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# MARINE FISH CALENDAR

## IX. VIZHINJAM\*

P. N. Radhakrishnan Nair, N. Gopalakrishna Pillai, P. S. Sadasiva Sharma,  
A. K. Velayudhan, Mathew Joseph, K. T. Thomas and T. A. Omana  
*Vizhinjam Research Centre of CMFRI, Vizhinjam*

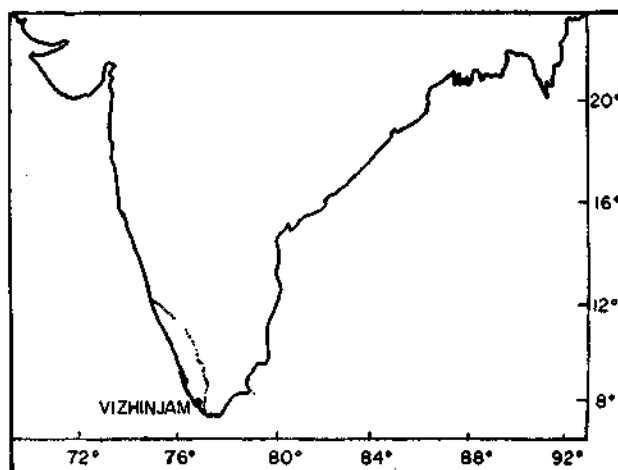
### Introduction

The fishery investigations in various parts of India have established that there are divergence in the pattern of species distribution and their abundance in these regions. Such changes are also noticed annually at a particular region as well as between closely adjacent centres of the same region. Therefore certain trends and patterns in seasons and abundance of the major fisheries become apparent from prolonged observations. Data collected over a period of five years, from 1981 to 1985, from the landing centre at Vizhinjam have been analysed to draw up a general fishery calendar suitable for this centre elucidating the cyclic changes in the abundance and dominance of the commercially important species/groups of fish within a year.

Vizhinjam, 16 km, south of Trivandrum in Kerala State (Lat. 8°22' 30" N, Long. 76°59' 15" E), is an important fish landing centre in the fishery zone extending from Kollangode in the south to Valiaveli in the north spreading over a distance of 50 km on the southwest coast of India. Owing to the bay protected by breakwaters, which affords facilities for launching the boats into the sea even in the peak monsoon, fishing activity takes place in Vizhinjam area all through the year. Moreover the Vizhinjam Fishing Harbour, which is underway provides facilities for safe launching and harbouring of the crafts as well as landing of the catch. Good marketing outlets are available at nearby places such as Trivandrum, Balaramapuram and adjacent towns. The fishery is artisanal, employing catamaran, dugout canoe, plankbuilt boat and indigenous gears such as boat seine ('Thattumadi'), drift net ('Pattu vala'), hooks and line ('Choonda') etc. Neither trawling nor purse seining is being carried out at this centre. Mechanisation came very late to Vizhinjam, while in the nearby

places like Sakthikulangara and Kolachal mechanised fishing had been well established even years back. Vizhinjam fishermen were rather cautiously avoiding mechanised fishing since they feared that favouring mechanisation may invite big businessmen into the field which may adversely affect the traditional fishing sector. However, in 1981 a few small mechanised boats have started operating in this area using traditional drift nets. But only a few fishermen could afford to the high capital investment and operational costs. By about September, 1982, five traditional crafts fitted with outboard motors started operating from Vizhinjam. Due to the high profit obtained by the fishermen and low capital and operational costs for the outboard motor when compared to those of mechanised boats, the mechanisation of traditional crafts with outboard motor became acceptable to the fishermen. In the course of past five years the total number of outboard motors at this centre increased to about 400. This trend is bound to continue, in view of the prospect of the fishing harbour under construction.

Mechanised craft generally go about 20-25 km off Vizhinjam to area of 60-80 m depth, whereas the



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

non-mechanised crafts are confined to about 10 km from the shore and a depth range of 40-50 m. The number of actual fishing days in a month ranged from 20 to 25 for both the types of units.

The data collected from 1981 to 1985 have been processed for the preparation of the calendar. The data show that the annual marine fish landings (fin fish alone) at Vizhinjam ranged from 5,207.01 t in 1981 to 9,726.2 t in 1985 with the annual average landings at 6,374.41 t. The average monthly landings varied from 147.88 t in January to 1,230.05 t in July with the overall monthly average at 531.2 t. Fish landings higher than this monthly average were obtained during June to October, when nearly 71.3% of the annual catch was landed. It may be seen that the fishing effort was fairly high from May to October and there was also a corresponding increase in the catch and catch rate in these months. The highest catch (1,230.05 t) and catch rate (67.22 kg) were observed during July. From the foregoing trend it may be stated that June to October presents the main fishing season with best return in July in the Vizhinjam area. A large variety of fishes support the fishery at Vizhinjam and the landings of each gear have a characteristic species composition.

At present ten types of traditional gears are employed in Vizhinjam area to exploit its fishery resources. Of these boat seine, hooks and line, 'achil' (a tape of hand line with smaller hooks) and shore seine together contribute to the bulk (74.87%) of the total fish landings and the rest (25.13%) by gill nets which include drift net, 'chala vala', 'netholi vala', 'kolachi vala', 'konchu vala' and 'nandu vala'.

Apart from those species mentioned in this calendar, a number of species of fishes, which formed stray catches showing no regular fishery and were quite insignificant as independent fishery, also contributed to the fishery.

In addition to these, the juveniles of almost all major commercially important fishes formed a minor fishery locally called 'Nonna' fishery. This contributed to 0.03%. The fishery season extended from October to August. The average annual catch was 2,134 t with monthly catch ranging from 4 kg in October to 451 kg in August.

#### AMBASSIDAE

Popular English Name : Glassy perchlets  
 Vernacular Name (Malayalam) : 'Mulli'  
 Annual average catch : 5.7 t

Percentage in total catch : 0.09  
 Fishing methods and their contribution : Boat seine : 0.08%  
 Shore seine : 0.01%

#### ATHERINIDAE

Popular English Name : Hardy heads  
 Vernacular Name (Malayalam) : 'Therani'  
 Annual average catch : 2.8 t  
 Percentage in total catch : 0.04  
 Fishing methods and their contribution : Boat seine: —  
 Shore seine: —

#### BALISTIDAE

Popular English Name : File fish  
 Vernacular Name (Malayalam) : 'Clathi'  
 Annual average catch : 43.1 t  
 Percentage in total catch : 0.67  
 Fishing methods and their contribution : Hooks & line:  
 0.67%

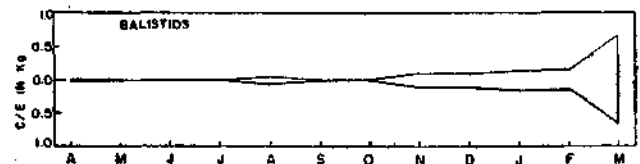


Fig. 1. Seasonal abundance of balistids at Vizhinjam.

