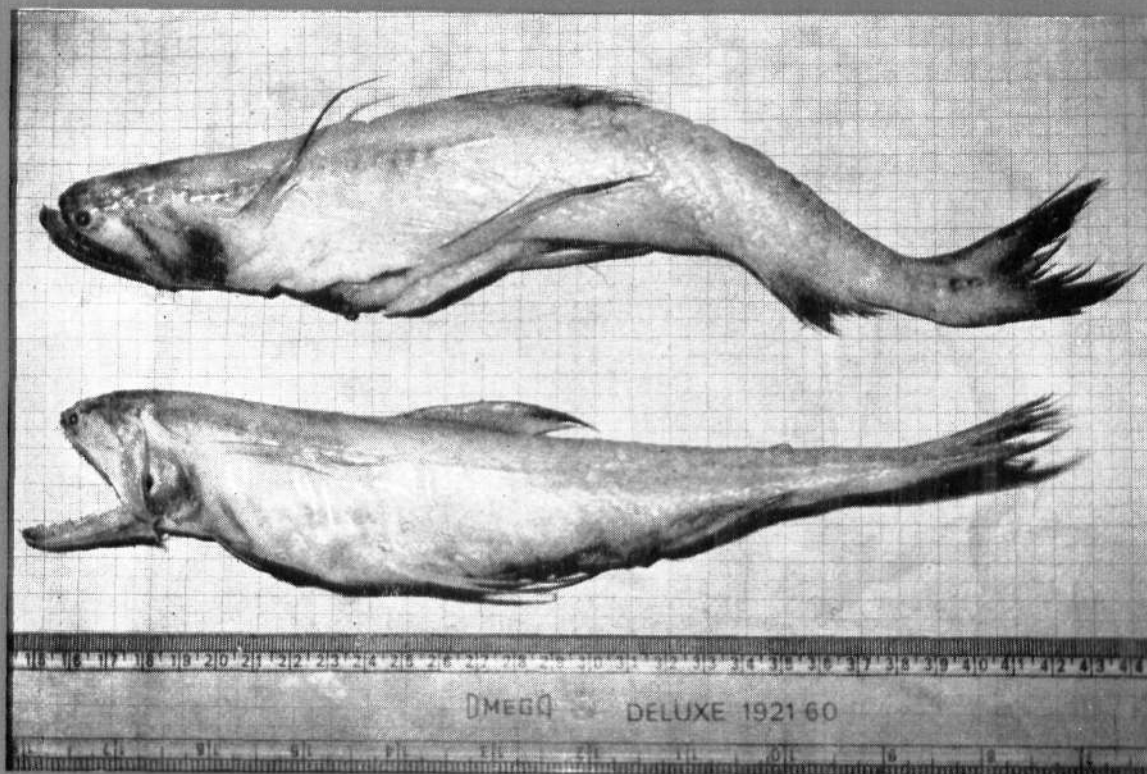




# MARINE FISHERIES INFORMATION SERVICE



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CENTRAL MARINE FISHERIES RESEARCH INSTITUTE  
COCHIN, INDIA

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

# MARINE FISH CALENDAR

## XI. BOMBAY\*

P. V. Kagwade, S. K. Chakraborty, Mohamed Zafar Khan and J. D. Sarang

*Bombay Research Centre of CMFRI, Bombay*

### Introduction

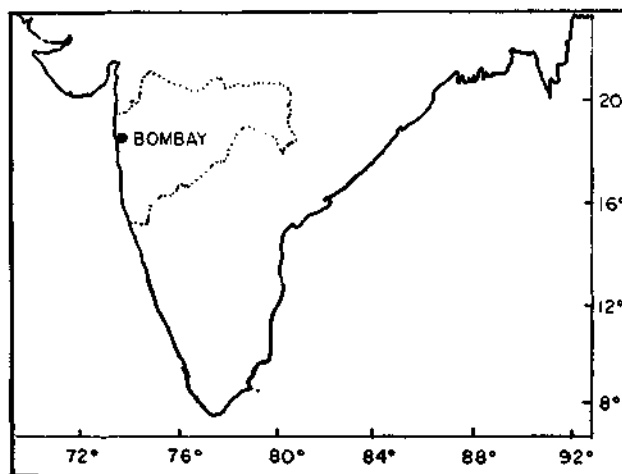
There are three major fish landing centres in Bombay, namely Sassoon Dock, Versova and New Ferry Wharf. Of these, the former two are very old centres while the New Ferry Wharf is about a decade old. Sassoon Dock is a major centre where fishing activities are the maximum throughout the year, except during inclement weather. The fishing activities at Versova during monsoon are sporadic and limited to nearshore fishing by miniature bag net ('Bokshi'), cast net and shore seine. The boat owners and the crew at New Ferry Wharf are mostly from Gujarat and hence, they return to their native places during monsoon with the result that there is hardly any fishing worth drawing attention. Catch data from Sassoon Dock are made use of in the preparation of this marine fish calendar.

The crafts at Sassoon Dock are all mechanised and the gear used are mainly trawl net, bag net called 'dol' and gill net, their mesh sizes being 20-25, 15-20 and 80 to 120 mm respectively. All these gears operate all round the year, the trawl at 60-90 m, 'dol' at 10-30 m and gill net at 30-60 m depth zones. On an average daily 70 trawlers, 25-30 'dol' netters and 15-20 gill netters operate. In addition there are 30 units of hooks and line operating from September