



Photo: Research catamaran, btu Cottbus - Senftenberg, Bad Saarow



Photo: Measurement with a Secchi disk

Bachelor or master's thesis

Lake transparency is an important parameter for the ecological status of lakes. In lakes with low nutrient inputs, productivity of plankton is low, and the water remains more transparent. In the state of Schleswig-Holstein, a citizen science project (www.seen-transparent.de) has been measuring transparency in over 40 lakes on a weekly basis since 1991 using Secchi disks (see photo). This data set offers a unique opportunity to trace long-term regional trends in the ecological development of lakes.

This study is integrated into a Germany-wide research study on the long-term development of lakes in response to climate change. In this project, the aim is to systematically evaluate how transparency has changed in recent decades and which lakes react particularly sensitively to climatic changes. In addition to the dependence of transparency on nutrient concentrations and the morphometry of the lakes, the dependence on meteorological conditions, e.g. spring and summer temperatures, will be of particular interest. Basic knowledge about limnology and experience with Matlab or R are advantageous. The work will be carried out at IGB in Berlin, but can also be performed partially in home office.

Type:	Bachelor's / master's thesis, data analysis
Supervisor:	Michael Hupfer
Contact:	Michael.hupfer@igb-berlin.de , Robert.schwefel@igb-berlin.de
Start:	Anytime from November 2023
Students:	1
Prerequisites:	Interest in time series analysis.

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