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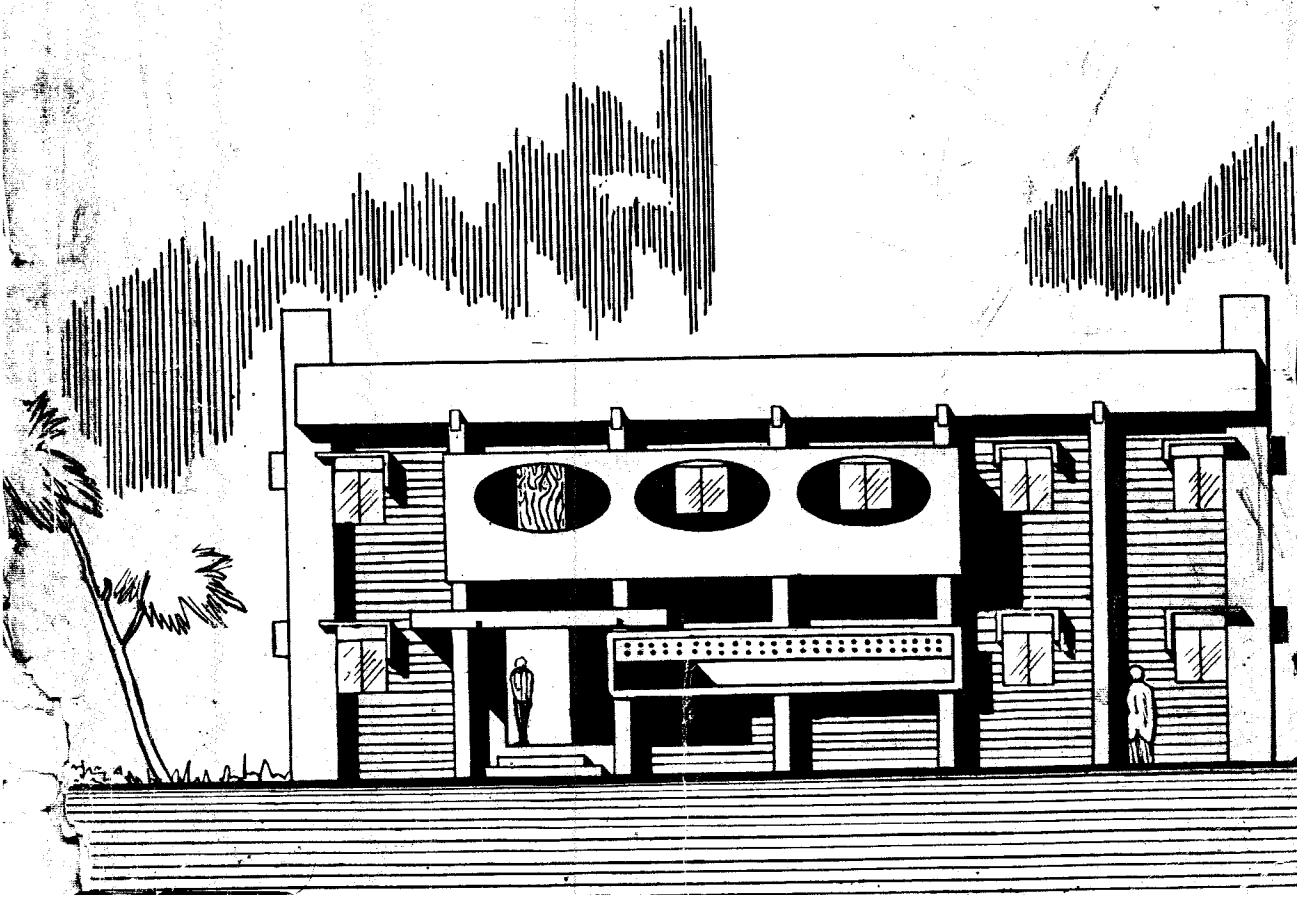

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The Fishery Resources of Andaman Sea

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The coasts of Andaman and Nicobar Islands extending about 500 km offer a great variety of habitats such as rocky coasts with tidal pools, extensive backwaters, innumerable bays, mud flats and sandy beaches which provide potential grounds for the exploitation of a rich and varied marine fauna of appreciable economic importance. The fishery resources of this far flung Islands comprise of a large variety of fishes, the most important of which are perches, caraegids, anchovies, lesser sardines, seerfishes and mullets. The average annual fish production is a little over 400 tonnes during 1968–70, of which about two thirds came from the pelagic fisheries.

Information on the fishery resources of this part of our country is scanty. Jones and Silas (1962) have recorded their observations on the scombroids and general accounts on the fishery potential of these Islands have been given by Menon *et al.* (1971) and Kumaran (1973). Sen (1973) has recently described the various methods of fishing employed in this territory. A knowledge of the magnitude of production in space and time and in relation to crafts and gear employed in harvesting the resources is very essential for formulation and effective implementation of developmental programmes, specially for developing territories like Andamans. The present account is aimed to deal with some of these aspects on the basis of information gathered by the author during his stay in the Islands from 1965–1972.

Fishing on the western side is thoroughly unknown and as such we have no knowledge of the fishing grounds on this side. It may be therefore said that of the vast deep sea front, only a negligible area is exploited at present by indigenous craft and gear and that too by a few settlers and migrants from the mainland who have taken to fishing on the eastern coast. There are about 24 fishing centres spread along the east coast extending from Diglipur in the north, down to Campbell bay in the south. However, the important centres are Dundus point, Aberdeen Jetty, Rose Island, Madhuban Rangachang, Neil Island, Junglighat Mayabunder, Ranghat and Car Nicobar areas.

Gear and production

The main type of craft is the plank built boats similar to the Tuticorin type

but smaller in size. Depending on season and area they are either powered by sails or propelled by oars. In the Nicobar group of Islands dug-out canoes with outrigger are used for fishing. Good catches are obtained through the hook and line and gill net operations from fishing grounds extending as far as 10–25 km from the shore. Shore-seine and cast net fishing are generally confined to the coastal belt of about 2 km from the shore.

Gearwise annual average fish production and its percentage is as follows:

	In tonnes	%
Hook and line	126 . 8	30 . 4
Shore seine	93 . 5	22 . 4
Gill net	83 . 9	20 . 1
Cast net	52 . 7	12 . 6
Trawl net	37 . 4	9 . 0
Drag net	16 . 2	3 . 8
Stake net	3 . 2	0 . 8
Harpoons, traps, Dhava & Lish fishing.	3 . 7	0 . 9

Source of landing figures : Statistical outlines of Andaman and Nicobar Islands. Year books 1968–70.

These figures would indicate that the major portions of the catch comes from the operation of hook and line, shore seines and gill nets which land mainly seer fish, perches, carangids and barracuda. The spotted herring locally known as "Joy Tharani" is widely used as an attractive bait in the hook and line fishing. Shore-seine 'Bada-Jal' and cast net 'Peekan Jal' are the gears used for clupeoid fishery. Shore seines are operated in areas such as Aberdeen Jetty, Corbyn's cove and Rangachang where the beach is sandy. Good catches are reported during the rising tides when the fishes usually approach the shore.

Species composition

Gradual progress of the marine fishing industry of Andamans during the past one and a half decades is reflected in the increase in production trends from about 77 tonnes in the year 1956 to 500 tonnes in 1970, registering a six fold increase during the period (Fig. 1).

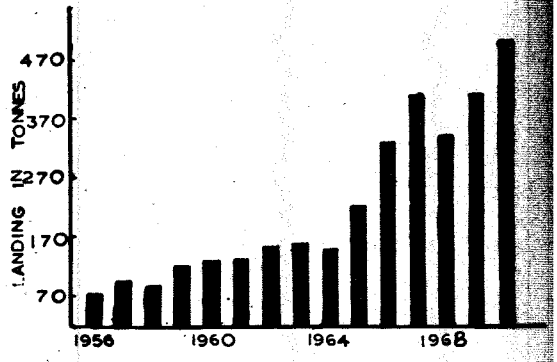

Fig. 1. *Annual fish production from Andamans*

Based on the averages for 1968–70, the landings of important fishes with their percentage composition in the total are as follows.

	Tonnes	%
Perches	70 . 1	16 . 8
Carangids	46 . 0	11 . 0
Seer fish	37 . 2	8 . 9
Anchovies	38 . 3	9 . 2
Sardines and Herrings	34 . 4	8 . 2
Mullets	33 . 7	8 . 1
Silver bellies	23 . 7	5 . 7
Mackerels	19 . 1	4 . 6
Sharks and Rays	18 . 3	4 . 4
Sprats and Shads	9 . 4	2 . 2
Cat fish	9 . 1	2 . 2
Barracuda	8 . 5	2 . 0
Tunny	7 . 3	1 . 7
Miscellaneous	62 . 2	14 . 9

Monthwise percentage contributions of four major group of fishes are shown in Fig. 2. These four groups collectively

