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THE MARINE FISHERIES INFORMATION SERVICE: Technical and Extension Series envisages the rapid dissemination of information on marine and brackish water fishery resources and allied data available with the National Marine Living Resources Data Centre (NMLRDC) and the Research Divisions of the Institute, results of proven researches for transfer of technology to the fish farmers and industry and of other relevant information needed for Research and Development efforts in the marine fisheries sector.

Abbreviation - *Mar. Fish. Infor. Serv., T & E Ser.*, No. **85**: 1988

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Front cover photo:

A miscellaneous trawl catch landed at Madras Fisheries Harbour.

Back cover photo:

A view of mechanised fishing boats moored at Madras Fisheries Harbour (Kasimode).

MARINE FISH CALENDAR

VII. MADRAS*

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Introduction

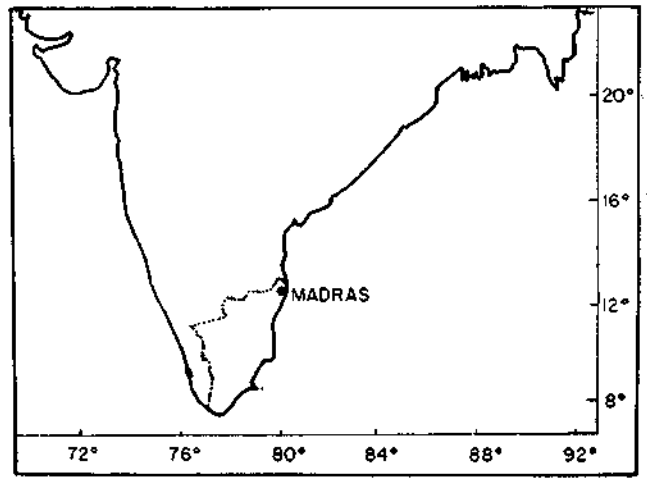
Madras is an important fish landing centre in the east coast. More than 500 trawlers operate from Kasimode centre at Madras, which land about 6,000 tonnes annually. The mechanised gill nets yield about 120 t and the indigenous gears like gill net, bag net and hooks and line bring about 200 t annually. In addition to this, the city has several landing centres from where indigenous gears are operated. For the purpose of preparing the marine fish calendar for Madras, the landing details of the Kasimode centre, which is the only base supporting mechanised boats as well as country crafts were analysed for 1981–'85.

The estimated data on fish groups for which catch details and certain biological information are available are utilized for the preparation of this calendar. The catch details of other miscellaneous groups like cat fish, *Polynemus, Chirocentrus* and crustaceans and cephalopods are not incorporated in this calendar. The monthwise pooled CPUE of trawlers, mechanised gill nets and indigenous gears and the monthwise species composition of fish groups are illustrated.

In the trawl catch, threadfin bream ranks first with an annual catch of 760.5 t forming 12.5%, followed by silver belly, anchovy, croaker and lizard fish. There are no significant variations in the CPUE of threadfin bream throughout the year except during the monsoon period of November and December, when the CPUE is low. In fact, the CPUE of many fishes is low during November and December. Despite cyclonic conditions that prevail during these two months, there is no reduction in the number of fishing operations at Kasimode.

Based on the monthwise analysis of CPUE of trawlers, the different fish groups can be categorised into three: (a) those whose CPUE does not fluctuate very much throughout the year barring the low values during November and December, *e.g.* sole and flat fish, *Thryssa*, seer fish, pomfret, goat fish, silver belly, ray and shark; (b) fishes whose CPUE is comparatively higher in certain months, *e.g.* carangid (September), anchovy (April), grunters (March), skate (November–March), threadfin bream (August and September), sciaenid (November – March) and lizard fish (April – August) and (c) fishes which have a definite peak period of abundance every year, *e.g.* barracuda (September), mackerel (July), drift fishes (August and March), carangids (March), Gerridae (July and August) and ribbon fish (November). They are insignificant at other times of the year.

From Kasimode, about 2,500 mechanised gill net operations are conducted annually in addition to 37,300 operations by non-mechanised gill nets, 1,16,000 operations by bag nets and 37,200 operations by hooks and lines. The landings of mechanised gill nets are constituted mainly by seer fish (44.2%) and shark (16.7%) and those of indigenous gears by lesser sardine (28%) (landed mainly by a specialised gill net known



* Consolidated by N. Gopinatha Menon and K. Balachandran, CMFRI, Cochin.

locally as 'Kavala valai'), mackerel and *Hilsa* (17.5% each (mainly by bag nets). The CPUE of most of the fishes is very low during November and December as in the case of trawlers. The CPUE of shark (May), tuna (November), seer fish (February and March), sail fish (June and February) and carangid (August and January) from mechanised gill net is higher during the months indicated in parentheses. In the non-mechanised gears, the CPUE of lesser sardine is almost uniform throughout the year and that of shark (September), *Thryssa* (March), mullet (May - July), mackerel (August and March), perch (August) and carangid (August) is higher during the months indicated in parentheses. The CPUE of *Hilsa* is very high during March and meagre during other months.

Fishes such as seer fish, shark and carangid are landed by all the three types of gears, *viz.*, trawl net, mechanised gill net and indigenous gears. An interesting aspect is that the peak period of landing of these groups is different for different gears. For instance, for seer fish the maximum CPUE of mechanised gill net is during March, whereas the CPUE of trawlers and indigenous gears (mainly hooks and line) is very low in this month and high in September and August. This may be due to differences in the fishing area and depth and intensity of operations of these gears during different months of the year.

Monthwise species composition is available for six fish groups. Threadfin bream fishery, which is constituted by five species, is dominated by *Nemipterus japonicus* (53.0%). Silver belly and sciaenid fishery is formed by more than a dozen species each. *Stolephorus bataviensis, Thryssa dussumieri* and *Sardinella gibbosa* constitute the major species of anchovy, dussumier's anchovy and lesser sardine groups respectively. The biological information collected on the six fish groups reveal that they spawn either during December - April or June - September.

CARANGIDAE

Popular English Name	:	Trevally/Scad
Vernacular Name (Tamil)	:	'Parai'
Annual average catch	:	247.3 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 37.0%
		Gill net : 4.7%
		Hooks & line : 13.1%

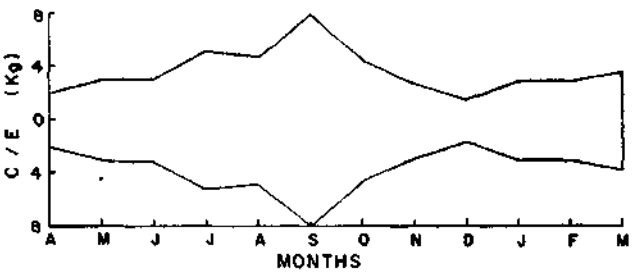


Fig. 1. Seasonal abundance of carangids in trawl catch.

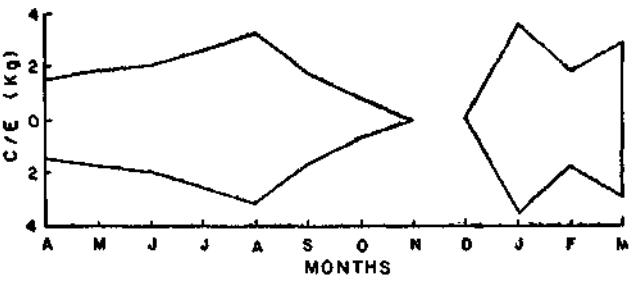


Fig. 2. Seasonal abundance of carangids in gill net catch.