#### BELONIDAE

Popular English Name : Needle fish/  
 Gar fishes  
 Vernacular Name (Malayalam) : 'Kozhiyan mural'  
 Annual average catch : 19.8 t  
 Percentage in total catch : 0.31  
 Fishing methods and their contribution : Hooks & line:  
 0.17%  
 Drift net : 0.14%

#### CARANGIDAE

Popular English Name : Trevallies/Horse  
 mackerel/  
 Queenfish/Darts  
 Vernacular Name (Malayalam) : 'Para'  
 Annual average catch : 986.0 t  
 Percentage in total catch : 15.47

**Fishing methods and their contribution**

- : Drift net: 2.49%
- Chala vala: 0.19%
- Konchu vala: 0.37%
- Hooks & line: 9.92%
- Boat seine : 2.40%
- Shore seine: 0.11%

- Depth of occurrence : 40-60 m
- Length range in commercial fishery : 130-374 mm
- Size at first maturity : —
- Spawning season : Nov.-Dec.

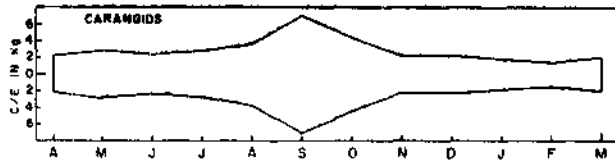


Fig. 2. Seasonal abundance of carangids at Vizhinjam.

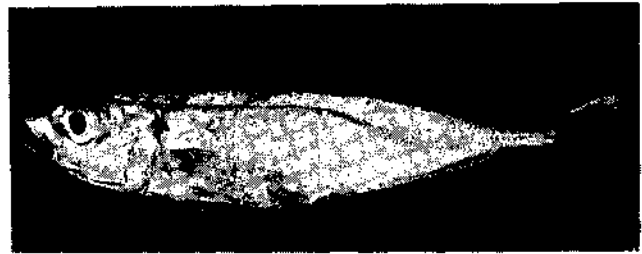


Fig. 5. *Decapterus dayi*

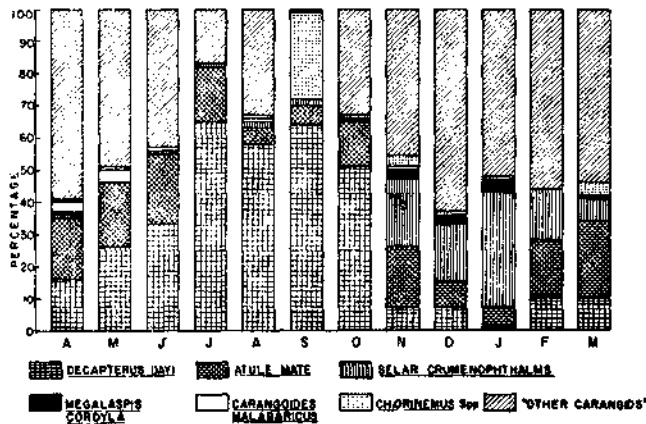


Fig. 3. Monthwise species composition of carangids in indigenous gears.

- Scientific Name : *Decapterus dayi*
- Vernacular Name : 'Kozhiyala'
- Gear : Hooks & line/Chala vala/Boat seine/Shore seine/Konchu vala
- Peak period of occurrence : May-Oct.
- Depth of occurrence : 15-60 m
- Length range in commercial fishery : 60-229 mm
- Size at first maturity : 130 mm
- Spawning season : Mar.-May and Aug.-Oct.

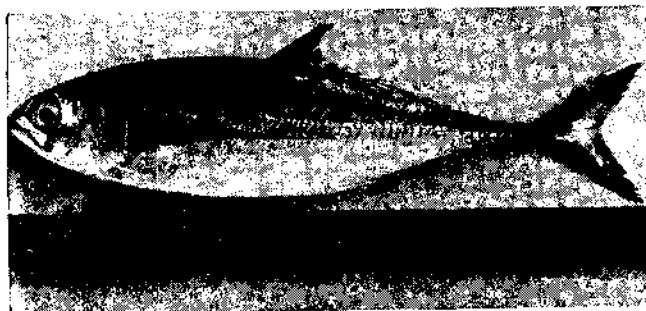


Fig. 4. *Megalaspis cordyla*.

- Scientific Name : *Megalaspis cordyla*
- Vernacular Name : 'Vankada'
- Gear : Drift net/Hooks & line/Shore seine/Boat seine
- Peak period of occurrence : Oct.-Jan.

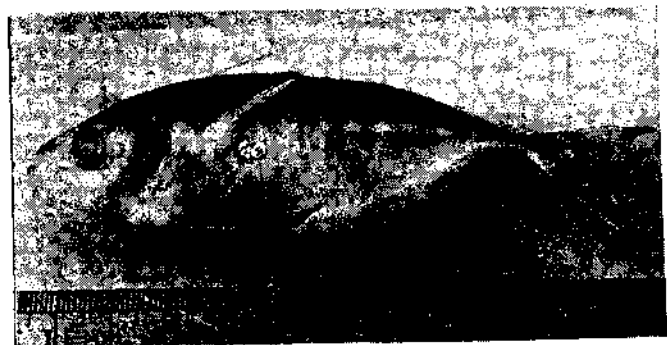


Fig. 6. *Atule mate*.

- Scientific Name : *Atule mate*
- Vernacular Name : 'Urula para'
- Gear : Drift net/Chala vala/Konchu vala/Hooks & line/Boat seine/Shore seine
- Peak period of occurrence : Mar.-July and Sep.-Nov.

Depth of occurrence : 30-60 m  
 Length range in commercial fishery : 100-314 mm  
 Size at first maturity : —  
 Spawning season : Apr. - Jul.



Fig. 7. *Carangoides malabaricus*.

Scientific Name : *Carangoides malabaricus*  
 Vernacular Name : 'Vattakkanni para'  
 Gear : Hooks & line/  
 Drift net/  
 Konchu vala  
 Peak period of occurrence : Apr. - May and Oct.  
 Depth of occurrence : 30-60 m  
 Length range in commercial fishery : 110 - 215 mm  
 Size at first maturity : —  
 Spawning season : —

CHIROCENTRIDAE

Popular English Name : Wolf-herrings  
 Vernacular Name (Malayalam) : 'Mulluvaala'  
 Annual average catch : 22.2 t  
 Percentage in total catch : 0.35  
 Fishing methods and their contribution :  
 Drift net: 0.18%  
 Hooks & line: 0.04%  
 Chala vala: 0.10%  
 Konchu vala: 0.03%

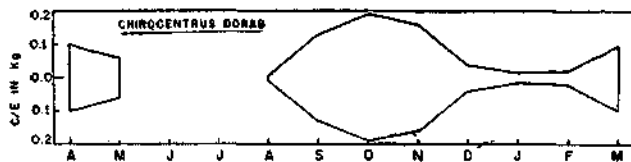


Fig. 8. Seasonal abundance of chirocentrids at Vizhinjam.



