

**The influence of water physicochemical parameters on fish occurrence in peat swamp, paddy field and oil palm plantation of north Selangor peat swamp forest, Selangor, Malaysia**

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**Abstract**

This study investigates the influence of water physicochemical parameters on fish occurrence in peat swamp, paddy field and oil palm plantation of north Selangor peat swamp forest, Selangor, Malaysia. Fish samplings and water physicochemical analyses were conducted on June 2015, October 2015 and January 2016. A total of 1,382 individual fish belonging to 10 families, 15 genera and 20 species were collected. Family Cyprinidae (eight species) had the highest representatives, followed by Bagridae (three species) and Osphronemidae (two species). The most abundant species was *Barbonymus schwanefeldii* (169 individuals), while the least abundant was *Wallago leerii* (one individual). The paddy field and oil palm plantation area recorded higher fish species diversity and richness compared to peat swamp. The water physicochemical parameters such as pH, dissolved oxygen, ammonia, phosphate, sulphate and chlorine showed no significant difference between paddy field and oil palm plantation, but significantly different from the peat swamp. However, no significant difference was observed for temperature between the three habitats. This study revealed that each habitat has different water quality parameters that were associated with the fish occurrence.

Keywords: Water physicochemical parameters, fish occurrence, conservation, peat swamp forest, Malaysia.

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