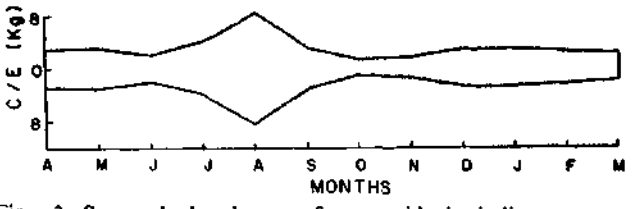


Fig. 3. Seasonal abundance of carangids in indigenous gear catch.

CLUPEIDAE

Popular English Name	:	Sardine/Lesser sardines
Vernacular Name (Tamil)	:	'Kavalai'/'Choodai'/ 'Sudai'
Annual average catch	:	73.5 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Gill net : 28.0%
		Bag net : 8.8%

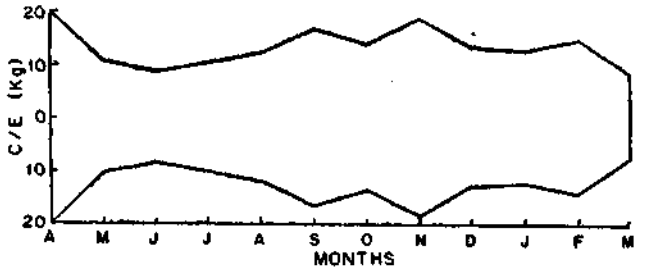


Fig. 4. Seasonal abundance of clupeids in indigenous gear catch.

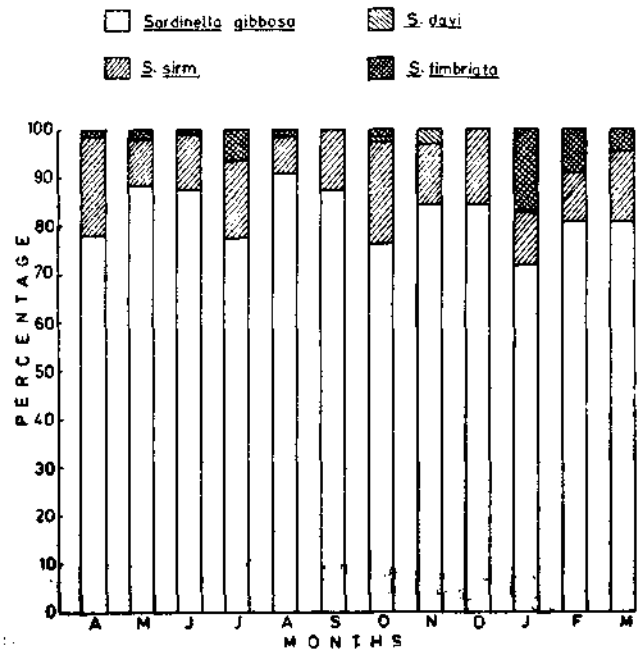


Fig. 5. Monthly species composition of clupeids in gill net catch.

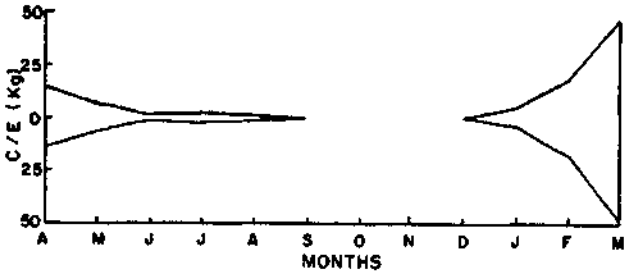


Fig. 6. Seasonal abundance of *Hilsa* in indigenous gear catch.

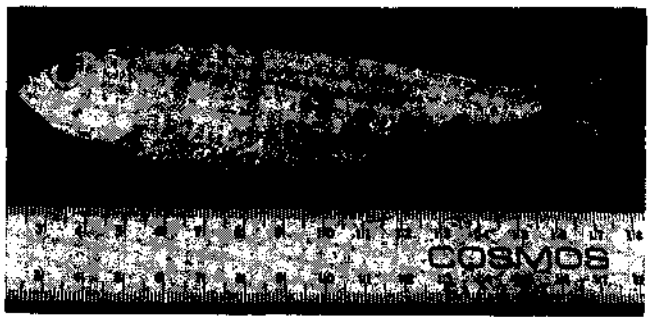


Fig. 7. *Sardinella gibbosa*.

Scientific Name	:	*Sardinella gibbosa*
Vernacular Name	:	'Kavalai'
Gear	:	Trawl net
Percentage in the catch of the group	:	80.9
Peak period of occurrence	:	Oct. to Jan.
Depth of occurrence	:	Upto 20 m
Length range in commercial fishery	:	120 – 130 mm
Size at first maturity	:	—
Spawning season	:	Jan. – Apr.

CYNOGLOSSIDAE, SOLEIDAE, PLEURONECTIDAE AND BOTHIDAE

Popular English Name	:	Flat fishes/Soles/ Flounders
Vernacular Name (Tamil)	:	'Aral'/'Nakkumeen'
Annual average catch	:	34.3 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 0.6%

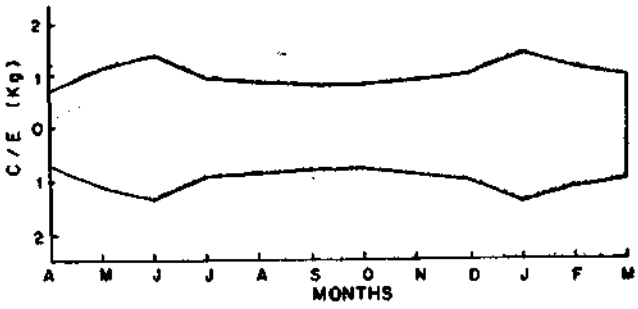


Fig. 8. Seasonal abundance of flat fishes in trawl catch.

ELASMOBRANCHS

Popular English Name	:	Sharks/Skates/Rays
Vernacular Name (Tamil)	:	'Sura'/'Thirukkai'
Annual average catch	:	167.0 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 2.2%
		Gill net : 16.7%
		Hooks & line : 6.6%

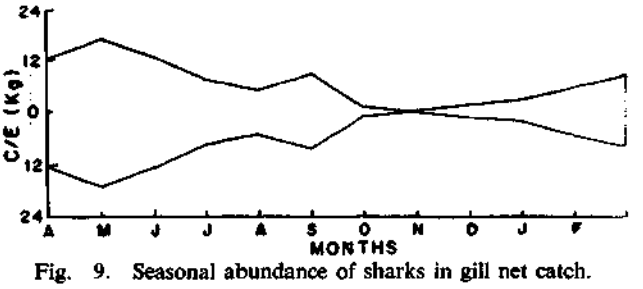


Fig. 9. Seasonal abundance of sharks in gill net catch.

Fig. 10. Seasonal abundance of sharks in trawl catch.

