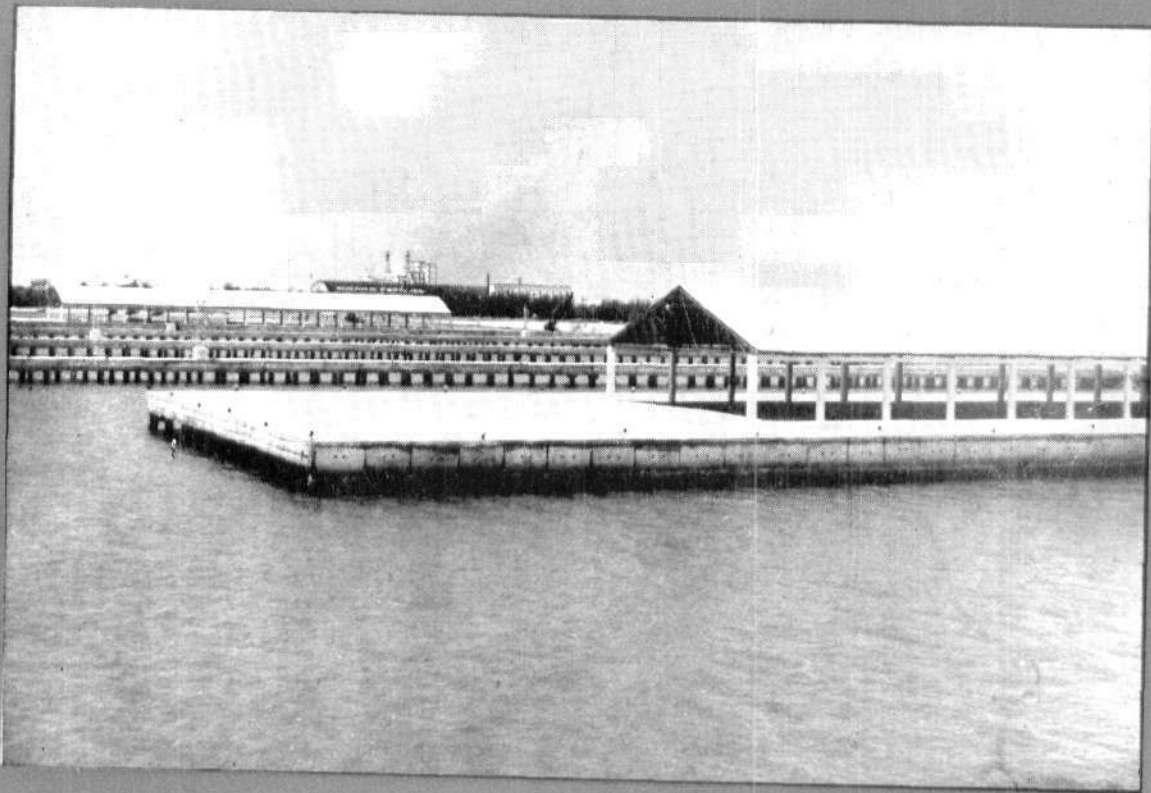




# MARINE FISHERIES INFORMATION SERVICE



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CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

COCHIN, INDIA

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

# MARINE FISH CALENDAR

## V. KAKINADA\*

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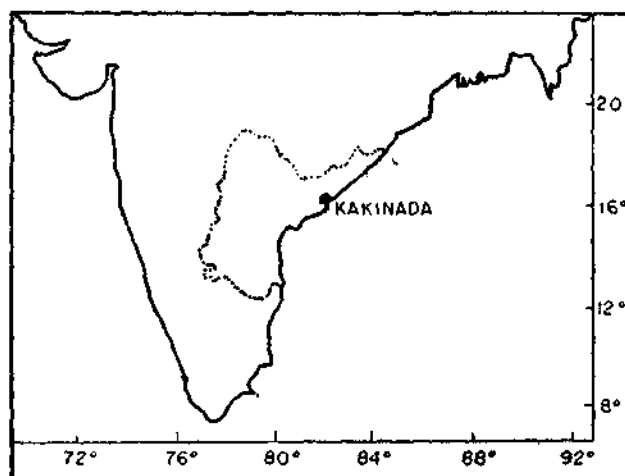
### Introduction

The Research Centre of the Central Marine Fisheries Research Institute at Kakinada has been carrying out investigations on various exploited marine fisheries resources of the region. As a part of these investigations, data on effort and catches of different groups of fishes have been collected from important landing centres. Commercial trawling off Kakinada was started in 1964 and since then, monitoring of catches has been carried out on a regular basis and the details of effort and catches of different groups during the period 1969-'78 were published (*Mar. Fish. Infor. Serv., T & E Ser., No. 31, 1981*). The mechanised boats use shrimp trawl with a cod end mesh size of 15-20 mm and there is fishing round the year.

Data of the period 1981-'85 from the trawlers and 1980-'82 from indigenous gear and published information on different species from Kakinada are used for the present fish calendar. Data on effort and catch from each gear separately, of the corresponding months are pooled and the catch per unit (boat/gear) effort for each month calculated. The data are analysed separately for trawl catch from Kakinada and gill net catch from Uppada. The data of shore seine, boat seine and drag net from Uppada are pooled and considered under the head "other units".

Since a great majority of fish families are represented by several species, data on catches are collected family-wise. In the case of dominant families, however, detailed data on species composition and biology of dominant species are available. In such cases information pertaining to different species is provided in the Calendar. In case where information on species

is not available, group-wise data under respective families are given. In certain cases family-wise data are not available and in these cases information on 2-3 closely related families are given together.



### CARANGIDAE

Popular English Name	:	Scad/Horse mackerel/ Trevallies
Vernacular Name (Telugu)	:	'Paralu'/'Pilladugulu'
Annual average catch	:	1,779 t
Percentage in total catch	:	13.8
Fishing methods and their contribution	:	Trawl net : 10.2% Gill net : 3.5% Other units : 5.5%

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

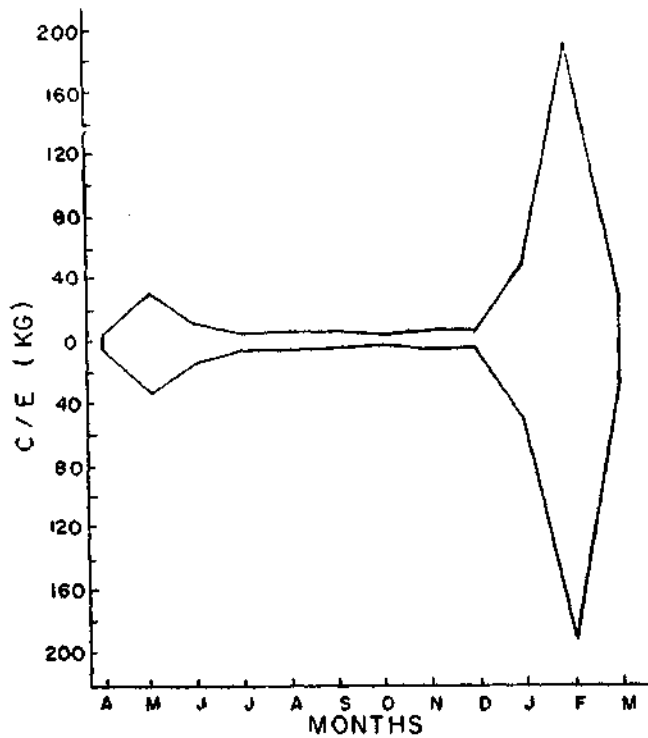


Fig. 1. Seasonal abundance of carangids in trawl catch.



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

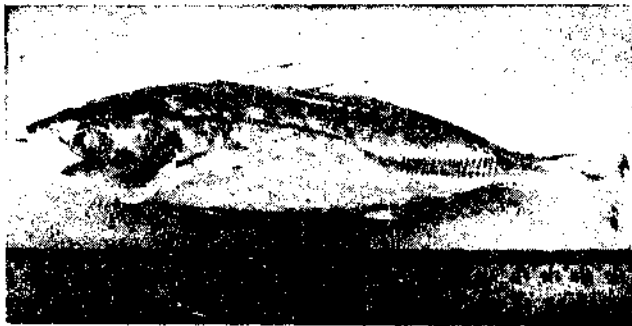


Fig. 3. *Decapterus russelli*.

Scientific Name : *Decapterus russelli*  
 Vernacular Name : 'Pilladugulu'  
 Gear : Trawl net

Percentage in the catch of the group : 83.0  
 Peak period of occurrence : Jan. - Apr.  
 Depth of occurrence : 10 - 80 m  
 Length range in commercial fishery : 52 - 217 mm  
 Size at first maturity : 150 mm  
 Spawning season : Dec. - Jun.

