

## **Monthly Update**

January 2014

### **I. Overview**

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#### **1. Key achievements: December 2013 /January 2014**

- Successfully completed nine LTER and CMP maintenance field trips to Algoa Bay, St Francis Bay and the estuaries.
- Successfully sampled (four trips) the first occurrence of a Harmful Algal Bloom in Algoa Bay.
- PDP PhD Grant awarded to Shaun Deyzel.
- Albrecht Götz successfully applied for the Competitive Programme for Rated Researchers funding.
- Pondoland SBRUV field trip successfully completed
- Inaugural monthly “Ecology of Stromatolites” sampling trip in collaboration with the SARChI in Shallow Water Ecosystems (Prof Renzo Perissinotto, NMMU)

#### **2. Key activities proposed: February 2014**

- Monthly LTER field trips to sample the Pelagic Ecosystem in Algoa Bay, Kromme Estuary and the Gamtoos Estuary.
- Monthly maintenance of estuarine CMP Network (2 trips) and Sentinel Site CMPs (2 trips)
- Annual summer Tsitsikamma SBRUV field trip
- Several meetings with SAMSA regarding SAEON’s role in the National Maritime Road Map, the planned South African National Maritime Institute and sharing offices in PE.

### **II. Achievements: December 2013 /January 2014**

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#### **1. Management, Student and Staff Relations**

- 2 December: Elwandle Staff meeting.
- 6 December: Elwandle end-of-year braai.
- 9 – 11 December: Tommy attended the NMDP final presentations at the NRF in Pretoria.
- 12 – 13 December: Tommy attended the SAEON Management meeting in Johannesburg
- 14 January: Tommy had a technical meeting with research staff, Shaun Deyzel, Albrecht Gotz, Anthony Bernard and Denham Parker to discuss field work logistics.
- 17 January: Tommy and Shaun met with Dr Lorien Pichegru to discuss long term monitoring of penguins in Algoa Bay.
- 20 – 23 January: Tommy hosted 5 visiting scientists from the Department of Paleoceanography, University of Szczecin, Poland. Took them on field trips to Kowie, Gamtoos and Sundays estuaries as well as Algoa Bay to collect littoral diatoms.
- 27 January: Tommy and Shaun attended the SAEON-SAIAB monthly marine integration meeting.

- 30 January: ASCLME meeting to discuss outcomes of the PAC meeting. 2<sup>nd</sup> phase of ASCLME and Africog to be separate projects and possibly hosted by two different organisations elsewhere in the country.
- 31 January: Tommy and Shaun met with SAIAB to discuss moving SAEON gear out of the top floor of the SAIAB collections facility.
- Media releases:
  - Tommy Bornman, Shaun Deyzel and Wayne Goschen. **100 km<sup>2</sup>: Looking at the long-term.** In *Building on SA's Coelacanth Legacy*, Advertising supplement to the Mail & Guardian, 20 December 2013: page 4.
  - Anthony Bernard and Elodie Heyns. **Conserving and managing reef ecosystems.** In *Building on SA's Coelacanth Legacy*, Advertising supplement to the Mail & Guardian, 20 December 2013: page 8.
  - The Herald; 22 January: Red tide alert (Tommy)
  - Weekend Post; 25 January: Algoa Bay red tide confirmed as toxic (Tommy)
  - The Daily Dispatch E-Edition; 27 January: Caution over shellfish consumption (Tommy)
  - Knysna-Plett Herald; 30 January: Beautiful display may be toxic (Tommy)
  - The Herald; 30 January: Fish dying in droves as red tide takes its toll (Tommy)
  - Web postings: <http://www.millerslocal.co.za/2/post/2014/01/gotcha.html>; <http://prodivessouthafrica.wordpress.com/2014/01/27/warning-do-not-eat-any-shellfish/>

