OCCURRENCE OF JUVENILES OF THE INDIAN MACKEREL *RASTRELLIGER KANAGURTA* (CUVIER) IN BOMBAY WATERS

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ABSTRACT

Juveniles of the Indian mackerel, *Rastrelliger kanagurta* (Cuvier) 86-142 mm size are recorded for the first time from Bombay waters. Their occurrence off Bombay appears to be isolated. The food of these young mackerel consisted mainly of planktonic organisms like *Coscinodiscus* and copepods.

The distribution of young mackerel, *Rastrelliger kanagurta* (Cuvier) along the Indian coast has been summarised by Rao (1962). Since then the occurrence of juvenile mackerel in Kakinada waters has been reported by Appannasastry (1968). There has been no report from areas north of Ratnagiri, and the present note deals with the occurrence of juveniles in Bombay waters. A brief account of the food items is also given.

During the observations on the fish landings at Bombay, Sasson Docks on 24-12-1975 juvenile mackerel were noticed in the catch of one of the trawlers which operated at a depth of 30-40 m in the area Lat. 18°N - 19°N and Long 72°E - 73°E. Of the total 870 kg, young mackerel constituted 9.20% of the catch. The other major items were sciaenids (40.23%), *Coila dussumieri* (15.52%), elasmobranchs (6.67%) and prawns (16.09%).

The total length of the young mackerel in the sample varied from 86 to 142 mm and the weight from 5 to 22 g. The length-frequency distribution of the fish is given in Figure 1. It is seen that the fish with a major mode at 115-119 mm predominated the catch. Occurrence of this size group in the month of December is to be considered significant both from the point of breeding period and growth of the species.

The stomach contents of 21 specimens were examined for food and feeding habits by number method the results of which are given in Table 1. The gut contents of mackerel of the size groups 85-104 mm and 120-144 mm mainly consisted of fish scales and formed 95.7% and 65.5% respectively.

These are considered to be accidental inclusions. The food of the young mackerel constituted mainly of planktonic organisms such *Coscinodiscus* (53.96%) and copepods (41.33%).

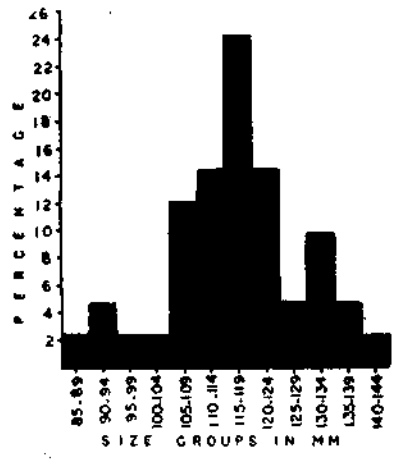

FIG. 1. Length frequency of juvenile mackerel from Bombay

TABLE 1. *Displacement volume of the stomach contents of juvenile mackerel and the percentage occurrence of various items.*

Size range of mackerel (mm)	85-104	105-119	120-144
No. of fish examined	5	5	11
Displacement vol. of stomach contents range (ml)	0.1-0.2	0.6-0.7	0.1-0.6
Fish scales	95.70	4.39	65.50
Coscinodiscus	1.30	53.96	25.50
Plerosigma	——	0.13	1.10
Skeletonema	0.60	0.70	0.50
Biddulphia	——	0.70	1.10
Peridinium	——	0.10	——
Copepods	0.60	41.33	5.50
Acetes indicus	——	——	0.10
Dentalium	1.80	0.40	0.70

The occurrence of adult mackerel in the trawl catch in Bombay waters has been reported by Kutty (1965). One of us (S.K.P.) has observed that the adult mackerel caught off Bombay in July 1975 were found to be in the advanced stages of maturity. However, the occurrence of the young fish off Bombay appears to be isolated.

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