#### CARCHARHINIDAE

Popular English Name : Sharks  
 Vernacular Name (Telugu) : 'Sorraflu'  
 Annual average catch : 253 t  
 Percentage in total catch : 2.0  
 Fishing methods and their contribution : Gill net : 13.2%  
 Trawl net : 0.3%  
 Peak period of occurrence : Feb. - May and Oct. - Nov.  
 Depth of occurrence : 5 - 50 m



Fig. 4. Seasonal abundance of sharks in trawl catch.

#### CHIROCENTRIDAE

Popular English Name : Wolf herring  
 Vernacular Name (Telugu) : 'Mulluvala'  
 Annual average catch : 54 t  
 Percentage in total catch : 0.4  
 Fishing methods and their contribution : Gill net : 3.6%  
 Peak period of occurrence : Jul. - Sep.  
 Depth of occurrence : 3 - 70 m

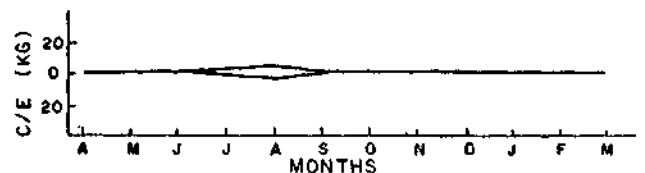


Fig. 5. Seasonal abundance of wolf herrings in gill net catch.

CLUPEIDAE

Popular English Name : Sardines/Lesser sardines/  
Shad  
Vernacular Name (Telugu) : 'Kavallu'  
Annual average catch : 462 t  
Percentage in total catch : 3.6  
Fishing methods and  
their contribution : Gill net : 11.5%  
Trawl net : 1.6%  
Other gears : 4.0%  
Peak period of occurrence : Jan. - Nov.  
Depth of occurrence : 1 - 60 m

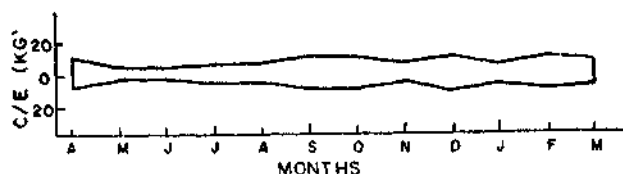


Fig. 6. Seasonal abundance of *Thyrysa* in trawl catch.

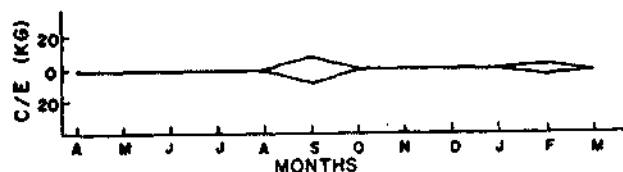


Fig. 7. Seasonal abundance of *Thyrysa* in other units.

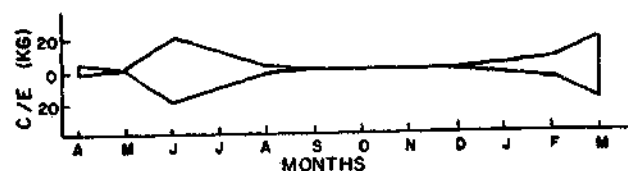


Fig. 8. Seasonal abundance of lesser sardines in trawl catch.

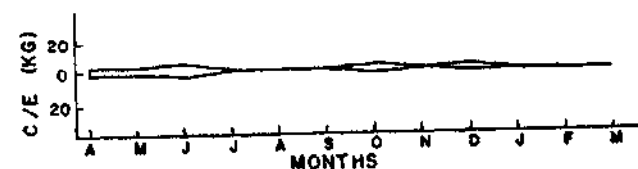


Fig. 9. Seasonal abundance of lesser sardines in gill net catch.

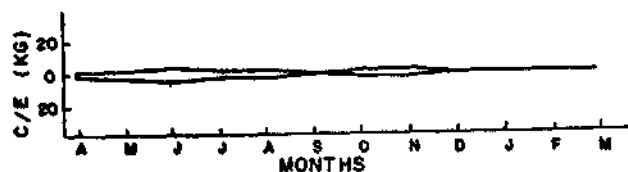


Fig. 10. Seasonal abundance of shads in gill net catch.

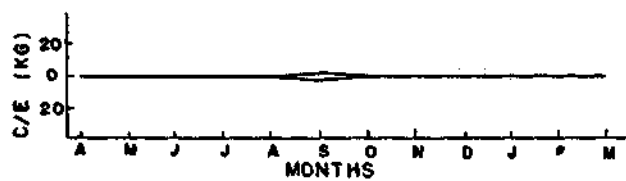


Fig. 11. Seasonal abundance of other clupeids in gill net catch.

CYNOGLOSSIDAE, SOLEIDAE, PSETTODIDAE AND BOTHIDAE

Popular English Name : Flat fish  
Vernacular Name (Telugu) : 'Tamnaratta'  
Annual average catch : 318 t  
Percentage in total catch : 2.5  
Fishing methods and  
their contribution : Trawl net : 1.9%  
Peak period of occurrence : Dec. - May  
Depth of occurrence : 5 - 50 m

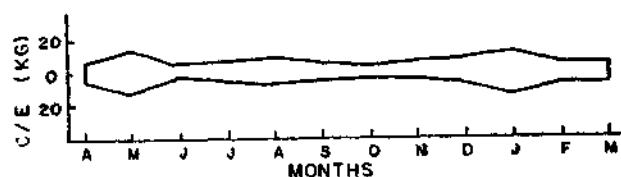


Fig. 12. Seasonal abundance of flat fishes in trawl catch.



Fig. 13. *Psettodes erumei*.

Scientific Name : *Psettodes erumei*  
Vernacular Name : 'Yeddunalika'  
Gear : Trawl net  
Percentage in the catch  
of the group : 100  
Peak period of occurrence : Dec. - Feb.  
Depth of occurrence : 5 - 50 m  
Length range in  
commercial fishery : —  
Size at first maturity : —  
Spawning season : —

**DUSSUMIERIDAE**

Popular English Name : Rainbow sardine  
 Vernacular Name (Telugu) : 'Moravalu'  
 Annual average catch : 20 t  
 Percentage in total catch : 0.1  
 Fishing methods and their contribution : Gill net : 1.1%  
 Other units : 0.9%



Fig. 14. *Dussumieria acuta*.

Scientific Name : *Dussumieria acuta*  
 Vernacular Name : 'Moravalu'  
 Gear : Gill net/Other units  
 Percentage in the catch of the group : 100  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : Upto 50 m  
 Length range in commercial fishery : ---  
 Size at first maturity : ---  
 Spawning season : ---

**ENGRAULIDAE**

Popular English Name : White bait/Anchovies  
 Vernacular Name (Telugu) : 'Nettallu'/'Poravalu'  
 Annual average catch : 1,104 t  
 Percentage in total catch : 8.6  
 Fishing methods and their contribution : Trawl net : 6.1%  
 Gill net : 2.0%  
 Other units : 12.5%

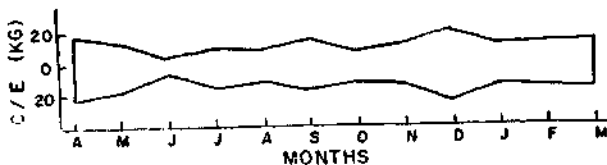


Fig. 15. Seasonal abundance of white bait in trawl catch.

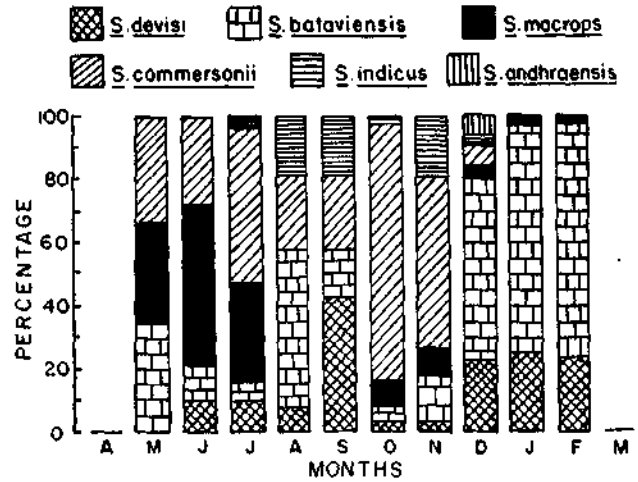


Fig. 16. Monthwise species composition of white bait in trawl catch.