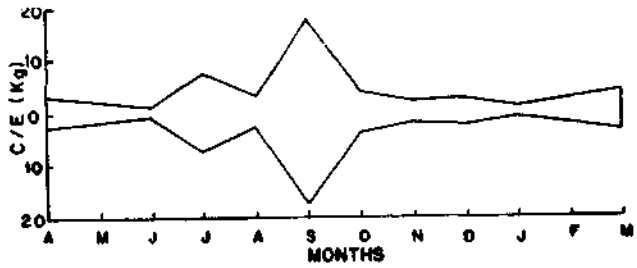


Fig. 11. Seasonal abundance of sharks in indigenous gear catch.

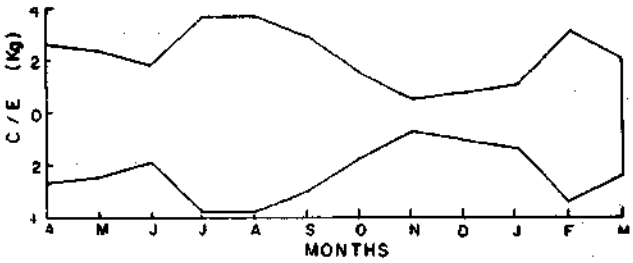


Fig. 12. Seasonal abundance of rays in trawl catch.

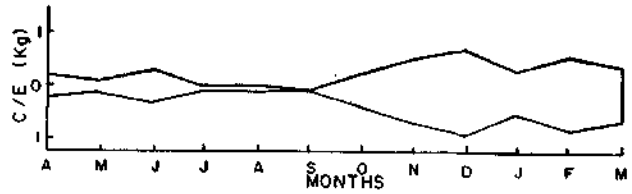


Fig. 13. Seasonal abundance of skates in trawl catch.

ENGRAULIDAE

Popular English Name	:	Anchovy/Thryssa
Vernacular Name (Tamil)	:	'Poruva'/'Nethal'/ 'Nethili'
Annual average catch	:	370.6 t
Percentage in total catch	:	7.6
Fishing methods and their contribution	:	Trawl net : 6.1 %
		Gill net : 2.6 %

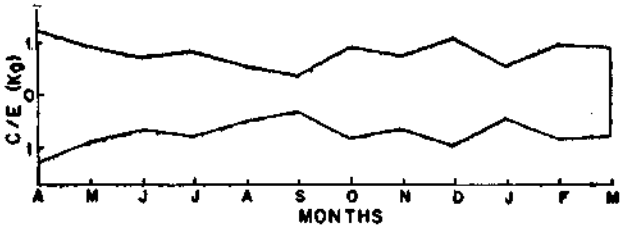


Fig. 14. Seasonal abundance of *Thryssa* in trawl catch.

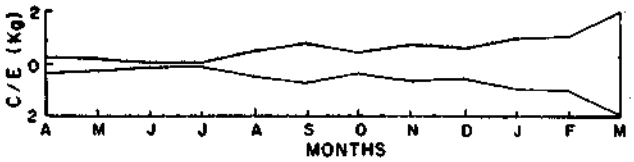


Fig. 15. Seasonal abundance of *Thryssa* in indigenous gear catch.

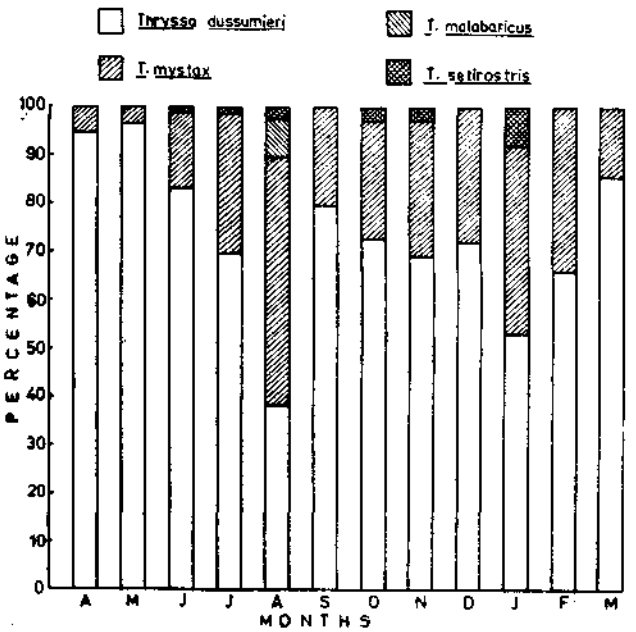


Fig. 16. Monthly species composition of *Thryssa* in trawl catch.

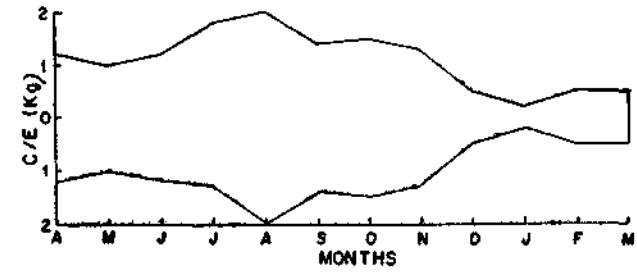


Fig. 17. Seasonal abundance of anchovy in trawl catch.

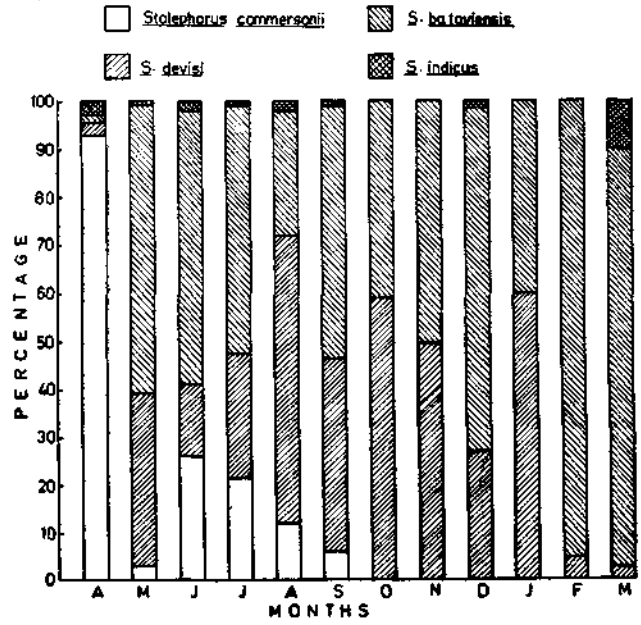


Fig. 18. Monthly species composition of anchovies in trawl catch.

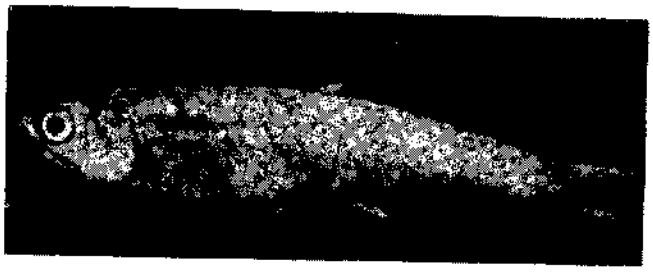


Fig. 19. *Stolephorus bataviensis.*

Scientific Name	:	*Stolephorus bataviensis*
Vernacular Name	:	'Nethili'
Gear	:	Trawl net
Percentage in the catch of the group	:	44.0
Peak period of occurrence	:	Jul. and Oct.
Depth of occurrence	:	Upto 30 m
Length range in commercial fishery	:	70 – 90 mm
Size at first maturity	:	—
Spawning season	:	Jun. - Sep.