Fig. 9. *Chirocentrus dorab*.

Scientific Name : *Chirocentrus dorab*  
 Vernacular Name : 'Mulluvaala'  
 Gear : Gill net  
 Peak period of occurrence : Aug. - May and Sep. - Nov.  
 Depth of occurrence : 30-60 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —



Fig. 10. *Chirocentrus nudus*.

Scientific Name : *Chirocentrus nudus*  
 Vernacular Name : 'Mulluvaala'  
 Gear : Gill net  
 Peak period of occurrence : Aug. - May and Sep. - Nov.  
 Depth of occurrence : 30-60 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

CLUPEIDAE

Popular English Name : Sardines  
 Vernacular Name (Malayalam) : 'Chala'

Annual average catch : 312.01 t  
 Percentage in total catch : 4.89  
 Fishing methods and their contribution : Chala vala: 4.14%  
 Shore seine: 0.15%  
 Hooks & line: 0.07%  
 Boat seine: 0.53%

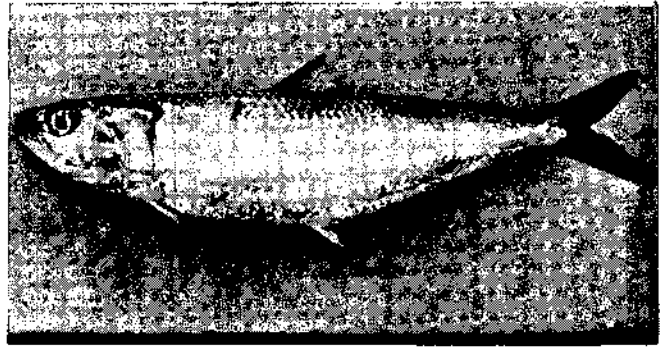


Fig. 14. *Sardinella longiceps*.

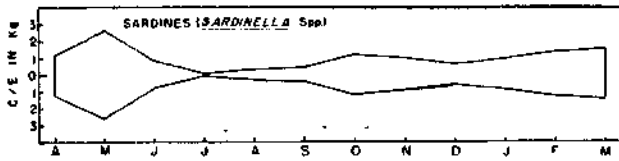


Fig. 11. Seasonal abundance of sardines at Vizhinjam.

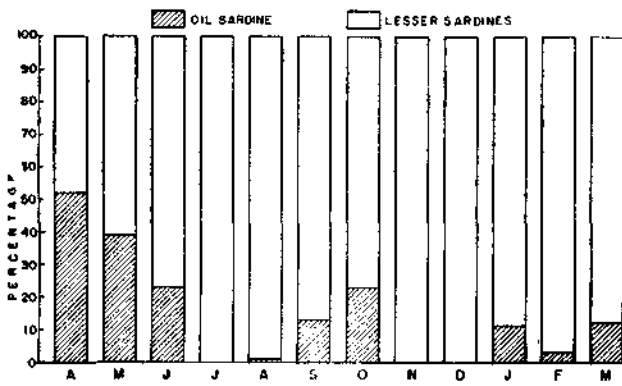


Fig. 12. Monthwise species composition of clupeids in indigenous gears at Vizhinjam.

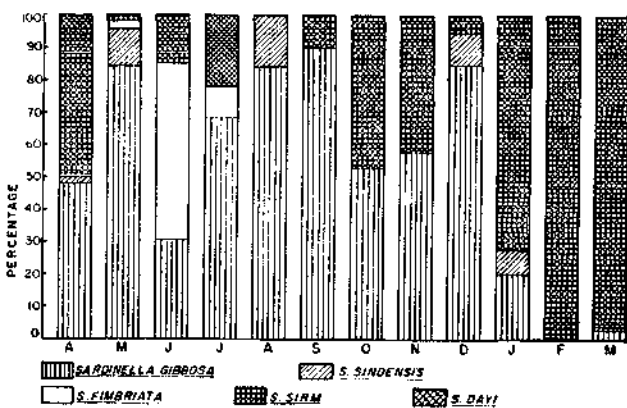


Fig. 13. Monthwise species composition of lesser sardines in indigenous gears at Vizhinjam.

Scientific Name : *Sardinella longiceps*  
 Vernacular Name : 'Nei-chala'  
 Gear : Chalavala/Shore seine/Hooks & line  
 Peak period of occurrence : Mar. - Jun.  
 Depth of occurrence : Up to 40 m  
 Length range in commercial fishery : 88 - 224 mm  
 Size at first maturity : —  
 Spawning season : Apr. - May and Sep. - Oct.

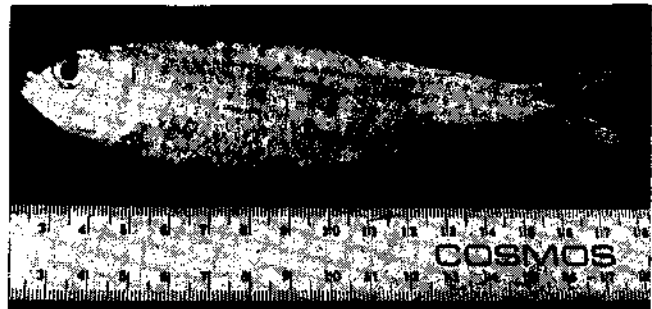


Fig. 15. *Sardinella gibbosa*.

Scientific Name : *Sardinella gibbosa*  
 Vernacular Name : 'Chala'  
 Gear : Chala vala/Shore seine/Hooks & line  
 Peak period of occurrence : Jan. - Jun.  
 Depth of occurrence : Upto 20 m  
 Length range in commercial fishery : 84 - 194 mm  
 Size at first maturity : —  
 Spawning season : Apr. - Aug.

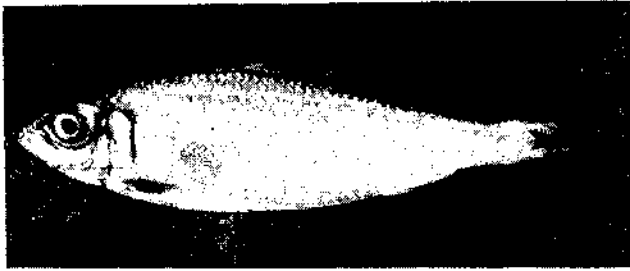


Fig. 16. *Sardinella fimbriata*.

Scientific Name : *Sardinella fimbriata*  
 Vernacular Name : 'Karichala'  
 Gear : Chala vala  
 Peak period of occurrence : Apr. - Jul.  
 Depth of occurrence : Upto 30 m  
 Length range in commercial fishery : 120 - 189 mm  
 Size at first maturity : —  
 Spawning season : —

CORYPHAENIDAE

Popular English Name : Dolphin fish  
 Vernacular Name (Malayalam) : 'Palameen'  
 Annual average catch : 24.6 t  
 Percentage in total catch : 0.39  
 Fishing methods and their contribution : Hooks & line: 0.37%  
 Drift net: 0.02%

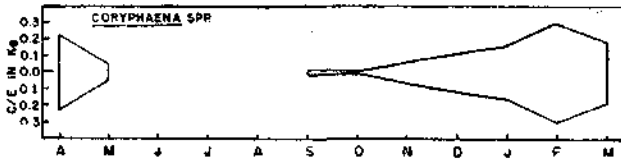


Fig. 17. Seasonal abundance of dolphin fish at Vizhinjam.

