

CONTENTS

The institute and its scientific board	V
The staff and field of work	VI
1. INTRODUCTION	1
2. RESERVOIRS AND LAKES	7
2.1 Dissolved and dispersed substances in reservoir water (Slapy and Římov)	7
2.2 Microbial characteristics of reservoirs Slapy and Římov	8
2.2.1 Distribution of ciliates in longitudinal profile of the Římov Reservoir	10
2.3 Fish stock composition in the Římov Reservoir in 1999	12
2.4 Biodiversity of microbial loop, carbon flow and nutrient cycling in acidified lakes in the Šumava Mountains: pathways and controlling mechanisms	13
2.4.1 Phosphorus inactivation by aluminum in the water column and sediments: Lowering of in-lake phosphorus availability in an acidified watershed-lake ecosystem	13
2.4.2 Severe phosphorus limitation of plankton in acidified lakes in the Bohemian Forest results in a unique structure of pelagic food webs	14
2.4.3 Chemistry of lakes in the Bohemian Forest (Šumava Mountains)	16
2.4.4 Annual and spatial distribution of the ciliates in Šumava lakes	18
2.5 Microbial biomass and activity in remote mountain lakes	20
3. SPECIAL INVESTIGATIONS	24
3.1 Survival of <i>Vibrio cholerae</i> in the presence of cyanobacteria	24
3.2 Ecological role and bacterial grazing of <i>Halteria</i> spp.: Small freshwater oligotrichous ciliates as dominant pelagic ciliate bacterivores	26
3.3 The measures of the size structure of zooplankton specimens	29
3.4 The role of phenotypic plasticity in <i>Daphnia galeata</i> in successful exploitation of the variable environment of a long narrow dam lake	31
3.5 Hydroacoustic observation of early life stages of European perch (<i>Perca fluviatilis</i>)	31

PUBLICATIONS