PhD Studentship (TP 2.2 WP3)

Project: Coral Carbonate Mound Archives for Submarine Canyon Exchange (CoMA_CoP).

Closing Date for Applications: 1st May 2015
School: Biological, Earth and Environmental Science (BEES)
College: College of Science, Engineering and Food Science, University College Cork, Ireland.
Stipend: €18,000 p.a. plus fees
Post Duration: 4 years

Position Summary

This project will investigate the palaeoenvironmental history of cold-water coral carbonate mounds (palaeo-)habitats at the head of a submarine canyon: the Porcupine Bank Canyon, Irish Margin. In addition, sediment and nutrient flux in the contemporary and palaeo-submarine canyon heads setting will be assessed. The study will explore the use of cold-water coral reefs and mounds as novel palaeo-environmental archives constraining seabed environmental development histories.

In order to characterise the canyon head setting, existing mapping will be supplemented by ROV-based multibeam mapping and seabed visual imaging collected during the project enabling a baseline assessment of the canyon head and upper canyon thalweg topographic setting and seabed lithofacies on both horizontal and vertical canyon faces. Short term oceanographic and hydrodynamic monitoring will be performed. Short cores (>6m) will logged and analysed to assess reef development histories and records of nutrient and particle flux. Absolute datings will provide temporal control on core stratigraphies. Coral samples retrieved from the cliff, cliff-base tallus and cores will be subject to sectioning to reveal microgrowth structures which will be dated and Cd/Ca ratio determined as seasonal nutrient proxies.

Key Duties and Responsibilities

- To undertake the research programme on the investigation of cold-water coral carbonate mounds as archives of submarine canyon exchange processes.
- To actively engage in the dissemination of the research results (in particular the preparation and submission of research papers to high
impact international journals) as directed by and under the supervision of a Principal Investigator.

Candidate Requirements

- A minimum BSc (Hons) 2H1 in geology, marine science or related discipline.
- Training desirable in benthic sedimentary processes, palaeontology/palaeoecology, organic geochemistry, physical/chemical oceanography.

For Informal Enquiries on the post candidates should contact:
Name: Prof. Andy Wheeler
Title: Geology, School of BEES, University College Cork, Ireland
Email Address: a.wheeler@ucc.ie
Telephone: +353 21 490 4577

To Apply:

Please submit a short cover letter and C.V. to Prof. Andy Wheeler at the above email address on or before the closing date of 1st May 2015.

Supplementary Information on the School of Biological, Earth & Environmental Sciences and the post is available at the following URL: http://www.ucc.ie/en/bees/