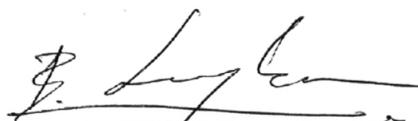


Sanmorakot Boonsongtanarak 2006: Comparison of Water Quality versus the Biodiversity of Aquatic Insects in Ponds within Kasetsart University Kamphaeng Saen Campus, Nakhon Pathom. Master of Science (Entomology), Major Field: Entomology, Department of Entomology. Thesis Advisor: Assistant Professor Boonyarith Sayampol, Dr. der Landwirtschaft. 85 pages.  
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Surveying aquatic insects in ponds within Kasetsart University, Kamphaeng Saen campus (KU. KPS.). Water and aquatic insect samples were collected once a month for 1 year (from June 2004 – May 2005). Divided the area for 11 stations to keeping the water data. Water properties that had been investigated simultaneously were temperature, dissolved oxygen (DO) and pH. Correlation analyzed between aquatic insects and water properties. The aquatic insects found 6 Orders, 33 Families. Average diversity index value of aquatic insects found 2.94, 2.8, 2.59, 3.19, 2.71, 2.59, 2.88, 1.94, 2.82, 2.93, and 1.67, respectively. Average water temperatures were 30.2 – 32.9 °C. Averages DO were 3.3-7.9 mgL<sup>-1</sup> and pH were 6.2 – 8.4. Diversity index of aquatic insects show significant positive correlation with DO. Water quality in KU. KPS. was good quality. Two orders of aquatic insects as bioindicators for indicate water quality found were Ephemeroptera and Trichoptera, which expressed significant positive correlation with DO. Order Ephemeroptera found 8 families. 3 families found in excellence water quality were Heptageniidae, Isonichidae, Leptophlebiidae, 2 families found in good water quality were Polymitarcyidae, Siphonuridae and 3 families found in all sites were Baetidae, Caenidae, Ephemeridae. Order Trichoptera found 5 families. 2 families found in excellence water quality were Leptoceridae, Leptostomatidae and 3 families found in good water quality were Glossosomatidae, Hydropsychidae and Psychomyiidae

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