

BOSCORF Sediment Core Sample Distribution Policy

The sample distribution policies outlined on the following pages are intended to safeguard effective exploitation of national sea floor sample collections funded by UKRI NERC. The British Ocean Sediment Core Research Facility (BOSCORF) is equipped to provide samples and data to interested researchers and PhD students within the global scientific community who express a legitimate interest and need.

Statement of Proposed Research

All requests for samples should be accompanied by a concise statement describing the study for which samples are needed, including methods or procedures to be used, the specific scientific problem to be addressed by the study, and the names of collaborating investigators. Additionally, requests should be accompanied by a description of the laboratory facilities available to the requestor and the source of financial support that will fund the related work. All of this information should be provided via the "Sample Request Form". If these details differ significantly for associated investigators, the nature of their proposed research, facilities, and funding should also accompany the sample request.

The Proprietary Rights of the Collector

The Principal Investigator (PI) will retain authority to approve sample requests until the end of the initial UKRI NERC funded programme or project, from when samples are considered fully accessible to the research community. This restriction is enforced to ensure investigators directly involved with the collection of samples will have adequate time to complete their initial work on the material. With permission of the PI, certain samples may be released for study prior to the end of that period. The Curator may impose special conditions on the distribution of samples in order to ensure effective utilisation of the material. Such special conditions could include the storage of samples in refrigerated or specialised storage containers. Following the period of proprietary access, sample requests can only be approved by the Curator. All sample requests, during and following the period of proprietary access, must be submitted to the BOSCORF using the online "Sample Request Form". The Curator will ensure all requests are reviewed and approved in accordance with BOSCORF Sample Distribution Policy.

Sample Request Details: Location, Identification and Sample Size

All sample requests should specify ship, cruise number, core number, and sample depth in the core. If possible, alternative cores or sampling intervals within specific cores should be provided. For requests of samples collected with a dredge, grab, or other device, ship ID, station, and specific sample numbers should be included. In addition, if a request results in a large number of samples (more than 200), the BOSCORF staff may ask that the requestor visits the facility in person and undertakes the sampling process with the assistance of the curatorial staff. If a sample request is defined by regional, bathymetric, or physiographic parameters, the alpha-numeric details specified above will be determined by the results of an in-house search, and thus provided to the requestor for review by the Curator. The requestor should indicate the minimum sample weight or volume required. BOSCORF will always provide the minimum volume of sample required for the analysis to prevent over-exploitation of this important scientific resource. It is therefore expected that individuals consider carefully the sample volume required for the specified analysis.

Samples Requiring Special Consideration

1. Archive sections: Following a general rule, sediment cores are split into two identical halves after retrieval, the working half and the archive half. While the working half is available for sampling to facilitate the specific scientific objectives related to the collection strategy, the archive half is intended to remain a pristine untouched record of the material recovered for as long as possible. All non-destructive split-core analyses are usually made on the archive half (e.g. magnetic susceptibility, gamma ray density, line scan images, XRF-scans, X-ray scans etc.) leaving it as a permanent record. However, sometimes the need arises to sample the archive half. This is usually because of complete depletion of the working half. All archive half sampling requests will require BOSCORF Sampling Committee approval. (The Sampling Committee is a subgroup, i.e. three members, of the BOSCORF Advisory Group on an annual rotation, see BOSCORF website for membership).
2. Core tops: All core top samples (e.g. trigger, piston, gravity, box and multi cores) are restricted to a maximum of a quarter round of a whole core. Core tops are a limited and valuable source of material, and requests for such samples are especially scrutinized. An allowance for larger volumes of core tops may be pursued under special circumstances, e.g. where multiple identical cores exist at the same location. However, many of the older cores no longer have any core top material. All core top sampling requests will require committee approval.
3. Number of Samples: BOSCORF policy is to not send large numbers of samples at the beginning of an investigation. An initial investigation can often determine if more samples will be required later, and these will be supplied if necessary. For example, initial investigations should not request "samples at 5 cm intervals" from a number of cores, unless it is justified, why such close sample spacing is necessary, or it is ascertained that all the cores will be suitable for the proposed purpose. The Curator will work closely with the applicant to develop an efficient sampling strategy. In addition, if a large number of samples is requested (more than 200), it will require committee approval.
4. Size of Samples: The minimum sample size or volume necessary must be included in the sample request form. Typical sample size for sediment cores is about 5 cc (about 8-12 grams depending upon sediment type). BOSCORF will not supply samples larger than approximately a 1 cm thick quarter section of a whole core (about 30-50 g, or up to 20 cc); larger sample volumes need to be justified. Samples from trigger cores and all core tops are restricted to 10 cc volumes (ca. 15-25 g). If large, bulk sized samples are requested, it will require committee approval.
5. Screening Process: All sample requests requiring special consideration (as outlined above) are reviewed by the BOSCORF Sampling Committee to determine whether the proposed science and sampling plan justifies sampling of these valuable resources, and to ensure published datasets are not duplicated. Requests involving continuing research projects are also subject to committee approval. If an applicant feels that a personal or scientific conflict of interest exists with any member of this committee, they should contact the Curator and/or the Chair of the BOSCORF Advisory Group, who will work out a sample review process that respects their scientific interests and intellectual property.

