



General Collection Policy for the Ocean Genome Legacy Biorepository

Purpose

The Ocean Genome Legacy (OGL) Biorepository adopts this policy to govern the accession, use, and storage of all materials housed in its collections. The aim of the collection is to obtain, describe, organize, preserve, sub-sample, process, store, and distribute genome resources from marine environments. Genome resources are defined as materials from which genetic information may be obtained, including tissues, cells, cultured strains, nucleic acids, nucleic acid libraries, and amplification products.

The purpose of the collection is to:

- 1) Provide access to genome-derived materials to the research community
- 2) Preserve genetic and genomic samples and information for scientific research
- 3) Promote basic and applied genomic research whose purpose is to improve understanding and conservation of marine species and environments.

These materials are to be derived from as many species of marine organisms as possible, with emphasis on broad representation of endangered species, ecologically critical species, and species of conservation interest. Consistent with this aim, the following goals for the facility have been determined:

- 1) Act as the central repository for genome resources collected by OGL staff or donated by independent institutions or researchers
- 2) Distribute such materials to the research community for purposes of basic or applied research. As a non-profit institution, OGL does not charge for these materials but may include cost recovery fees for supplies and services required to prepare and distribute the materials.
- 3) Accumulate significant holdings in those taxonomic groups and geographic areas appropriate to the research goals of OGL and the scholarly community around the world
- 4) Ensure that biological materials used in genomic research are linked to voucher materials.

Acquisitions

1. General

For genetic analyses, tissues and their included polymers must be collected and maintained in a biochemically active form. Rapid freezing to ultra-cold temperature is considered to be the best available method for long-term preservation of biomolecules. The collection facility is therefore optimized for archival storage of deep-frozen tissues and subsequent extraction, amplification, and/or cloning of nucleic acids from sub-samples for distribution. Other minimally invasive

preservation protocols, including desiccation or selected chemical preservatives, may also be used when appropriate. Pure nucleic acid isolates may also be deposited to the collection with appropriate documentation and validation.

Tissues accepted for the OGL Biorepository shall meet the following general conditions:

- a) The specimens are relevant to and consistent with the purposes and activities of the OGL Biorepository.
- b) The OGL Biorepository can provide for the storage and preservation of the specimens under conditions that ensure their availability and meet with the highest possible standards for preservation and documentation.
- c) Specimens shall remain in the collections as long as they retain their physical integrity and their relevance for the purposes of the OGL Biorepository.
- d) All specimens should be associated with as much data as possible describing the method of collection, the name and contact information of those responsible for collection and identification of the specimens, description of the geographic location (georeferencing), physical characteristics of the collection sites, and other details.
- e) Whenever possible, voucher materials representing each specimen shall be deposited in appropriate public collections. Voucher materials may include preserved specimens, diagnostic parts, diagnostic gene sequences, photographs, x-ray images, sound recordings, and/or digital images representing the collected specimen. The goal of vouchering is to provide a constellation of materials suitable for retroactive species diagnosis or reevaluation.
- f) All acquisitions, whether obtained through direct collection, gifts, loans, exchanges, or purchases, must be obtained legally and when appropriate must be accompanied by supporting permits and documentation.
- g) Specimens known or suspected to contain pathogenic organisms of potential danger to human health, agriculture, or wildlife, or specimens whose collection or preservation is determined to violate ethical criteria as determined by the Director of OGL will not be accessioned into the collection.

2. Approval

There may be significant costs associated with acquisition, storage, and distribution of specimens. All potential specimen acquisitions shall be brought to the attention of the Director, who will be responsible for the final decision on whether to accept the specimens.

It is the responsibility of the donor to obtain all required permits and documentation thereof, and to comply with all laws of the nation and/or state of origin of the specimens, and all regulations regarding transport and import of such materials, and to obtain the permission of any private parties with legal rights of ownership of samples or collection sites. When questions arise as to the legality of the specimens being transferred, the question will be turned over to the Director for review.

Any proposed acquisition entailing restrictions on the OGL Biorepository as to title, right of possession, care, loan, or other special restrictions, and all acquisitions requiring special expenditures, shall require the approval of the board of the Director.

3. Accessioning Specimens

All tissue specimens that are acquired for the OGL Biorepository must be formally accessioned as repository specimens by the appropriate OGL Biorepository staff. No new specimens will be cataloged unless associated with an OGL Biorepository accession number.