CYNOGLOSSIDAE

Popular English Name : Soles/Flat fishes  
 Vernacular Name (Malayalam) : 'Nilampathungi'/'Erumanakku'  
 Annual average catch : 5.5 t  
 Percentage in total catch : 0.09  
 Fishing methods and their contribution : Boat seine : 0.08%  
 Konchu vala: 0.01%

DUSSUMIERIDAE

Popular English Name : Rainbow sardine  
 Vernacular Name (Malayalam) : 'Mopal'/'Muthupolappan'/'Kokkola'  
 Annual average catch : 149.0 t  
 Percentage in total catch : 2.33  
 Fishing methods and their contribution : Chala vala: 0.13%  
 Boat seine: 1.05%  
 Shore seine: 0.02%  
 Hooks & line: 1.13%  
 Konchu vala: 0.01%



Fig. 18. Seasonal abundance of rainbow sardines at Vizhinjam.

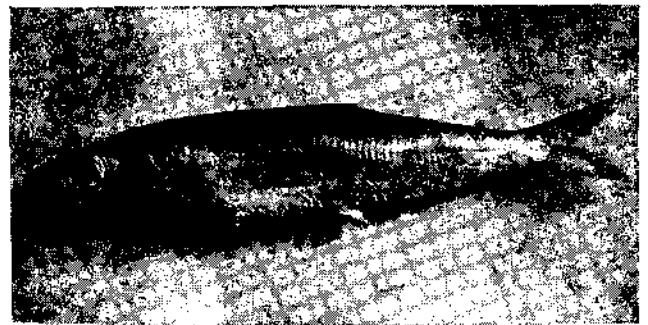


Fig. 19. *Dussumieria hasseltii*.

Scientific Name : *Dussumieria hasseltii*  
 Vernacular Name : 'Moral'/'Muthupolappan'/'Kokkola'  
 Gear : Chala vala/Boat seine/Hooks & line  
 Percentage composition in the gear : —  
 Peak period of occurrence : May - Sep.  
 Depth of occurrence : Upto 40 m  
 Length range in commercial fishery : 80 - 224 mm  
 Size at first maturity : 170 mm  
 Spawning season : —

**ELASMOBRANCHS**

Popular English Name : Sharks/Rays/Skates  
 Vernacular Name (Malayalam) : 'Sravu'/'Therachi'/'Poonthi'  
 Annual average catch : 82.9 t  
 Percentage in total catch : 1.3  
 Fishing methods and their contribution : Hooks and line: 0.37%  
 Drift net: 0.64%  
 Boat seine: 0.19%  
 Shore seine: 0.01%  
 Konchu vala: 0.09%

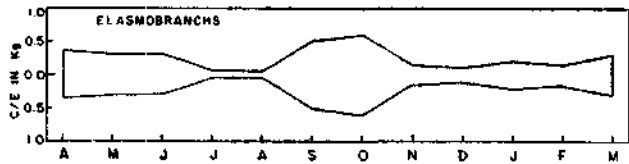


Fig. 20. Seasonal abundance of elasmobranchs at Vizhinjam.

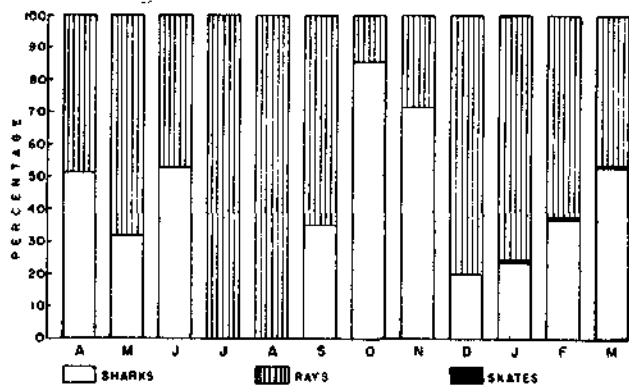


Fig. 21. Monthwise species composition of elasmobranchs at Vizhinjam.

**ENGRAULIDAE**

Popular English Name : Anchovy  
 Vernacular Name (Malayalam) : 'Netholi'  
 Annual average catch : 727.3 t  
 Percentage in total catch : 11.41  
 Fishing methods and their contribution : Netholi vala: 1.18%  
 Boat seine: 10.05%  
 Shore seine: 0.13%  
 Chala vala: 0.03%  
 Konchu vala: 0.02%

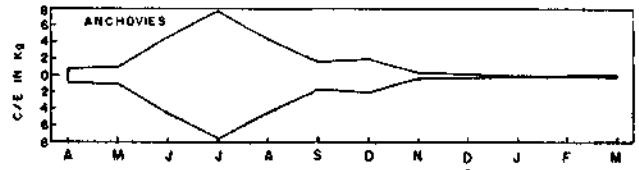


Fig. 22. Seasonal abundance of anchovies at Vizhinjam.

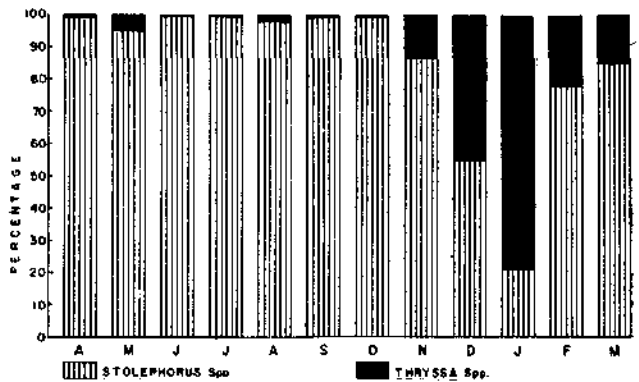


Fig. 23. Monthwise composition of *Stolephorus* and *Thyssa* in indigenous gears at Vizhinjam.

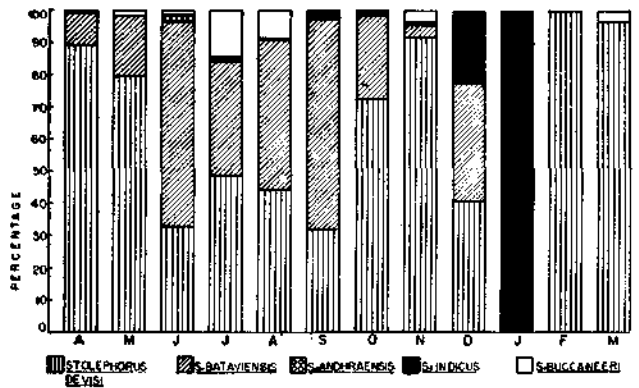


Fig. 24. Monthwise species composition of anchovies in indigenous gears at Vizhinjam.