GERRIDAE

Popular English Name	:	Silver biddies
Vernacular Name (Tamil)	:	'Oodan'
Annual average catch	:	120.2 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 2.0 %

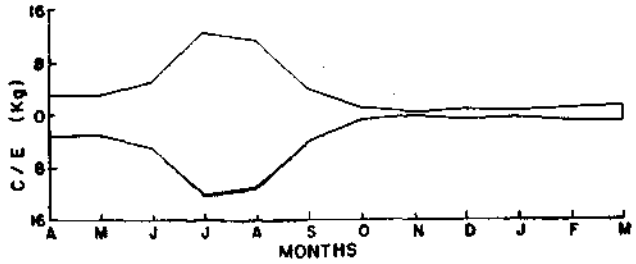


Fig. 20. Seasonal abundance of silver biddies in trawl catch.

ISTIOPHORIDAE

Popular English Name	:	Sail fish/Bill fish
Vernacular Name (Tamil)	:	'Myl meen'
Annual average catch	:	6.5 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Gill net : 6.5%

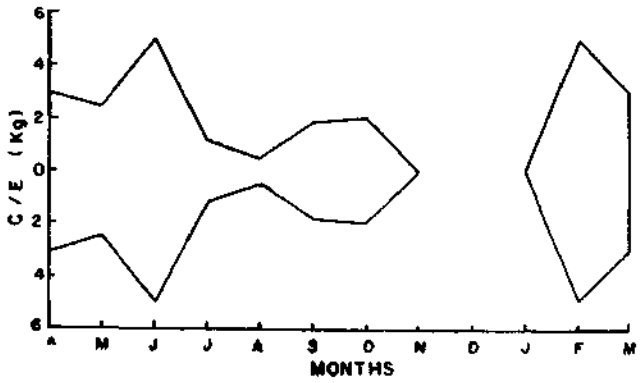


Fig. 21. Seasonal abundance of sail fish in gill net catch.

LEIOGNATHIDAE

Popular English Name	:	Silver belly
Vernacular Name (Tamil)	:	'Karal'
Annual average catch	:	600.1 t
Percentage in total catch	:	9.9
Fishing methods and their contribution	:	Trawl net : 10.0%

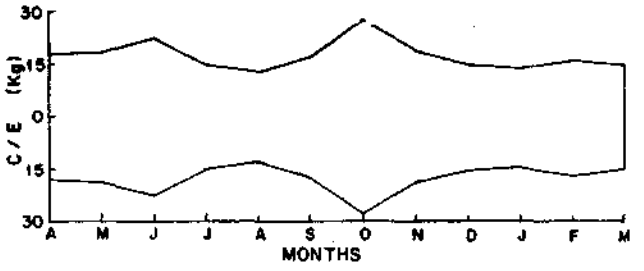


Fig. 22. Seasonal abundance of silver bellies in trawl catch.

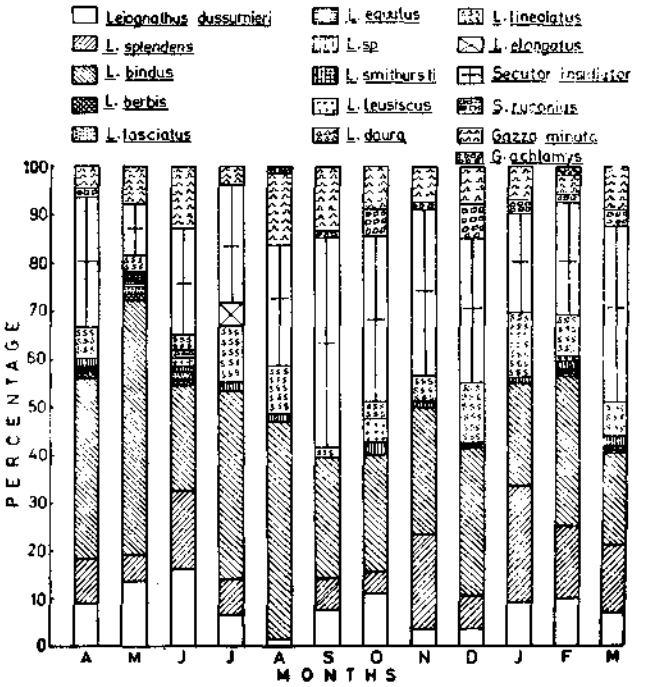


Fig. 23. Monthly species composition of silver bellies in trawl catch.

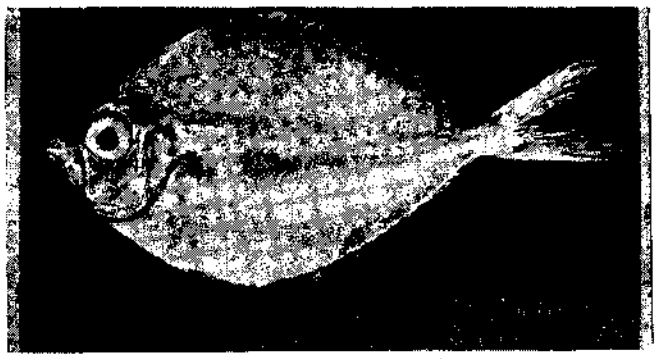


Fig. 24. *Leiognathus bindus.*

Scientific Name	:	*Leiognathus bindus*
Vernacular Name	:	'Karal'
Gear	:	Trawl net
Percentage in the catch of the group	:	30.9
Peak period of occurrence	:	Feb. – May
Depth of occurrence	:	15 – 40 m
Length range in commercial fishery	:	60 – 90 mm
Size at first maturity	:	87 mm
Spawning season	:	Dec. – Apr. and Jun. – Sep.

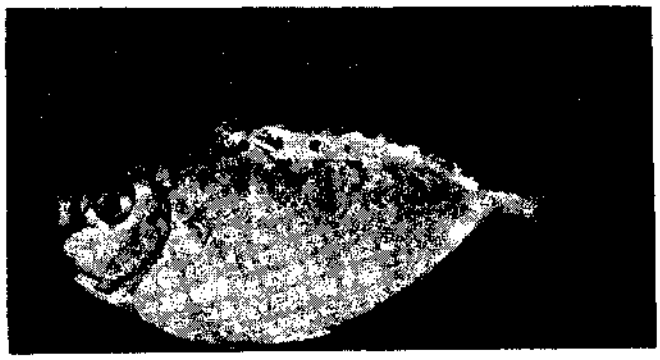


Fig. 25. *Secutor insidiator.*

Scientific Name	:	*Secutor insidiator*
Vernacular Name	:	'Karal'
Gear	:	Trawl net
Percentage in the catch of the group	:	27.8
Peak period of occurrence	:	September
Depth of occurrence	:	15 – 40 m
Length range in commercial fishery	:	60 – 90 mm
Size at first maturity	:	Dec. – Apr. and Jun. – Sep.

