

GLEON 6 - 11-14 February 2008 (Florida)

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Müggelsee - Database (Berlin, Germany): Data at high temporal resolution

Study site

Müggelsee is a shallow, polymictic lake situated in the southeast of Berlin (52°26' N, 13°39' E). It spans an area of 7.3 km² with a mean depth of 4.9 m and a maximum depth of 8 m. The lake is moderately flushed by the river Spree with a retention time of approximately 6-8 weeks. The climate experienced by this lake is governed by maritime and continental influences.

Near surface measurements (0.3-0.5m water depth):

1995 - till today at 5 minutes intervals

Year round data :

- Water temperature
- pH
- Oxygen
- Conductivity
- Light measurements in 0.80m and 1.30m water depth.

Depth profile measurements (0-5 m, at intervals of 0.5 m):

2002 - till today at 5 minute intervals; during the growing season

- Water temperature
- pH
- Oxygen
- Conductivity
- Fluorescence

Suggestions for research topics to be addressed within GLEON:

1. How variability at small temporal scale of any variable translates into variability at larger temporal scales
2. How variability in water temperature and light conditions translates into variability in oxygen and fluorescence
3. Changes in water temperature, pH, oxygen, etc. during day time versus night time.
4. Day / night amplitudes of water temperature, oxygen, pH in the context of global warming.
5. Propagating effects in time of extreme weather events such as storms, heat waves on the measured variables.
6. Changes in the length of short (days) versus long (weeks) thermal stratification events in polymictic lakes during summer