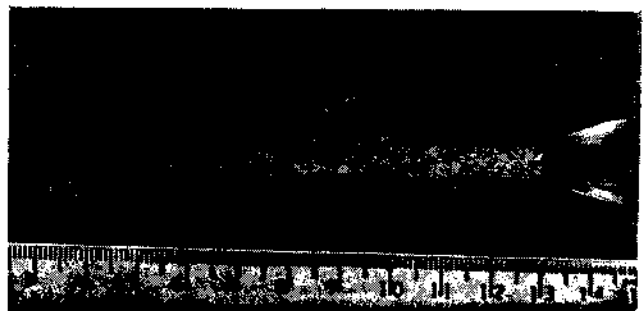


Fig. 25. *Stolephorus indicus*.



Scientific Name : *Stolephorus indicus*  
 Vernacular Name : 'Netholi'  
 Gear : Boat seine/Shore seine/Netholi vala (Gill net)  
 Peak period of occurrence : Aug. - Oct.  
 Depth of occurrence : 5 - 15 m  
 Length range in commercial fishery : 70 - 149 mm  
 Size at first maturity : 120 mm  
 Spawning season : Oct. - Jun.

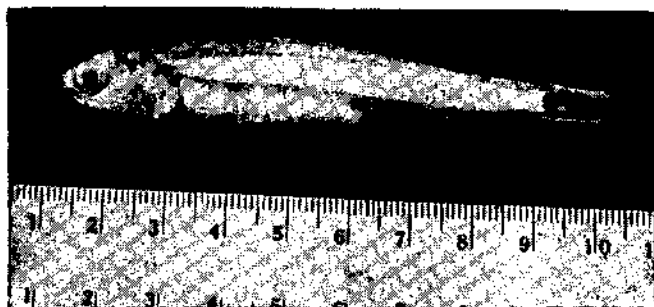


Fig. 26. *Stolephorus devisi*.

Scientific Name : *Stolephorus devisi*  
 Vernacular Name : 'Netholi'  
 Gear : Netholi vala/Boat seine/Shore seine  
 Peak period of occurrence : Apr. - Nov.  
 Depth of occurrence : 5 - 15 m  
 Length range in commercial fishery : 30 - 140 mm  
 Size at first maturity : 60 mm  
 Spawning season : Extended spawner



Fig. 27. *Stolephorus bataviensis*.

Scientific Name : *Stolephorus bataviensis*  
 Vernacular Name : 'Manja netholi'  
 Gear : Netholi vala/Boat seine/Shore seine  
 Peak period of occurrence : May - Oct.

Depth of occurrence : Upto 15 m  
 Length range in commercial fishery : 45 - 109 mm  
 Size at first maturity : 75 mm  
 Spawning season : Extended spawner

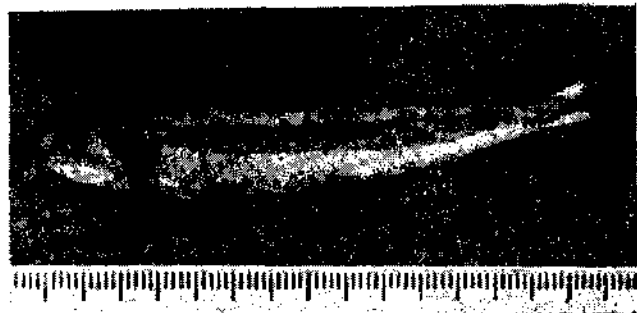


Fig. 28. *Stolephorus buccaneeri*.

Scientific Name : *Stolephorus buccaneeri*  
 Vernacular Name : 'Karu netholi'  
 Gear : Netholi vala/Boat seine/Shore seine  
 Peak period of occurrence : Jul. - Aug.  
 Depth of occurrence : 5 - 15 m  
 Length range in commercial fishery : 30 - 99 mm  
 Size at first maturity : 45 mm  
 Spawning season : Oct. - Jun.

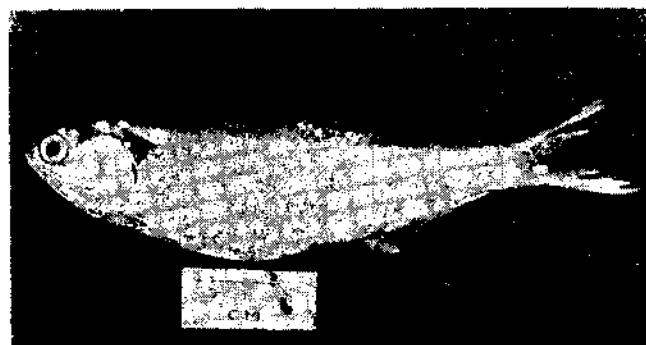


Fig. 29. *Thyssa mystax*.

Scientific Name : *Thyssa mystax*  
 Vernacular Name : 'Kootal'  
 Gear : Shore seine/Boat seine/Konchu vala/Chala vala  
 Peak period of occurrence : —  
 Depth of occurrence : —

Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

Annual average catch : 30.9 t  
 Percentage in total catch : 0.48  
 Fishing methods and their contribution : Hooks & line: 0.42%  
 Drift net: 0.06%

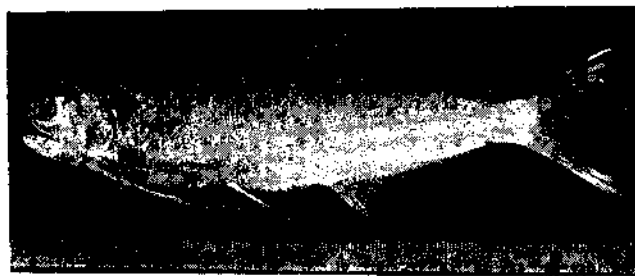


Fig. 30. *Thyssa setirostris*.

Scientific Name : *Thyssa setirostris*  
 Vernacular Name : 'Kootal'  
 Gear : Shore seine/Boat seine/Konchu vala/Chala vala  
 Peak period of occurrence : May, Aug. and Dec.  
 Depth of occurrence : Upto 30 m  
 Length range in commercial fishery : 85 – 170 mm  
 Size at first maturity : —  
 Spawning season : Nov. -Dec.

