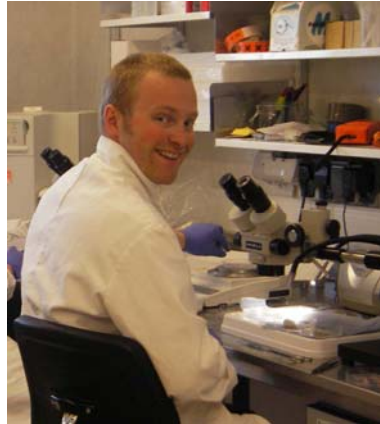


## Presentation of MAR-ECO Students

**Name:** William D K Reid

**Nationality:** Scottish



**Institution:** Newcastle University

**e-mail:** w.d.k.reid@newcastle.ac.uk

**Degree:** PhD student

**Working title of project:** Macro-consumer food web structure of mid-ocean ridges: The fate of chemosynthetic and photosynthetic energy input at contrasting sites in the North Atlantic and Southern Oceans.

**Supervisors:** Dr. Benjamin Wigham & Prof. Nicholas Polunin

**Summary of Project:** Mid-ocean ridges are largely unexplored areas of the deep sea with complex topography, variable substrate, interesting hydrography and chemosynthetic habitats. The energy input to benthic macro-consumer communities on ridge systems will vary dramatically depending on whether they are a component of a hydrothermal assemblage or a “non-vent” ridge community, reliant on a photosynthetically derived food source. This project will focus on revealing the food-web structure of benthic macro-consumers (both invertebrates and fish) using stable isotopes at two ocean ridge sites: (1) a “non-vent” section of the Mid-Atlantic Ridge above and below the Sub-Polar Front and (2) chemosynthetic environments on the East Scotia Ridge in the Southern Ocean. The aim will be identify sources of energy, examine size based changes in diet and patterns of omnivory and gain a better understanding of lipid extraction techniques during preparation.