British Antarctic Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Marine Biologist – Antarctica

Contract type: Antarctic Contract

Duration: Antarctic Winter (Up to 19 Months)

Salary: £23,937 per annum initially. Additionally, upon completion of a successful tour, you will receive a 10% bonus on your Antarctic Service.

Benefits: We offer generous benefits

Team: Antarctic employment pool team

Location: Antarctica

Description

We are looking for a Marine Biologist to investigate competition, secondary space provision, predation and diet overlap in nearshore benthos around Ryder Bay habitats (adjacent to the Rothera Research station, West Antarctic Peninsula).

Based in Rothera, you will organising and implementing the research programme involving specimen collection, stereo light-microscopy, measurement of photosynthetic rates, preserving samples, quantification of feeding rates, analyse data and preparation of data for manuscript publication.

This is an exciting opportunity for a highly-motivated individual with relevant experience and a keen interest in marine biology to join a small Rothera-based team in organising and implementing a unique research programme.

Purpose

Within the Biodiversity, Evolution and Adaptations team, this project will investigate competition, secondary space provision, predation and diet overlap in nearshore benthos around Ryder Bay habitats (adjacent to the Rothera Research station, West Antarctic Peninsula). Quantification of these food web knowledge gaps would be undertaken using SCUBA across three depths (5-25m), three habitats (sediment, rock rubble & cliff) and several sites. Strength of competitive interactions between species would be examined by frequency and outcome of spatial (contest) encounters, involving both substratum collections and analysis of underwater photographs. Isotope, fatty acid and gut content analyses could be used on hard bodied fauna (complementing an existing soft bodied predators PhD) to quantify diet overlap and potential for exploitation competition. Biweekly-monthly SCUBA surveys would asses predator diet across transects of each habitat-site-depths. Linking to the spatial competition work, the project would investigate the importance of secondary space provision by bioconstructors, e.g. some sponges, ascidians and bryozoans. Such work would analyse how bioconstruction symbioses impact biodiversity, spatial & food competition. The project would involve supervision by ecologists and ecopysiologists and liaise with food web modellers.

There is also an opportunity to work with experienced members of the team to broaden the scope of investigations. The position involves extensive SCUBA diving to study community structure and quantify ecological parameters. This project requires extensive use of light microscopy and a range of laboratory techniques to identify species and gather the ecological information that will feed into long term studies of shallow water communities in this region. The post involves a minimum of 1.5 years at the British Antarctic Survey's Rothera Research Station, Antarctica and is expected to result in high quality scientific publications. The post holder will be expected to play a role in planning, organisation, and implementation of this research programme whilst also supporting a diverse range of marine science projects, and base activities, particularly during the summer months.

Qualification

BSc 2:1, minimum, Experienced diver (minimum 80 logged dives (30 cold water and/or dry suit dives). Capable of passing HSE commercial diving course before deployment to Antarctica, Benthic marine biology (use of keys for identification), microscope and laboratory skills.

Duties

- To organise and implement the proposed research programme, which involves:
  1. Specimen collection, maintenance and study.
  2. Underwater photography to assess feeding rates and competition
  3. Stereo light-microscopy and use of keys to identify species
  4. Careful dissection and preservation to analyse diet overlap and potential exploitation competition
  5. Preserving samples for genetic/genomic analysis back in Cambridge
  6. Good laboratory skills to measure ecological information
  7. Analyse data and prepare for publication
  8. Help to prepare manuscripts for publication
  9. To play an active role as a member of the marine team, being involved in a diverse range of marine projects
- To undertake other duties as requested by the Director of BAS.
- Due to the remote location in the Antarctic strong organisational and interpersonal skills are required for this post.

We welcome applications from all sections of the community. People from ethnic minorities and disabled people are currently under-represented and their applications are particularly welcome. We operate a guaranteed interview scheme for disabled candidates who meet the minimum criteria for the job role.

You will need to be physically capable and medically fit to work in Antarctic conditions.

Skills Specification

Skills are listed as either Essential or Desirable. Desirable skills importance rating in parenthesis (1 is high, 5 is low)

Communication skills - a) oral skills b) written skills

- Fluent in written and spoken English language. - Essential

Computer / IT skills

- Word processing, spreadsheet literate. - Essential

Decision Making

- Self management within the requirements of the wider team. - Essential
- Report writing. - Desirable [3]

Interpersonal skills

- Ability to live and work within a small team at Rothera which fits within a larger team in Cambridge. - Essential

Managerial ability

- Self manage within the framework of a dynamic team. - Essential

Numerical ability

- Ability to handle complex data sets. - Essential

Other Factors

- Physically capable and medically fit to work in Antarctic conditions. - Essential

Qualifications

- BSc 2:1, minimum - Essential
- Experienced diver (minimum 80 logged dives (30 cold water and/or dry suit dives). Capable of passing HSE commercial diving course before deployment to Antarctica. - Essential
- HSE SCUBA (part IV) or Advanced European Scientific Diver or sport equivalent (BSAC adv, PADI divemaster). - Desirable [1]
- Benthic marine biology (use of keys for identification), microscope and laboratory skills. - Essential

Resource Management ability

- Ability to plan up to a year ahead to fit with schedules. - Essential
- Flexible approach to problem solving. - Essential

Skills / Experience

- Marine Biology/Biology. - Essential
- Small boat handling experience. - Desirable [3]
- Data visualisation and statistics knowledge. - Desirable [3]
- Experience of working in field with marine benthic communities. - Desirable [3]
- Experience of laboratory experimentation on plants/algae for photosynthesis measurements. - Desirable [3]
- Proof of drysuit dives, full facemask experience. - Desirable [2]

- Experience of underwater photography. - Desirable [2]
- Sigmaplot, Minitab , PRIMER or similar software experience - Desirable [4]
- General ecology experience. - Desirable [3]
- Experience of remote environments. - Desirable [3]