

Short communication

Shedding of gill epithelia by grey mullets (Family Mugilidae) in Negombo Estuary, Sri Lanka

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Abstract

The grey mullets (Family: Mugilidae) have been described as plankton feeders, herbivores, omnivores, slime feeders, foul feeders, bottom feeders, etc. In general, grey mullets are known to be benthic feeders. During a comprehensive trophic ecological study of fish assemblages in brush-parks in the Negombo estuary, Sri Lanka, carried out from 2014 to 2016, a food item that was not found in the aquatic environment, such as zooplankton, phytoplankton, macrophyte or detritus, was observed in the gut contents of mugilids. In this communication, the authors report that the frequency of occurrence of these peculiar items in the gut contents were shedded gill epithelia. Even though shedded gill epithelia were not considered as a food item, they were the most common item in the stomach contents contributing to 49.9% of the mean volume of stomach contents.

Keywords: food and feeding; gill epithelia; Mugilidae; trophic ecology.

The mullets (Family: Mugilidae) are widely distributed in the coastal waters, estuaries and even in freshwater in the tropical and subtropical regions of the world (Wijeyaratne and Costa 1986; Koutrakis et al. 1994; Blay 1995). Many biological aspects of mullets including food and feeding habits, growth, migration pattern, spawning and reproduction have been studied (Odum 1968; Marais and Erasmus 1977; De Silva and Silva 1979a; Wijeyaratne and Costa 1986; Blay 1995; Fatema et al. 2013).

The mullets have been identified as an important group of fish in the subsistence fisheries in the coastal lagoons of Sri Lanka. Fifteen species of grey