#### HEMIRAMPHIDAE

Popular English Name : Half-beak  
 Vernacular Name (Malayalam) : 'Kolachi'/ 'Ottachundan kola'  
 Annual average catch : 2.6 t  
 Percentage in total catch : 0.04  
 Fishing methods and their contribution : Kolachi vala: 0.04%

#### HOLOCENTRIDAE

Popular English Name : Squirrel fish  
 Vernacular Name (Malayalam) : 'Katantha mulli'  
 Annual average catch : 0.3 t  
 Percentage in total catch : —  
 Fishing methods and their contribution : Hooks & line/ Drift net: —

#### ISTIOPHORIDAE

Popular English Name : Sail-fish  
 Vernacular Name (Malayalam) : 'Thala'

#### LACTARIDAE

Popular English Name : White fish  
 Vernacular Name (Malayalam) : 'Parava'  
 Annual average catch : 12.6 t  
 Percentage in total catch : 0.20  
 Fishing methods and their contribution : Boat seine: 0.17%  
 Konchu vala: 0.03%

#### LEIOGNATHIDAE

Popular English Name : Silver bellies  
 Vernacular Name (Malayalam) : 'Kara'  
 Annual average catch : 167.7 t  
 Percentage in total catch : 3.95  
 Fishing methods and their contribution : Boat seine: 3.39%  
 Shore seine: 0.12%  
 Chala vala: 0.37%  
 Konchu vala: 0.07%

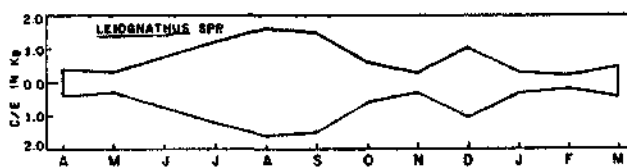


Fig. 31. Seasonal abundance of silver bellies at Vizhinjam.

#### LETHRINIDAE

Popular English Name : Pigface-breams/ Emperor-breams  
 Vernacular Name (Malayalam) : 'Velameen'  
 Annual average catch : 37.8 t  
 Percentage in total catch : 0.59  
 Fishing methods and their contribution : Hooks & line: 0.34%  
 Drift net: 0.21%  
 Boat seine: 0.03%

**LUTJANIDAE**

Popular English Name : Snapper job fishes  
 Vernacular Name (Malayalam) : 'Chempalli'  
 Annual average catch : 33.2 t  
 Percentage in total catch : 0.52  
 Fishing methods and their contribution : Hooks & line: 0.31%  
 Drift net: 0.14%  
 Konchu vala: 0.04%  
 Boat seine: 0.02%

**MENIDAE**

Popular English Name : Moon fishes  
 Vernacular Name (Malayalam) : 'Kannadi karal'  
 Annual average catch : 1.9 t  
 Percentage in total catch : 0.03  
 Fishing methods and their contribution : Boat seine: 0.03%

**MUGILIDAE**

Popular English Name : Mulletts  
 Vernacular Name (Malayalam) : 'Mala'/'Kanambu'  
 Annual average catch : 24.1 t  
 Percentage in total catch : 0.38  
 Fishing methods and their contribution : Boat seine: 0.37%

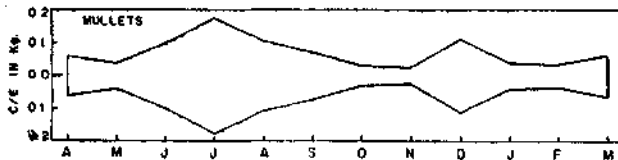


Fig. 32. Seasonal abundance of mullets at Vizhinjam.

**MULLIDAE**

Popular English Name : Goat fishes  
 Vernacular Name (Malayalam) : 'Nakara'/'Kilivarnadu'  
 Annual average catch : 5.5 t  
 Percentage in total catch : 0.09  
 Fishing methods and their contribution : Boat seine: 0.05%  
 Konchu vala: 0.04%

**NEMIPTERIDAE**

Popular English Name : Threadfin bream  
 Vernacular Name (Malayalam) : 'Kilimeen'  
 Annual average catch : 167.7 t  
 Percentage in total catch : 2.63  
 Fishing methods and their contribution : Hooks & line: 2.55%  
 Boat seine: 0.05%  
 Gill net: 0.04%

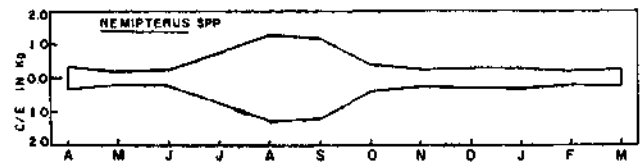


Fig. 33. Seasonal abundance of threadfin breams at Vizhinjam.

**PLATYCEPHALIDAE**

Popular English Name : Flat-heads  
 Vernacular Name (Malayalam) : 'Oratha'  
 Annual average catch : 27.8 t  
 Percentage in total catch : 0.44  
 Fishing methods and their contribution : Konchu vala: 0.39%  
 Hooks & line: 0.02%  
 Boat seine: 0.01%  
 Drift net: 0.03%

**POMADASYIDAE**

Popular English Name : Grunters  
 Vernacular Name (Malayalam) : 'Cheymeen'  
 Annual average catch : 5.1 t  
 Percentage in total catch : 0.08  
 Fishing methods and their contribution : Hooks & line: 0.01%  
 Konchu vala: 0.06%  
 Boat seine: 0.01%

**PRACANTHIDAE**

Popular English Name : Bull's eye  
 Vernacular Name (Malayalam) : 'Kanna pola'  
 Annual average catch : 29.8 t  
 Percentage in total catch : 0.47

Fishing methods and their contribution : Drift net: 0.20%  
Hooks & line: 0.27%

**SCIAENIDAE**

Popular English Name : Croackers  
 Vernacular Name (Malayalam) : 'Tora'  
 Annual average catch : 96.5 t  
 Percentage in total catch : 1.51  
 Fishing methods and their contribution : Boat seine: 1.07%  
 Shore seine: 0.04%  
 Hooks & line: 0.07%  
 Konchu vala: 0.33%

**SCOMBRIDAE**

Popular English Name : Tunas/Seer fishes/  
Mackerel  
 Vernacular Name (Malayalam) : 'Chooru'/'Neimeen'/  
'Ayila'  
 Annual average catch : 1,172.6 t  
 Percentage in total catch : 18.4  
 Fishing methods and their contribution : Hooks & line: 9.7%  
 Drift net: 8.4%  
 Konchu vala: 0.2%  
 Shore seine: 0.1%

**TUNAS**

Popular English Name : Tuna  
 Vernacular Name (Malayalam) : 'Chooru'  
 Annual average catch : 802.4 t  
 Percentage in total catch : 12.58  
 Fishing methods and their contribution : Hooks & line: 8.9%  
 Drift net: 3.7%

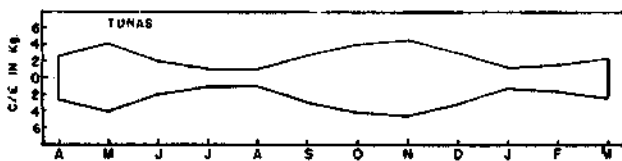


Fig. 34. Seasonal abundance of tunas at Vizhinjam.

