



ACEP Canyon Connections MSc Project 2018

The African Coelacanth Ecosystem Programme (ACEP)'s Canyon Connections project, in partnership with the **WILDOCEANS** Ocean Stewards Initiative are offering a Masters level bursary for 2018 (two years) for this project.

The **Ocean Stewards Initiative**, launched by the Wildlands Conservation Trust, aims to inspire the pursuit of marine science as a career and to provide a conduit for the best candidates to take real steps towards becoming marine scientists. In so doing, to catalyse the emergence of young ocean stewards that will be at the forefront of future marine conservation research and management.

Project:

Investigating oceanographic processes of submarine canyons in two bioregions along the east coast of South Africa.

Institutional Supervisor

Prof. Isabelle Ansorge – University of Cape Town

External Supervisors

Prof. Juliet Hermes – SAEON Egagasini Node

Dr. Tarron Lamont – DEA Oceans and Coasts

Ms. Tamaryn Morris – SAEON Egagasini Node

Cruise opportunities – Potential opportunity on the Angra Pequena research yacht in May of 2018 and 2019 to collect physical oceanographic data and to be involved with the deployment of deep moorings to collect temperature data. This will be dependent on space available.

Funding – A NRF bursary of R 80 000 a year, for 2 years is available with and additional R 10 000 top-up from Wildlands for two years.

Length of Project – Maximum 2 years inclusive of field work through 2018-2019

Travel – This is an ACEP project on Canyon Connections along the east coast of South Africa in two separate bioregions. Some travel to collect data in the field and present results at science meetings may be expected.

Data Access

All data collected as part of the Canyon Connections cruises relating to the physical oceanography of the canyon heads will be accessible to the student for use. This includes the two survey cruises on the RV Angra Pequena, but can include historical data if available. The student will also have access to the deep temperature sensors to look at upwelling through the canyon heads over time.

Preamble - The student would study six canyon heads, in two distinct bioregions, one in the north along the Maputaland coast, and the second further south along the Transkei coast. The oceanographic data will be collected by means of CTD surveys over each of the canyon heads, and by means of temperature sensors deployed on deep moorings at the top of the canyon heads and inshore on the adjacent shelf. These data will be used to deduce the dynamics of the current flow over the canyon head. Can tidal bores be detected at the top of the canyons? Does upwelling occur at the top of canyons and if so, how far inshore does it have the potential to extend? How does the oceanography differ in the two bioregions and how has this affected the structure and dynamics of the canyons? Ultimately this data will be used to assist in the understanding of the biodiversity and ecology of the canyons and their shelf regions.

Targeted Student - We are looking for a quantitative, self-motivated, dedicated student with a strong background in Physical Oceanography to work up the oceanographic data collected through this project. The student should also have an interest in applying physical oceanographic information to support the marine biodiversity and ecological results of the Canyon Connections project. The main focus of the project is to investigate the canyon heads, and the shelf edge inshore of them, in terms of the water flow characteristics and upwelling dynamics and the potential influence these have on biological patterns and abundance of biota at and between canyon heads.

Requirements

- BSc (Hons) in marine science
- Interest in oceanography and marine biodiversity conservation
- Prior experience with sea-going activities is advantageous
- Prepared to spend extended periods of time at sea
- Will require proof of writing skills
- Will need to be enrolled at UCT
- Willingness to assist with the next Ocean Stewards cohort within reasonable amounts of time and attend the annual events

Interested – Please contact tammy@saeon.ac.za for further information

Selection Criteria

- One-page reasoned article explaining the issues, challenges and potential solutions about a current marine conservation topic.
- Academic record.

Submit the following with your application

- CV
- Full academic record with honours project brief
- Article
- Reference letter
- Letter of motivation (please address the requirements listed above in your letter)

Only electronic submissions will be accepted. Submit your applications to NikkiC@wildlands.co.za by 27 February 2018. Late submissions will not be considered. A selection committee will decide on the recipients. This opportunity is restricted to South African citizens and preference will be shown to affirmative candidates. The selection committee reserves the right not to award a bursary, if a suitable candidate cannot be found.