

Monthly Update
October 2013

I. Overview

1. Key achievements: October 2013

- Successfully completed five LTER and CMP maintenance field trips to Algoa Bay, St Francis Bay and the estuaries
- SAMSA / DST conference and Indaba on Advancing the South African maritime Sector through Research, Innovation and Knowledge Management
- One paper published and five scientific presentations (conferences and seminar series) delivered
- Four research field trips attended
- 120 post-doc applications reviewed in two separate NRF panels

2. Key activities proposed: November 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
- Annual RSET Fieldtrip to Kromme and Knysna estuaries (stood over from October)
- Stereo-BRUV Workshop in Grahamstown
- Elwandle Node Liaison Committee meeting
- Marine Science at NRF National Facilities Open Day / Coelacanth 75th year celebrations in Port Elizabeth

II. Achievements: October 2013

1. Management, Student and Staff Relations

- 8 October: Tommy and Angus met with Prof Renzo Perissinotto (SARCHi – Shallow water Ecosystems), NMMU, to discuss collaboration and use of research platforms in Algoa Bay.
- 8 October: Tommy, Angus and Rose met with PEYC management to discuss Coelacanth and marine National Facilities celebrations.
- 8 October: Shaun Deyzel and Sean Bailey attended SAEON/SAIAB Integrated Field Operations Meeting at SAIAB
- 10 October: Coelacanth Celebrations planning meeting at SAIAB.
- 14 October: Tommy and Shaun met with Prof Renzo Perissinotto (SARCHi – Shallow water Ecosystems), NMMU, to discuss supervision of PDP PhD student.
- 14 October: Tommy took Prof Rosy Dorrington (SARCHi in bioprospecting, RU) out on the Swartkops to collect water and sediment samples.

- 15 October: Tommy and Shaun attended the ACEP Phuhlisa Progress Meeting at SAIAB
- 16 October: Visit by Deputy Minister Rejoice Mabudafhasi of DWEA to Grahamstown in celebration of the 18th birthday of the Working for Water programme.
- 17 -18 October: Tommy attended Stromatolite field trip.
- 23 October: Staff meeting
- 21 – 25 October: Staff mid-term reviews
- 25 October: Tommy worked on the SEM at the HRTEM Centre, NMMU.
- 30 – 31 October: Tommy presented a paper at the SAMSA / DST conference and Indaba on Advancing the South African maritime Sector through Research, Innovation and Knowledge Management.
- 18, 30 October: Shaun attended ACEP Open Day / Coelacanth 75th year celebration planning meetings 2 and 3 at SAIAB.
- Bid specifications and docs for the 2013 SRIG call have been completed and submitted.

2. Monitoring Platforms

a. Algoa Bay LTMRP

- 4 October: UTR's PA and 80mPA were serviced by Sean and Mfundo.
- 7 October: Kenton to Woody gullies were serviced by Sean, Shaun and Tommy.
- 22 October: Monthly PE-LTERP sampling conducted successfully. Tommy, Shaun and DST Interns Mfundo Bizani and Yolanda Qhaji participated.

b. Estuaries LTMRP

- 3 October: Kariega loggers serviced by Sean and Mfundo.
- 4 October: Tommy and two UFH BSc Hons students map the current vegetation and habitat of the Swartkops Estuary.
- 10 October: Monthly CT loggers and Pelagic Ecosystem sampling were conducted in the Kromme Estuary by Sean and DST Interns Mfundo and Bomikazi.
- 11 October: Quarterly Pelagic Ecosystem sampling (including zooplankton) was conducted in the Gamtoos Estuary by Sean, Tommy, Bomikazi and Mfundo (day time sampling) as well as Shaun, Athi and Yolanda (night time sampling).

3. Marine Protected Areas

Papers published:

JAMES, N.C., L. VAN NIEKERK, A.K. WHITFIELD, W.M. POTTS, A. GÖTZ and A.W. PATERSON (2013) Effects of climate change on South African estuaries and associated fish species. *Climate Research* 57: 233-248.

Funding applied for:

- Applied for extension for a 4th year of Professional Development Programme (PDP) funding for Elodie Heyns.
- To Rhodes University, a Research Committee Grant, ± R30,000 for Anthony Bernard.

Conference presentations/abstracts delivered:

PARKER, D., GÖTZ, A., WINKER, H. and A.T.F. BERNARD. Optimizing long-term monitoring for assessing subtidal reef fish communities: introduction of the novel stereo-BRUV sampling technique. Western Indian Ocean Marine Science Association Symposium, Maputo, Mozambique, **28th October - 2nd November 2013**.