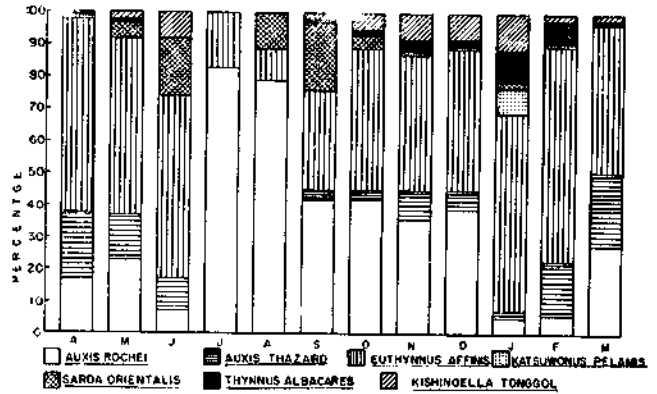


Fig. 35. Monthwise species composition of tunas in indigenous gears at Vizhinjam.

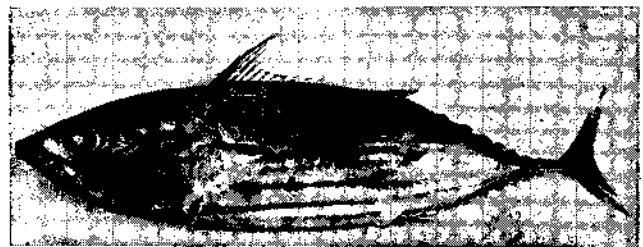


Fig. 36. *Katsuwonus pelamis*.

Scientific Name : *Katsuwonus pelamis*  
 Vernacular Name : 'Varichooru'  
 Gear : Hooks & line/  
 Drift net  
 Peak period of occurrence : Jan.  
 Depth of occurrence : 40-60 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —



Fig. 37. *Thunnus albacares*.

Scientific Name : *Thunnus albacares*  
 Vernacular Name : 'Paduvattu choora'  
 Gear : Hooks & line/  
 Drift net

Peak period of occurrence : Oct. - Feb.  
 Depth of occurrence : 40 - 60 m  
 Length range in commercial fishery : 400 - 800 mm  
 Size at first maturity : —  
 Spawning season : —



Fig. 38. *Euthynnus affinis*.

Scientific Name : *Euthynnus affinis*  
 Vernacular Name : 'Kerachoorā'  
 Gear : Hooks & line/  
 Drift net  
 Peak period of occurrence : Sep. - Jun.  
 Depth of occurrence : 40 - 60 m  
 Length range in commercial fishery : 280 - 720 mm  
 Size at first maturity : —  
 Spawning season : —

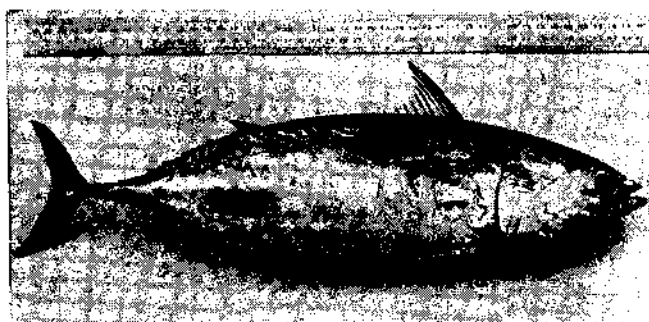


Fig. 39. *Auxis thazard*.

Scientific Name : *Auxis thazard*  
 Vernacular Name : 'Elichoorā'  
 Gear : Hooks & line/  
 Drift net  
 Peak period of occurrence : Feb. - Jun. and  
 Sep. - Dec.  
 Depth of occurrence : 40 - 60 m  
 Length range in commercial fishery : 260 - 400 mm

Size at first maturity : —  
 Spawning season : —



Fig. 40. *Auxis rochei*.

Scientific Name : *Auxis rochei*  
 Vernacular Name : 'Urulan choora'  
 Gear : Hooks & line/  
 Drift net  
 Peak period of occurrence : Jul. - Dec.  
 Depth of occurrence : 30 - 60 m  
 Length range in commercial fishery : 180 - 280 mm  
 Size at first maturity : —  
 Spawning season : —

#### SEER FISHES

Popular English Name : Seer fishes  
 Vernacular Name (Malayalam) : 'Neimeen'  
 Annual average catch : 144.7 t  
 Percentage in total catch : 2.27  
 Fishing methods and their contribution : Drift net: 2.20%  
 Hooks & line: 0.01%

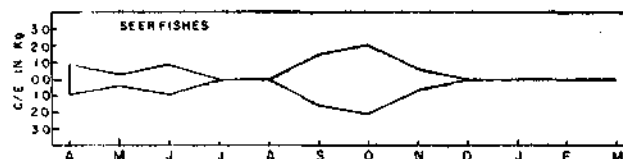


Fig. 41. Seasonal abundance of seer fishes at Vizhinjam.

#### MACKEREL

Popular English Name : Indian mackerel  
 Vernacular Name (Malayalam) : 'Ayila'  
 Annual average catch : 225.5 t  
 Percentage in total catch : 3.54

Fishing methods and their contribution : Drift net : 2.60%  
 Konchu vala: 0.17%  
 Hooks & line: 0.80%  
 Shore seine: 0.05%  
 Boat seine: 0.05%

Fishing methods and their contribution : Drift net: 0.05%  
 Hooks & line: 0.13%  
 Boat seine: 0.05%

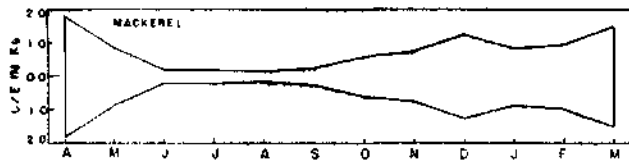


Fig. 42. Seasonal abundance of mackerel at Vizhinjam.

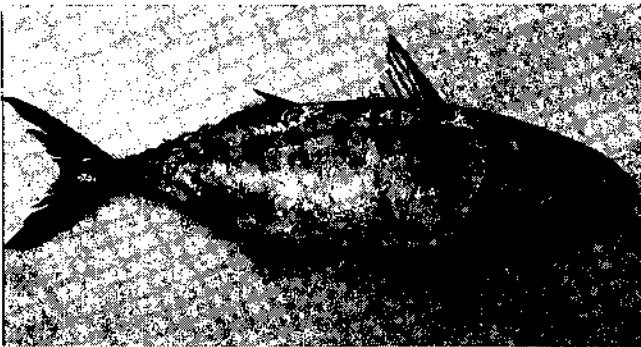


Fig. 43. *Rastrelliger kanagurta*.

Scientific Name : *Rastrelliger kanagurta*  
 Vernacular Name : 'Ayila'  
 Gear : Hooks & line/  
 Shore seine/Boat seine/Drift net/  
 Chala vala/  
 Konchu vala  
 Peak period of occurrence : Nov. - May  
 Depth of occurrence : Upto 60 m  
 Length range in commercial fishery : 65 - 300 mm  
 Size at first maturity : —  
 Spawning season : Mar. - Jun. and Sep. - Oct.