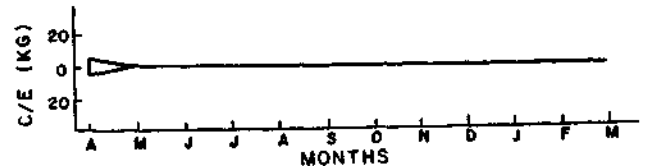


Fig. 17. Seasonal abundance of white bait in other units.

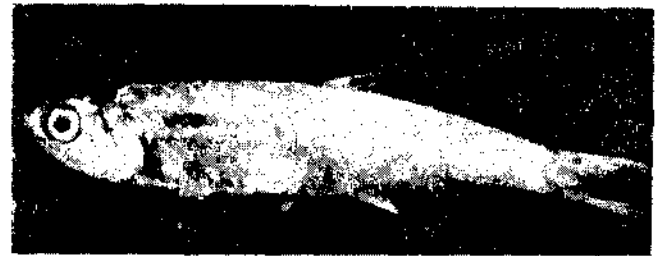


Fig. 18. *Stolephorus bataviensis*.

Scientific Name : *Stolephorus bataviensis*  
 Vernacular Name : 'Nettallu'  
 Gear : Trawl net/Gill net/  
 Other units

Percentage in the catch of the group : 41.1  
 Peak period of occurrence : Jan.-May and Jul.-Sep.  
 Depth of occurrence : Upto 50 m  
 Length range in commercial fishery : 40 - 109 mm  
 Size at first maturity : ---  
 Spawning season : ---

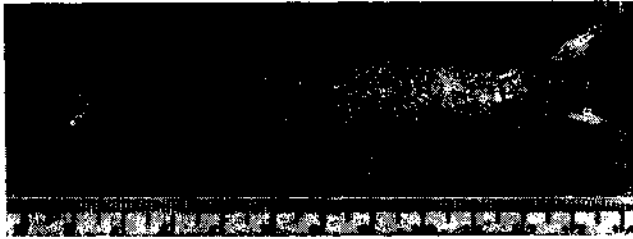


Fig. 19. *Stolephorus commersonii*.

Scientific Name : *Stolephorus commersonii*  
 Vernacular Name : 'Nettallu'  
 Gear : Trawl net/Gill net/  
 Other units  
 Percentage in the catch  
 of the group : 23.4  
 Peak period of occurrence : Jan.-May and Jul.-Sep.  
 Depth of occurrence : Upto 50 m  
 Length range in  
 commercial fishery : 70 - 139 mm  
 Size at first maturity : —  
 Spawning season : —

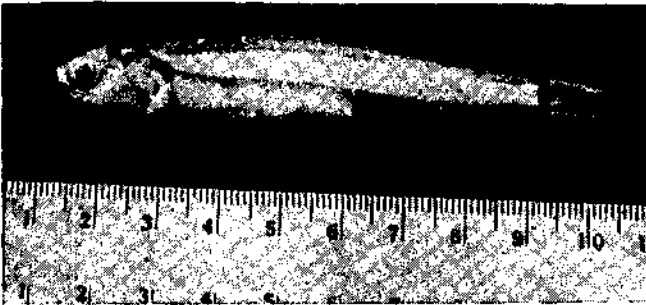


Fig. 20. *Stolephorus devisi*.

Scientific Name : *Stolephorus devisi*  
 Vernacular Name : 'Nettallu'  
 Gear : Trawl net/Gill net/  
 Other units  
 Percentage in the catch  
 of the group : 15.9  
 Peak period of occurrence : Jan.-May and Jul.-Sep.  
 Depth of occurrence : Upto 50 m  
 Length range in  
 commercial fishery : 55 - 94 mm  
 Size at first maturity : —  
 Spawning season : —

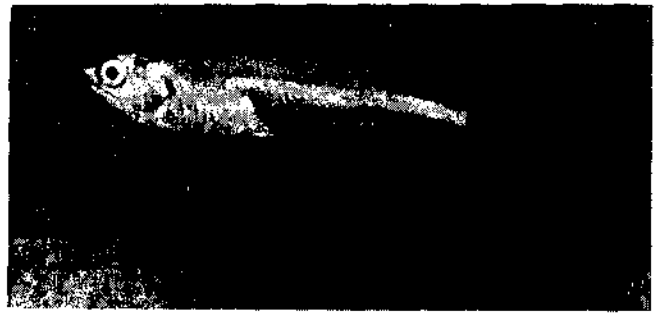


Fig. 21. *Stolephorus macrops*.

Scientific Name : *Stolephorus macrops*  
 Vernacular Name : 'Nettallu'  
 Gear : Trawl net/Gill net/  
 Other units  
 Percentage in the catch  
 of the group : 15.0  
 Peak period of occurrence : Jan.-May and Jul.-Sep.  
 Depth of occurrence : Upto 50 m  
 Length range in  
 commercial fishery : 50 - 100 mm  
 Size at first maturity : —  
 Spawning season : —

#### HARPODONTIDAE

Popular English Name : Bombay duck  
 Vernacular Name (Telugu) : 'Vanamattalu'  
 Annual average catch : 155 t  
 Percentage in total catch : 1.2  
 Fishing methods and  
 their contribution : Trawl net : 0.9%  
 Gill net : 0.4%  
 Other units : 0.3%



Fig. 22. Seasonal abundance of Bombay duck in trawl catch.

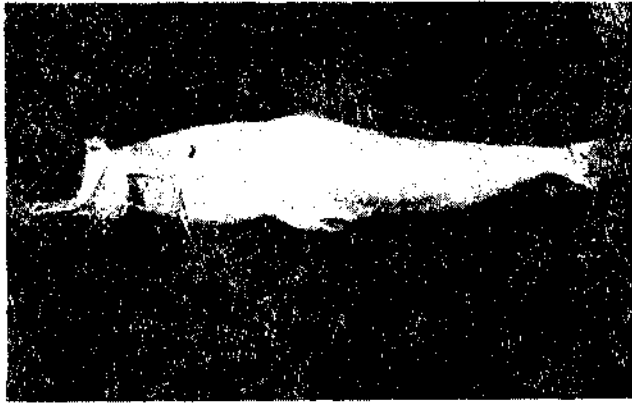


Fig. 23. *Harpodon nehereus*.

Scientific Name : *Harpodon nehereus*  
 Vernacular Name : 'Vanamattalu'  
 Gear : Trawl net/Gill net/  
 Other units  
 Percentage in the catch  
 of the group : 100  
 Peak period of occurrence : May - Oct.  
 Depth of occurrence : Upto 60 m  
 Length range in  
 commercial fishery : 170 - 300 mm  
 Size at first maturity : —  
 Spawning season : —

LACTARIDAE

Popular English Name : White fish  
 Vernacular Name (Telugu) : 'Sudumulu'  
 Annual average catch : 85 t  
 Percentage in total catch : 0.7  
 Fishing methods and  
 their contribution : Trawl net : 0.5%



Fig. 24. Seasonal abundance of *Lactarius* in trawl catch.

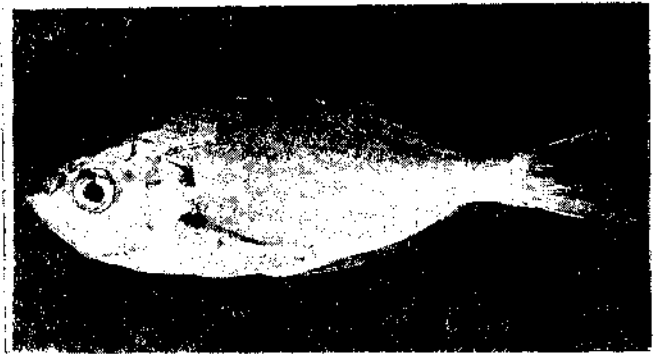


Fig. 25. *Lactarius lactarius*.

Scientific Name : *Lactarius lactarius*  
 Vernacular Name : 'Sudumulu'  
 Gear : Trawl net  
 Percentage in the catch  
 of the group : 100  
 Peak period of occurrence : Jul. - Sep.  
 Depth of occurrence : 5 - 50 m  
 Length range in  
 commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

LEIOGNATHIDAE

Popular English Name : Silver bellies/Pony fish  
 Vernacular Name (Telugu) : 'Karalu'  
 Annual average catch : 1,347 t  
 Percentage in total catch : 10.5  
 Fishing methods and  
 their contribution : Trawl net : 7.9%  
 Other units : 6.7%

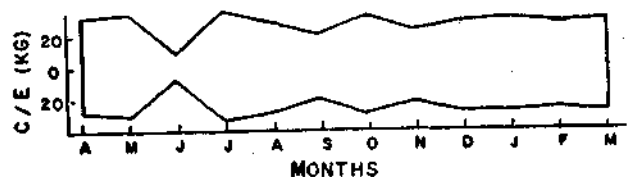


Fig. 26. Seasonal abundance of silver bellies in trawl catch.

