to Elwandle Node by Dr Wayne Goschen. Awaiting return of completed documents.
- 3 September: Received amended project registration documents from Ms Paula Patrick (PhD student at NMMU). After negotiating terms of her original mode of registration that previously was limited to a single research chapter from her PhD programme, Paula and supervisor, Dr Nadine Strydom agreed to register her entire PhD programme.
- 4 September: CTD data collected by the PE-LTERP was sent to Ms Paula Patrick.
- 11 September: Student Project registration documents were sent to Mr Warren Witte (MSc student, DIFS, RU). Awaiting return of completed documents.
- PE-LTERP zooplankton database was updated with sampling metadata and biomass data for September.

5. Education

- 3-5 September: Nozi attended an education symposium in Pretoria.
- 23-25 September: Nozi co-ordinated and attended the Grade 11 Science camp held at Madiba Resort in Port Elizabeth
- 28 September: Nozi attended the International Science Fair in Johannesburg.

6. Parataxonomy Laboratory

- Parataxonomy Technicians are still in the process of analysing sediment samples collected from the Orange River Estuary/Delta area. They also conducted routine maintenance of voucher specimens.

7. Technical: CMP Maintenance/SCUBA Diving/Boating

- *Nothing to report.*

8. Research support / platform provision

- 18 September: Shaun assisted RU students with identification of zooplankton specimens taken from the Kasouga Estuary.
- 23 September: Light meter, Secchi disk, pop bottle and YSI on loan to SAIAB for their monthly sampling of the Swartkops Estuary (Phuhlisa Programme).
- 27 September: Plankton nets, sieves and cone dredge on loan to Ms Abongile Sobekwa (MSc student, SAIAB) for field work.
- 20-30 September: YSI on loan to Dr Francesca Porri for field work in Algoa Bay (ACEP project).

9. Stakeholder Relations

a. *Joint ACEP Marine Platform Operations*

- uKwabelana has been refitted with new engines and is running well. September's been a busy month with 6 trips being completed successfully.
 - SEAON Plankton Run
 - SAEON CMP - St Francis
 - ACEP Shark tagging
 - 2 x ACEP Larval studies
 - ATAP fish tagging
- Kadouw is being refurbished at Kemsley Marine in Port Alfred and should be operational by the end of November.

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

- 2-3 September: Garth attended a Molecular biology workshop for University of Fort Hare students.
- 3-11 September: Walter Sisulu University honours student data analysis visit.
- 12 September: NSTF Symposium - achieving NDR 2030 targets
- 23-25 September: Attended Rocky Shore fieldtrip to Silaka Reserve with Dr Dlaza

10. Challenges and corrective measures

- Shortage of staff to attend field trips. Interns and short-term contract staff member assist with most field trips. A more permanent junior technician is urgently required to take on this role full time.

11. Risks description, impacts and mitigation

- One of the 80 m thermistor strings in St Francis could not be retrieved. It is believed that it has been lifted/damaged/moved by shipping (either trawlers or anchoring activities). 6 months of data have been lost. It is hoped that the mooring will wash ashore and be reported to us. All new moorings will be deployed with a double ring (increased redundancy), although that will not help if the mooring are damaged by shipping.

12. Research: general

- 4 September: Shaun reviewed NRF Thuthuka Programme Grant application
- 30 September: Shaun submitted an application for a Professional Development Programme Grant (PhD)
- 30 September: Tommy submitted an application for a Professional Development Programme Grant (Post-doc)
- 25 – 30 September: Tommy reviewed three free-standing bursary applications (2 x MSc and 1 x PhD) and completed two co-user application forms on NRF-online.

III. Proposed Activities: October 2013

1. Scheduled appointments

- 4 October: Tommy to attend a field trip to the Swartkops with UFH GIS students to groundtruth the estuarine vegetation.
- 8 October: Tommy to meet with Renzo and Angus to discuss collaboration with NFs in Algoa Bay
- 8 October: SAEON / SAIAB field integration meeting
- 10-18 October: Shaun and Tommy to meet with Prof Renzo Perissinotto (Research Chair: Shallow water ecosystems, NMMU) to discuss potential involvement with zooplankton research in Algoa Bay.

2. Monitoring Platforms and CMP Maintenance

- 1-14 October: Monthly PE-LTERP sampling
- 7 October: Kenton to Woody Cape gully probes maintenance trip
- 10 October: Kromme monthly LTER sampling
- 11 October: Quarterly Gamtoos Estuary sampling with DST Interns
- 1-14 October: Sediment collection in western sector of Algoa Bay for Prof Anthony Okoh (UFH, Microbiology Dept.).
- 21 – 24 October: Sea level rise study field trip to Kromme and Knysna estuaries
- Bird Island ADCP & mooring
- UTR PA and UTR PA 80

3. Marine Protected Areas

- 27 -31 October: Elodie Heyns and Denham Parker to attend the WIOMSA conference in Mozambique.

4. Data Management

- Register student projects with Mr Denham Parker (RU) and Mr Tim Vink (NMMU)

- Send zooplankton data to Ms Paula Patrick and Ms Paige Potter (both NMMU)
- Send Mossel Bay temperature data to Ms Renae Logston (UCT)
- Send pH data from Shaun's PhD to Ms Tumeka Mbobo (Phuhlisa MSc student).

5. Education

- 7 October: Marine Week Launch in Port Elizabeth.
- 10-11 October: Marine Week workshops to be held at local schools in Grahamstown.
- 18-19 October: Grade 10 Science Camp – venue to be confirmed.