



ACEP Canyon Connections Masters Project 2020-2021

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 2020 (two years) for this project.

The **Ocean Stewards Initiative** 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: Modelling of the ecological role of submarine canyon heads on the east coast of South Africa

Supervisor: Prof Ursula Scharler – University of KwaZulu-Natal

Overview: The ACEP Canyon Connections project is a multidisciplinary initiative to understand the ecological significance of canyons along South Africa's East Coast, including their role in influencing biological patterns in the pelagic zone. Evidence is emerging of higher habitat complexity and species abundance, biomass and diversity in and around canyons, compared with areas away from canyons. This suggests they may be hotspots for biodiversity and important nodes for stimulating and sustaining productivity in surrounding marine areas.

Project description: This work package will integrate the above components of physical oceanography, biota and tagging in order to compile networks of connectivity and spatial change of the various ecosystem components at and around canyon heads. Data will be compiled from the other work packages in the project, and from the literature and past projects in the region as needed. From these data, ecosystem models will be constructed for each region, and analysed to gain an understanding if and how food web structure and function may differ. All analyses will be conducted in R. The student is expected to attend a course at UKZN to become familiar with network ecology, systems analysis, as well as network construction and analysis methodology in R.

Length of Project: 2 years from January 2020 to December 2021.

Funding: An NRF bursary of R 80 000 per year, for two years is available with an additional R5 000 top-up from **WILDTRUST** per year.

Requirements

- BSc (Hons) in Marine Biology, or a relevant equivalent degree.
- Interest in food webs, systems analysis and working with numbers.
- Prior experience with working in R would be advantageous.
- Proof of good writing skills.
- Will be enrolled at the University of KwaZulu-Natal, Westville Campus, School of Life Sciences.
- Willingness to assist with next Ocean Stewards cohort and participate in Ocean Stewards events.

Submit the following with your application

- One-page CV
- Full academic record including honours project brief
- Reference letter
- A section from your undergraduate or honours project literature review, no more than one-page, demonstrating your academic writing ability.
- Letter of motivation (please address the requirements listed above in your letter)

Only electronic submissions will be accepted. Submit your applications to SummerN@wildtrust.co.za by latest 9th December 2018. Late submissions will not be considered. A selection committee will decide on the recipients. This opportunity is restricted to South African citizens only. Please note that preference will be shown to Ocean Stewards fellowship members. The selection committee reserves the right not to award a bursary, if a suitable candidate cannot be found.