

MEASURING AND MODELLING THE DYNAMIC RESPONSE
OF REMOTE MOUNTAIN LAKE ECOSYSTEMS TO
ENVIRONMENTAL CHANGE

A programme of **MO**untain **LA**ke **R**esearch

MOLAR

**PROTOCOL FOR DATA FLOW WITHIN THE
MOLAR PROJECT**

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1. Data-flow within the MOLAR project

The Molar project will result in an enormous amount of data from very different scientific fields. These data will eventually be stored and systematized in a data-base. The aim of this data-base is to make all the data available in combinations suitable for the scientists' purposes.

1.1 The path for the data from sampling to the data-base

- The field operators will send the collected material either to laboratories or to the scientists responsible according to the MOLAR protocol.
- The laboratories will send their results to the scientists responsible for the particular scientific field.
- The scientists responsible will check these data and store them until they are entered into the MOLAR data-base.
- The data-base managers will contact each of the scientists responsible in turn to agree on the specific format of the data-files and to collect the data for the data-base.

NB! All data that will be stored in the data-base must be thoroughly checked by the scientist responsible for this particular field.

1.2 How should these data be sent?

- The data files (matrices) are recommended to be sent by e-mail.
- XL-format is preferred for the data files.

1.3 What should the files (matrices) look like?

- Rows: The first row includes the titles of the columns, the parameters to be recorded. The second row includes the units of these parameters. The following rows contain the successive records.
- What parameters are to be recorded, the resolution, the units, the nomenclature, and abbreviations of these parameters must be decided by the responsible scientists. If abbreviations are used then a key for these abbreviations must be obtainable and they must be used by all those working within the same scientific field.
- Columns: The first column shall contain unique codes for that particular recording. The other columns shall contain the parameters measured.
- The codes for each sample (recording, row in column) shall be written in the first column and must include the lake code (MOLAR protocol), date of sampling (M.D.Y., 07.11.96 = 11th July 1996), the name of the recorder, analysts or laboratories (Surname only). The sampling techniques require a code. In addition the depth of the sample points should be coded if the samples are stratified.
- The purpose of these codes is to create unique name for each record and to describe the sample procedure. Thus more codes might be necessary. To find out which codes should be used in addition to these mentioned here contact the responsible scientists, who can contact the data-base group if problems arise.

1.4 Comments following the files

- A note should follow each file to describe the sampling and any deviations from the sampling procedure described in the MOLAR protocol.

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