



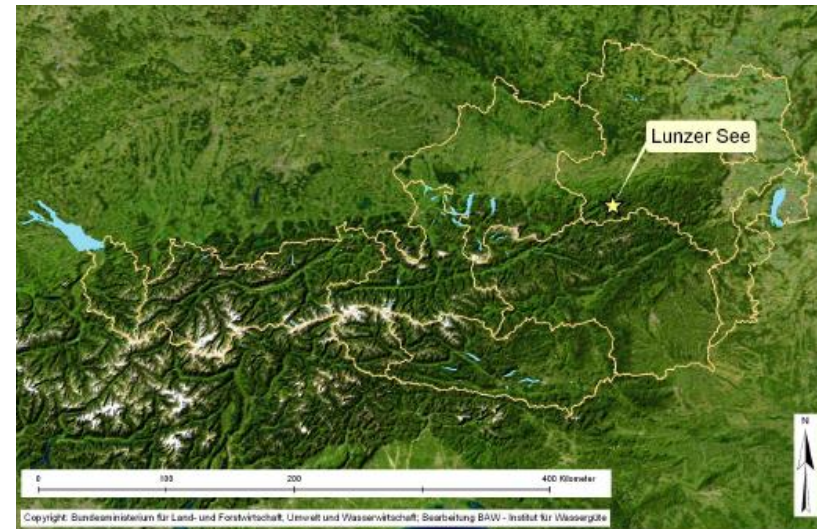
Influence of climate extremes on the carbon balance of a pre-alpine lake

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Study site: Lake Lunz

- Natural, pre-alpine (608 m a.s.l.) lake in Lower Austria
- Area: 68 ha; (1,7km x 0,5km);
13,6 mio m³
- Mean depth: 20m (max. 34m)





Measurements & Instruments

- Vertical CO₂ exchange fluxes between LUS and the atmosphere using the **eddy covariance method**
 - LI7200 enclosed path CO₂/H₂O analyzer
 - Gill R3A sonic anemometer
 - CO₂-flux but also sensible and latent heat flux
- Energy balance $R_n - \Delta Q = H + \lambda E$
 - Net radiometer
 - Water temperature profile





Additional measurements

- DIC, DOC, POC
- pH, temperature, dissolved O₂
- CH₄ measurements

➤ Complete carbon & energy balance of the lake !?

