

ABSTRACT

The ecological study on algae, in particular, diatom and its diversity in the Thammasat university, Rungsit campus, was carried out. The water samples were collected from 8 stations in the water body in the campus. The data collection was made at 5 intervals over a total period of 10 months (March-December, 1991). Altogether 120 samples were collected and analyzed to identify the diversity of diatom and water quality. The results of the study revealed 16 genus of diatom with 60 species. Among these, 8 species were found at every station, but only 5 species were found at a single station. The richness diversity using Margalef's index was moderately high. The similar result was obtained using the Shannon-Weiner diversity's index. The evenness index of diversity using Peilou's index is not observed due to the variation of diversity at each station depending on the period of sampling. The correlation among species diversity is moderately high with other species and having relation with more than 50 % (30 species). The relation between water quality especially dissolved oxygen and species diversity of diatom is higher than other water quality parameter such nutrient (nitrate and phosphate). The water quality itself classified as is mesotrophic. It is also interesting to notice that some brackish and saline water diatom was found at almost every station. It might be possible that this area used to be either under brackish or sea water.