BERNARD, A.T.F., PARKER, D., HEYNS, E. and A. GÖTZ. The effect of sampling method on the effectiveness and cost-efficiency of subtidal reef fish monitoring programmes. Western Indian Ocean Marine Science Association Symposium, Maputo, Mozambique, **28th October - 2nd November 2013**.

HEYNS, E.R., GÖTZ, A., BERNARD, A.T.F. and A.W. PATERSON. How does the ecology of shallow & deep warm-temperate South African reefs differ?. Western Indian Ocean Marine Science Association Symposium, Maputo, Mozambique, **28th October - 2nd November 2013**.

Conferences attended:

28 October – 2 November: Denham Parker and Elodie Heyns attended the Western Indian Ocean Marine Science Association Symposium in Maputo, Mozambique.

Scientific presentations delivered:

PARKER, D., GÖTZ, A., WINKER, H. and A. BERNARD. Optimizing long-term monitoring for assessing sub-tidal reef fish communities: Introduction of the novel stereo-BRUV sampling technique. Postgraduate Seminars, Department of Ichthyology and Fisheries Science, Rhodes University, Grahamstown, South Africa, **16th-18th October 2013**.

FREIER, U., KERWATH, S., GÖTZ, A., NEHRKE, G., YILMAZ, N., TESCHKE, M., SCHULZE, B. and L. AUERSWALD (2013) Scientific diving group – preliminary results. Seminar Series Polarstern, FS Polarstern, **13th October 2013**.

Referee of journals/thesis/projects:

October 2013: South African Journal of Science (Albrecht Götz)

Technical reports:

GÖTZ, A. and P.D. COWLEY (2013) Blue stingray (*Dasyatis chrysonota*). In: MANN, B.Q. (Ed.) Southern African Marine Linefish Species Profiles. Special Publication, **Durban 9: 53-54**.

GÖTZ, A. and S.E. KERWATH (2013) Roman (*Chrysolephus laticeps*). In: MANN, B.Q. (Ed.) Southern African Marine Linefish Species Profiles. Special Publication, **Durban 9: 221-222**.

GÖTZ, A. and P.D. COWLEY (2013) Cape stumpnose (*Rhabdosargus holubi*). In: MANN, B.Q. (Ed.) Southern African Marine Linefish Species Profiles. Special Publication, **Durban 9: 268-269**.

PARKER D & BOOTH, AJ (2013) Largespot pompano (*Trachinotus botla*). In: MANN, B.Q. (Ed.) Southern African Marine Linefish Species Profiles. Special Publication, **Durban 9: 29-30**.

Fieldtrips:

10th August – 16th October 2013: Albrecht Gotz - Antarctica cruise on FS Polarstern, Krill diving surveys.

13th October – 13th November 2013: Anthony Bernard - Seychelles outer islands research cruise, Fish and coral diving surveys, RUVs and BRUVs.

4. Data Management

- 28 October: Mossel Bay temperature data sent to Ms Renae Logston (UCT MSc student). Wayne Goschen facilitated data dissemination.
- 28 October: Completed Project registration forms returned to Elwandle Node by Prof Igor Litvine. Prof Litvine is Professor in the Statistics Department, NMMU and Director of the Centre of Expertise in Forecasting. SAEON's Sentinel Site CMP data will form a critical part of their proposed research project.
- We are still waiting for project registration forms to be returned by Mr Warren Witte (MSc, DIFS, RU). Registration forms were sent to Mr Witte on the 11 September.
- PE-LTERP metadata for October captured on database. October Zooplankton Biomass sample analysis is 90% complete. Data will be captured on database upon completion.
- Kromme and Gamtoos estuaries logger, salinity profile and Pelagic Ecosystem physico-chemical data were successfully downloaded, filed and uploaded onto SAEON Data Portal.

5. Education

- Grade 10 camp cancelled due to unavailability of learners (exams).
- 7 October: Attended and exhibited at the National Marine Week launch held at NMMU in Port Elizabeth.
- 10 October: Exhibited at Nombulelo High school in Grahamstown with the DEA Oceans and Coasts.
- 29 October: Visited Wendy House play school in Grahamstown and displayed SAIAB's fish specimen for little kids.

6. Parataxonomy Laboratory

- Shaun started with a species identification revision course held with Parataxonomy Technicians in anticipation of receipt of Vleesbaai samples early December. In the meantime Parataxonomy Technicians are continuing with the analysis of sediment samples collected from the Orange River Estuary/Delta area.
- Shaun is currently assisting DST Interns Mfundo Bizani and Yolanda Qhaji with estuarine zooplankton species identification.