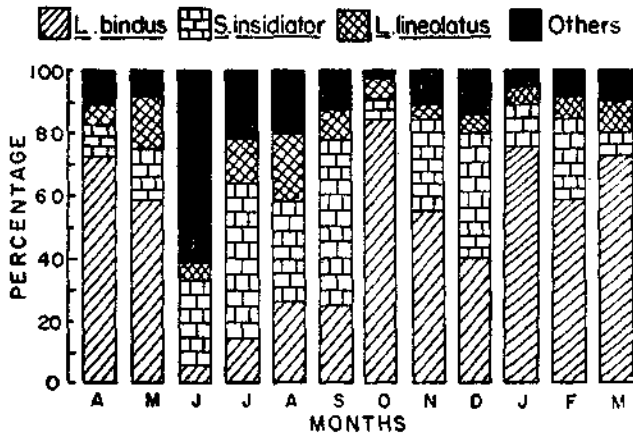


Fig. 27. Monthwise species composition of silver bellies in trawl net.



Fig. 28. Seasonal abundance of silver bellies in gill net catch.

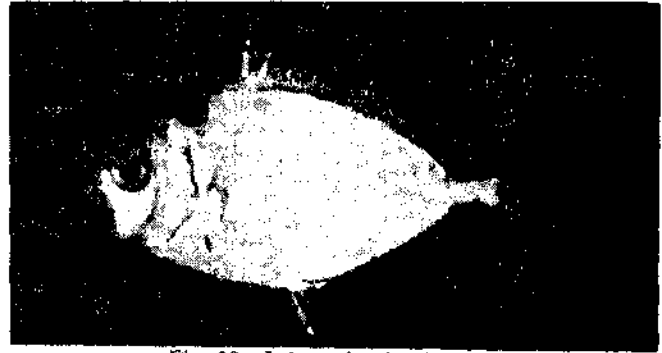


Fig. 30. *Leiognathus brevirostris*.

Scientific Name	: <i>Leiognathus brevirostris</i>
Vernacular Name	: 'Karalu'
Gear	: Trawl net/Other units
Percentage in the catch of the group	: 4.4
Peak period of occurrence	: Feb., Jun., Jul. and Nov.
Depth of occurrence	: 5 - 50 m
Length range in commercial fishery	: 60 - 105 mm
Size at first maturity	: ---
Spawning season	: ---



Fig. 29. *Leiognathus bindus*.

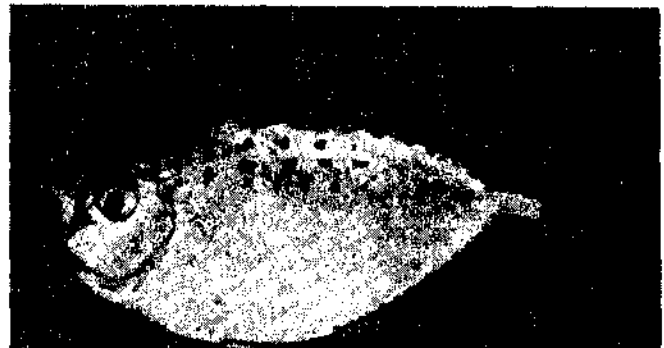


Fig. 31. *Secutor insidiator*.

Scientific Name	: <i>Leiognathus bindus</i>
Vernacular Name	: 'Karalu'
Gear	: Trawl net/Other units
Percentage in the catch of the group	: 45.2
Peak period of occurrence	: Jan.-May and Oct.-Dec.
Depth of occurrence	: 5 - 50 m
Length range in commercial fishery	: 17 - 129 mm
Size at first maturity	: 80 mm
Spawning season	: Dec. - Feb.

Scientific Name	: <i>Secutor insidiator</i>
Vernacular Name	: 'Chukka karalu'
Gear	: Trawl net/Other units
Percentage in the catch of the group	: 30.0
Peak period of occurrence	: Jun. - Sep.
Depth of occurrence	: 5 - 50 m
Length range in commercial fishery	: 20 - 117 mm
Size at first maturity	: 90 mm
Spawning season	: Jan. - Mar.



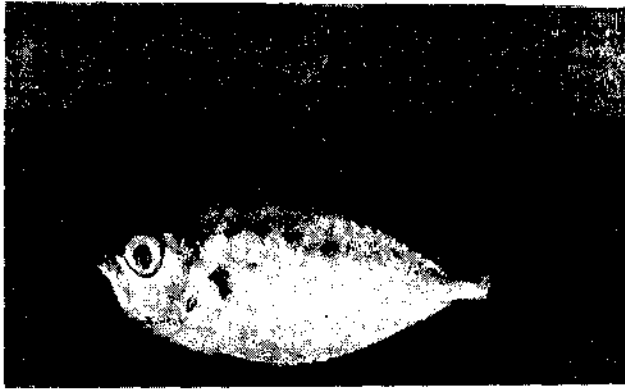


Fig. 32. *Gazza minuta*.

Scientific Name : *Gazza minuta*  
 Vernacular Name : 'Karalu'  
 Gear : Trawl net/Other units  
 Percentage in the catch of the group : 4.7  
 Peak period of occurrence : May, Aug. and Dec.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 62 - 137 mm  
 Size at first maturity : —  
 Spawning season : —

LUTJANIDAE, SERRANIDAE AND POMADASYIDAE

Popular English Name : Snappers/Reef cods/  
 Grunters  
 Vernacular Name (Telugu) : 'Erragorasa'/  
 'Rathibontha'/'Goraka'  
 Annual average catch : 427 t  
 Percentage in total catch : 3.3  
 Fishing methods and their contribution : Trawl net : 2.5%  
 Peak period of occurrence : Feb., May and Jul.  
 Depth of occurrence : 5 - 50 m

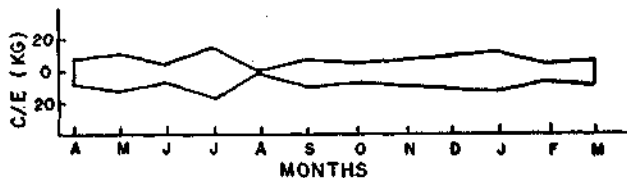


Fig. 33. Seasonal abundance of perches (Lutjanidae, Serranidae etc.) in trawl catch.

MULLIDAE

Popular English Name : Goat fish  
 Vernacular Name (Telugu) : 'Gaddam gulivindalu'  
 Annual average catch : 200 t  
 Percentage in total catch : 1.6  
 Fishing methods and their contribution : Trawl net : 1.2%  
 Peak period of occurrence : Jul.-Sep. and Nov.-Dec.  
 Depth of occurrence : 5 - 50 m

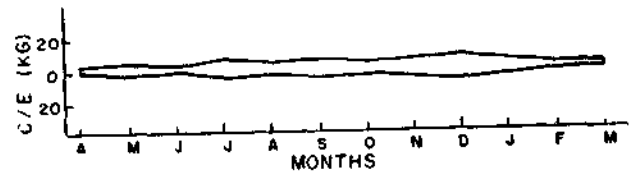


Fig. 34. Seasonal abundance of goat fishes in trawl catch.

MURAENIDAE & CONGRIDAE

Popular English Name : Eel  
 Vernacular Name (Telugu) : 'Pamulu'  
 Annual average catch : 249 t  
 Percentage in total catch : 1.9  
 Fishing methods and their contribution : Trawl net : 1.5%  
 Peak period of occurrence : Jul.-Nov.  
 Depth of occurrence : 5 - 50 m

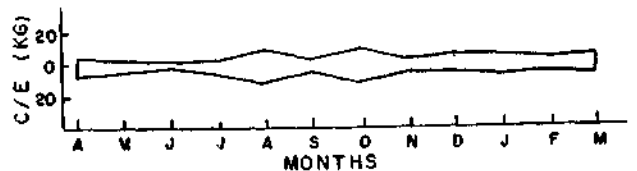


Fig. 35. Seasonal abundance of eel (Muraenidae and Congridae) in trawl catch.

