CONTENTS

The in	nstitute and its scientific board	V
The s	taff 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
2.3	Phytoplankton in reservoirs Slapy and Římov	10
2.4	Grazing experiments with the pelagic assemblage in Římov and Slapy	
	Reservoirs	12
2.5	Fish stock composition in the Římov Reservoir in 1998	12
2.6	Changes in the bacterial community composition in a transplant experiment in	
	the Sau Reservoir (North Spain)	13
2.7	Water quality in Lipno Reservoir during 1991-1997 and a prediction of its	
	future development	16
2.8	Interannual changes of pelagic biomass in reservoirs - coherence among the	
	pairs of reservoirs	17
2.9	Transport processes in the catchment area - reservoir system (project No.	
	103/96/1710, Grant Agency of the Czech Republic, 1996-1998)	19
2.10	General features of fish distribution in non-salmonid reservoirs	20
2.11	Mathematical modelling of expected global changes on reservoir ecosystems	
	with consideration of the effects on drinking water supply	21
2.12	Chemistry and biology of lakes in the Bohemian Forest (Šumava Mountains)	21
2.13	Bacteria in pelagic biomass and phytoplankton exudation in reservoirs and	
	mountain lakes	24
3.	SPECIAL INVESTIGATIONS	27
3.1	The determination of sorption capacity and equilibrium concentration of	
	phosphorus in sediments	27

3.2	Quantification of filamentous microorganisms in natural samples with the line	
	intersection method	27
3.3	Vibrio cholerae enzymatic activity upon ciliate feeding pressure	30
3.4	Ecological aspects of genetic and functional diversity of aquatic bacteria under	
	grazer control: the use of in situ hybridization and fluorescent rRNA-targeted	
	probes	31
3.5	The role of phenotypic plasticity in Daphnia galeata in successful exploitation	
	of the variable environment of a long narrow dam lake	35
3.6	"Otter food investigation" and "fish exchange phenomenon"	35
PUBI	LICATIONS	37