

User Guideline for Access to the IGB LakeLab

The facility

The LakeLab of IGB established in 2012 in Lake Stechlin, 80 km north of Berlin, Germany, is conceived as an open-access research platform to assess impacts of global environmental change on biodiversity and biogeochemical processes in lake ecosystems. The facility consists of 24 experimental units – enclosures made of flexible walls attached to floating aluminium rings. Each of them is 9 m in diameter and about 20 m deep, reaching from the water surface into the sediment. They seal off a water volume of about $24 \times 1250 \text{ m}^3$. Each enclosure is equipped with a profiler carrying a set of standard sensors that record water quality parameters at high spatial and temporal resolution. The profilers are programmed to move permanently from the surface to the lake bottom. Depth profiles are taken every hour during day and night, based on measurements made at 0.5-m increments. The recorded data are automatically transferred to IGB's central environmental data base where they are routinely quality checked. For details of the facility see www.lake-lab.de.

Guiding principles

Given the scope of the LakeLab, its benefit for science and society is expected to be greatest when experiments involve the creativity, expertise and manpower of broad scientific consortia. Therefore, we invite scientists with diverse backgrounds and interests, nationally and internationally, to contribute their expertise and ingenuity in experiments that are envisaged or planned at present. In addition, we encourage suggestions for new experiments not currently on the agenda. Proposals are welcome from the national, European and international scientific community. Experiments may run for several weeks to a whole year, possibly even longer, and can take advantage of all 24 enclosures or a subset of them. In the latter case, more than one experiment can run simultaneously. A key advantage of the facility is that it affords experimental impact assessments involving more

than a single experimental factor and hence enables testing for synergistic or antagonistic effects of multiple stressors on lake ecosystems.

Services and Costs

Services and supplies provided by IGB to facilitate experiments include maintenance of the basic functionality of the facility, boats, general logistic support, and a basic laboratory for sample processing directly on the lake shore. Arrangements can be made to facilitate access to sensor data from the LakeLab as well as to data from long-term records taken at a routinely sampled central lake station, which is part of the Global Lake Ecological Observatory Network (GLEON). Furthermore, lake water can be sampled and analysed for a range of standard physico-chemical and selected biological parameters. Accommodation in IGB's recently refurbished guest house for up to 23 visitors can be offered at modest costs (<20 € per night). In addition, assistance is provided with booking other reasonably priced private rooms or commercial accommodation (B&B) in the tourist area of Lake Stechlin. IGB offers all services and supplies at moderate, not-for-profit rates, preferably as part of a collaborative effort with mutual benefit.

Proposal submission and evaluation

Proposal submission follows a straightforward web-based, two-step procedure. Interested parties or individuals initially submit a short Expression of Interest (see below), which the LakeLab Steering Committee will consider with a view to invite the submitting scientist to discuss further scientific and organizational details. Once basic common ground has been defined, access will be provided to a password-protected area on the LakeLab website where prospective partners are invited to upload details of the proposed work. Expressions of Interest can be submitted at any time. However, interested scientists are strongly encouraged to contact us as early as possible, because a lead

time of two years or more may be required for planning, especially for complex, technically demanding projects involving multiple investigators, and competing proposals might have to be accommodated. Proposals will be reviewed and selected by the LakeLab Steering Committee based on scientific merit, technical feasibility and potential ethical and legal restrictions. Preference may be given to proposals involving expertise and interests of IGB scientists, although this is not a mandatory requirement.

Contact

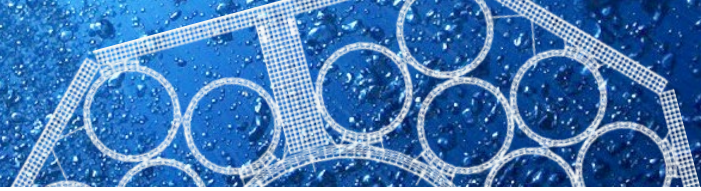
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Aerial view of the IGB LakeLab in Lake Stechlin, Germany. © HTW Dresden, M. Oczipka



Expression of Interest

* = mandatory fields

Please fill in the online form under www.lake-lab.de/index.php/collaboration.html

First name*

Last name*

Institution*

Address*

E-mail*

Website

I propose a new experiment

2017 2018 2019 2020

I am interested in contributing to an experiment that is planned or envisaged in:

2016
 2017

Interests and expertise:

Proposed experiment or contribution:

Expected merits for science or lake management: