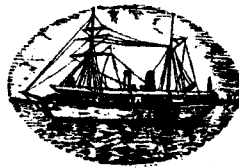


**SYMPOSIUM ON**

**SCOMBROID FISHES**

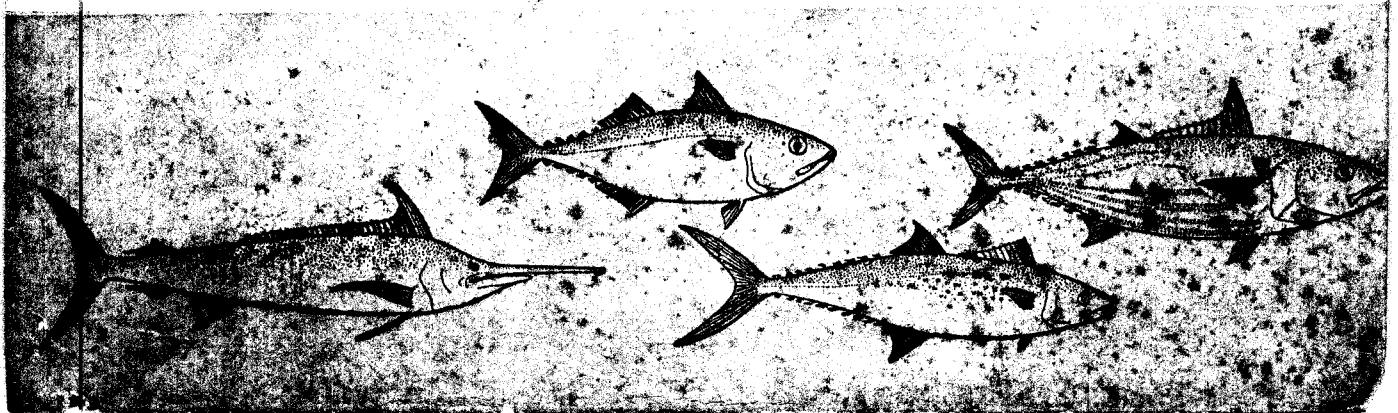
**PART III**



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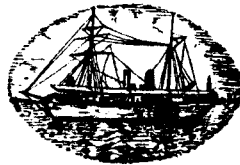
**S. INDIA**



PROCEEDINGS OF THE  
**SYMPOSIUM**  
ON  
**SCOMBROID FISHES**

HELD AT MANDAPAM CAMP FROM JAN. 12-15, 1962

**PART III**



SYMPOSIUM SERIES I  
**MARINE BIOLOGICAL ASSOCIATION OF INDIA**  
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# THE SCOMBROID FISHERY OF INDIA—PRESENT AND FUTURE

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## INTRODUCTION

THE scombroids constitute a significant part of the marine fish landings in India. A number of prime fishes come under this group and the account by Jones and Silas (1962a) may be referred to for information on the different species. Only a very brief review is attempted here with the object of focussing attention on the potentialities for the development of this resource in the seas around India.

The statistics for the last 12 years (1950 to 1961) show that on an average 82,085 tonnes of scombroids are caught every year forming about 12.3 per cent of the total marine fish catches of which the Indian mackerel forms the major part (Figs. 1 and 2). The seerfishes and tunas rank

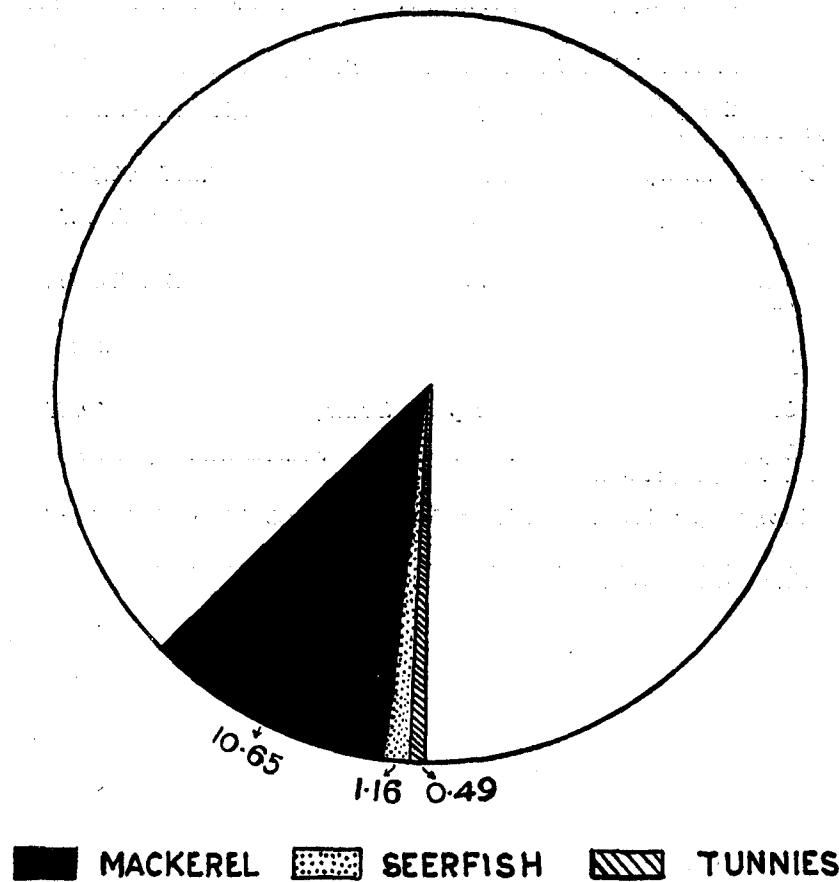


FIG. 1. Percentage composition of scombroid fishes in total marine fish production in India (based on 1950-61 landings).

much less in importance while the billfish catches consist only of stray specimens caught incidentally and as such no statistics are maintained. The catch statistics of mackerel, seerfishes and tunas are given in table I and the scombroid landings in relation to total landings along the West Coast and East Coast are represented in figs. 3 and 4 respectively.