4. Undocumented Specimens

The collection may not hold undocumented specimens indefinitely. "Undocumented" as here defined refers not only to tissue specimens from non-accessioned whole specimens, but also tissue specimens for which accessioned whole specimens exist, but for which the appropriate information has not been provided to the OGL Biorepository to allow it to reasonably regulate the storage of the tissues and management of data.

Material may be brought into the facility to evaluate as a potential acquisition or for research, but generally must be returned or disposed of after no more than one year if it is not to be added permanently to the collection, unless a properly executed loan agreement specifies a longer period for study or consideration.

Material brought into the collection temporarily for evaluation as a potential acquisition will be documented with a receipt.

5. Collecting in the Field

Direct acquisition during field research and expeditions shall be conducted with the agreement of and according to the laws of the host state or country as well as those of the United States. In case of fieldwork conducted jointly with other institutions, universities, or similar research organizations, a written agreement regarding allocation and use of field collections shall be sought and obtained, where possible, prior to the fieldwork.

All reasonable steps shall be taken to ensure that importation of foreign specimens into the United States is in full compliance with all applicable laws.

6. Gifts or Donations

In the event that the OGL Biorepository seeks to acquire any collection or individual specimen through gift or donation, written confirmation of title shall be obtained in advance from the donor.

No collection or specimen will be accepted without adequate evidence of title on the part of the donor, which may include permits, provenance, and history.

Ownership shall be transmitted to the OGL Biorepository by way of a legal instrument of conveyance, setting forth an adequate description of the objects in question, which shall be signed by the donor. Such legal title (which is equivalent to ownership) shall document the right to transfer to the OGL Biorepository.

Except under unusual circumstances, any object acquired by gift or donation shall be obtained free and clear of any restrictions as to use or future disposition. Restricted acquisitions will require approval of the Director.

7. Permanent Loans

The Collection shall not accept material on "permanent" loan, except in cases where objects or collections are owned by government agencies or institutions whose own collection policies do not allow for transfer of title.

8. Purchases

In the event that a curator should wish to purchase a specimen or collection of particular importance, the following procedures shall apply:

- a) Specimens purchased by the OGL Biorepository shall be obtained from a supplier, individual, or institution who shall demonstrate, in writing, that they are in possession of full and unencumbered title to the specimen(s), and that acquisition of the specimen(s) by the supplier was in full compliance with all local, state, and federal laws.
- b) The Director shall review the ethical and legal aspects of the transaction. In the event that any questions arise, advice of legal counsel shall be sought.
- c) If the purchase of the specimen(s) would require special expenditures on the part of the OGL Biorepository (beyond the cost of acquisition) the approval of the Director will be required.
- d) A legal instrument of conveyance, setting forth an adequate description of the objects involved and the precise conditions of transfer, shall accompany the purchase and shall be signed by the seller. The OGL Biorepository shall permanently retain invoices, bills of sale, and receipts relating to the purchase.

Care of Collections

All staff (whether compensated or uncompensated) that work on specimens in the OGL Biorepository have a duty of care towards the specimens on which they work. The staff of the OGL Biorepository will maintain and enforce an approved conservation plan and safety plan.

Documentation

1. Accession Record

Each specimen, or group of specimens, shall be accessioned in the OGL Biorepository electronic database. The accession number shall be recorded along with the data previously described in this document (Accessions, General).

2. Catalog Record

The OGL Biorepository shall develop standards consistent with those of a modern biorepository and the recommendations of relevant professional societies. All objects acquired for the collection shall be catalogued to meet these standards.

3. Specimen Database

The purpose of the OGL Biorepository Database is to allow for efficient inventory and tracking of samples and associated data. The database will also allow researchers to quickly and efficiently assemble complex information on the collections, as well as to produce a catalog of the collection.

Back-up copies of the database should be made according to a regular, rigorous schedule. Off-site back-up copies will be maintained to protect this resource in the event that the onsite copies are destroyed or damaged.

Each specimen shall be assigned a catalog number in the electronic database application program in which the specimens are archived. Regardless of the number of preparations that are derived from it, each individual specimen (or, in some cases, lot of specimens) in the collection shall be assigned a single number.

No specimen should be assigned a number without physically entering the data associated with the specimen into the electronic database, which forms the basis of the catalog.

Whenever possible, no fields of the database application program should be left blank. Data fields may be added or modified from time to time as deemed necessary.

