

An instance of unusual feeding habit of the Indian Mackerel, *Rastrelliger kanagurta* from the Mangalore Fishing Harbour

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The Indian mackerel, *Rastrelliger kanagurta* contributes significantly to the pelagic fishery catch of Dakshina Kannada coast. The fishing season extends from Aug. to May with peak landings during September-November and April-May. Fishing is done by purse seiners, trawlers, gillnetters, ring seiners and indigeneous non mechanized crafts.

Studies have indicated mackerel primarily as a plankton feeder. In general the food mainly consists of copepods, diatoms like *Coscinodiscus*, *Fragilaria*, *Rhizosolenia* and *Nitzschia*; dinoflagellates like *Peridinium* and *Ceratium*. But instances of *Fragilaria* sp. exclusively forming an item of food is quiet rare and has not been reported so far for the Indian mackerel. During the analysis of mackerel gut collected recently (Aug-Sept /2013) from the catch made by the trawlers of Mangalore fishing harbour, the stomachs contents predominantly contained *Fragilaria* sp. (Fig. 1)

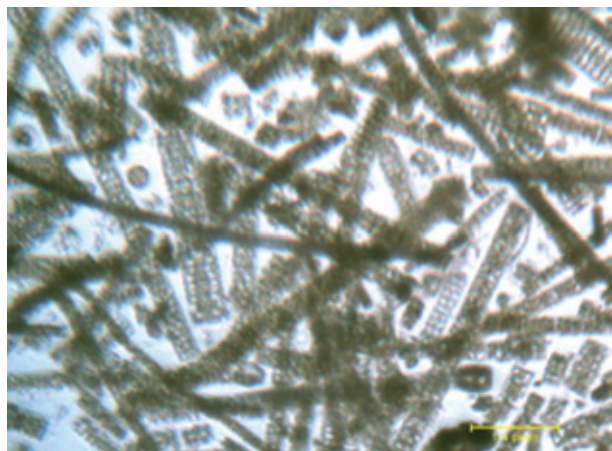


Fig. 1. *Fragilaria* in the gut of *R. kanagurta*

A total of 147 specimens were randomly collected from Mangalore fishing harbour on 14th

August and 3rd september 2013 and stomach contents of 100 specimens were analysed in detail. The specimens ranged in size from 105 to 236 mm in total length (Fig. 2.) and weighed 89-170 gm (wet weight). All the fishes were mature with gonad either in stage VIIa, b or IIb.

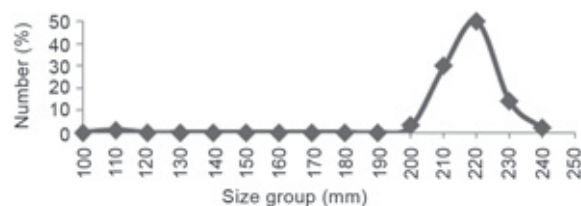


Fig. 2. Percentage composition of length group of mackerel

Of the 100 specimens for fullness, 7% had empty stomach, 39% fishes had just traces of food items in them, 28% were with 1/4th condition, 25% were with 1/2 stomach and 1% with 3/4th condition. The volume of food varied from 0.1 to 1.2 ml. The contents were diluted to a known volume and observed under the binocular microscope in 10x magnification. The food composed exclusively of *Fragilaria* sp. (on an average of about 5,00,000 cells/ml) with traces of *Coscinodiscus*, *Peridinium*, *Proto-peridinium*, *Ceratium* and semidigested parts of copepods. Studies on the specimens that were collected from trawl nets during the months of Aug-Sept 2011 and 2012 have shown that it feeds mainly on copepods and *Coscinodiscus*. Earlier studies have also indicated that copepods formed the major food item of the Indian mackerel. But the present study on the extensive feeding on *Fragilaria* sp. indicates that mackerel can modify its diet to a large extent depending on the availability of different organisms present in that area.