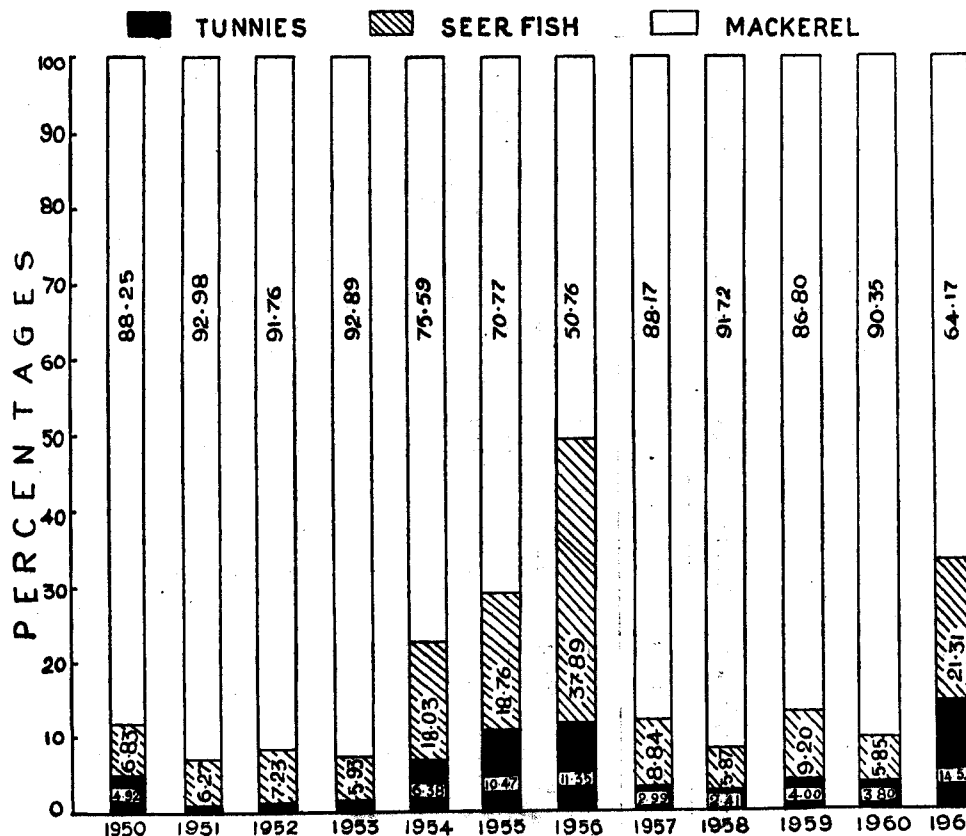


Fig. 2. Percentage composition of mackerel, seerfish and tunas in total scombroid fish production during the years 1950-61.

#### MACKEREL FISHERY

The mackerel fishery along the coasts of the mainland of India has been briefly described by Pradhan and Rao (1958) and is constituted by *Rastrelliger kanagurta* while in the Andaman Sea *R. brachysoma* also is found to occur along with the former (Jones and Silas 1962b). The fishery is concentrated along the southern section of the West Coast of India from Quilon—Alleppey to Goa—Ratnagiri where it forms a pelagic fishery of considerable magnitude though subjected to wide fluctuations. The catches range from 15,023 to 1,29,573 tonnes on the West Coast as against 367 to 6810 tonnes on the East Coast. On the East Coast there is no fishery as such for mackerel which is caught mixed with other fishes whereas on the West Coast shore seines, boat seines and gill nets are specially operated for this fish. Fishing is carried out only along the coastal waters, after sighting the shoals and generally not beyond the 15 fathom line. For further details reference may be made to the *Rastrelliger* synopsis given elsewhere (Jones and Rosa 1962).

At present catches are entirely dependent on the shoals that come close to the coast and the possibilities are that an appreciable part of the stock remains unexploited beyond the range of

TABLE I

Coast-wise landings of scombroids for the years 1950 to 1961 (Figures in metric tonnes)

	LANDINGS OF SCOMBROIDS											
	Mackerel			Seerfish			Tunnies			Total for scombroids		
	East	West	Total	East	West	Total	East	West	Total	East	West	Total
1950	2,426	86,737	89,163	5,991	915	6,906	..	4,693	4,693	8,417	92,345	1,00,762
1951	1,326	1,03,574	1,04,900	5,340	1,751	7,091	200	648	848	6,866	1,05,973	1,12,839
1952	720	77,294	78,014	5,581	731	6,312	68	794	862	6,369	78,819	85,188
1953	1,156	69,592	70,748	4,114	391	4,505	258	641	899	5,528	70,624	76,152
1954	367	27,891	28,258	4,239	2,016	6,255	225	2,096	2,321	4,831	32,003	36,834
1955	947	21,849	22,796	3,594	2,451	6,045	198	3,173	3,371	4,739	27,473	32,212
1956	1,408	15,023	16,431	4,011	8,254	12,265	398	3,272	3,670	5,817	26,549	32,366
1957	2,270	86,740	89,010	3,979	4,642	8,921	99	2,915	3,014	6,348	94,597	1,00,945
1958	708	1,22,574	1,23,282	3,889	4,000	7,889	352	2,887	3,239	4,949	1,29,461	1,34,410
1959	1,487	60,711	62,198	3,062	3,528	6,590	278	2,588	2,866	4,827	66,827	71,654
1960	4,082	1,29,573	1,33,655	3,852	4,798	8,650	293	5,322	5,615	8,227	1,39,693	1,47,920
1961	6,810	27,675	34,485	6,182	5,267	11,449	844	6,961	7,805	13,836	39,930	53,739

the non-mechanised indigenous fishing craft employed at present. Even large catches of mackerel do not usually bring about glut since the demand in fresh or iced condition is high and the fish could be cured with ease in different ways. The cured product stands storage well without much deterioration for an appreciable length of time and has a wide market especially in the interior tracts of the country. Some quantities are exported to Ceylon also. Extension of fishing operations beyond the areas covered at present with the help of mechanised boats and use of purse seine as is done in Malaya (Jones 1962) are likely to prove successful in augmenting the catches. An area the resources of which we have very little information is the Andaman Sea. Judging from its nearness to Malaya and Indonesia where mackerel forms an important fishery it would appear from the information available that there is scope for the development of the fishery there.

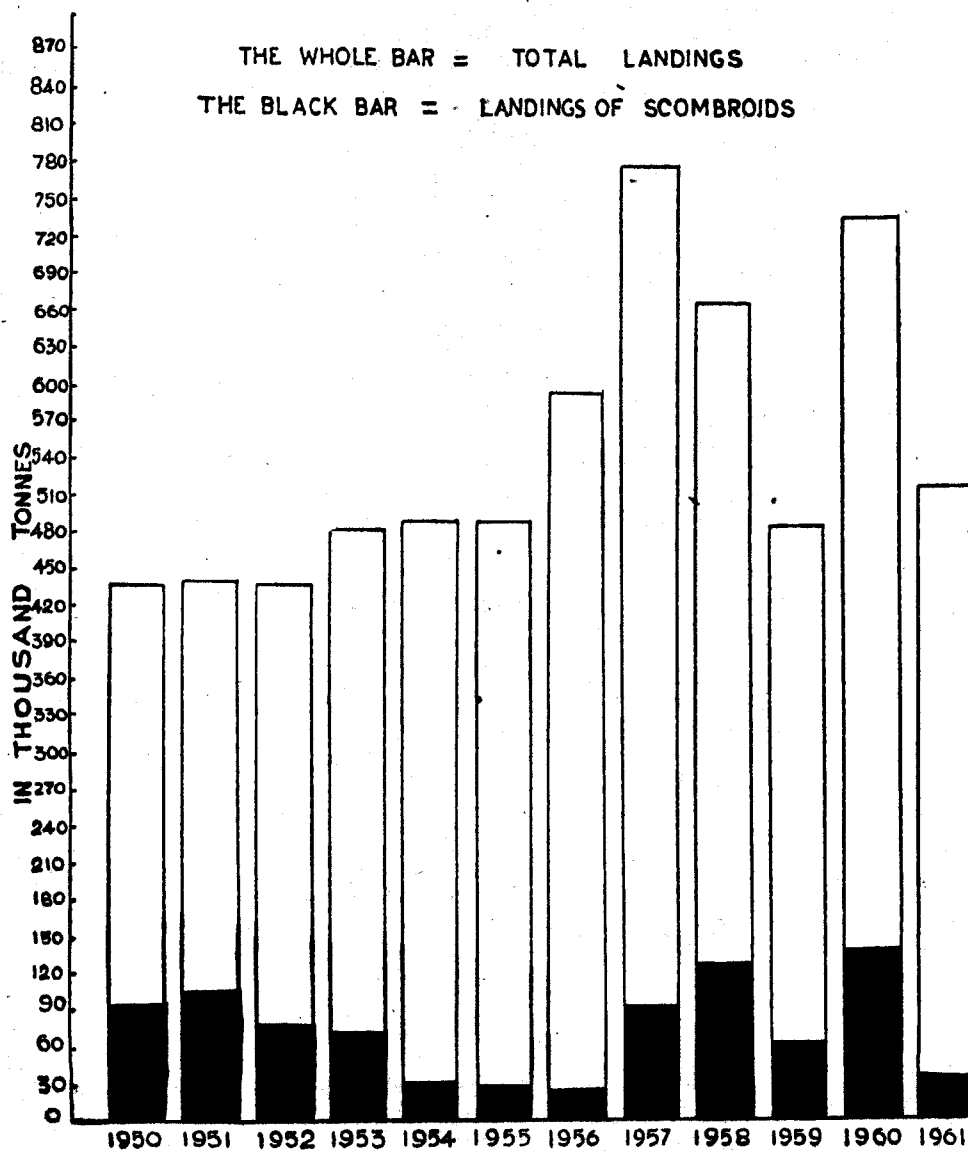


FIG. 3. Scombroid fish landings in relation to total landings in west coast.

