

Sutanun Kiat-amornwet 2014: Fish Community Structure as Reflected from Coastal Land Use in Mangrove Estuary of Ban Laem District, Phetchaburi Province. Master of Science (Environmental Science and Technology), Major Field: Environmental Science and Technology, Division of Science. Thesis Advisor: Assistant Professor Siraprapha Premcharoen, Ph. D. 144 pages.

Fish community structure as reflected from coastal land use in mangrove estuary of Ban Laem District, Phetchaburi Province had been conducted seasonally during December 2012 and October 2013. Samplings were conducted in blood cockle farms, public benefic channel, mangrove fringe and Ban Laem estuary, using a push net at both day and night. A total of 29,287 individuals belonging to 11 orders 33 families and 54 species were collected. The Carangidae was by far the most speciose (6 species), with *Arius maculatus* numerically dominating (15,989 individuals, 59 %). The highest number of individuals was recorded in mangrove fringe (21,156 individuals). The number of species compositions and abundance at night catches was higher than at day catches. The highest value indices of diversity, richness and evenness were 2.76, 5.06 and 0.76 respectively, recorded in blood cockle farms at night catches. ANOSIM analysis showed a clearly significant difference of species compositions and abundance among seasons, stations and between day and night ($p=0.001$). Catches consisted primarily of juveniles or small-sized fishes, indicating that the area is important as a nursery ground. The findings of this study have implications for the conservation and management of coastal resources including mangrove and fisheries resources in Ban Laem and adjacent area.

Student's signature

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