to April at a depth of about 30m. Their landings are very meagre and comprised of cat fish, shark and occasionally eel. Data used for this calendar are the annual and monthly averages of the catches of the three year period from 1983 to '85 for the three major gears.

The trawl catch has many groups of fishes occurring in different magnitude. The major groups are sciaenids, cat fishes and clupeids forming 5.01, 4.83 and 4.09% respectively in the catch. Sharks, ribbon fishes, thread-fin breams, lizard fishes and rays contribute 3.98,

3.43, 2.70, 2.11 and 1.24% respectively to the total catch. The remainings are minor groups forming less than 1% in the total catch.

Bombay duck is the predominant fish forming 25.65% in the 'dol' net catch. Other varieties like clupeids, sciaenids, pomfrets, eels and ribbon fishes form less than 4% each in the catch.



Pomfrets, both silver and black, forming 28.6% dominate the gill net catch. This is followed by clupeids, tunas and seer fishes constituting 20.2, 20.0 and 14.8% respectively. Sciaenids, sword fishes and horse mackerel form between 3.7 and 7.4%.

### BOTHIDAE

Popular English Name	:	Indian halibut
Vernacular Name (Marathi)	:	'Bakus'
Annual average catch	:	—
Percentage in total catch	:	—
Fishing methods and their contribution	:	Trawl net: —

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

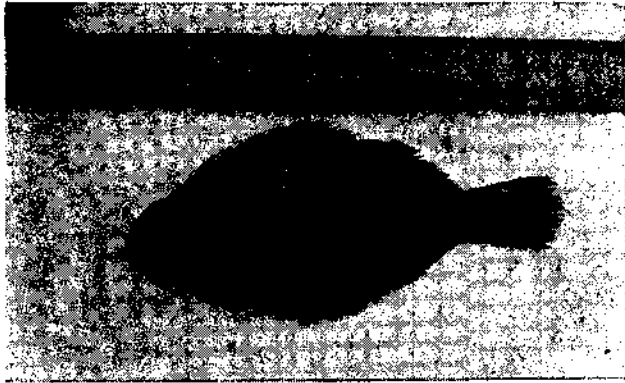


Fig. 1. *Psettodes erumei*

Scientific Name : *Psettodes erumei*  
 Vernacular Name : 'Bakus'  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Dec. – Jan.  
 Depth of occurrence : 30–60 m  
 Length range in commercial fishery : 140–620 mm  
 Size at first maturity : —  
 Spawning season : Sep. – Oct.

CARANGIDAE

Popular English Name : Horse mackerel  
 Vernacular Name (Marathi) : 'Kati bangada'  
 Annual average catch : 57 t  
 Percentage in total catch : 0.4  
 Fishing methods and their contribution : Gill net: —

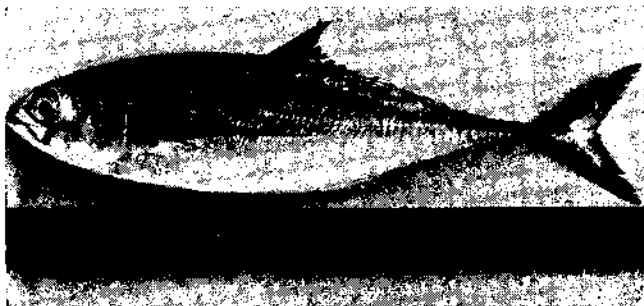


Fig. 2. *Megalaspis cordyla*.

Scientific Name : *Megalaspis cordyla*  
 Vernacular Name : 'Kati bangada'  
 Gear : Gill net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Aug. – Dec.  
 Depth of occurrence : 30–60 m  
 Length range in commercial fishery : 110–350 mm  
 Size at first maturity : —  
 Spawning season : Dec. – Feb.

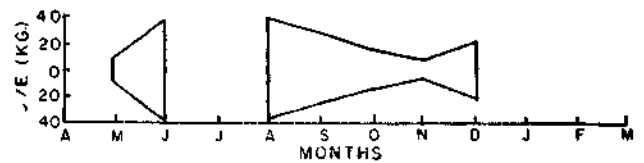


Fig. 3. Seasonal abundance of Horse mackerel (*Megalaspis cordyla*) in gill net catch

CLUPEIDAE AND CHIROCENTRIDAE

Popular English Name : Herring/Silverbar/  
 Golden anchovy  
 Vernacular Name (Marathi) : 'Karli'/'Dataali'/  
 'Bhing'/'Kati'/  
 'Mandeli'  
 Annual average catch : 1,739 t  
 Percentage in total catch : 13.6  
 Fishing methods and their contribution : Trawl net/Gill net/  
 Dol net: —

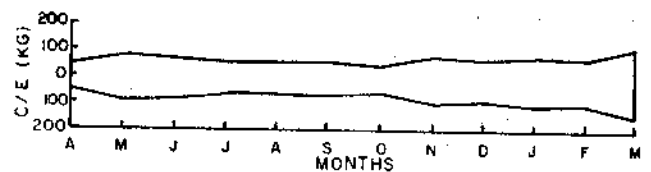


Fig. 4. Seasonal abundance of clupeids in trawl net catch.

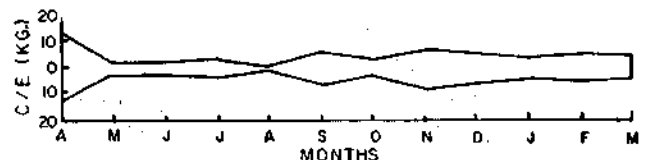


Fig. 5. Seasonal abundance of clupeids in dol net catch.

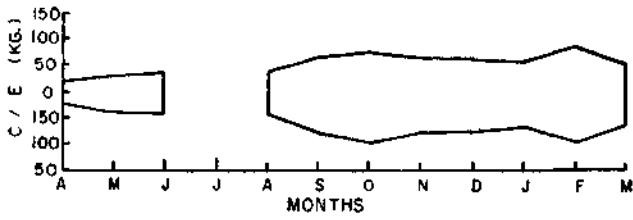


Fig. 6. Seasonal abundance of clupeids in gill net catch.