## SEERFISH FISHERY

This is a coastal fishery of appreciable importance coming next to that of the mackerel among scombroids. Though in quantity it does not come anywhere near the former, the seerfishes constitute a group of prime fishes very much in demand both in fresh and cured condition. The species consist of *Scomberomorus guttatus*, *S. commerson* and *S. lineolatus* of which the first two are more common than the last one. They are generally caught in gill nets, hook and line and troll line though stray numbers occur in shore seines and other types of nets. A considerable quantity of the catch is salt cured either for internal consumption or for export.

In addition to the typical seerfishes mentioned above, there is the wahoo, *Acanthocybium solandri*, a rather rare species generally found near reefs. It is caught in stray numbers in the Gulf of Mannar and the contiguous Cape Region of peninsular India as far as Vizhingam near Trivandrum. It is found in the Andamans and the Laccadives also and does not constitute a fishery of any significance anywhere.

It could be seen from the statistics that during the earlier years more seerfishes were caught in the East Coast than on the West Coast. The situation has changed since 1956 and the catches along both the coasts seem to be more or less the same. An overall increase has been registered since the use of nylon nets and it would appear that there is scope for further increase. More intensive trolling in certain areas might also help to increase the catches.

## TUNA FISHERY

The tuna fishery along the mainland of India is constituted by *Euthynnus affinis* which is the commonest species followed by *Kishinoella tonggol*. There is a seasonal fishery in some areas for *Neothunnus macropterus* (Silas 1962). Small numbers of *Auxis* spp. are caught, the more common being *Auxis thazard* though rarely large shoals of *A. thynnoides* have been recorded. *Katsuwonus pelamis* also occurs in stray numbers but it forms a fishery of considerable importance in Minicoy in the Laccadive Archipelago. Among the fishes related to tunas *Gymnosarda* and *Grammatorcynus* occur in the catches in the Andaman area while *Sarda orientalis* occurs in small numbers seasonally in the southern section of West Coast of India. There is practically no information about the larger oceanic species which constitute the bulk of the catches of the Japanese fishing vessels that cover the seas around India.

It may be stated in this connection that there is no fishing specially for tunas in India except in the island of Minicoy where *Katsuwonus pelamis* is caught by pole and line using live bait (Jones 1958, Jones and Kumaran 1959) as in the Pacific. Along the coasts of the mainland of India tunas are caught along with other fishes in hook and line, troll line and gill net and to a lesser extent in shore seine and boat seine.

It is rather disconcerting to see that even though the seas around India are fished for tunas regularly by the Japanese, little attention is paid in this direction by us and it would appear that the very existence of this resource in the offshore waters is not known to many. There is great scope for the development of tuna fishing in the high seas around India and the future of marine fisheries development in this country would depend mainly on the progress made in this direction.

## BILLFISH FISHERY

The fishery for billfish along coastal waters is practically negligible. These fishes are generally caught in trolling lines, hook and line and gill nets occasionally along with other fishes. This group is constituted mainly by sailfish and marlins which occur only in stray numbers along the coastal waters (Silas and Rajagopal 1962). Of these the sailfish (*Istiophorus gladius*) is more



common while marlins are only occasionally caught. Records of swordfish (*Xiphias gladius*) are very few and are mainly confined to the Laccadive Sea. The billfishes in general are oceanic fishes and form an untapped resource next to tunas in the seas around India.