## **2. Monitoring Platforms**

### **a. Algoa Bay LTMRP**

- 3 December: Tommy sampled peritidal stromatolites in Algoa Bay.
- 5 December: Shaun, Tommy, Athi and Mfundo conducted monthly PE-LTERP sampling in Algoa Bay.
- 15 January: Shaun, Tommy and Mfundo conducted monthly PE-LTERP sampling in Algoa Bay. An extensive Red Tide event was underway in the Algoa Bay Sentinel Site. Elwandle Node has been working closely with scientists from various institutions, local and international, to learn as much as possible about the event.
- 20 January: Tow net samples collected of the red tide onboard R/V uKwabelana (crew: Tommy, Polish and NMMU scientists).
- 17 January: Tommy and Shaun serviced GTPs at several sites in and near Port Elizabeth, including Sardinia Bay, Noordhoek and Humewood beach. The Seaview GTP could not be serviced due to unfavourable surf conditions.
- 22 January: Plankton sampling at one station to capture ecosystem effect of red tide (crew: Tommy, Shaun, Mfundo and Paul-Pierre) onboard R/V uKwabelana.
- 28 January: Red tide dedicated full plankton run onboard R/V uKwabelana (crew: Tommy, Shaun, Mfundo and Paul-Pierre )
- 29 January: Tommy sampled peritidal stromatolites in Algoa Bay.

## **b. St Francis Bay LTMRP**

- 3 January: Tommy serviced the Oyster Bay GTP.

## **c. Estuaries LTMRP**

- 5 December: Kariega CT loggers were sampled by Sean Bailey.
- 10 December: Gamtoos and Swartkops loggers were sampled by Sean, Athi and Mfundo.
- 12 December: Kromme estuary was sampled by Sean, Athi & Mfundo.
- 24 January: Shaun and Mfundo serviced loggers and collected monthly pelagic ecosystem samples from Kromme Estuary.
- Quarterly sampling in Gamtoos Estuary was postponed to February to accommodate monitoring of the red tide event in Algoa Bay.

## **3. Marine Protected Areas**

### **a. Research reports & science plans drafted**

- SOUTH AFRICAN ENVIRONMENTAL OBSERVATION NETWORK: *Elwandle MPA-Unit Annual Progress Report*, Jan 2014
- SOUTH AFRICAN ENVIRONMENTAL OBSERVATION NETWORK: *Elwandle MPA-Unit Annual Science Report*, Jan 2014
- SOUTH AFRICAN ENVIRONMENTAL OBSERVATION NETWORK: *Elwandle MPA-Unit Business Plan*, Jan 2014

### **b. Funding granted**

- NATIONAL RESEARCH FOUNDATION: *Competitive Programme for Rated Researchers* - January 2014 **(ZAR1,277,928)**
- NATIONAL RESEARCH FOUNDATION: *Scarce Skills; Post-doctorate bursary* - January 2014 **(ZAR200,000)**
- DAAD/NATIONAL RESEARCH FOUNDATION: *In-country PhD Scholarship* - January 2014 **(ZAR90,000)**
- NATIONAL RESEARCH FOUNDATION: *Innovation fund; Rated Researchers MSc* - January 2014 **(ZAR70,000)**

### **c. Field trips**

- PONDOLAND MPA (20 – 27 JANUARY): A Bernard, S Bailey and D Parker conducted a field trip to Pondoland MPA to collect stereo-BRUVs data, and test the suitability of the systems to work in high current areas. The project collaborated with Bruce Mann from the Oceanographic Research Institute (ORI).

## **4. Data Management**

- PE-LTERP: Field metadata captured into database, zooplankton flowmeter data captured and fully up to date, zooplankton biomass data received although still to be captured into

database; CTD data for December and January (including episodic event data sets) were downloaded but must still be processed and catalogued.

- E-LTERP: December and January CT-logger data for December and January downloaded but must still be processed and catalogued.

## 5. Education

- No activities took place during December due to school closures during this period.
- I am very pleased to announce all 16 learners, who participated in our programmes have passed their matric. 8 pupils achieved admission to bachelor degree passes, 5 with admission to diplomas and 3 with admission to higher certificates.
- Nyaluza and Nombulelo School's weather stations are also up and running again.

