

BIO-Carbon:

Fieldwork - additional information

Note: this does not cover fieldwork falling within the scope of the BIO-Carbon NZOC science mission (for which there is additional funding and for which PIs should see the alternative specific document for information).

Context

The BIO-Carbon programme has £1 million allocated for the fieldwork support costs of National Marine Facilities (NMF) i.e. costs associated with securing access to NMF's technicians and marine equipment. Fieldwork must be carried out within the North Atlantic. This document sets out the broad limits of what is possible within these restrictions as well as the basic equipment allocated to the cruises.

PIs should

- Be aware that the cost limit applies in total across all fieldwork. Successful PIs will be expected to work with the BIO-Carbon Champion to deliver a fieldwork programme jointly within this budget and if necessary to adjust their proposed science plans to accommodate this.
- Ensure that their submitted Notification of Intent
 - o describes the geographical region they will focus on within the North Atlantic
 - o estimates the duration of fieldwork
 - o outlines any equipment not listed below that they may require.
- Contact the BIO-Carbon Champion (adrian.martin@noc.ac.uk) for any queries relating to fieldwork. Please do not contact NMF or NERC Marine Planning directly.

PIs should **not**

- Include NMF support costs for fieldwork in their proposal. However, costs associated with any user supplied equipment which is not supplied or supported by NMF are not eligible under the BIO-Carbon fieldwork funding or BIO-Carbon NZOC science mission funding, and should instead be covered by the funding requested in the proposal.

Outline of scope

BIO-Carbon has provisionally allocated ~70 ship days for fieldwork in the April to September 2024 period. It is currently envisaged that cruises will take place on board RRS Discovery and/or RRS James Cook. Fieldwork funding can be used flexibly e.g. both for ship-time and for autonomous vehicles deployed/recovered during cruises. (The BIO-Carbon NZOC science mission will separately support deployment of shore-launched autonomous vehicles.) Ship-time days may potentially also be used to augment other planned cruises in the North Atlantic.

Default equipment

Below is a list of equipment which PIs can assume is present on any shiptime requested. Any additional equipment needed – whether in the National Marine Equipment Pool or from another source – should be stated in the NoI. This list is not prescriptive - purely a reference set of equipment which can be built upon to address the science aims of fieldwork.

- Salinometer (x2)
- Liquid nitrogen generator
- Fume cupboard (x2)

- Laminar flow cupboard (x2)
- -20 freezer (1 plus 3 fitted)
- -80 freezer (1 plus 2 fitted)
- ISW Microstructure Turbulence Profiler MSS90L
- Stainless steel CTD
 - o (20L Niskins, Seabird 911 CTD, Transmissometer, Fluorimeter, Oxygen x2, Light, PAR, Altimeter)
- Titanium CTD
 - o (20L Niskins, Seabird 911 CTD, Transmissometer, Fluorimeter, Oxygen x2, Light, PAR, Altimeter)
- Stand Alone Pump (x4)
- Trace metal underway sampling system
- Clean chemistry laboratory container
 - o (laminar flow cabinet, Ultrapure water system (MilliQ), 24 Niskin bottles and mounting rack)
- Radionuclide lab container
 - o (fume hood)
- General purpose/Romica winch