MUGILIDAE

Popular English Name	:	Grey mullets
Vernacular Name (Tamil)	:	'Manalai'/'Madavai'
Annual average catch	:	14.6 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Bag net : 14.6%

MULLIDAE

Popular English Name	:	Goat fish/Red mullet
Vernacular Name	:	'Sennagari'
Annual average catch	:	145.3 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 2.4%

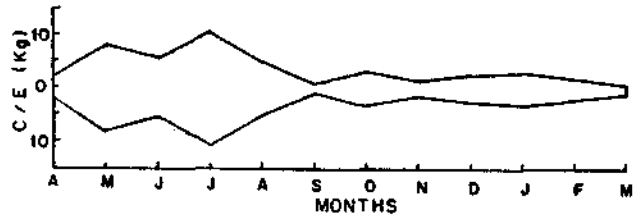


Fig. 26. Seasonal abundance of grey mullets in indigenous gear catch.

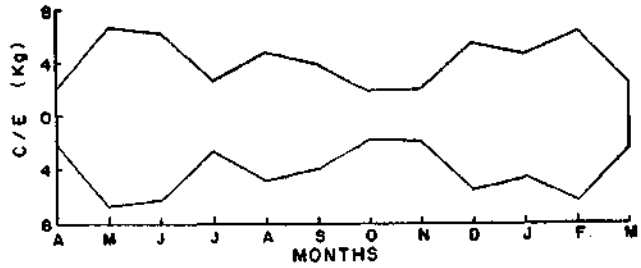


Fig. 27. Seasonal abundance of goat fishes in trawl catch.

NEMIPTERIDAE

Popular English Name	:	Threadfin bream
Vernacular Name (Tamil)	:	'Sankara'
Annual average catch	:	760.5 t
Percentage in total catch	:	12.5
Fishing methods and their contribution	:	Trawl net : 12.7%

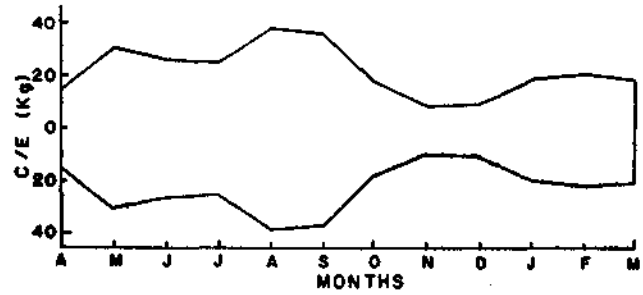


Fig. 28. Seasonal abundance of threadfin breams in trawl catch.

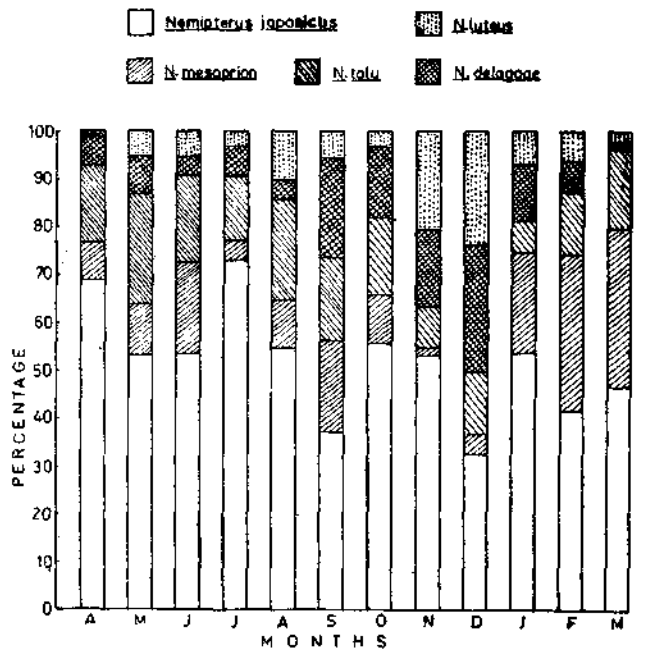


Fig. 29. Monthly species composition of threadfin breams in trawl catch.

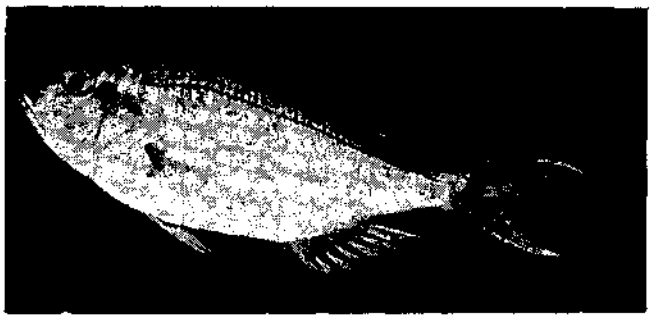


Fig. 30. *Nemipterus japonicus.*

Scientific Name	:	*Nemipterus japonicus*
Vernacular Name	:	'Sankara'
Gear	:	Trawl net
Percentage in the catch of the group	:	53.0
Peak period of occurrence	:	Jul. – Aug.
Depth of occurrence	:	15 – 40 m
Length range in commercial fishery	:	130 – 150 mm
Size at first maturity	:	145 mm
Spawning season	:	Dec. – Mar.

NOMEIDAE

Popular English Name	:	Drift fish/Butter fish
Vernacular Name (Tamil)	:	—
Annual average catch	:	48.4 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 0.8%

POMADASYIDAE

Popular English Name	:	Grunter
Vernacular Name (Tamil)	:	'Kullukorake'/ 'Kurumatti'/'Curutche'
Annual average catch	:	38.9 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 0.6%

Fig. 31. Seasonal abundance of grunters in trawl catch.

SCIAENIDAE

Popular English Name	:	Croaker
Vernacular Name (Tamil)	:	'Kathalai'
Annual average catch	:	346.6 t
Percentage in total catch	:	5.7
Fishing methods and their contribution	:	Trawl net : 5.8%

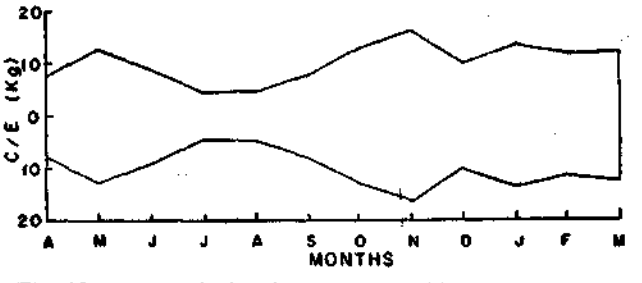


Fig. 32. Seasonal abundance of sciaenids in trawl catch.

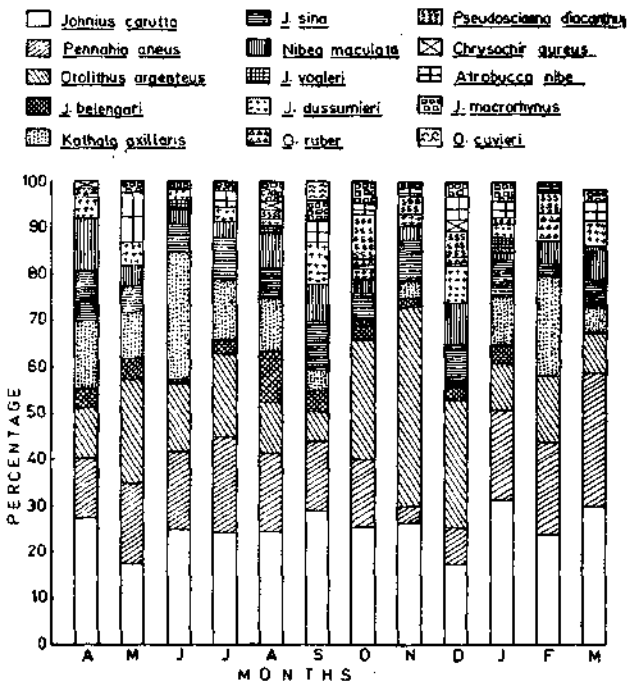


Fig. 33. Monthly species composition of sciaenids in trawl catch.

