

First Report on Infection of *Argulus quadristriatus* (Arthropoda: Crustacea: Branchiura) on Marine Fish Cobia in Brood Stock Pond Culture [2019]

ABSTRACT

A total of 30 specimens of fish cobia *Rachycentron canadum* (Total Length = 45–120 cm, Weight = 3.0–25 kg) were stocked at the density of 1 kg/m³ in the polythene lined earthen pond. After 3 months of stocking, fish cobia was found with infection of ectoparasites. Then fishes were sampled at fortnight interval to find the percentage distribution of ectoparasites in different parts of the body for a year and also any pathological symptoms. Identification of the parasite was made through light and electron microscopies. The parasite was identified as *Argulus quadristriatus* Devaraj and Ameer Hamsa, 1977 (Crustacea: Branchiura: Argulidae) commonly called as fish lice. The maximum distribution of pathogenic argulid was observed on the head and operculum of cobia and was found high in summer months from April to June. Pathological symptoms were observed on cobia as erratic swimming, rubbing against substrate in the pond and lesions of epithelial tissues on the infected regions. It must be due to continuous rupturing and feeding of argulids on the skin of cobia using its powerful antennae. Scanning electron micrographs revealed some important morphological features of *A. quadristriatus*. This is a first report of *A. quadristriatus* infection on cobia reared in a land-based pond ecosystem.