



UFZ-Seminar „Wasser und Umwelt“



15. Oktober 2012, 15.00Uhr

Saal, Brückstr. 3a, Magdeburg

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spricht zum Thema:

The effect of climatic and biotic factors on the stability of stratification and food web structure in the meromictic Lake Shira

Lake Shira is a large meromictic saline water body located in the South Siberia (Russia). Based on available data we developed coupled hydrophysical-biological one-dimensional model of Lake Shira. A one-dimensional numerical hydrophysical model allows for the quantification of the vertical mixing processes that govern the thermal structure and the exchange of dissolved and particulate matter between different parts of the lake. An ecological model incorporates knowledge about the functioning of the lake pelagic ecosystem. We used the model to investigate the effect of climatic (temperature, light intensity/cloudiness, wind direction and strength) and biotic factors (concentrations of phosphorus and/or nitrogen, hydrogen sulfide, point discharge of nutrients) on the biological productivity, the structure of the food web and the vertical distribution of main plankton groups in the lake. The most influential factors and the critical values for the stable stratification and structure of the food web and the relative importance of climatic and biotic factors will be discussed.

Falls Sie eine Videoübertragung nach Halle oder Leipzig gewünscht wird, bitte ich um eine E-Mail an nina.baumbach@ufz.de bis spätestens Freitag (12.10.), 12:00Uhr.