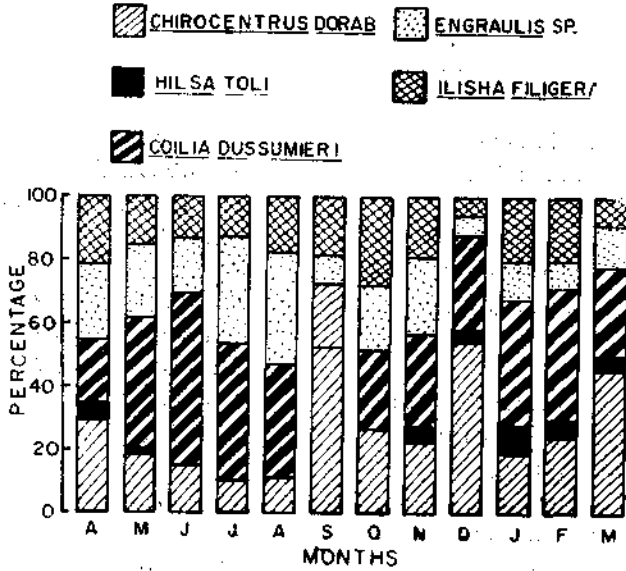


Fig. 7. Monthly species composition of clupeids in trawl net catch.

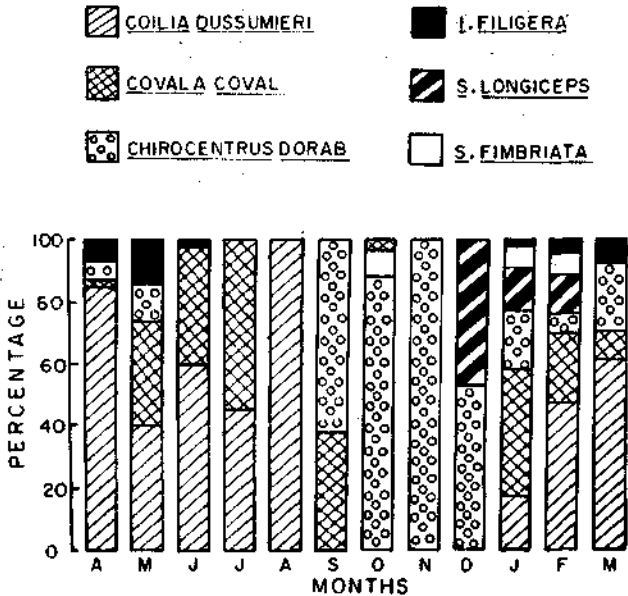


Fig. 8. Monthly species composition of clupeids in dol net catch.

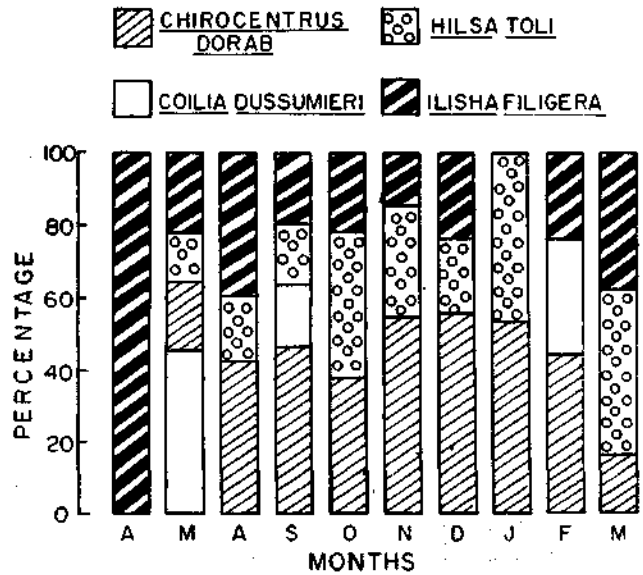


Fig. 9. Monthly species composition of clupeids in gill net catch.

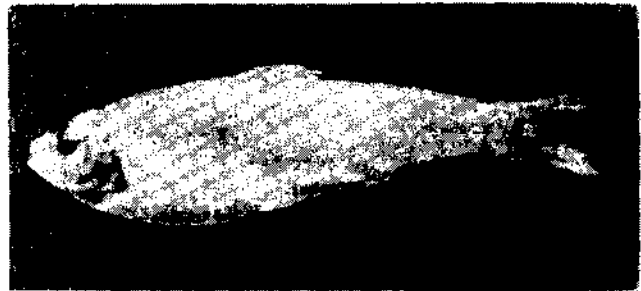


Fig. 10. *Escualosa thoracata*.