7. Technical: CMP Maintenance/SCUBA Diving/Boating/Vehicles

- 7 October: Tommy, Sean and Shaun took part in the Kenton Gully UTR maintenance field trip.
- The Nissan Navara's clutch was replaced under warranty.
- Sean placed an order for the correct cable for the two C7 sensors on the CTD with rosette.
- pH problem with the CTD with rosette sent to Andre Hoek of Sea Technology Services for investigation.

8. Research support / platform provision

- 9 October: Shaun assisted Mr Jeffrey Hean and Mr Ryan Wasserman (PhD students, RU) with sampling and experimental design.
- 1-16 October: CTD on loan to SAIAB for sampling in Algoa Bay (ACEP Project)
- 15 October: Shaun assisted Ms Amber-Jade Roe (BCom Hon student, RU) with statistical analysis (Honours Research Report)
- 18 October: Tommy retrieved a ATAP/OTN mooring washed ashore at Thyspunt and returned it to SAIAB
- 22 October: Light meter, Secchi disk and pop-bottle water sampler on loan to SAIAB for sampling in Swartkops Estuary
- 28 October: Plankton nets and hand sieves on loan to Ms Abongile Sobekwa (WSU MSc Student, SAIAB/ACEP Phuhlisa Programme)
- 29 October: YSI on loan to SAIAB for sampling in the Kowie Estuary.

9. Stakeholder Relations

a. *Joint ACEP Marine Platform Operations*

- uKwabelana has once again had a busy and productive month having completed 6 days of work at sea.
- Five days were spent on ACEP open call, 4 for Francesca Porri's plankton project and 1 for Malcolm Smaile tagging *Dusky Kob*.
- A SAEON Plankton run was also completed.

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

- Risk: Limited sea days, unavailability of the research vessel and few available research divers meant that the retrieval of the Bird Island ADCP is overdue by 2 months. A dedicated maintenance trip is scheduled for November to retrieve and replace the ADCP and rig

(frame has been in the water for more than 4 years already and is badly corroded). Impact: Battery should have lasted for the extended period but there may be some data loss. Badly corroded frame and big seas could have damaged the rig. Mitigation: A maintenance trip to service the ADCP is a top priority for November.

12. Research: general

- Tommy was part of a NRF panel that reviewed 80+ freestanding post-doc applications and Ali was on a panel that reviewed 60+ PDP post-doc applications.

III. Proposed Activities: November 2013

1. Scheduled appointments

- 5 November: Tommy and Ali to attend PDP post-doctoral review panels at the NRF, Pretoria.
- 7 November: SAEON/SAIAB field operations integration meeting held at SAIAB
- 15 November: Clearsea SRIG meeting with Nodes and National Office.
- 15 November: Shaun and Bruce Donovan to attend White Shark Researchers Group meeting in Cape Town to discuss SAEON's involvement with their National Photo Identification database.
- 26 November: Elwandle Node Liaison Committee meeting.
- 26 November: Celebrations of marine research at National Facilities and the 75th year since the discovery of the Coelacanth.

2. Monitoring Platforms and CMP Maintenance

- 1-14 November: PE-LTERP monthly sampling in Algoa Bay.
- 4 – 6 November: Kariega Estuary pelagic ecosystem sampling.
- 5 - 7 November: Annual Kariega Estuary Pelagic Ecosystem sampling field trip with Prof Alan Whitfield (SAIAB).
- Swartkops, Gamtoos, Kromme estuaries CMP maintenance field trip.
- Kromme Pelagic Ecosystem LTER field trip.
- Maintenance of thermistor strings in Algoa Bay.
- Maintenance of ADCPs in Algoa Bay and deployment of a new ADCP at St Francis Bay.
- Plans for November include the completion of Francesca's plankton work, servicing of the OTN receivers, SAEON plankton run, ROV work and servicing the SAEON CMPs.
- Kadouw is still in the process of being refurbished and is on track to be completed by the end of November.
- BI ADCP and mooring to be serviced.
- UTR's CR, St Croix, Sunday's River, Dune, Woody & 80m Bird Island need to be serviced before holidays.

3. Marine Protected Areas

- 18th – 19th stereo-BRUV Workshop in Grahamstown (Facilitator: Albrecht Gotz)
- 18 -19 November: Ali, Ant and Tommy attend the SBRUV workshop (organised by Elwandle) at SAIAB.

4. Data Management

- Send Sentinel Site CMP data to Ms Nicole De Vega, student of Prof Igor Litvine (Statistics Dept, NMMU).
- Update PE-LTERP metadata and observational databases.
- Update project registration database.

5. Education

- Set up the first rainfall gauge in Sundays River valley, date for set up to be confirmed.
- Collect all the equipment from the schools, before the December break, for security reasons.