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PRAPOTH JUPRACHAKORN : DECONPOSITION RATE OF Scirpus grossus, Nymphaea lotus/ AND Potamogeton malaianus IN BUNG BORAPED. THESIS ADVISOR : ASST.PROF. THARES SRISATIT,Ph.D.AND INST.JIAMJIT BOONSOM, 87 pp. ISBN 974-583-675-3

Decomposition rate of aboveground organs of three macrophytes namely, Scirpus grossus, Nymphaea lotus and potamogeton malaianus in BUNG BORAPED has been studied during October 1992-April 1993, by using litter bag method. Serveral litter bags 2mm (15X20cm) containing 15g of dry macrophytes were placed for the experiment at surface water, 50cm above soil surface corresponding. Three bags of each species were collected at fortnightly (October-December 1992)and monthly (January-April 1993)intervals for estimated dry weight loss. Number of invertebrates in each bags were observed. Concentration of six major nutrients(Ca,Mg,Na,K,N,P)in water were determined for correlation with depth and time at 95% significant level. Means of chemical and physical water qualities were analyzed. And degrading microorganism was studied.

On the basis of loss in dry weight, the three macrophytes are arranged in the order : N. lotus>P. malaianus > S.grossus. In the three macrophytes, S. grossus has the most number of invertebrates in its bag, especially at the first fortnight. All nutrients have correlated with, but have not significant. Five nutrients (Ca,Na,K,N,P) have correlated with time at 95% significant, but Mg has not significant. Means of depth are 1.38-3.50 m, dissolved oxygen 3.5-6.8 mg/l, water surface temperature 25.8-30.9 c, pH 6.8-8.2, tranparence 107-187 cm, carbondioxide 0.1-12.3 mg/l, alkainity 67-108 mg/l, nitrite 0-0.004 mg/l, nitrate 0-0.015 mg/l, ammonia 0.008-0.043 mg/l, phosphate 0-0.019 mg/l. Group of microorganism was observed in the degrading macrophytes tissue and surounding water column, bacteria (gram negative, rod) was mostly determined.