

Monthly Update
November 2012

I. Overview

1. Key achievements: November 2012

- Case study on Algoa Bay submitted for publication in the Risk and Vulnerability Atlas
- Annual Kariega Estuary Field trip in collaboration with SAIAB and Sibuya Lodge
- 1st National DST Conference on Global Change – 2 oral and 2 poster presentations
- 3 student projects registered (2 x NMMU; 1 x UCT)
- MPA Research Group was awarded funding from the British Ecological Society Grant
- PE-LTERMP sampling trip completed
- CMP maintenance trips completed
- Two BSc Honours students handed in their treatise for marking

2. Key activities proposed: December 2012

- 2 x Estuarine LTERMP trips
- PE-LTERMP sampling in Algoa Bay
- Gully Probe maintenance
- 2 BSc Honours, 2 MSc and 2 PhD students hand in their treatises, theses and dissertations for marking

II. Achievements: November 2012

1. Management, Student and Staff Relations

- 1 November: Case study submitted to Risk and Vulnerability Atlas. Bornman, T.G., Goschen, W.S., Theron, A.K., Campbell, E.E., Cowley, P.D. 2012. Algoa Bay – a sentinel site for long term environmental observation.
- 5 November: Meet with East African Marine Transect Expedition members to discuss SAEONs involvement
- 12 November: Meeting with Alan Whitfield to plan the Kariega Estuary field trip
- 13 – 30 November: The following treatises were handed in (Tommy co-promoter):
 - Sanele Ndzelu. 2012. Spatial analysis of bay-scale changes in sediment particle size in Algoa Bay. Unpublished BSc Honours treatise, University of Fort Hare. 108 pp
 - Nondzuzo Zathelela. 2012. Geomorphology of the western sector of Algoa Bay. Unpublished BSc Honours treatise, University of Fort Hare. 77 pp
- 26 – 28 November: DST Global Change Conference. Tommy presented the following:
 - **Bornman, T.G.,** Goschen, W., Campbell, E. & Brown, S. Long-term Ecological Research and Monitoring (LTERM) in Algoa Bay, South Africa: Implications for

management. DST Global Change Conference, Johannesburg, 26-28 November 2012.

- Goschen, W., **Bornman, T.G.** & Campbell, E.E. The effects of an increase in the number of Agulhas Current large episodic meanders (“Natal Pulses”) on the marine coastal environment of the Eastern Cape due to Climate Change, DST Global Change Conference, Johannesburg, 26-28 November 2012.
- 29 November: Tommy and Albrecht attend the SAEON Science meeting in Pretoria
- 30 November: Tommy attend the SAEON Management meeting in Pretoria

2. Monitoring Platforms

a. *Algoa Bay LTMRP*

- UTR CR was retrieved and redeployed on 6th November. UTR’s Sun and St Croix have broken loose but the replacements for both these sites have been deployed.
- 8 Nov: PE-LTEMRP monthly plankton sampling conducted successfully
- 12 – 13 November: Gully Probe deployment on Jahleel and St Croix islands.

b. *St Francis Bay LTMRP*

- Next maintenance trip planned for early 2013.

c. *Estuaries LTMRP*

- 19 – 22 November: Tommy and Nick participated in the Kariega Estuary field trip. Three CT loggers deployed.
- 23 November: Tommy downloaded the Swartkops Estuary loggers.
- The following estuary related paper was published:
 - Adams, J.B., Grobler, A., Rowe, C., T Riddin, T., **Bornman, T.G.** & Ayres, D.R. 2012. Plant traits and spread of the invasive salt marsh grass, *Spartina alterniflora* Loisel., in the Great Brak Estuary, South Africa. African Journal of Marine Science, 34(3): 313–322.

3. Marine Protected Areas

- Anthony Bernard was awarded funding from the British Ecological Society Grant for “The effect of spatial management and depth on the structure of reef fish assemblages measured with stereo baited remote underwater video systems in the Agulhas Ecoregion.”
- Dr. Gotz reviewed a paper for the Western Indian Ocean Journal of Marine Science.
- Dr. Gotz attended the 1st National Global Change Conference in Boksburg from the 26th – 28th November 2012, where the following were presented:
 - GÖTZ, A., BERNARD, A., HEYNS, E. DE VOS, L. and D. PARKER (2012). A long-term monitoring strategy for South Africa’s reef ecosystems - Separating

climate change from anthropogenic impacts. National Global Change Conference, Birchwood Hotel, Boksburg, 26th – 28th November 2012.

- PARKER, D., GÖTZ, A. and H. WINKER (2012) Optimizing a long-term monitoring protocol for assessing subtidal reef fish communities: standardization versus adaptation. National Global Change Conference, Birchwood Hotel, Boksburg, 26th – 28th November 2012.
- 29th November – Attended a SAEON Science Meeting at National Office in Pretoria.

