ON AN UNUSUAL CATCH OF GHOL *PSEUDOSCIAENA DIACANTHUS* OFF GOA

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ABSTRACT

On 19th September 1973, a huge shoal of 'Ghol' was caught by a private purse seiner off Goa. The total number of specimens captured was 2309 and the size ranged from 95 to 130 cm. with an average length of 109 cm. The total weight of the catch was estimated at 30.24 tonnes and composed of V to VII year old fish. Examination of stomach contemts revealed that the food item was Malabar Sole *Cynoglossus macrostomus* (Norman). Regurgitated food was found inside the mouth, but extroverted stomach were not noted. The availability of food in the inshore waters off Goa is suggested as the prime factor in the inshore migration of 'Ghol' during the monsoon months.

Psendosciaena diacanthus, though present in the waters off Goa, never form a fishery comparable to that in Maharashtra or Gujarat. Being demersal in habitat, the trawlers operating off Goa may bring in a few specimens during certain trips. Large shoals of 'Ghol' are occasionally noted in the shallow regions off Goa and some details about such unusual abundance of 'Ghol' are given by Dhawan (1971). The largest single haul of 'Ghol' by purse seine, reported by Dhawan (1917), comprised of 349 specimens with an estimated total weight of 4.1 tonnes. In the present communication an unusual catch of 'Ghol' comprising of 2309 specimens with an estimated total weight of 30.24 tonnes is dealt with.

Early morning on 19th September 1973, a private machanised vessel (Reis Magos) started for fishing. On locating a shoal, off Aguada lighthouse (Lat. 15° 29'N; Long. 73° 46'E) the net was shot as usual. After encircling the shoal it was found that the fish caught was 'Ghol' and hence the assistance of two other boats fishing in the nearby locality was sought and with their help the net was hauled in and the catch was transported to Panaji jetty. The net was partly damaged due to the pressure exerted by the fish.

After removing the air bladder, the catch was transported to Bombay as it was found difficult to dispose it off in Goa markets alone.

Total length of 57 specimens was measured in the field and the size range noted was from 95 to 130 cm. The average length of fish was found to be 109 cm, and the average weight, 13.1 kg. The dominant mode noted was at

106 to 115 cm. (see Fig. 1). Dhawan (1971) found that the fish caught during 1964-65 season mainly belonged to the age group V (97.5-102.5 cm). Rao (1968), based on the study of Ghol from Bombay waters came to the conclusion that the maximum age of VII + is attained at a length of 127.0 cm. Since the Ghol reported herein ranged in size from 95 to 130 cm., it may be concluded that the catch composed of V to VII year old fish.

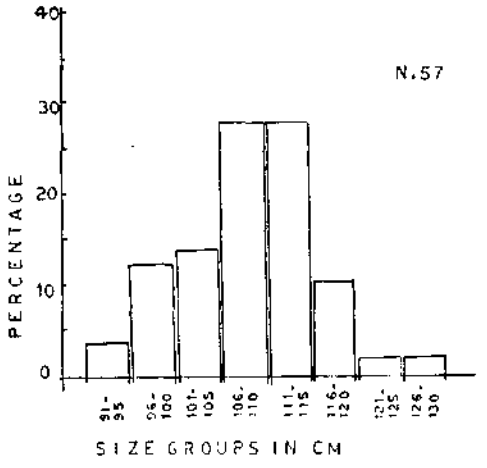

FIG. 1. Length frequency of *P. diacanthus* landed on 19-9-73.

Another interesting phenomenon noted was that in about 95% of the specimens, the mouth contained, in varying degrees,the traces of regurgitated food, which composed only of soles (*C. macrostomus*), Analysis of the stomach contents of about 40 specimens in the field revealed that the stomach were ½ - ¾ full in a majority but in cases where the regurgitated food was more in mouth, the stomach were found rather empty. The number of soles in the stomach varied from 8 to 22, and their size ranged from 6 to 12 cm. The soles were subjected to digestive action much. In the case of the rest (5%), where no traces of regurgitated food was found in the mouth, the stomach were fully packed with soles; and in some such instances the soles were oriented inside the stomach in such a way that the heads were pointing backwards ie. towards the pyloric region of the stomach. Soles never formed a major food item of 'Ghol' at Bombay (Rao 1963) or at Goa (Dhawan 1971). The habit of extroverting the stomach and disgorging the contents has been observed by Rao (1963) and has suggested that the shock sustained during the capture and sudden change of pressure experienced during hauling as the probable reasons for regurgitating the food and extroverting the stomach respectively. But in the present instance only regurgitation of food was noted, and the absence of specimens with extroverted stomach may due to the fact that they came from the surface layers of the water column and as such no pressure change was experienced by he fish while hauling.

Though exploratory survey is going on in Goa waters no rich ground for 'Ghol' has been located yet. But the occurrence of huge shoals of this fish in coastal waters off Goa during the post monsoon months is rather a regular phenomenon. The availability of food in the inshore waters in plenty may be the prime factor governing this migration.

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