NEMIPTERIDAE

Popular English Name : Threadfin bream  
 Vernacular Name (Telugu) : 'Erragulivindalu'  
 Annual average catch : 808 t  
 Percentage in total catch : 6.3  
 Fishing methods and their contribution : Trawl net : 4.8%

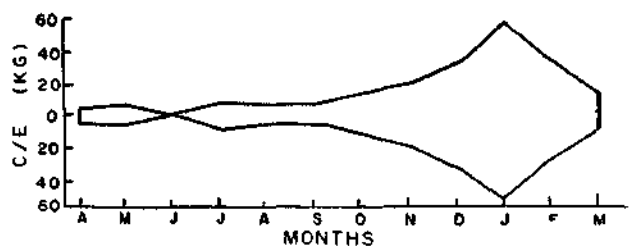


Fig. 36. Seasonal abundance of threadfin breams in trawl catch.

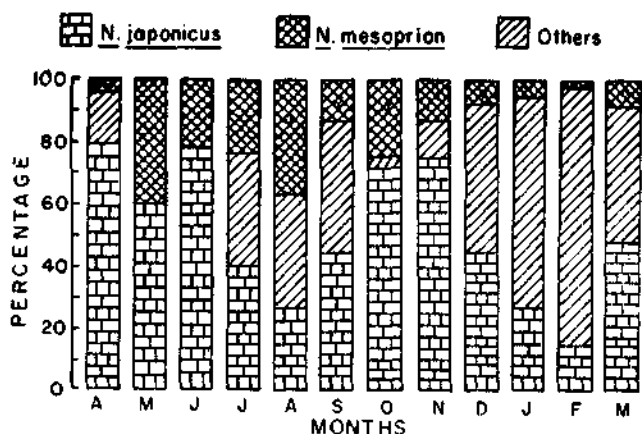


Fig. 37. Monthly species composition of threadfin breams in trawl catch.

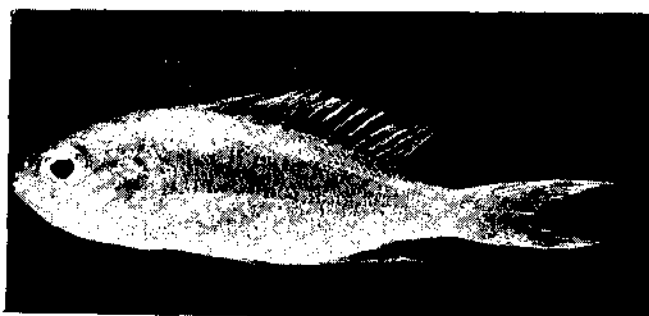


Fig. 38. *Nemipterus mesoprion*.

Scientific Name	: <i>Nemipterus mesoprion</i>
Vernacular Name	: 'Erragulivindalu'
Gear	: Trawl net
Percentage in the catch of the group	: 48.3
Peak period of occurrence	: Dec. - Mar.
Depth of occurrence	: 10- 80 m
Length range in commercial fishery	: 30- 215 mm
Size at first maturity	: 100 mm
Spawning season	: Dec. - Apr.

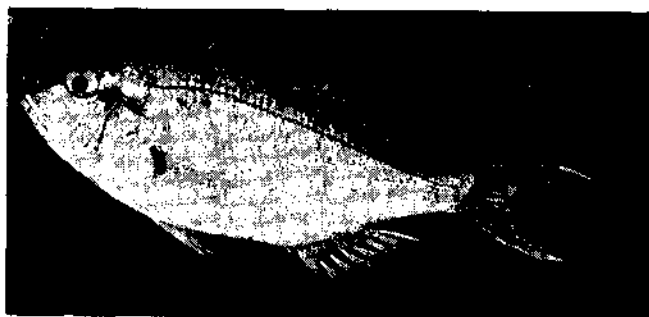


Fig. 39. *Nemipterus japonicus*.

Scientific Name	: <i>Nemipterus japonicus</i>
Vernacular Name	: 'Erragulivindalu'
Gear	: Trawl net
Percentage in the catch of the group	: 44.4
Peak period of occurrence	: Nov. - Mar.
Depth of occurrence	: 10- 80 m
Length range in commercial fishery	: 35- 305 mm
Size at first maturity	: 125 mm
Spawning season	: Aug. - Apr.

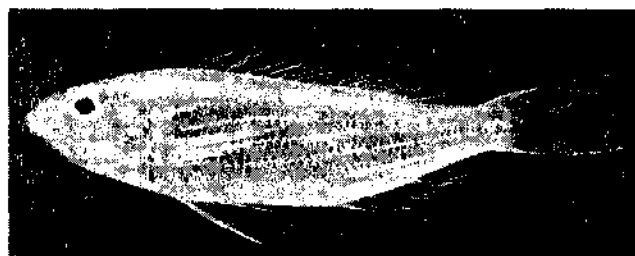


Fig. 40. *Nemipterus delagoae*

Scientific Name	: <i>Nemipterus delagoae</i>
Vernacular Name	: 'Erragulivindalu'
Gear	: Trawl net
Percentage in the catch of the group	: 2.0
Peak period of occurrence	: Sep. - Dec.
Depth of occurrence	: 10- 80 m
Length range in commercial fishery	: 90- 250 mm
Size at first maturity	: —
Spawning season	: —

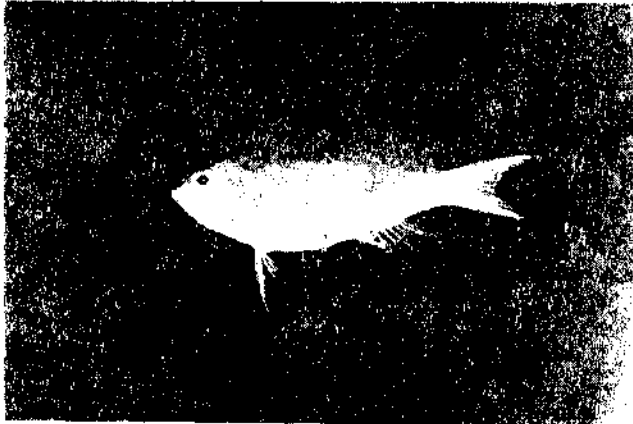


Fig. 41. *Nemipterus luteus*.

Scientific Name : *Nemipterus luteus*  
 Vernacular Name : 'Erragulivindalu'  
 Gear : Trawl net  
 Percentage in the catch of the group : 0.6  
 Peak period of occurrence : Jan.-Apr. and Jul.-Dec.  
 Depth of occurrence : 10-80 m  
 Length range in commercial fishery : 90-216 mm  
 Size at first maturity : ---  
 Spawning season : ---

**NOMEIDAE**

Popular English Name : Drift fish  
 Vernacular Name (Telugu) : 'Channitichepa'  
 Annual average catch : 845 t  
 Percentage in total catch : 6.6  
 Fishing methods and their contribution : Trawl net : 5.0%

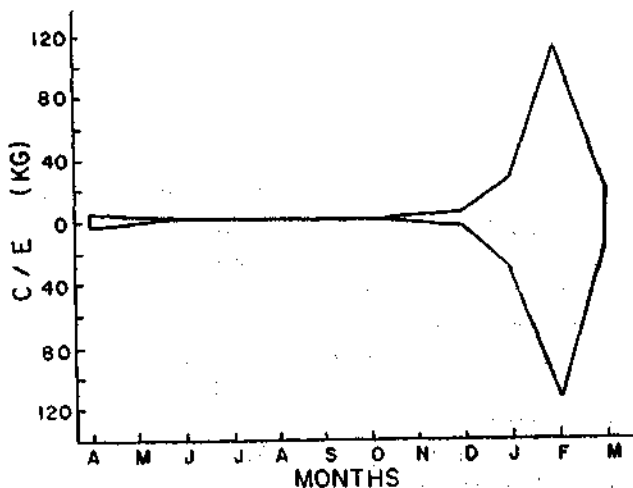


Fig. 42. Seasonal abundance of drift fishes in trawl catch.



Fig. 43. *Psenes indicus*.

Scientific Name : *Psenes indicus*  
 Vernacular Name : 'Channitichepa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 100  
 Peak period of occurrence : Oct. - Jan.  
 Depth of occurrence : 5-70 m  
 Length range in commercial fishery : 55-217 mm  
 Size at first maturity : ---  
 Spawning season : ---

**POLYNEMIDAE**

Popular English Name : Threadfins  
 Vernacular Name (Telugu) : 'Maga'  
 Annual average catch : 71 t  
 Percentage in total catch : 0.6  
 Fishing methods and their contribution : Trawl net : 0.4%  
 Peak period of occurrence : Dec. - Feb.  
 Depth of occurrence : 5-50 m

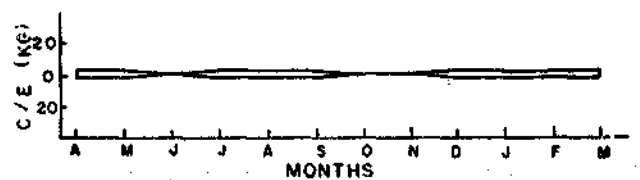


Fig. 44. Seasonal abundance of threadfins (*Polynemus*) in trawl catch.