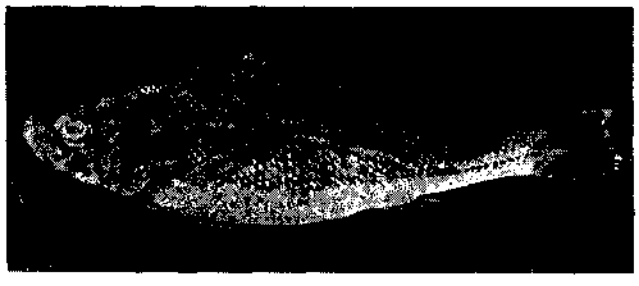


Fig. 34. *Johnius carutta.*

Scientific Name	:	*Johnius carutta*
Vernacular Name	:	'Kathalai'
Gear	:	Trawl net
Percentage in the catch of the group	:	25.5
Peak period of occurrence	:	Jan. – Feb.
Depth of occurrence	:	15 – 40 m
Length range in commercial fishery	:	130 – 150 mm
Size at first maturity	:	140 mm
Spawning season	:	Jun. – Jul.

SCOMBRIDAE

Popular English Name	:	Mackerel/Tunas/ Seer fishes
Vernacular Name (Tamil)	:	'Kumla'/ 'Kannangeluthi'/ 'Churai'/'Seela Vanjiram'
Annual average catch	:	111.6 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 19.4%
		Gill net : 52.8%
		Hooks & line : 4.6%
		Bag net : 17.5%

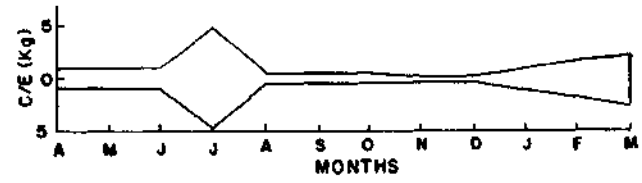


Fig. 35. Seasonal abundance of mackerel in trawl catch.

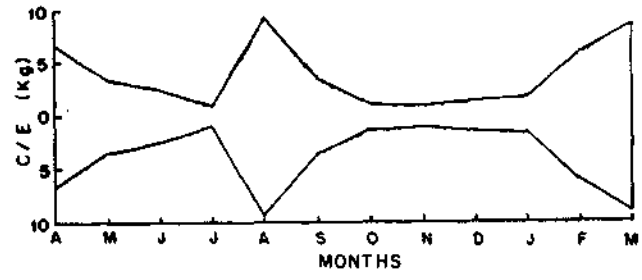


Fig. 36. Seasonal abundance of mackerel in indigenous gear catch.

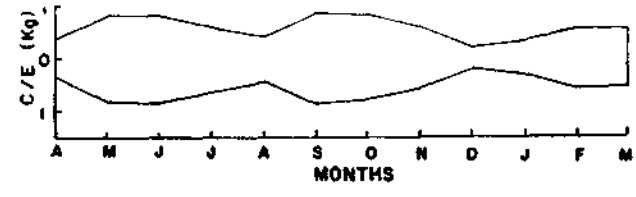


Fig. 37. Seasonal abundance of seer fish in trawl catch.

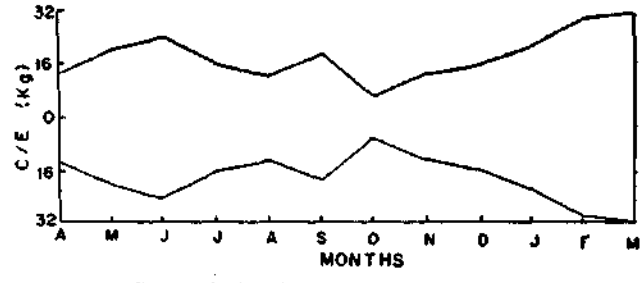


Fig. 38. Seasonal abundance of seer fish in gill net catch.

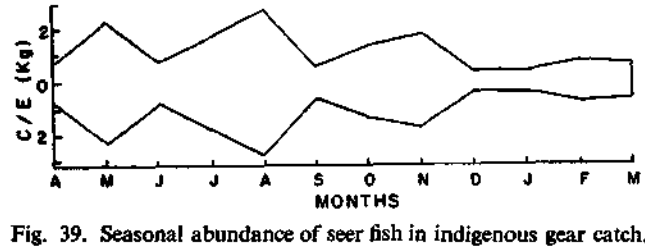


Fig. 39. Seasonal abundance of seer fish in indigenous gear catch.

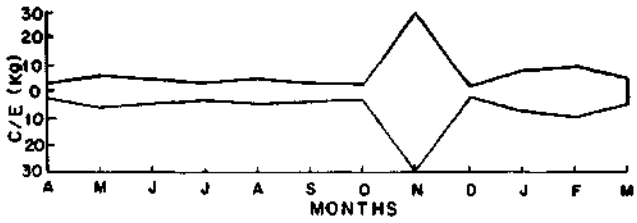


Fig. 40. Seasonal abundance of tuna in gill net catch.

SPHYRAENIDAE

Popular English Name	:	Barracuda
Vernacular Name (Tamil)	:	'Ooli'
Annual average catch	:	43.4 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 0.7%

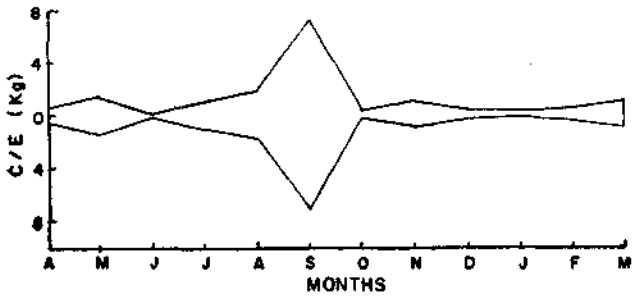


Fig. 41. Seasonal abundance of barracuda in trawl catch.

STROMATEIDAE

Popular English Name	:	Pomfrets
Vernacular Name (Tamil)	:	'Vavval'
Annual average catch	:	19.5 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 0.3%
		Gill net : 1.3%

Fig. 42. Seasonal abundance of pomfrets in trawl catch.

Fig. 43. Seasonal abundance of pomfrets in gill net catch.

SYNODONTIDAE

Popular English Name	:	Lizard fish
Vernacular Name (Tamil)	:	'Oolooway'/ 'Coolooway'
Annual average catch	:	330.6 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 5.4%

Fig. 44. Seasonal abundance of lizard fish in trawl catch.

