

15. AN INSTANCE OF UNUSUAL FEEDING BEHAVIOUR OF THE  
INDIAN MACKEREL, *RASTRELLIGER KANAGURTA* (CUVIER)  
OFF MANGALORE

Information on the food of the Indian mackerel, *Rastrelliger kanagurta* (Cuvier) from the seas around India was summarised by Venkataraman (1970). Though data on this subject are quite extensive, it is significant that specific references to *Acetes* as an item of food of this fish are few (Kuthalingam 1956; Kutty 1965; Jones & Rosa 1965 and Luther 1973). In this context, the present report of intensive feeding of adult mackerel almost exclusively on species of *Acetes* is noteworthy. This is the first report of the kind from the seas around India.

Fifty two specimens, ranging in size from 218 to 250 mm in total length and weighing 100 to 170 gm and in stage II of maturity (both males and females, former predominating, ova ranging in size from 0.14 to 0.84 mm, majority 0.44 to 0.56 mm) obtained from drift net catches off Mangalore in the month of May 1975, had gorged stomachs. The contents, which varied from 2 to 5.5 ml were composed almost exclusively of two species of *Acetes*, namely *A. cochinensis* Rao and *A. japonicus* Kishinouye, ranging in size from 10 to 21 mm in total length and numbering 36 to 206 individuals per stomach. Besides *Acetes*, only traces of semi-digested parts of copepods were found in the stomach contents.

Most workers agree that the mackerel is

primarily a plankton feeder (Venkataraman, op. cit.). However, at times, it resorts to bottom feeding (Bhimachar & George 1952; Kutty 1965). Differences in the food of young and adult stages (Chidambaram 1944; Devanesan & Chidambaram 1948; Kuthalingam op. cit. and Rao & Rao 1957) as well as instances of heavy feeding on *Stolephorus* (Tham Ah Kow 1950) and clupeids (Venkataraman & Mukundan 1970) are on record. The present report of intensive feeding on *Acetes* indicates that it is one of the important substitute items of food of adults, supporting the view that the mackerel is a facultative type of feeder, capable of modifying its diet depending on the availability of different organisms in the environment (Rao 1965).

Swarms of *Acetes* are known to occur in the inshore waters and ascend up the estuaries in this region during this time of the year. The senior author found *Acetes* to be an important item of food of other fishes also like *Lactarius lactarius* and *Trichiurus lepturus* at the same time in this area. Occurrence of immature individuals of *L. lactarius* (35 to 112 mm total length) in large numbers in the inshore waters off Mangalore during this period has been correlated with occurrence of swarms of *Acetes* in the area (James *et al.* 1974).

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## MISCELLANEOUS NOTES

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