## 6. Parataxonomy Laboratory

- PE-LTERP zooplankton biomass sample analysis up to date.
- E-LTERP chlorophyll-a sample analysis up to date.
- Vleesbaai benthic samples: Laboratory technicians have analysed 18 (of 30) samples thus far.
- Sediment analyses (moisture and organic content) of the Orange Estuary LTERP completed.

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

- 3 January: Tommy serviced the Oyster Bay Gully Probe.
- 17 January: Tommy & Shaun serviced the PE gully probes and deployed a new sensor at the slipway in Humewood in Port Elizabeth.

## 8. Stakeholder Relations

### a. *Joint ACEP Marine Platform Operations*

- uKwabelana undertook 4 trips during January:
  - SAEON Plankton run
  - 3 x SAEON Red tide monitoring
- uKwabelana has been taken to Port Alfred for maintenance.
- Kadouw is also in Port Alfred undergoing refurbishment.

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

- 13 – 17 January: Dr Thembinkosi Dlaza, accompanied by 4 marine science students from Walter Sisulu University, attended the PSSA conference (Phycology) in Cape Town. Dr Dlaza presented a paper.
- Students and Interns started a series of 10 swimming lessons at the Rhodes University pool.
- 21 January: Ryan Palmer accompanied Sive Bukani and Anna Clarke on Swartkops River to collect water samples.
- 22 – 23 January: Pakama Nodo and Dr Nikki James went out to Kariega and Fish River respectively.

#### **9. Challenges and corrective measures**

- The lack of a license disc for the DWA trailer meant that the estuarine boat had to be stored in PE over the holidays. DWA in the meantime renewed the license and the boat is operational again.

#### **10. Risks description, impacts and mitigation**

- Lengthy Supply Chain Management procedures are increasing the risk of not spending the 2013/14 SRIG allocation in time. The first sole supplier contract has been completed, opening the way to fast track the nutrient auto analyser and the Star-Oddi logger contracts.

### **III. *Proposed Activities: February 2014***

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#### **1. Scheduled appointments**

- 6 February: Tommy to meet with representatives from NMMU regarding the South African International Maritime Institute (SAIMI) and the strategic role of SAEON.
- 7 February: Tommy to meet with Dr Lysko (SAMSA, Pretoria) to discuss SAEON Elwandle's role in SAIMI and sharing accommodation with SAMSA in PE.
- 25 February: Steering Committee meeting: National Maritime Road Map. Tommy to present a talk on SAEON's role. CSIR, Pretoria.
- 26 February: Shaun, Ali and Tommy to attend a Research Associates Cocktail Function at NMMU.
- 18 – 28 February (one day): SAIMI stakeholder workshop in PE (date and attendance to be confirmed)
- 28 February: SAEON / SAIAB / ASCLME hosting meeting to discuss the impact of ASCLMEs move in March on SAEON & SAIAB.
- 28 February: Tommy to attend a meeting with SST and other stakeholders to discuss establishing Algoa Bay as a Hope Spot ([mission-blue.org/hope-spots-new/](http://mission-blue.org/hope-spots-new/)).

#### **2. Monitoring Platforms and CMP Maintenance**

- 10 February: Tommy to sample peritidal stromatolites in Algoa Bay.
- 17 – 19 February: Tommy and Athi to sample sediment elevation in the Swartkops estuaries.
- PE-LTEMRP monthly sampling.
- E-LTEMRP monthly sampling: Kromme, Swartkops, Gamtoos, Kariega.

#### **3. Marine Protected Areas**

- 17 February – 3 March: Tsitsikamma summer field trip.

#### **4. Data Management**

- 4 February: Shaun to participate in inaugural monthly IMF ClearSea meeting
- Shaun to continue discussions with WSRG regarding data sharing agreement
- Update PE-LTERP and E-LTERP repositories.

#### **5. Education**

- 18-19 February: Education Team meeting in Pretoria.
- 21-22 February: Grade 10 science camp at Asseggai Trails.
- Sci-fest preparations on going.