



REPORT ON POGO VISITING FELLOWSHIP PROGRAMME 2013

Report from the Visiting Professor

Name of Visiting Professor: Dr Declan Schroeder

Name of Host: Dr Hans Verheye

Host institution: Oceans & Coasts Research, Department of Environmental Affairs

Dates of Training: 27/11/2013 to 4/12/2013

Subject of Training: MoM-CPR : Molecular Mining of the Continuous Plankton Recorder and other archived datasets

Please provide a brief description of activities undertaken during the visiting professorship period. Please include elements of formal training (e.g. lectures, practicals and field trips) as well as research collaboration, if applicable

A combination of taught and hands-on practicals, within the format of a lab-based workshop, was used to illustrate "best practice" in acquiring molecular data from archived marine samples. 28 students from 6 countries attended this workshop. The workshop started with a Public Lecture on the 27th November, where I provided the wider context behind using molecular-based methods to describe key biological processes. The course was designed for marine biologists / biological oceanographers with limited or no experience in molecular techniques. Please find course manual attached to this report.

How do you think the training was received by the students? Did it meet its objectives? What do you think the students gained from the training? Was the students' level as you had expected?

Feedback forms were distributed to the students and comments received were extremely positive with all participants enjoying the workshop, which had generally met their respective objectives. Organisation and speakers were all highly rated.

Specific comments from students include:

"Well, in general I learned a lot about a variety of aspects"

"a word of thanks to the organising and tutoring staff for always being available, helpful and friendly"

"The lectures and background information presented in lectures was very informative. It provided a useful introduction into genetic methods and theory behind them."

"After completion of the course, I feel confident to repeat the procedures with the methods given to us in the course material."

"the workshop holistically was very informative and mind opening. I liked every bit about the workshop, I wish we could do another just so to get used to the whole molecular mining discipline"

"Its all thanks to Declan for having imparted his skills and information to me, thanks to Pavs and the whole organising committee for making sure that the workshop was a success."

"You should dedicate more time at the bioinformatics section. It would be nice to have learned more about it."

"I found everything extremely useful. It was the first time I worked with genetics and this will be very important for my PhD and future research endeavours"

"Doing the theory that was discussed in practice, and going through each procedure step by step. Also the diversity of the groups samples was interesting to observe the change in methodology to suite each persons sample."

"The workshop was exceptionally helpful, and the Declan is a great lecturer"

"Another fume cupboard/extraction hood would be nice"

"Being able to extract usable DNA from formalin preserved samples, which was thought to be not possible. And being given the chance to try and do everything ourselves"

"the whole course was well planned, all the necessary information and techniques were provided"

Did you encounter any obstacles to the implementation of your planned training/ research activities? Do you have any recommendations for future capacity building initiatives in the same institute/country, building on your experience and on any problems you may have encountered?

No major obstacles were encountered. The organisational support provided by Ma-Re, especially Ms Pavs Pillay, was exceptional.

There is certainly an appetite for such practical workshops in southern Africa. Future workshops might however be best held in familiar and better equipped laboratories such as the host institute of the visiting Fellow. The only problem encountered was the lack of flexibility due to being in a new and unfamiliar environment. Moreover, additional equipment was not always available, such as the use of another extraction hood. Due to cost restrictions and the unfamiliar surroundings, I was hamstrung in the choice of techniques available. That said we still managed to produce a very successful workshop.

Do you envisage that any future collaborations (e.g. publications, proposals, future visits, student exchanges) will result from this visit? Please provide details

I'm currently establishing a joint project with one participant wishing to look at dolphin viruses.

Many discussions are underway regarding closer collaborations with staff at the Department of Environmental Affairs (DEA) and me.

Please provide a brief overview of the host institution's research and teaching facilities and any specific areas you can identify that would benefit from particular support

DEA is currently investing in new molecular facilities. The workshop was run in a molecular department at the University of Cape Town. Therefore, further support in establishing a new molecular laboratory is certainly warranted.