Sampling

It is preferred that the BOSCORF staff undertakes the actual sampling however, if an applicant prefers to do their own sampling (or requests a large number of samples), BOSCORF staff can

provide training and assistance. Sampling tools and plastic bags/pots for sediments are available at the facility. Applicants intending to visit should wait for a response from BOSCORF regarding their request before making travel plans. Applicants are welcome to use the repository facilities including the library of published reports, core descriptions, core photographs, etc. Computers can be made available for e-mail, searches, and data entry pertaining to their sampling.

Shipment of Samples

Samples are normally shipped within 2 weeks of approval.

Responsibilities of Person Receiving Samples

1. Citation: BOSCORF asks that the facility is acknowledged in all publications resulting from use of the samples or data (e.g. "Sample material used in this project was provided by the British Ocean Sediment Core Research Facility"). It is also requested that the BOSCORF alpha-numeric sample identifications are used in published reports, or a clear correspondence between another system and the BOSCORF system is provided. Additionally, the original grant ID and PI should be acknowledged in the publications (this information can be supplied by BOSCORF).
2. Additional Use of Samples: Recipients of samples should not allow research projects that differ substantially from projects originally proposed in sample requests to be undertaken by themselves or others without first obtaining approval from the Curator.
3. Copies of all published papers, reports or data summaries utilising samples from the collection should be sent to the BOSCORF curatorial staff. One electronic copy of all published reports, papers, or data where samples have been used should be sent to the BOSCORF at boscorf@noc.ac.uk for inclusion in the repository database. This helps to track the effectiveness of UKRI NERC's investment in national sample archiving facilities and to justify future sample requests by an investigator.
4. The investigator should return all unused samples to the curator after the completion of the work.
5. Recipients of samples should not co-opt the services of other investigators or hand over sample residues for other research projects, which differ substantially from work originally proposed, without obtaining the approval of the Curator.
6. Resulting datasets from BOSCORF samples must comply with NERC data policy (<https://nerc.ukri.org/research/sites/environmental-data-service-eds/policy/>) i.e. 'scientists must make their data openly available within two years of collection and deposit it in a NERC data centre for long term preservation'. BOSCORF will send an email reminder to sample recipients 2 years after sample provision to encourage NERC data policy compliance. Investigators who do not meet these requirements risk having NERC grant payments withheld, becoming ineligible for future NERC funding and/or suspension of future access to BOSCORF

Materials for Educational and Museum Displays

Requests are welcome for samples by museums or other educational purposes. Each request will be considered on its own merits and reviewed and approved by the Curator. Educators and students should submit a brief explanation of how materials will be used, and the number of people reached by the use of materials. Most samples to be used for educational purposes will be taken from piston core flow-in, duplicate samples, core catcher material and bulk bagged samples. Samples for displays are available within the constraint that priority is given to scientific research.