



**DNA Bank**

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**DNA BANK BEST PRACTICE MANUALS**

**REGISTRATION OF SAMPLES IN THE NHM DNA BANK**

**PREAMBLE**

Samples collected for the purpose of DNA analyses represent a valuable source of data, not only for the researcher collecting the samples, but potentially also for other fellow scientists in the years to come. It is therefore important that the samples themselves, as well as all relevant data associated with them, are taken care of in a best possible way.

**PROCEDURE**

At the NHM tissue and DNA samples, along with their associated collection data, should be deposited in the NHM DNA Bank. This is both to secure that they will be available as reference material for subsequent scientific publications, but also to make them available to the rest of the scientific community. Voucher specimens associated with samples in the DNA Bank should be deposited in the relevant traditional NHM collections, and it is important to ensure that the two accessions (DNA/tissue and voucher) are cross-linked.

The general rule is that all samples collected as part of NHM projects shall be available to the public. It is, however, possible to restrict the access to samples in the DNA Bank for a shorter period, e.g. the duration of a master or PhD degree, a project or similar. This will then have to be agreed upon with the DNA Bank prior to deposition and registration in the DNA Bank.

All use of samples in the DNA Bank will be registered. External scientists will have to apply for a loan, while for internal (NHM) users it is sufficient to send an overview of desired samples to the DNA Bank. Access to the storage facilities is, however, restricted, so contact the DNA Bank manager to obtain the samples (see below under [Use of samples...](#) for further details).

To make the deposition of samples and data in the NHM DNA Bank as smooth and simple as possible, while at the same time maintaining a best possible quality and integrity, some advice are provided below. These include advice for collection routines in the field, how to preserve the DNA, sample labelling and data registration, links to template files for data import to collection databases as well as mandatory steps in the process of data registration and further analyses.

If you have any questions - please don't hesitate to ask (see [Contact info](#))!

## Before field work

During the planning phase, please feel free to be in contact for advice on;

- Sampling equipment (tubes for samples etc.)
- Fixation and preservation of samples
- Identification and labelling of samples
- Required and desired collection data, including their formats (see also [Import templates](#) below)
- Images of samples, and labelling/identification of these
- Collection/export/import permits, Access and Benefit SHaring (ABS) issues etc.

More details can be found in [Advice for field collection of DNA samples](#) at the NHM Wiki for Best Practice manuals.

## Before lab work

Before the actual analyses can start in the DNA lab, your samples **have to be registered in the DNA Bank database (Corema)**. To obtain this, please:

- Fill in the relevant import template (see [Import templates](#)) with all relevant information for your samples
- Organize your samples in the same order as listed in the import file, clearly labelled with some ID that also appears in the import file and is unique within the batch of samples
- Send the import file and hand over the organized samples to the DNA Bank manager for import to the database and subsequent permanent labelling of samples

It is also possible to enter your data directly in Corema. Please ask the DNA Bank manager for advice and instructions.

If you have already registered vouchers for the DNA samples in some other collection, it should be possible to export most of the necessary information from that collection database. Contact the administrator of the relevant collection or database for further help on this.

After the data have been successfully imported to Corema, you will receive a list of DNA Bank accession numbers for all your samples.

**Any sample tubes or references to your samples should include these accession numbers!**

At this stage the samples should also be labelled with permanent labels. The DNA Bank will assist you with this, ensuring that you always will have clearly labelled samples to work with in the lab or in other contexts.

Finally, a note will be sent to the leader of the DNA lab confirming that your samples are properly registered in the DNA Bank. This enables you to start the actual work in the DNA lab.

## During lab work & analyses

After having extracted the samples, you should take out an aliquot for your own analyses. Try to take enough for the intended analyses, without emptying the stock unduly (if possible). It will, however, of course be possible to obtain new aliquots from the DNA stock if necessary. The remainder of the extract (DNA stock) should be included in the DNA Bank as soon as possible:

- Obtain Micronic sample tubes from the DNA Bank manager
- Transfer the DNA stock to Micronic tubes
- Make sure to keep track of which samples goes into which well position!
- Place the tubes in the rack labelled *DNA Bank Temp. storage* in the freezer *Lab03* in the machine room next to the Pre-PCR lab (room 011A)
- Download the DNA extracts template file from the NHM Wiki for Best Practice manuals ([https://wiki.uio.no/nhm/skf/best-practices/index.php/DNA\\_Bank](https://wiki.uio.no/nhm/skf/best-practices/index.php/DNA_Bank)), fill in as much information as you have and send it to the DNA Bank for registration in the database.

The samples will be moved to a -80 °C storage after they have been registered in the DNA Bank.

After the extractions are finished, also the tissue samples should be handed over to the DNA Bank. As for the DNA stocks, it is of course possible to obtain access to these samples whenever that might be desired, but handing them over to the DNA Bank as soon as possible ensures that no samples will be accidentally lost or otherwise become unavailable to you or others.

## Before end of project, degree etc.

Make sure that all above steps have been completed; if not - do it!

All samples and data should be deposited and properly registered in the DNA Bank before the project is closed.

## Use of samples in the DNA Bank

External researchers who want to use samples from the DNA Bank will have to apply for a loan (see further details on the [DNA Bank webpages](#)). Internal researchers, i.e. NHM staff or students, or their collaborators, do not have to apply for a loan; just contact the DNA Bank manager to get access to the desired samples and have this registered in the DNA Bank databases.

## Import templates

The latest import templates can always be downloaded from either of these two locations:

- DNA Bank Wiki: [https://wiki.uio.no/nhm/skf/best-practices/index.php/DNA\\_Bank](https://wiki.uio.no/nhm/skf/best-practices/index.php/DNA_Bank)
- DNA Bank folder on the Y:-drive: [Y:\DNA Bank Open\Coreema import templates](#)

Please be sure to obtain the latest version of the relevant template before you start entering your data – they are updated frequently & irregularly!