**The effect of climate variability on the stability and food web structure of the permanently stratified lake: model analysis**

Many water bodies (lakes, former mines, reservoirs, etc.) are permanently stratified due to the effect of temperature, salt or other abiotic and biotic factors. Permanent stratification leads to the specific vertical distributions of major physical, chemical and biological parameters in the water column with consequences for water quality. The stability of stratification mostly depends on water level and climate (very often they are interconnected). We perform intensive studies at permanently stratified Lake Shira (eastern Siberia). We developed coupled hydrophysical-ecological model which allows modeling the effect of various factors on the lake and biota. The model allows to perform comparative simulations to estimate the effect of various climate (wind, cloudiness, temperature), biotic and anthropogenic factors on the lake stability and food web functioning. The results of comparative calculations will be presented.