

Influence of water quality variation of a brackish river on living conditions of Protozoa

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SUMMARY

The entire watershed of the Ohashi River, which connects Lake Shinji with Lake Nakaumi, consists of brackish water. Currently, the Ohashi River is undergoing a transition because of its widening and dredging. To date, the living conditions of protozoans, which are attached to the riverbed, have not been investigated and the dynamics of the species composition of adhesive protozoans remain to be investigated. In this study, we compared the results of research on species composition and biomass of adhesive protozoans inhabiting the Ohashi River with a water quality survey that was conducted in parallel, to investigate how the water quality change affects adhesive protozoans. Consequently, the protozoans inhabiting the Ohashi River were found clearly to exhibit seasonality. That is to say, the population density of *Vorticella* and *Stentor* was higher than usual from summer to autumn, and that of *Acineta* and *Zoothamnium* was higher than usual from winter to spring. However, the protozoans living year-round have not been detected here. Other findings include the likelihood that suctorian species have been influenced by salinity, COD, and the bacterial amount in the river.