D-16: Selectivity of food in striped grey mullet (*Mugil cephalus* L) in a coastal lagoon of Southern Sri Lanka

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Mugil cephalus is a common edible fin-fish species of coastal lagoons and estuaries in Sri Lanka. It is considered as an important species in aquaculture. Except for shrimp farming, brackish water aquaculture is not popular in Sri Lanka although a total area of 120,000 ha of brackish water is available. Present study was conducted to identify the selectivity of food items available

for *Mugil cephalus* in Malala Lagoon with a view of introducing them for brackish water aquaculture.

Mugil cephalus were captured from Malala Lagoon, in the Hambantota District of Southern Sri Lanka, using multi-mesh gill nets. Their stomach contents were preserved in 4% formaldehyde and qualitatively and quantitatively analysed by using a Sedgewick rafter. Bio-volume of the zooplankton in their diet was estimated according to the point method.

They show a preference to feed on animal matter (fish, insects, zooplankton, molluscs, brittle star arms) but macrophytes also form a major component of their diet (28.24%). Most important animal matter found in their diet were brittle star arms (20.79%) zooplankton (7.9%), fish (5.24%) and molluscs (5.18). Cladocerans are the most dominant group of zooplankton in their diet (43.7% by number and 43.26% by volume) followed by Copepods (39% by number and 44.09% by volume). Out of copepods 35.98% were calanoids dominated by *Pseudodiaptomus annandalei* and *Heliodiaptomus viduus* and 8.12% were cyclopoids. Cladocerans were represented by *Monia micrura* (24.48%) *Diaphanosoma* sp (18.62%), *Ceriodaphnia* sp.(0.16%). Others 12.64% of total zooplankton.

Mugil cephalus is an opportunistic feeder which prefer animal matter. Inclusion of large quantities of brittle star arms in their diet could be considered as evidence of their migration to marine waters. Diversity of zooplankton in their diet shows their ability to feed selectively on zooplankton species which are abundant in Malala Lagoon.