SERRANIDAE

Popular English Name : Rock cods  
 Vernacular Name (Malayalam) : 'Kalava'  
 Annual average catch : 14.7 t  
 Percentage in total catch : 0.23

SILLAGINIDAE

Popular English Name : Whiting  
 Vernacular Name (Malayalam) : 'Kilimeen'  
 Annual average catch : 11.8 t  
 Percentage in total catch : 0.18  
 Fishing methods and their contribution : Boat seine: 0.18%

SPHYRAENIDAE

Popular English Name : Barracudas  
 Vernacular Name (Malayalam) : 'Seelavu'/'Neduva'  
 Annual average catch : 61.0 t  
 Percentage in total catch : 0.95  
 Fishing methods and their contribution : Drift net: 0.43%  
 Chala vala: 0.08%  
 Hooks & line: 0.09%  
 Boat seine: 0.33%  
 Shore seine: 0.01%

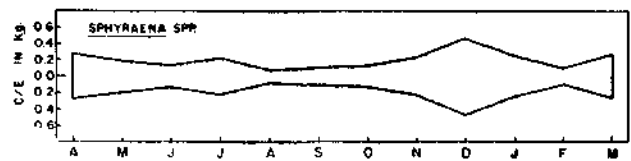


Fig. 44. Seasonal abundance of barracudas at Vizhinjam.

STROMATEIDAE

Popular English Name : Pomfrets  
 Vernacular Name (Malayalam) : 'Avoli'  
 Annual average catch : 14.6 t  
 Percentage in total catch : 0.23  
 Fishing methods and their contribution : Boat seine : 0.09%  
 Drift net : 0.14%

SYNODONTIDAE

Popular English Name : Lizard fishes  
 Vernacular Name (Malayalam) : 'Arana meen'  
 Annual average catch : 41.6 t  
 Percentage in total catch : 0.65

Fishing methods and their contribution : Hooks & line: 0.51%  
 Konchu vala: 0.09%  
 Chala vala: 0.04%  
 Boat seine: 0.01%

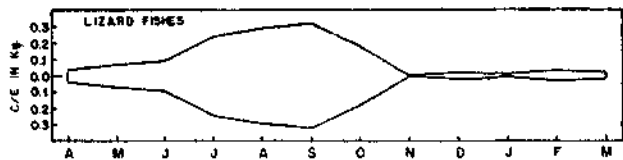


Fig. 45. Seasonal abundance of lizard fishes at Vizhinjam.

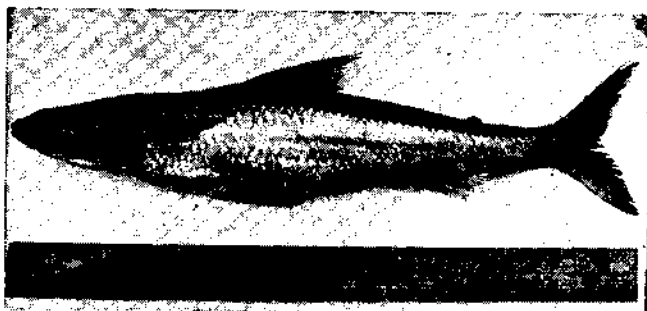


Fig. 46. *Saurida tumbil*.

Scientific Name : *Saurida tumbil*  
 Vernacular Name : 'Arana meen'  
 Gear : Hooks & line/  
 Chala vala/  
 Konchu vala  
 Peak period of occurrence : Jul. - Aug.  
 Depth of occurrence : 20 - 40 m  
 Length range in commercial fishery : 130 - 349 mm  
 Size at first maturity : —  
 Spawning season : Aug. - Sep.

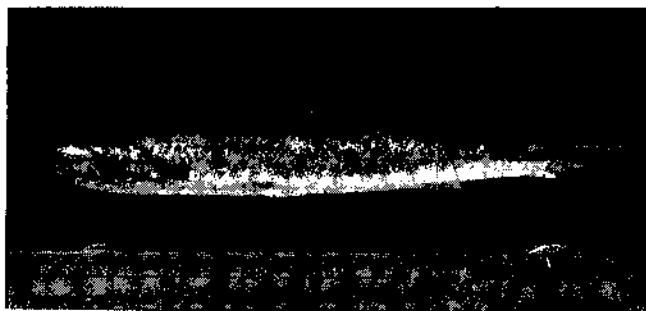


Fig. 47. *Saurida undosquamis*.

Scientific Name : *Saurida undosquamis*  
 Vernacular Name : 'Arana meen'  
 Gear : Chala vala/  
 Konchu vala/  
 Hooks & line  
 Peak period of occurrence : Feb. - Mar.,  
 May - Jun. and  
 Sep. - Oct.  
 Depth of occurrence : 20 - 40 m  
 Length range in commercial fishery : 50 - 329 mm  
 Size at first maturity : —  
 Spawning season : Aug. - Sep.

#### TACHYSURIDAE

Popular English Name : Cat fishes  
 Vernacular Name (Malayalam) : 'Thedu'  
 Annual average catch : 85.4 t  
 Percentage in total catch : 1.34  
 Fishing methods and their contribution : Drift net : 0.26%  
 Hooks & line: 0.74%  
 Boat seine : 0.30%  
 Konchu vala: 0.04%

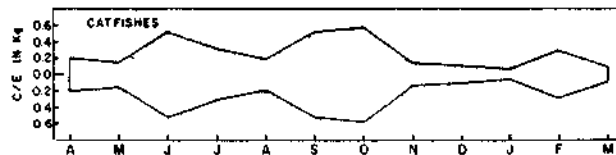


Fig. 48. Seasonal abundance of cat fishes at Vizhinjam.

#### THERAPONIDAE

Popular English Name : Thorn fish/  
 Crescent perch  
 Vernacular Name (Malayalam) : 'Keeli'  
 Annual average catch : 25.5 t  
 Percentage in total catch : 0.40  
 Fishing methods and their contribution : Hooks & line: 0.19%  
 Drift net: 0.02%  
 Konchu vala: 0.16%  
 Boat seine: 0.03%

TRICHIURIDAE

Popular English Name : Ribbon fishes  
 Vernacular Name (Malayalam) : 'Vaala'/'Chunnambu vaala'  
 Annual average catch : 1698.8 t  
 Percentage in total catch : 26.65  
 Fishing methods and their contribution  
     Boat seine: 25.80%  
     Hooks & line: 0.43%  
     Drift net: 0.43%



Fig. 50. *Trichiurus lepturus*.

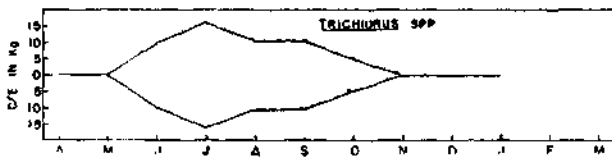


Fig. 49. Seasonal abundance of ribbon fishes at Vizhinjam.

Scientific Name : *Trichiurus lepturus*  
 Vernacular Name : 'Chunnambu vaala'  
 Gear : Boat seine  
 Peak period of occurrence : Jun. - Sep.  
 Depth of occurrence : 15 - 40 m  
 Length range in commercial fishery : 640 - 1130 mm  
 Size at first maturity : —  
 Spawning season : Jul. - Sep.

