UFZ-Seminar „Wasser und Umwelt“

HELMHOLTZ ZENTRUM FÜR UMWELTFORSCHUNG UFZ

January 21th, 2013, 15.00am

Saal, Brückstr. 3a, Magdeburg

Hendrik Schubert, Universität Rostock, Institut für Biowissenschaften, Lehrstuhl Ökologie

Identification of long term trends in eutrophication in a shallow brackish ecosystem by means of (taxonomic) phytoplankton parameters

The results of a long-term study of a Baltic coastal lagoon will be analysed in an attempt to detect trends in autotrophic community structure (both, phytoplankton as well as macrophytes) as well as seasonality with respect to nutrient load. Within the 30 years period of investigation, nutrient load as well as salinity regime have shifted independently, both factors being regarded as crucial for ecosystem structure as well as function. Analysing seasonality of phytoplankton the results clearly pointed to a very short period in which nutrient availability can be seen as “the masterfactor” whereas most of the time physical limitation shaped the community. For salinity the situation was rather complex, because in addition to species inventory available for a given salinity biotic interactions as, e.g. grazing pressure by migratory birds turned out to be decisive for the structure of the macrophytobenthos community of the respective year. The study gives an insight into the special situation of microtidal lagoons with regular ice-cover, which resets the system every year and prevents the establishment of dominance of perennial species.

Falls eine Videoübertragung nach Halle oder Leipzig gewünscht wird, bitte ich um eine E-Mail an nina.baumbach@ufz.de bis spätestens Freitag (14.12.), 12:00Uhr.