At the time that a specimen is assigned a catalog number in the OGL Biorepository, the catalog number shall be immediately recorded on the specimen container by printing out and affixing a bar coded label, using the electronic database application program.

The database system shall be periodically reviewed to determine the need for upgrades or changes to hardware and software. The Director shall use all reasonable endeavors to ensure that the system at all times reflects the current state of technology.

4. Data

The OGL Biorepository's databases, catalogues, and lists, like the collections from which they are derived, are the property of OGL. Collection data shall be released only upon the terms and conditions established by the Director and may not be reproduced, redistributed, or used for commercial purposes without written permission of the Director.

5. Physical Map

The staff of the OGL Biorepository shall use the database to create, retain, and regularly update an organization and physical map of the OGL Biorepository collection, so that specimens may be readily located.

6. Documents

Wherever possible, the OGL Biorepository shall retain original or electronic copies of documents relating to the collections, including but not limited to field notes, research notes, correspondence, reports, electronic files, illustrations, photographs, catalogs, and lists. However, for samples derived from specimens cataloged in other institutional collections, said institution will retain such documentation.

These documents shall be permanently housed in the OGL Biorepository and archives.

Use of the Collections

1. Visitors to the OGL Biorepository

Due to safety and regulatory considerations, the OGL Biorepository is maintained in a restricted access area. No unassisted access to the collection will be allowed. Unassisted access is defined as access in the absence of one of the OGL Biorepository personnel trained in safety and access procedures. The OGL Biorepository staff will make reasonable efforts to accommodate requests,

tours, etc. However, we request at least 24 hours notice prior to the arrival of any persons requesting assisted access to the collection.

2. Distribution of Materials in the OGL Biorepository

The OGL Biorepository recognizes its obligation to balance the current needs of research and educational users of the collections with its responsibility to ensure the availability of material for future use.

The OGL Biorepository obtains and distributes research materials in furtherance of its scientific objectives. Materials are distributed to individuals or institutions with the explicit understanding and agreement that those materials or products derived thereof shall not be transferred to third parties without the explicit and written permission of the Director.

A signed Material Transfer Agreement (MTA), which is a legal instrument binding the researcher to the terms established for use of the material, is required by OGL Biorepository. Each transaction must be covered by a written MTA. Specimens will not be dispatched until the researcher and/or an individual with authority to sign on behalf of the investigator's home institution have countersigned the MTA and submitted it to the OGL Biorepository in support of the applicant's request.

The OGL Biorepository shall receive credit in publications and databases for data obtained from materials distributed or loaned and shall receive copies of all publications and notice of all database deposits. Again, the OGL Biorepository requires citation of OGL Biorepository accession numbers in all publications involving data derived from OGL Biorepository materials.

Recommended citation format:

“OGL Accession ID number [XXXXXX]. Ocean Genome Resource Database, The Ocean Genome Legacy Center of New England Biolabs, Northeastern University. Published on the web at: <http://www.northeastern.edu/marinescience/ogl/catalog/>; accessed [date].”

The MTA limits the use of loaned material to the terms of the researcher's original written request. It is the responsibility of the researcher to be aware of and to comply with the laws of all states and/or jurisdictions with legal authority to regulate materials deposited to or contained within the collection and to abide by them when requesting materials from OGL Biorepository. The OGL Biorepository further reserves the right to revise the MTA, making additional stipulations as necessary.

3. Commercial Use

The purpose of the MTA is to protect the OGL Biorepository from liability and to place responsibility on the researcher or the researcher's home institution for said researcher's compliance with all applicable state and federal laws.

The MTA requires recipients to acknowledge that any commercial use or licensing of distributed material requires separate agreements with all parties owning rights to the material, including but not limited to the OGL Biorepository, the nation/state of origin, and the depositor of said materials. The OGL Biorepository tracks restrictions on material usage for this reason.

Ultimately, the signed MTA will be retained by the OGL Biorepository and becomes part of the facility records pertaining to each distribution. Materials distributed under MTA are not for resale or subsequent distribution without explicit written permission from the OGL Biorepository.

4. Restricted Distribution of Specimens in the OGL Biorepository

When requested, specimen depositors may be awarded preferential access to the samples that they deposit and their derivatives. Depositors may request restricted access to the materials and their derivatives under terms and conditions established with the director at the time of deposit or thereafter. Tracking specimens internally establishes researcher priority and is essential for proper collection management.