4. Data Management

- Completed project registrations with Alistair Innes (UCT), Gavin Reshworth (NMMU) and Paige Potter (NMMU)
- All three students will be making use of Algoa Bay CMP data

5. Education

- Weather station equipment was taken away from Ntsika and T.E.M Mrwetyana Schools for security reasons.
- Other schools security systems are sounder and it was decided to keep the equipment locked up in their safes.
- Weather stations will be set up again in January when schools re-open.
- No further interaction with the schools took place due to final examinations.

6. Parataxonomy Laboratory

- ORI data analysis completed. Awaiting arrival of Vleesbaai samples (7 December).
- Three candidates from seven applications were shortlisted for interviews in December for the two new Working for Water/RU/SAEON parataxonomy posts for disabled individuals.

7. Technical: CMP Maintenance/SCUBA Diving/Boating

- The profiling CTD and AFM module were taken to Cape Town to be worked on by Sea Technology Services in an effort to resolve the longstanding comms problems between the instruments. Work is still in progress.
- It is believed that the s/s release links failed as a result of “crevice corrosion” on the moorings that broke away in November. The new nickel links have arrived and will be used in future. The remaining 90 s/s links shall be returned to the supplier for exchange with nickel links.
- Efforts to search for the missing moorings were done along the entire stretch of beach between the Sundays River mouth and Woody Cape on Thursday 15th November. Other regular beach users have been alerted to look for the moorings.

8. Stakeholder Relations

a. *Joint ACEP Marine Platform Operations*

During November there have been six trips on uKwabelana:

- The SAEON Plankton run.
- Four ACEP shark tagging trips during which a number of White Sharks were tagged.
- A gear trials trip to test ADCP and plankton pump prior to use on an ACEP project due to start in December.
- Filming was done on uKwabelana for use in an NRF documentary on the National facilities.

Plans for December include:

- ACEP benthic-pelagic larvae sampling (four day/night trips).
- OTN Servicing.
- SAEON Plankton run.

b. *SAIAB-ACEP/SAEON/UFH/WSU Phuhlisa Programme*

- 26-28 November: Exhibition stand at Global change conference.
- 26-29 November: Oral presentation at SAASTEC conference.
- 6 November: Rhodes University ELRC Universities Group visit.
- 16 November: Presentation by Stefano Cannicci on the responses of East African mangrove ecosystems to climate changes.
- 12 November: Angus and Garth had a meeting with Prof. Gideon de Wet.

9. Challenges and corrective measures

- The Seabird CTD developed a communication problem that Seabird Electronics Inc. (USA) could not fix remotely. The instrument was taken to Cape Town and Sea Technology Services in consultation with Seabird Electronics Inc. managed to fix the problem. The instrument was out of use for more than a month and will be couriered back early in December.
- The DWA estuarine boat trailer has not been licenced yet (due to issues at DWA) and we have been using the trailer illegally. DWA is busy finalising the licence.
- Flood damage to the N2 between Grahamstown and Port Elizabeth resulted in a detour of 30 – 75 km, adding 30 - 90 minutes on travel time to the Sentinel Site. The new shorter detour was completed at the end of November.
- Alexis Olds (DST/NRF intern on estuarine ecology) resigned when she was offered a permanent post at Cape Nature. Nick Ridden (marine ecology intern) has taken over her tasks.

10. Risks description, impacts and mitigation

- Loss of four inshore 30 m depth moorings due to release link failure. Two were retrieved, two remain missing. Impact = loss of data and loss of equipment valued at R60,000. Mitigation = stronger nickel release links sent from the US free of charge. Flyers sent out to regular beach users to keep a look out for the lost instruments.

III. *Proposed Activities: December 2012*

1. **Scheduled appointments & staff matters**

- 5 December: Tommy to meet with Prof Andrew Leitch, Dean of Science, NMMU, regarding SAEON Research Associates at the University.
- 10 December: Interviews with shortlisted candidates for the two parataxonomy posts
- 2 BSc Honours, 2 MSc and 2 PhD students hand in their treatises, theses and dissertations for marking

2. **Monitoring Platforms and CMP Maintenance**

- UTR's Woody Cape and Dunes will be redeployed early December. These deployments were washed up and found on the Cape Padrone beach earlier this month.
- The moored CTD will be lifted, inspected, downloaded & redeployed early in December.
- PE-LTEMRP plankton sampling 10-15 December
- Kromme Estuary LTERM field trip between 6 – 12 December
- Gamtoos CT logger serviced
- Algoa Bay/St Francis Bay/Tsitsikamma Gully Probe service 10 – 15 December / 26 – 31 December (spring low tide).

3. **Marine Protected Areas**

- ACEP Meeting in Cape Town (date to be confirmed)
- Planning meeting MPA Unit (date to be confirmed)
- 11th – 21st Fieldtrip Cape Town.

4. **Data Management**

- Vleesbaai benthic sample analysis to commence on the 10 December

5. **Education**

- No plans for December, due to schools closing during first week in December.