

CONTENTS

The institute and its scientific board	V
The staff and the field of work	VI

1. INTRODUCTION	1
-----------------------	---

2. RESERVOIRS	5
---------------------	---

2.1. Chemistry.....	5
2.1.1 Substances dissolved and dispersed in water of reservoirs	5
2.1.2 Dissolved oxygen in the Slapy Reservoir	7
2.2. Microbes.....	7
2.2.1 Microbial characteristics of the reservoirs	7
2.2.2 Growth rates of ciliates in two different freshwater bodies	9
2.2.3 Grazing of pelagic ciliates on picoplankton in the Římov Reservoir and Piburger See	10
2.3. Phytoplankton	13
2.3.1 Phytoplankton composition in the Římov Reservoir in 1994	13
2.4. Zooplankton	13
2.4.1 Net zooplankton in the Slapy and Římov Reservoirs.....	13
2.5. Fish	13
2.5.1 Fish stock composition in the Římov Reservoir in 1994	13
2.5.2 Diet composition of YOY perch and roach	14

3. SPECIAL INVESTIGATIONS	15
---------------------------------	----

3.1. Semi-micro determination of total phosphorus in soils, sediments, and organic materials: a simplified perchloric acid digestion procedure	15
3.2. The nitrogen: phosphorus relationship in mountain lakes: Influence of atmospheric input, watershed, and pH	15
3.3. Algal-bacterial competition for dissolved organic phosphorus in P-limited lakes studied with glucose-6- $[^{32}\text{P}]$ phosphate, $[\text{g-}^{32}\text{P}]\text{ATP}$, and methylumbelliferyl phosphate	16
3.4. Evaluation of extracellular enzyme measurements - ecological role of glycohydrolases within freshwater microbial food webs and an enzyme assay for picoplanktivory.....	19
3.5. Production and decomposition in the Vltava River	22
3.6. Determination of chlorophyll-a in fresh waters using the whole water technique	23
3.7. Phytoplankton of the Lake Catemaco, Mexico, Veracruz	24
3.8. Fish chemical influence on Daphnia	25
3.9. An analysis of the trophic structure in nine Czech reservoirs regularly stocked with piscivorous fish	25

PUBLICATIONS	27
--------------------	----