TRICHIURIDAE

Popular English Name	:	Ribbon fish
Vernacular Name (Tamil)	:	'Savali'/'Chavalai'/ 'Olavalai'
Annual average catch	:	221.0 t
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net : 2.0%

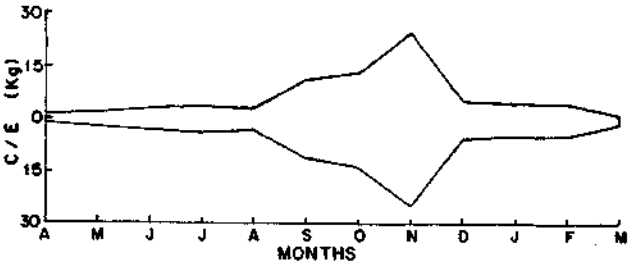


Fig. 45. Seasonal abundance of ribbon fishes in trawl catch.

BUMPER CATCH OF SILVER POMFRET *PAMPUS ARGENTEUS* AT SATPATI BOMBAY*

Heavy catches of silver pomfret *Pampus argenteus* were landed within a span of four days at Satpati, a fishing village in Thane District in Maharashtra (about 100 km north of Bombay). Normally the duration of fishing trip is about 4–5 days depending upon the catch of fish and stock of ice. A crew of 15 operate 5–6 gill net hauls each of 12 hours duration in each trip.

From 7th to 10th September, 1987 the surface gill net boats landed bumper catches of silver pomfret totalling 87 tonnes. The catch details (based on Machimar Society and Sarvodaya Society) are given in Table 1.

Table 1. *Details of silver pomfret catch from 7th to 10th September,* 1987

Date	Catch (kg)	cpue (kg)
7-9-1987	12,709	529.54
8-9-1987	30,166	603.32
9-9-1987	27,460	686.50
10-9-1987	16,681	667.24
Total	87,016	Average 626.01

* Prepared by V. M. Deshmukh, J. R. Dias and B. B. Chavan, Bombay Research Centre of CMFRI, Bombay.

At the factories of the said societies the pomfrets were graded, based on individual weight. Their percentage and price are given in Table 2.

Table 2. *Details of grade, weight, percentage and price of the silver pomfret*

Grade	Range in wt. (gm)	%	Price/kg (Rs.)
Super	600 and above	47.96	30.00
No. 1	350 - 590	25.93	25.00
No. 2	250 - 340	11.01	21.00
No. 3	200 - 240	2.82	20.00
No. 4	190 and less	3.30	15.00
Cut & soft	—	8.95	—

Silver pomfrets ranged in length from 170 to 320 mm (fork length). It is interesting to note that the catches of pomfrets by the bottom gill nets during this period was very poor.

NURSERY GROUND FOR EARLY JUVENILES OF TIGER PRAWN IN KOVALAM BACKWATER NEAR MADRAS*

The Kovalam backwater (Lat. 12°46' N; Long. 80°18' E) is usually flooded during the northeast monsoon from October–December. Consequently, the sand bar at the mouth of the backwater is cut open to release the accumulated water into the sea and thus avoiding inundation of paddy fields lying adjacent to the backwater. The bar mouth remains open till April – May, during which time, recruitment of larvae and early juveniles of prawns, fishes and crabs takes place continuously, supporting a lucrative fishery in the backwaters during the post and pre-monsoon months, especially for penaeid prawns. For the purpose of utilising the early juveniles of fast growing species of penaeid prawns for field culture, experimental drag net (10 m long; 12 mm mesh size) operations were carried out in the backwater during December 1984. This has brought to light the occurrence of early juveniles of tiger prawn *P. monodon* off Vadanemmeli village.

The total length of juvenile tiger prawn caught ranged between 28 and 91 mm. They were found to be more abundant over the sea grass bed. A maximum

* Reported by M. Kathirvel and V. Selvaraj, Madras Research Centre of CMFRI, Madras.

of 717 juveniles per 100 m^2 were caught in the drag net operated in the backwaters near Vadanemmeli.

The present observations have indicated the rich colonisation of early juveniles of *P. monodon* over the sea grass beds. This congregation could be attributed to the clinging habits of the species in its earlier part of the life. This habit of taking shelter among the grasses may help them to escape from predators. A perusal of literature on the habitat of the species has shown that *P. monodon,* also known as the grass shrimp, takes refuge among the weedy areas in estuaries during its postlarval and early juvenile stages. Taking advantages of the clinging habit of fry of tiger prawn, successful fry collections have been achieved by suspending bunches of twigs and grass from a horizontal rope in the estuaries and bays in Philippines. The abundantly found fry of *P. monodon,* associated with sea grass vegetation in Kovalam backwater can be exploited for meeting the great demand for tiger prawn seeds for farming.

ON A LARGE ADULT ZEBRA SHARK LANDED AT PAMBAN*

On 7-12-1987, an adult female *Stegostoma faciatum* measuring 207 cm in total length and 49 kg by weight obtained while trawling at 20 m off Pamban in the Gulf of Mannar, was landed at Therkavadi landing centre of Pamban (Fig. 1). Although landing of juveniles of *S. faciatum* are not uncommon along the Indian coasts this is the first record of such a large adult specimen from the southeast coast of India.

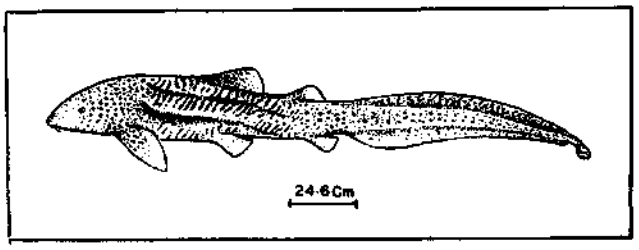


Fig. 1. An oviparous Zebra shark *Stegostoma faciatum* caught off Pamban in Gulf of Mannar.

* Reported by S. Krishna Pillai and C. Kasinathan, Regional Centre of CMFRI, Mandapam Camp.

ON A LARGE DEVIL RAY LANDED AT KARWAR*

An unusually large Devil ray (Fig. 1) measuring 386 cm in total length and 447 cm in breadth, caught from the inshore waters off southwest of Karwar at 40 m depth by a mechanised gill net boat, was landed at Karwar on 1-12-1987. It was identified as *Manta birostris*, locally known as 'Kombu torke'. The specimen was a female weighing 800 kg and its liver weighed 40 kg. The fish was disposed off for Rs. 500/- at the landing centre.

Fig. 1. Devil ray *(Manta birostris)* caught at Karwar.

* Reported by K. Y. Telang and T. B. Harikantra, Karwar Research Centre of CMFRI, Karwar.

ON THE STRANDING OF A HUMPBACK WHALE IN THE NORTH KERALA COAST*

On 20–1–1988, a huge dead whale was washed ashore at Mavila Kadappuram (beach) near Nileswaram (Kerala), about 105 km south of Mangalore (Figs. 1 & 2). After two days, it drifted back into the sea by tidal influence and appeared on 24–1–1988 at the barmouth area near Thaikadappuram. The carcass drifted deeper into the backwater by the incoming high tide.

Fig. 1. The stranded female baleen whale *Megaptera novaeangliae* Borowski (Humpback whale) washed ashore on the 20th January, 1988 at Mavila Kadappuram (beach), near Nileshwaram, Kasaragod, Kerala.

The carcass was in a mutilated and highly decomposed state. The whale was approximately 15–16 m in length and weighed about eight tonnes. The flippers were exceptionally larger, measuring 4.6 m in length and the distance between the extremities of caudal fluke was 4.5 m. Detailed measurements could not be made due to the decomposed state. The length of the flipper forming almost 1/3 of the total length confirms the identification of the whale as *Megaptera novaeangliae* Borowski.

