**Thesis Title** Distribution of *Microcystis aeruginosa* Kütz. in the Reservoir of Mae Kuang Udomtara Dam, 1996-1997

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## Abstract

The study of the influenced *Microcystis aeruginosa* Kütz. bloom in the reservoir of Mae Kuang Udomtara Dam , were investigated for 12 months between February 1996-January 1997. It was found that the factors which positively correlated with the blooming of the phytoplankton were the amount of nutrients such as soluble reactive phosphorus, total phosphorus and ammonium nitrogen. The others correlated negatively with pH and alkalinity. The large amount of *Microcystis aeruginosa* Kütz. occurred in the rainy and the cold part of dry season, especially in January 1997, was 76.30% of total biovolume. Most of them were fould in inflows, outflows and in the reservoir. The study of the vertical distribution showed that the greatest density of phytoplankton ocurred in the depth of 5 meter followed by the water surface and the density decreased with depth .

The phytoplankton found were 122 species in 8 divisions with the following percentage ; Chlorophyceae (35%) Zygnemaphyceae (20%), Diatomophyceae (14%) , Cyanophyceae (9%) , Euglenophyceae (9%) , Cryptophyceae (6%) , Dinophyceae (5%) and Xanthophyceae (2%).

The water quality in the reservoir of Mae Kuang Udomtara Dam classified by the trophic levels was mesotrophic to eutrophic reservoir. However, by the standard surface water quality, the reservoir was classified in the second category as relativety clean for household consumption after properly treated.