

## **Fish Assemblages in Mangrove Plantation Area of Nakhon Si Thammarat Province, southern of Thailand**

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Fish assemblages monitoring using a small seine net was conducted in mangrove plantation area of Nakorn Si Thammarat Province, southern Thailand in three years (October 2012, 2013 and 2014, consecutively), to determine differences in fish assemblage structure among a mangrove planting sites, tidal mudflat and in small creek of natural shrimp pond. A total of 6,623 individuals, comprising 70 fish taxa in 31 families were collected. In term of the numbers of taxa, Gobiidae was the most diverse (12 taxa), followed by Ambassidae and Leiognathidae. Two-way ANOVA analysis showed that the total number of taxa and the total number of fish density were different significantly among the sampling year and habitat ( $p < 0.05$ ). The cluster analysis showed that the fish assemblage structure separated into three groups with non-verified clearly among the sampling year and habitats, such muddy beach, mangrove planting site and small creek of natural shrimp pond. The seven species such, *Hyperlophus translucidus*, *Neostethus lankesteri*, *Ambassis nalua*, *Ambassis vachellii*, *Gerres poeti*, *Leiognathus panayensis*, *Gobiopterus brachypterus* were the major species effects on grouping of assemblage structure. Even though, the total number of fish species and fish density of some year sampling were highly significant in mangrove planting sites and small creek of natural shrimp pond, the fluctuation pattern still found in other sampling years indicated the utilization other micro-habitats of fish assemblage around planted area.

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