**SCIAENIDAE**

Popular English Name : Croakers/Jew fish  
 Vernacular Name (Telugu) : 'Gorasalu'  
 Annual average catch : 1,039 t  
 Percentage in total catch : 8.1

Fishing methods and their contribution : Trawl net : 6.3%  
 Gill net : 1.4%  
 Other units : 2.1%

Scientific Name : *Atrubucca nibe*  
 Vernacular Name : 'Kartimoothigorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 20.1  
 Peak period of occurrence : Jan. - May  
 Depth of occurrence : 5 - 60 m  
 Length range in commercial fishery : 90 - 235 mm  
 Size at first maturity : 147 mm  
 Spawning season : Oct. - Jun.

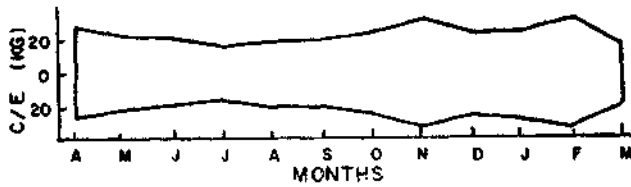


Fig. 45. Seasonal abundance of sciaenids in trawl catch.

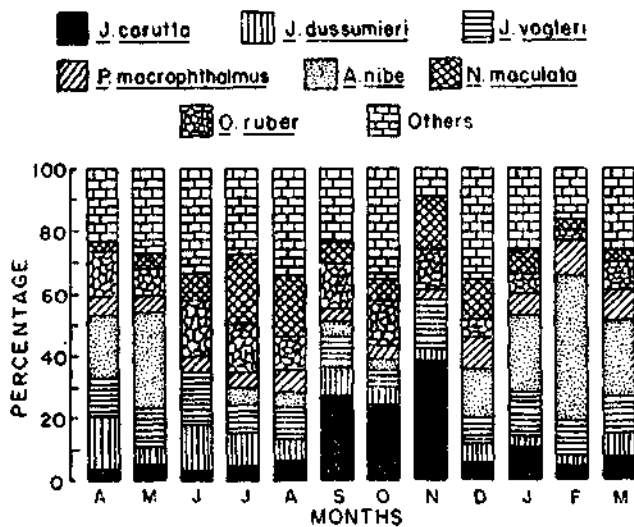


Fig. 46. Monthwise species composition of sciaenids in trawl catch.

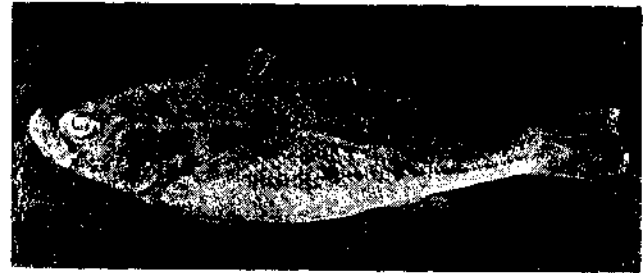


Fig. 48. *Johnius carutta*.

Scientific Name : *Johnius carutta*  
 Vernacular Name : 'Charagorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 11.3  
 Peak period of occurrence : Sep. - Nov.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 75 - 225 mm  
 Size at first maturity : 155 mm  
 Spawning season : Jan. - Jun.

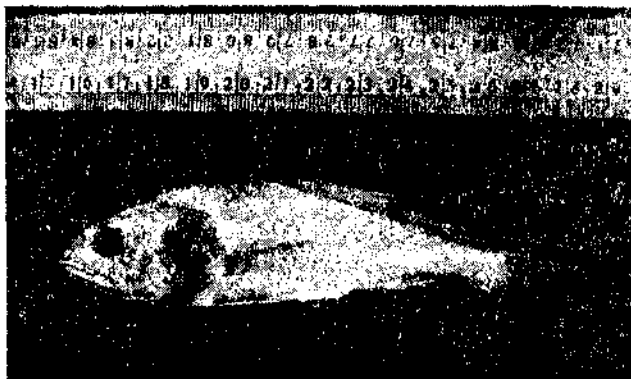


Fig. 47. *Atrubucca nibe*.



Fig. 49. *Johnius dussumieri*.

Scientific Name : *Johnius dussumieri*  
 Vernacular Name : 'Gorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 7.4  
 Peak period of occurrence : Apr. - Jul.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 81 - 163 mm  
 Size at first maturity : 110 mm  
 Spawning season : Mar. - Aug.



Fig. 50. *Johnius vogleri*.

Scientific Name : *Johnieops vogleri*  
 Vernacular Name : 'Gorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 10.7  
 Peak period of occurrence : Jan. - Jun.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 90 - 238 mm  
 Size at first maturity : 190 mm  
 Spawning season : Nov. - Jun.

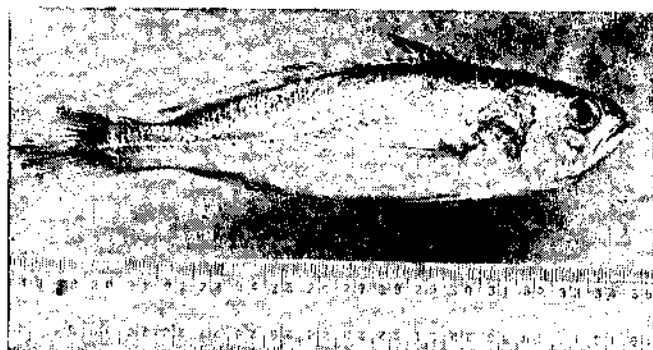


Fig. 51. *Otolithes ruber*.

Scientific Name : *Otolithes ruber*  
 Vernacular Name : 'Pallagorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 9.6

Peak period of occurrence : Apr. - Nov.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 30 - 250 mm  
 Size at first maturity : —  
 Spawning season : —



Fig. 52. *Nibea maculata*.

Scientific Name : *Nibea maculata*  
 Vernacular Name : 'Nallagorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 7.9  
 Peak period of occurrence : Jul. - Aug.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

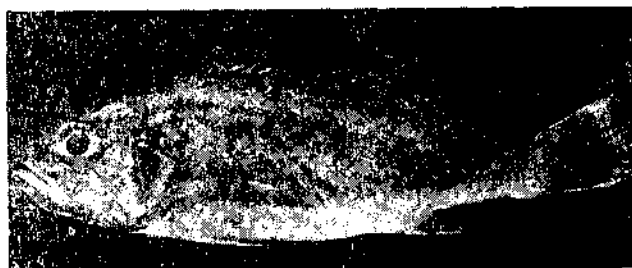


Fig. 53. *Pennahia macrophthalmus*.

Scientific Name : *Pennahia macrophthalmus*  
 Vernacular Name : 'Gorasa'  
 Gear : Trawl net  
 Percentage in the catch of the group : 6.3  
 Peak period of occurrence : Jan. - Mar. and Dec.  
 Depth of occurrence : 5 - 70 m

Length range in  
 commercial fishery : 40 - 260 mm  
 Size at first maturity : 147 mm  
 Spawning season : Oct. - Jun.

SCOMBRIDAE

Popular English Name : Seer fish/Mackerel/  
 Tuna  
 Vernacular Name (Telugu) : 'Vanjiram'/'Kanaguada-  
 thalu'/'Suralu'  
 Annual average catch : 839 t  
 Percentage in total catch : 6.5  
 Fishing methods and  
 their contribution : Gill net : 48.0%  
 Trawl net : 0.6%  
 Other units : 5.7%

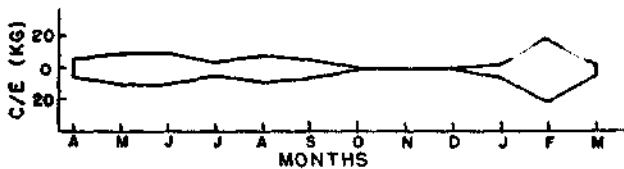


Fig. 54. Seasonal abundance of seer fishes in gill net catch.

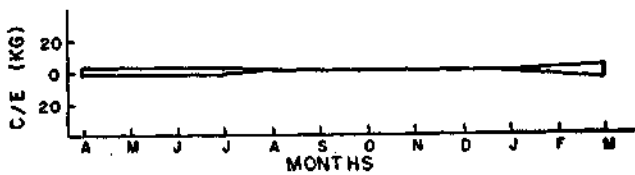


Fig. 55. Seasonal abundance of tunas in gill net catch.

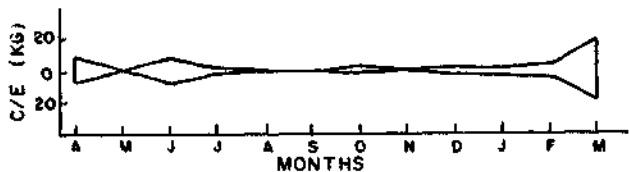


Fig. 56. Seasonal abundance of mackerel in gill net catch.

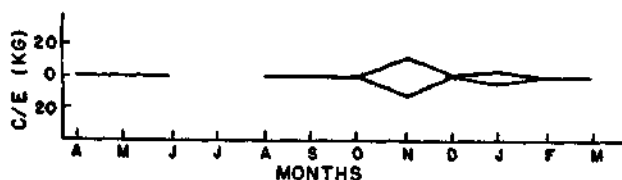


Fig. 57. Seasonal abundance of mackerel in other units.



Fig. 58. Seasonal abundance of mackerel in trawl catch.

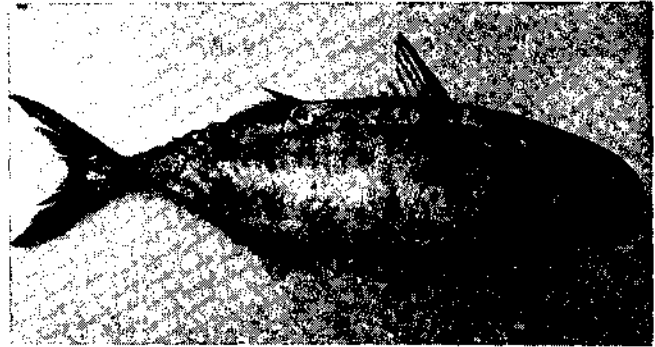


Fig. 59. *Rastrelliger kanagurta*.

Scientific Name : *Rastrelliger kanagurta*  
 Vernacular Name : 'Kangadathalu'  
 Gear : Gill net/Trawl net/  
 Other units

Percentage in the catch  
 of the group : Gill net : 37.3  
 Trawl net : 99.0  
 Other units : 99.0

Peak period of occurrence : Jan. - Apr. and Aug. - Dec.

Depth of occurrence : Upto 80 m

Length range in  
 commercial fishery : 35 - 235 mm

Size at first maturity : —

Spawning season : —

SPHYRAENIDAE

Popular English Name : Barracuda  
 Vernacular Name (Telugu) : 'Kaijarmatta'  
 Annual average catch : 117 t  
 Percentage in total catch : 0.9

Fishing methods and  
 their contribution : Gill net : 1.0%  
 Trawl net : 0.6%  
 Other units : 0.6%

Peak period of occurrence : Dec. - Jun.

Depth of occurrence : Upto 80 m



Fig. 60. Seasonal abundance of barracudas in trawl catch.

#### STROMATEIDAE

Popular English Name : Pomfrets  
 Vernacular Name (Telugu) : 'Chandua'  
 Annual average catch : 44 t  
 Percentage in total catch : 0.3  
 Fishing methods and their contribution : Gill net : 0.7%  
 Trawl net : 0.2%

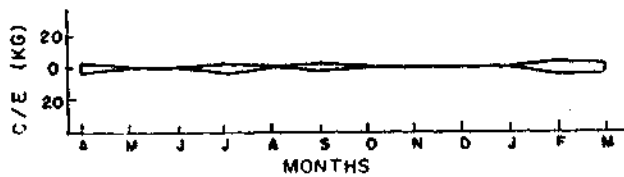


Fig. 61. Seasonal abundance of pomfrets in trawl catch.

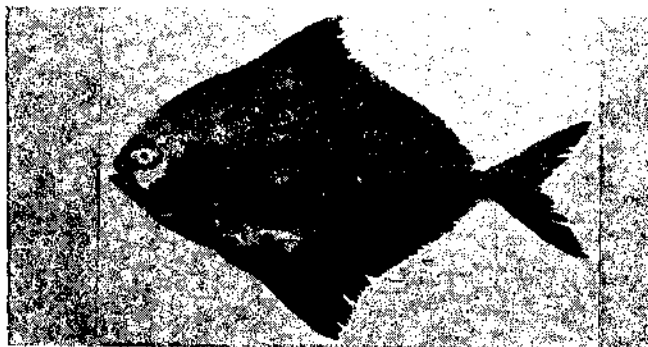


Fig. 62. *Parastromateus niger*.

Scientific Name : *Parastromateus niger*  
 Vernacular Name : 'Nalla chandua'  
 Gear : Gill net/Trawl net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Feb. - May, Aug. and Nov.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

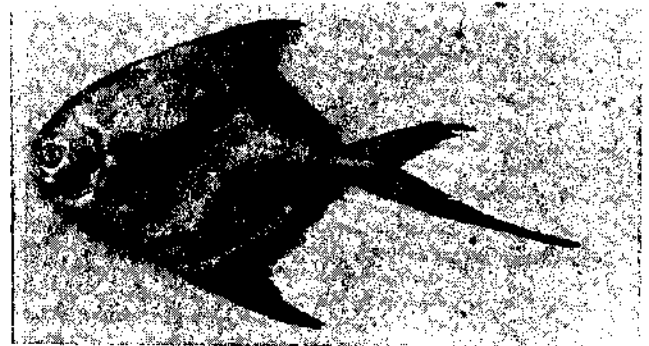


Fig. 63. *Pampus argenteus*.

Scientific Name : *Pampus argenteus*  
 Vernacular Name : 'Tella chandua'  
 Gear : Gill net/Trawl net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Apr. - Jul. and Dec.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

#### SYNODONTIDAE

Popular English Name : Lizard fish  
 Vernacular Name (Telugu) : 'Bade mattalu'  
 Annual average catch : 358 t  
 Percentage in total catch : 2.8  
 Fishing methods and their contribution : Trawl net : 2.1%  
 Gill net : 0.1%

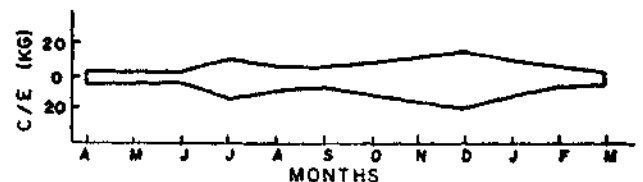


Fig. 64. Seasonal abundance of lizard fishes in trawl catch.

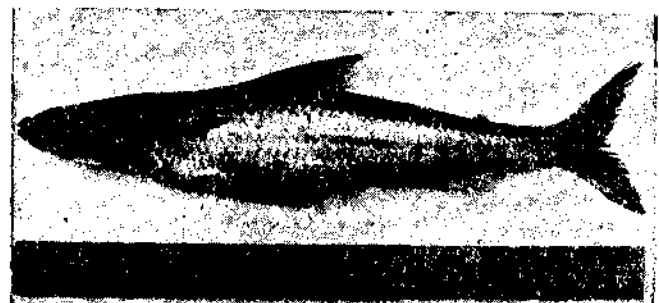


Fig. 65. *Saurida tumbil*.

Scientific Name : *Saurida tumbil*  
 Vernacular Name : 'Bade mattalu'  
 Gear : Trawl net/Gill net  
 Percentage in the catch of the group : 40  
 Peak period of occurrence : Jan., Jul. and Oct.-Dec.  
 Depths of occurrence : 5-70 m  
 Length range in commercial fishery : 170-350 mm  
 Size at first maturity : —  
 Spawning season : —

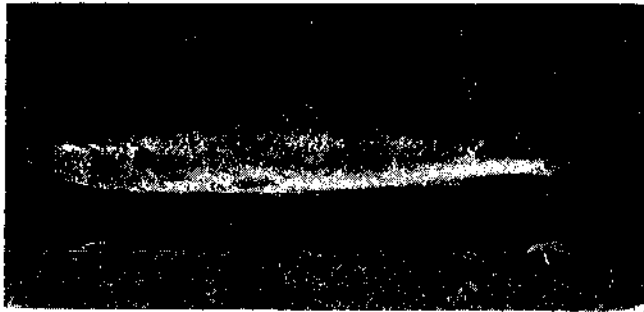


Fig. 66. *Saurida undosquamis*.

Scientific Name : *Saurida undosquamis*  
 Vernacular Name : 'Bade mattalu'  
 Gear : Trawl net/Gill net  
 Percentage in the catch of the group : 20  
 Peak period of occurrence : Jan., Jul. and Oct.-Dec.  
 Depth of occurrence : 5-70 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

#### RHINOBATIDAE

Popular English Name : Shovel-nose ray/Skate  
 Vernacular Name (Telugu) : 'Teku'  
 Annual average catch : 61 t  
 Percentage in total catch : 0.4  
 Fishing methods and their contribution : Trawl net : 0.4%  
 Peak period of occurrence : Dec.-Mar.  
 Depth of occurrence : 3-80 m



Fig. 67. Seasonal abundance of skates in trawl catch.

#### TACHYSURIDAE

Popular English Name : Cat fish  
 Vernacular Name (Telugu) : 'Jellalu'/'Jella'  
 Annual average catch : 459 t  
 Percentage in total catch : 3.6  
 Fishing methods and their contribution : Trawl net : 2.6%  
 Gill net : 1.7%  
 Peak period of occurrence : Jan.-Jun.  
 Depth of occurrence : 5-80 m

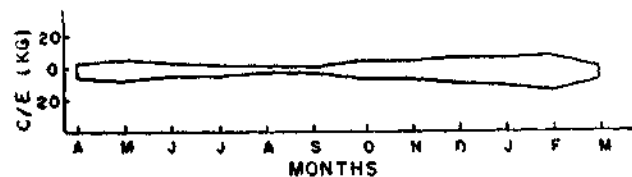


Fig. 68. Seasonal abundance of cat fishes in trawl catch.

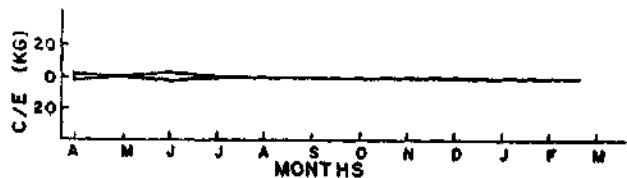


Fig. 69. Seasonal abundance of cat fishes in gill net catch.

#### TRICHIURIDAE

Popular English Name : Ribbon fish  
 Vernacular Name (Telugu) : 'Savallu'  
 Annual average catch : 1,405 t  
 Percentage in total catch : 10.9  
 Fishing methods and their contribution : Trawl net : 7.1%  
 Gill net : 2.4%  
 Other units : 49.3%



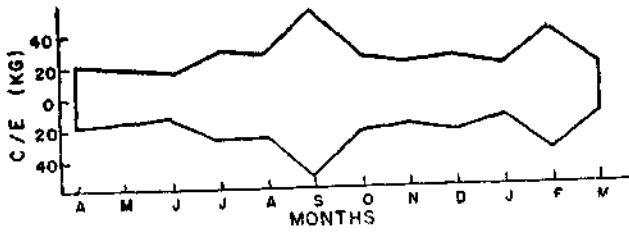


Fig. 70. Seasonal abundance of ribbon fish in trawl catch.

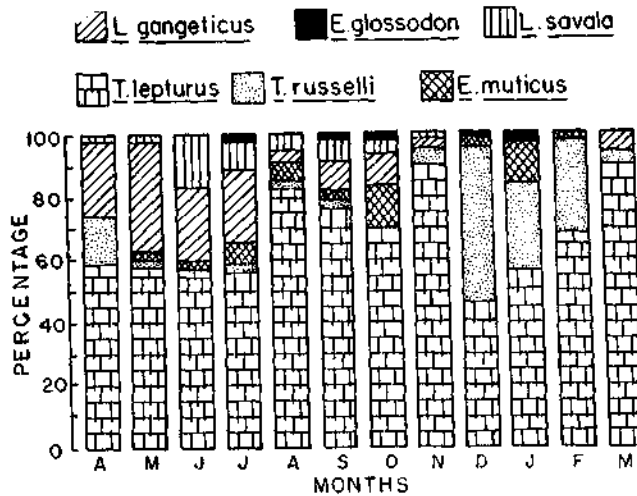


Fig. 71. Monthly species composition of ribbon fishes in trawl catch.



Fig. 72. Seasonal abundance of ribbon fish in gill net catch.



Fig. 73. Seasonal abundance of ribbon fish in other units.



Fig. 74. *Trichiurus lepturus*.

Scientific Name	: <i>Trichiurus lepturus</i>
Vernacular Name	: 'Patti savallu'
Gear	: Trawl net
Percentage in the catch of the group	: 73
Peak period of occurrence	: Oct. - Dec.
Depth of occurrence	: 5 - 50 m
Length range in commercial fishery	: 165 - 1,150 mm
Size at first maturity	: 525 mm
Spawning season	: Feb. - Jun.

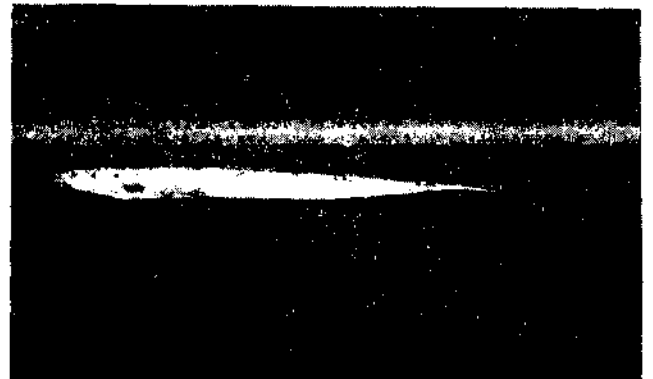


Fig. 75. *Lepturacanthus gangeticus*.

Scientific Name	: <i>Lepturacanthus gangeticus</i>
Vernacular Name	: 'Savallu'
Gear	: Trawl net
Percentage in the catch of the group	: 12.9
Peak period of occurrence	: Jan. - Dec.
Depth of occurrence	: 5 - 50 m
Length range in commercial fishery	: 195 - 585 mm
Size at first maturity	: —
Spawning season	: May - Jul.

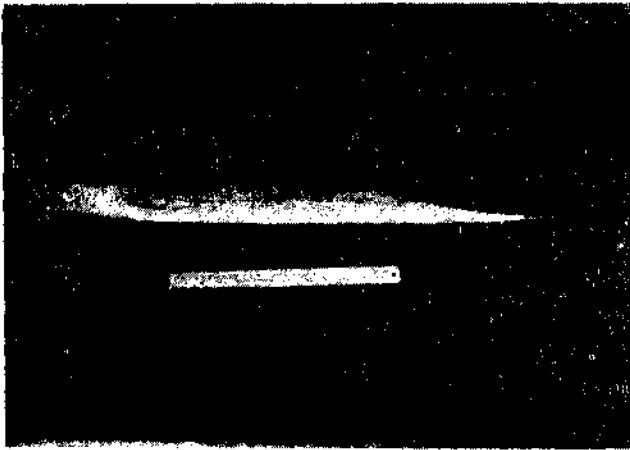


Fig. 76. *Lepturacanthus savala*.

Scientific Name : *Lepturacanthus savala*  
 Vernacular Name : 'Savallu'  
 Gear : Trawl net  
 Percentage in the catch of the group : 4.6  
 Peak period of occurrence : Jul. - Aug.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 200 - 700 mm  
 Size at first maturity : —  
 Spawning season : —

Scientific Name : *Eupleurogrammus muticus*  
 Vernacular Name : 'Savallu'  
 Gear : Trawl net  
 Percentage in the catch of the group : 4.2  
 Peak period of occurrence : Jul. - Aug.  
 Depth of occurrence : 5 - 50 m  
 Length range in commercial fishery : 160 - 460 mm  
 Size at first maturity : —  
 Spawning season : May - Nov.

TRYGONIDAE & MYLIOBATIDAE

Popular English Name : Rays  
 Vernacular Name (Telugu) : 'Teku'  
 Annual average catch : 312 t  
 Percentage in total catch : 2.4  
 Fishing methods and their contribution : Trawl net : 1.9%  
 Peak period of occurrence : Nov. - Apr.  
 Depth of occurrence : 5 - 50 m



Fig. 77. *Eupleurogrammus muticus*.

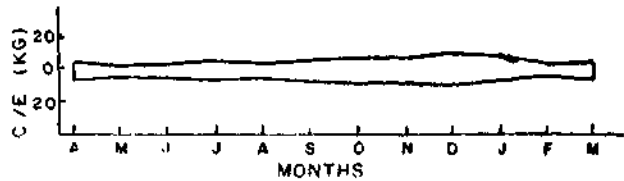


Fig. 78. Seasonal abundance of rays in trawl catch.

