

Study site: Lake Lunz

Lake Lunz is the first lake in Austria to become a member site within the Global Lake Ecological Observatory Network (GLEON). This membership marks the beginning of joint measurement programs together with international partners and thus creates the basis for continual carbon measurement in lakes.



At the measurement platform located at the deepest spot of the lake (34 m) the following datasets and instrumentations are available:

1. Concentration of carbon dioxide, methane and oxygen

- lake water and air: 6 times per day since Mai 2011
- GHG Sentinel Sentinel (Axys)

2. Water temperature, elect. conductivity, pH-value, chlorophyll *a*, oxygen and redox potential

- Lake water: three times per day in every meter to a depth of 27 m by using a cable winch since June 2010
- YSI multi-parameter probe

3. Concentration of dissolved organic carbon (DOC)

- Lake water Surface water: monthly since April 2011 with wintry interruptions
- ISCO automatic water sampler; Sievers 900 TOC Analyzer

4. Phytoplankton

- monthly investigations since August 2009 with wintry interruptions
- taxonomic and the biochemical characteristics of the plankton: seston (0,45-30 μm), microplankton (100-200 μm), mesoplankton (200-500 μm) and macroplankton (>500 μm).