Scientific Name	:	<i>Escualosa thoracata</i>
Vernacular Name	:	'Bhilgee'
Gear	:	Dol net
Percentage in the catch of the group	:	37.9
Peak period of occurrence	:	May - Jul.
Depth of occurrence	:	10 - 15 m
Length range in commercial fishery	:	60 - 80 mm
Size at first maturity	:	—
Spawning season	:	—

Scientific Name	:	<i>Tenulosa tili</i>
Vernacular Name	:	'Bhing'
Gear	:	Trawl net/Dol net
Percentage in the catch of the group	:	Trawl net : 3.4 Dol net : 30.3
Peak period of occurrence	:	May - Jan.



Scientific Name : *Cynoglossus macrostomus*  
 Vernacular Name : 'Lepti'  
 Gear : Trawl net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Aug. - Oct.  
 Depth of occurrence : 30 - 60 m  
 Length range in commercial fishery : 120 - 340 mm  
 Size at first maturity : —  
 Spawning season : —

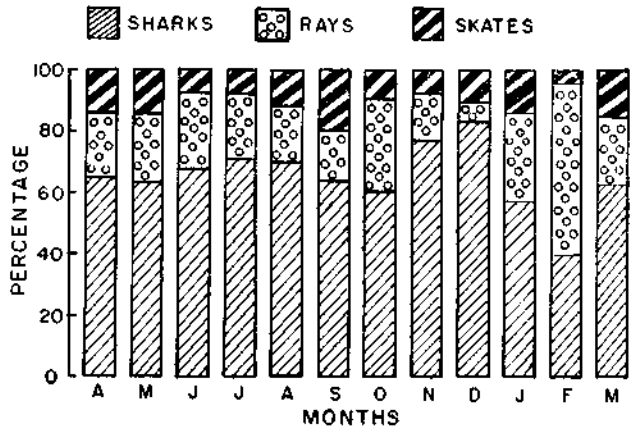


Fig. 18. Monthwise catch composition of elasmobranchs by trawl net catch.

ELASMOBRANCHS

Popular English Name : Sharks/Skates/Rays  
 Vernacular Name (Marathi) : 'Mushi'/'Pakat'/'Ranja'/'Lani'/'Pok'  
 Annual average catch : 2,198 t  
 Percentage in total catch : 17.2  
 Fishing methods and their contribution : Trawl net: —



Fig. 15. Seasonal abundance of sharks in trawl net catch.



Fig. 16. Seasonal abundance of rays in trawl net catch.



Fig. 17. Seasonal abundance of skates in trawl net catch.

HARPADONTIDAE

Popular English Name : Bombay duck  
 Vernacular Name (Marathi) : 'Bombil'  
 Annual average catch : 443 t  
 Percentage in total catch : 3.5  
 Fishing methods and their contribution : Dol net: —

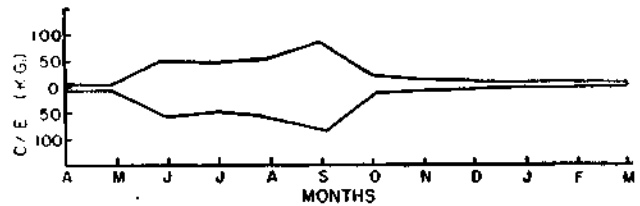


Fig. 19. Seasonal abundance of Bombay duck in dol net catch.

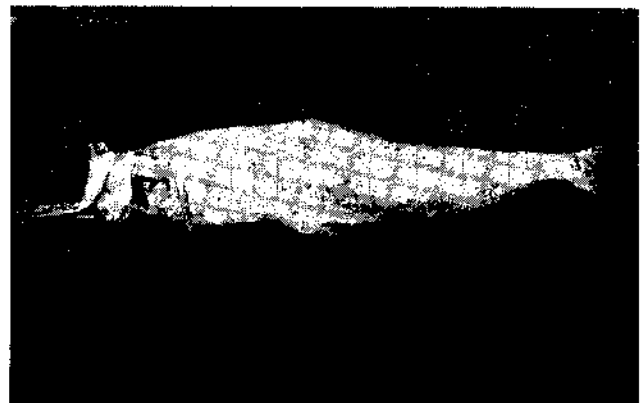


Fig. 20. *Harpadon nehereus*.