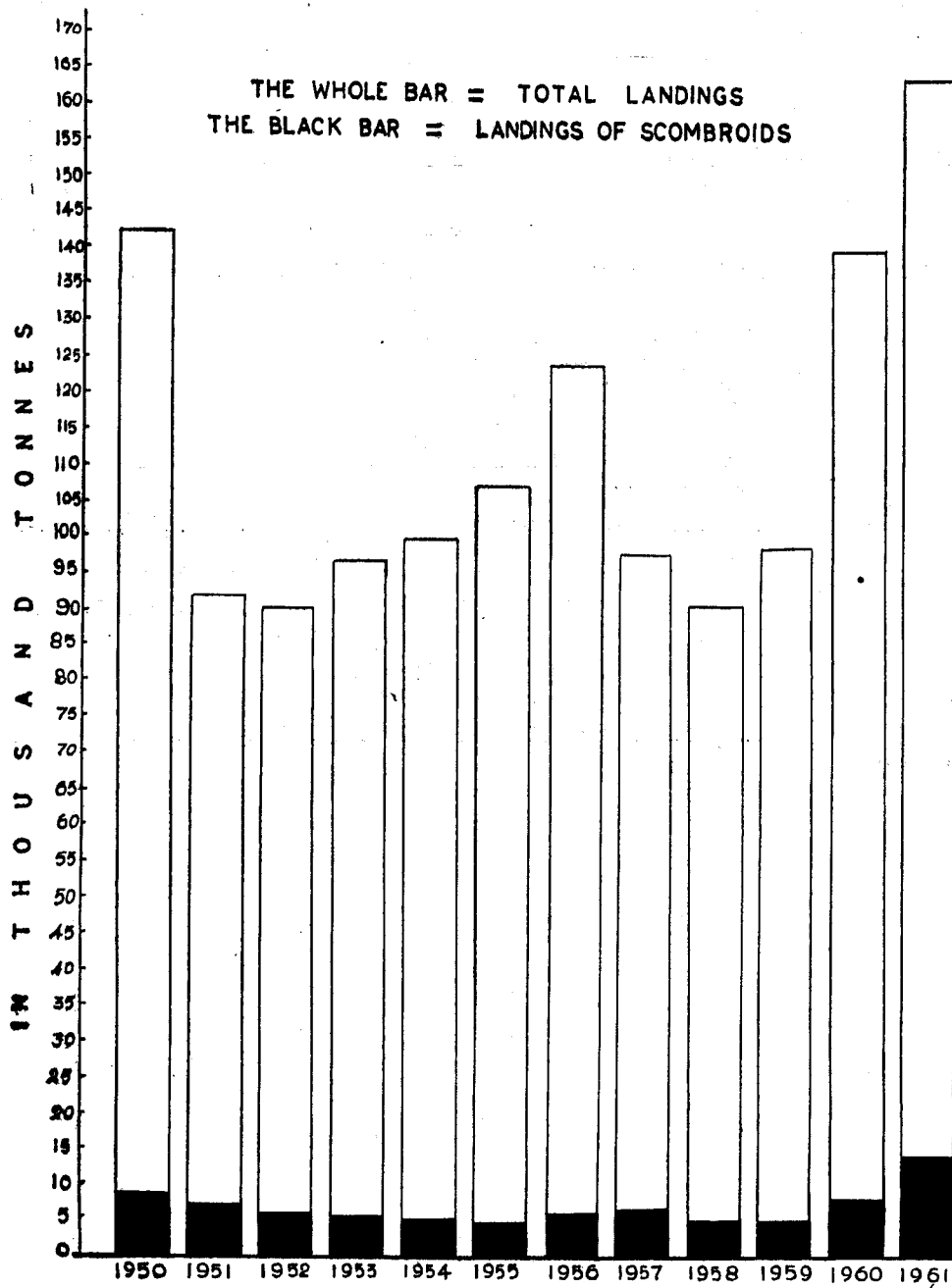


FIG. 4. Scombroid fish landings in relation to total landings in east coast.

## GENERAL REMARKS

The scombroid fishery of India as it is to-day is more or less a static one in view of the fact that the area fished and the fishing methods have also been more or less static. At the present rate of development the future does not seem encouraging. It is obvious that to a very great extent the future depends on the judicious exploitation of our latent oceanic fishery resources, constituted mainly by tunas and billfishes. The initiative is already in the hands of other nations and obviously it is ignorance of the actual situation that is responsible for the present complacency. A proper appraisal of the situation and a dynamic approach to the problem are called for as otherwise we are bound to lose the advantage we have by virtue of our geographical position in the central part of the Indian Ocean.

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