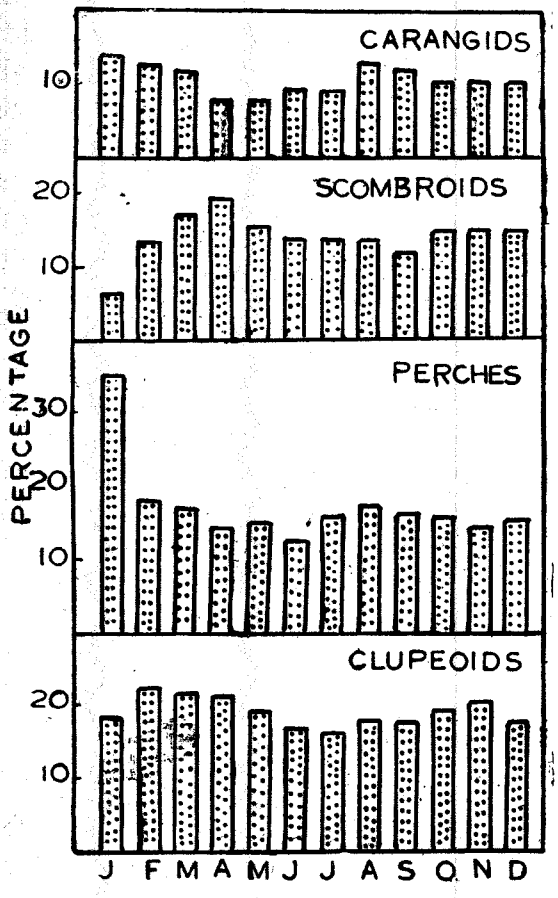

Fig. 2. *Percentage Contribution of important fishes from Andaman.*

produce nearly 65% of the total fish production of Andaman Sea. Clupeoids constitute about a fifth of the marine fish landing and they are available throughout the year with peak production during February-April and October-November periods. Although 22 species of clupeoid fishes have been known to occur in the seas around Andamans, only 8 species contribute to the commercial catches, of which the bulk is composed of the spotted herring, *Herklotsichthys punctatus* and short jaw anchovy, *Thrissina baelama*.

As already stated the perches constitute an important fishery in this region, perhaps because of the ideal habitat provided by the string of Islands with large patches of raised rocky bottom, ledges and pits. The majority of perches are caught by hooks and lines. However, from the fishery point of view, only a few are considered important. The Blue and Yellow snapper, *Lutianus kasmira* and the Golden stripped snapper, *Lutianus lineolatus* are fairly common in the fishery. Apart from Lutianids, there are other common perch-like fishes belonging to the families Ambassidae, Serranidae, Theraponidae, Priacanthidae, Apogonidae, Caesiodidae, Sciaenidae, Pomacentridae and Labridae.

The scombroid fishes comprising the seer fish, mackerels and tunas constitute next important source of this area. The Streaked Spanish mackerel, *Scomberomorus lineolatus* and the Spotted Spanish mackerel, *Scomberomorus guttatus* are common during March-June. The occurrence of yellowfin tuna, *Thunnus (Neothunnus) albacores macropterus* and Northern Bluefin, *Thunnus (Kishinoolla) tonggol* are known better in the southern regions of the Andaman Sea where good catches are noticed from September to December. The Indian mackerel, *Rastrelliger kanagurta* and the short bodied mackerel, *R. brachysoma* form an important fishery during the south-west monsoon i.e., May-October, although stray catches are noticed in other months also. Carangids contribute to good catches during August–March. More than 20 species are known to occur in the Andaman Sea.

However, species such as the Indian Trevally, *Alectis indica* and the Armed Trevally, *Carangoides armatus* are important commercially.

Remarks

It is well known from the work of the 'Investigator' and the earlier investigations of the varioua zoological expeditions and also Day's work in the Andaman that there is a large variety of edible fish available in the Andaman waters. The results of fishing operations carried out by the Bengal trawler 'Golden Crown' (1908–1909) in the upper reaches of the Bay of Bengal indicated a good fishing potential around Andaman also. More recently deep sea trawlers have traced some resourceful grounds off Shoal Bay in South Andamans. Experimental fishing has revealed that mid-water trawling would yield better results than bottom trawling as the sea bottom is mostly uneven and rocky. Based on the organic productivity of the area Jones and Banerji (1973) and Kumaran (1973) have estimated a harvestable annual yield of 12000 tonnes of which two-thirds would come from pelagic realm and the rest from demersal resources. The fishing industry of Andaman and Nicobar Islands thus needs development in the years to come in view of the vast potential in the underexploited seas of this union territory.

The families of fish which appear to have special significance in this regard are the perches, lesser sardines, herrings, seer fishes, carangids and sharks. The problem of organising systematic fishing on commercial lines and carrying out developmental programmes with necessary infrastructure facilities bristles with many difficulties in view of the fact that the 200 and odd islands lie scattered in the Bay of Bengal and far away from the main routes of shipping and other lines of normal transport and communication. At present there are only about 100 fishermen actively engaged in fishing profession in the Islands and that too concentrated in the capital of the Islands. Apart from the Offshore Fishing Station's vessels of the Govt. of India conducting experimental fishing from Port Blair, the crafts and tackles employed in the union territory are mostly the traditional types with no mechanisation or modernisation in the methods of fishing. The fish requirements of the local population appear to be very limited. Even considering that all the landings at the present day level are consumed locally any effort in the exploitation of the area resulting in the increased production will have to be planned, keeping in mind the Indian mainland market and export possibilities. With this basic outlook any fishing programme around the Islands is bound to be rewarding.

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