Scientific Name : *Harpadon nehereus*  
 Vernacular Name : 'Bombil'  
 Gear : Dol net

Percentage in the catch of the group : 100  
 Peak period of occurrence : Jun. - Oct.  
 Depth of occurrence : 10 - 30 m  
 Length range in commercial fishery : 40 - 350 mm  
 Size at first maturity : 210 mm  
 Spawning season : Nov. - Dec.

**MULLIDAE**

Popular English Name : Goat fish  
 Vernacular Name (Marathi) : 'Raja'  
 Annual average catch : 272 t  
 Percentage in total catch : 2.1  
 Fishing methods and their contribution : Trawl net: —

**MURAENOSOCIDAE**

Popular English Name : Eel  
 Vernacular Name (Marathi) : 'Wam'  
 Annual average catch : 49 t  
 Percentage in total catch : 0.4  
 Fishing methods and their contribution : Trawl net: —  
 Dol net : —

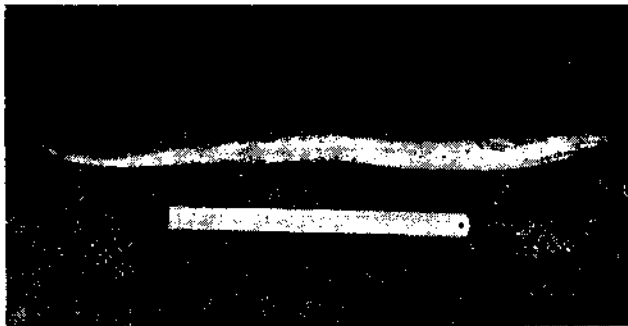


Fig. 21. *Muraenesox talabonoides*.

Scientific Name : *Muraenesox talabonoides*  
 Vernacular Name : 'Wam'  
 Gear : Trawl net/Dol net  
 Peak period of occurrence : Jan. - May and Oct. - Dec.  
 Depth of occurrence : 10 - 60 m  
 Length range in commercial fishery : 400 - 2,000 mm  
 Size at first maturity : 1,200 mm  
 Spawning season : Apr. - May and Sep. - Oct.

**NEMIPTERIDAE**

Popular English Name : Threadfin bream  
 Vernacular Name (Marathi) : 'Rani'  
 Annual average catch : 1,002 t  
 Percentage in total catch : 7.9  
 Fishing methods and their contribution : Trawl net: —

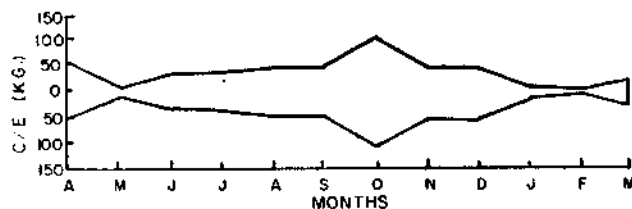


Fig. 22. Seasonal abundance of threadfin breams in trawl net catch.

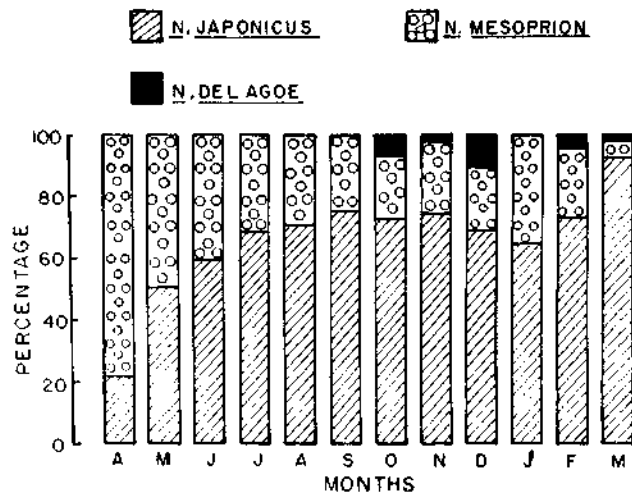


Fig. 23. Monthly species composition of threadfin breams in trawl net catch.