It was an adult female. The ventral grooves extending almost near to the naval were mutilated (Fig. 1).

Fig. 2. Ventro-lateral view of the whale stranded at Mavila Kadappuram. Note the extent of throat grooves upto the naval.

The prominent and protruded genital aperture (Figs. 1 & 2) and developed mammary glands indicated that the animal might have released its young one before its death.

It was understood that people from the Kottakal Arya Vaidya Sala near Calicut visited the place on 24–1–1988 and examined the specimen by cutting the viscera presumably to collect the blubber or ambergris for medicinal purpose.

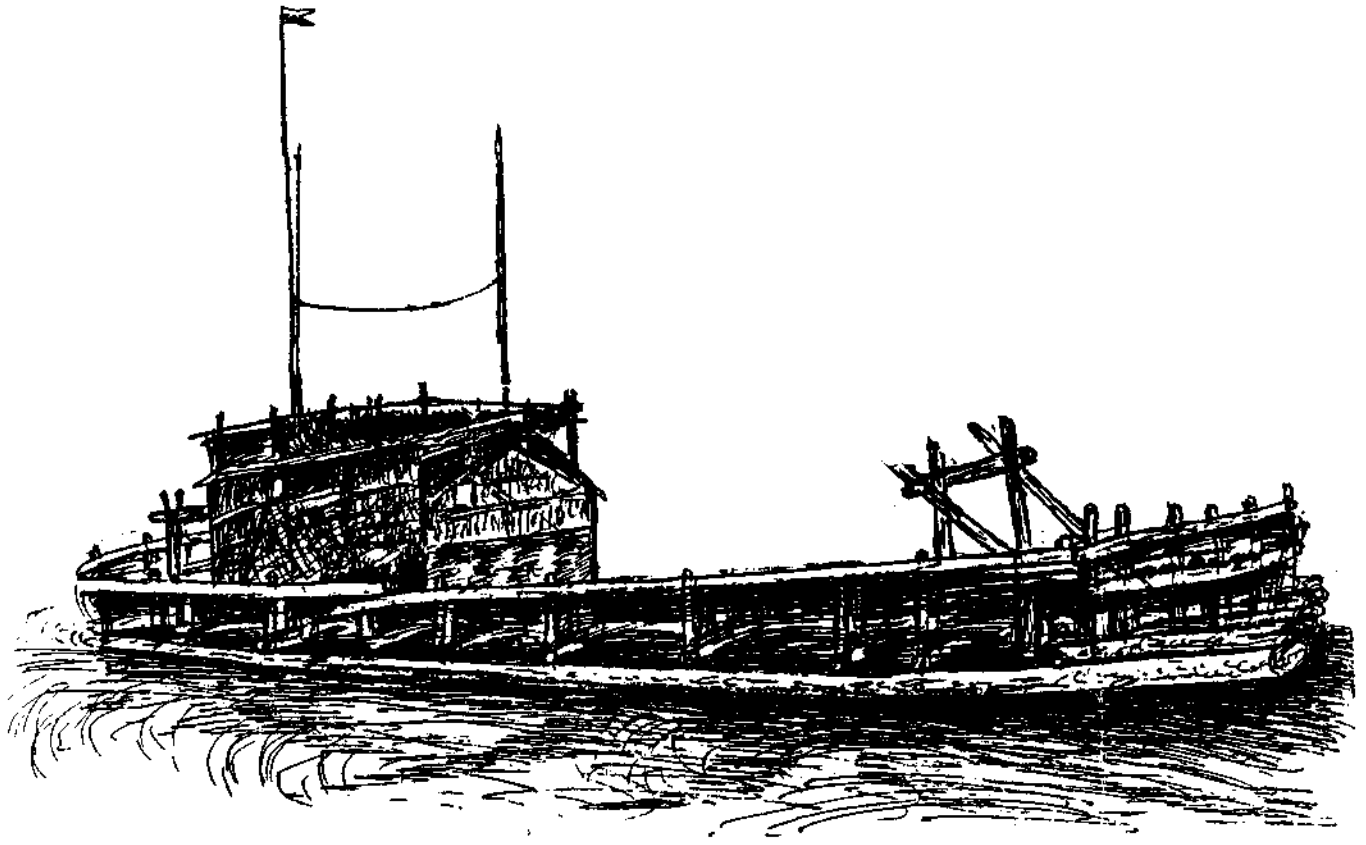
*Reported by C. Muthiah, Sunil Mohamed, Ganesh Bhatkal and Bharmu Melinmani, Mangalore Research Centre of CMFRI, Mangalore.

ON A BURMESE FISHING RAFT DRIFTED TO MADRAS*

On 6-12-1987, a fishing raft with three crew members was brought to Madras by local fishermen. The raft was from Piyapong Chonkaa, Burma. On 21-11-'87 the raft was anchored in River Iravati. Due to sudden floods in the river, the anchor got lifted and the raft drifted to the sea with three fishermen. The vessel drifted with the current in south-westerly direction for 16 days in the sea and was rescued by the local fishermen near Pulicat on 6-12-1987. There was no net in the raft at the time of rescue.

The raft (length: 12 m; width: 3 m) was fabricated with bamboos in two tiers (Fig. 1). Twentyfive bamboo poles were spread in rows to form the floor and they were tied with ropes. Casuarina poles supported the sides of the raft. The raft had a hut, which was partitioned; one room was for cooking and the other

* Reported by S. Srinivasarengan, E. Vivekanandan, K. G. Girijavallabhan, R. Sarvesan, L. Jayasankaran, Madras Research Centre of CMFRI, Madras and K. S. Krishnan, Regional Centre of CMFRI, Mandapam Camp.



for shelter. The approximate value of the raft was Rs. 10,000/-. The raft was later dismantled and sold in Madras and the money was used for the stay of the three fishermen in Madras.

This is not the first time that fishing boats from Burma have drifted towards Tamilnadu Coast. On 10-2-1986, a raft landed in Mudiveeranpatnam (Ramnad District). On 29-3-1987 a similar fishing raft with five fishermen landed in Devanampatnam coast. This vessel was said to have left the Burma coast on 12-2-'87. Later, another fishing raft was rescued near Mandapam on 28-1-1988. It may be noted that all these boats were drifted during November-March, when the current is in south-westerly direction in the Bay of Bengal.

ON THE FISHERY OF *ACETES JOHNI* AT KARWAR AND TADRI*

Acetes shrimps occasionally appear as stray catches along the Karwar coast. During November–December, 1986, *Acetes johni* formed a regular fishery for 40 days both at Karwar and Tadri. The species was found amongst *Oratosquilla nepa, Lepturacanthus savala* and other trash fishes caught by trawlers and purse seiners. The estimated catches of *A. johni* at Tadri and Karwar were 84 and 22 tonnes respectively. There appeared to be a decrease in catch around new moon day and a rise around full moon day. The general sex-ratio was 35:65 for males to females during the season. The size range of the species was 19–22 mm and the water content amounted to 84% of the total wet body weight. From both the centres nearly 106 tonnes (wet weight) of *A. johni* were landed. The estimated sun-dried weight was 16.928 tonnes. The species was sold at Rs. 12 per kg (retail price) on dry weight basis which amounts to a total of Rupees two lakhs during the season.

* Reported by V. S. Kakati, K. Y. Telang and C. K. Dinesh Karwar Research Centre of CMFRI, Karwar

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