

Competition among filter feeders in Bodensee

Project Description

- There are many different filter feeding animals in the Bodensee
- *Daphnia* (waterfleas), are important in aquatic food webs as a link between algae and fish
- Many bivalves in the Bodensee also filter phytoplankton and form a link between algae and overwintering waterbirds.
- The invasive species *Dreissena polymorpha* (~50 yrs ago) and *Corbicula fluminea* (~20 yrs) established in the lake, and in 2016 a third invasive species, *Dreissena rostriformis bugensis* - the Quagga mussel, was first detected in the Obersee.
- This project will examine the current distribution of Quagga mussels in the Bodensee, and determine how much invasive bivalves compete with *Daphnia* for algae.



Project Goals

- Through seasonal field surveys*, estimate mussel densities in the littoral zone
*collaboration with Univ. Konstanz (project L9) and HYDRA (www.hydra-institute.com)
- Laboratory and field filtration rate estimation for *Daphnia*, *C. fluminea*, *D. rostriformis bugensis* and *D. polymorpha*
- Quantify niche overlap between *Daphnia*, *C. fluminea*, *D. rostriformis bugensis* and *D. polymorpha*
- Model resource competition between *Daphnia* and mussels in Lake Konstanz

Researchers



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Mit Unterstützung von: