

**On the biology and bioacoustic characteristic of spotted catfish *arius maculatus* (Thunberg 1792) from the Malaysian Estuary.**

ABSTRACT

Estuaries of Matang mangrove reserves in Perak provide an ideal habitat for *Arius maculatus* population. Results of our survey showed that most of the fish species caught were in their sub-adult stages with size ranged between 11 – 21 cm SL as shown in length frequency analysis. The relative growth condition of the fish population was allometrically negative with “b” value < 3.0 ( $W = 0.040L^{2.78}$ ) respectively. Study on reproductive biology of the species showed that almost half of the specimens caught were comprised of maturing males and female’s gonad development attained stage II – III. Stomach content analysis demonstrated that *A. maculatus* was an excellent benthic feeder in muddy water environment. Three major food items have been listed and dominated by zoobenthos and benthic crustacean. Meanwhile bioacoustic study showed that the fish produced a distinct sound resulted from stridulation of pectoral fins. The roles played by Matang mangrove systems as an integral breeding and nursery ground for this particular species was also discussed.

**Keyword:** Biology; Bioacoustic; *Arius maculatus*; Malaysia