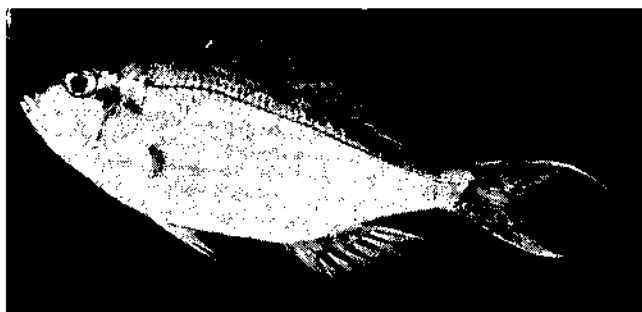


Fig. 24. *Nemipterus japonicus*.

Scientific Name : *Nemipterus japonicus*  
 Vernacular Name : 'Rani'  
 Gear : Trawl net

Percentage in the catch of the group : Trawl net : 65.2  
 Peak period of occurrence : Nov. - Jan.  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : 130 - 290 mm  
 Size at first maturity : —  
 Spawning season : —

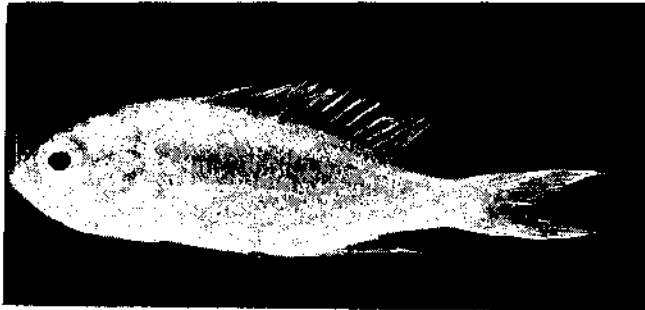


Fig. 25. *Nemipterus mesoprion*.

Scientific Name : *Nemipterus mesoprion*  
 Vernacular Name : 'Rani'  
 Gear : Trawl net  
 Percentage in the catch of the group : Trawl net: 32.2  
 Peak period of occurrence : Nov. - Jan.  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : 140 - 320 mm  
 Size at first maturity : —  
 Spawning season : —

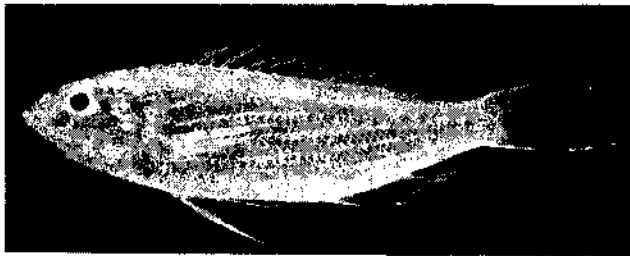


Fig. 26. *Nemipterus delagoae*.

Scientific Name : *Nemipterus delagoae*  
 Vernacular Name : 'Rani'  
 Gear : Trawl net  
 Percentage in the catch of the group : Trawl net : 2.7  
 Peak period of occurrence : Dec.  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : —  
 Size at first maturity : —

Spawning season : —

SCIAENIDAE

Popular English Name : Croakers/Jew fish/ Drummers  
 Vernacular Name (Marathi) : 'Dhoma'  
 Annual average catch : 1,898 t  
 Percentage in total catch : 14.9  
 Fishing methods and their contribution : Trawl net/Gill net/ Dol net: —

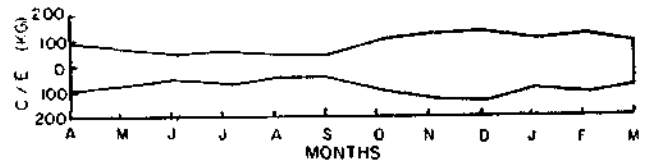


Fig. 27. Seasonal abundance of sciaenids in trawl net catch.

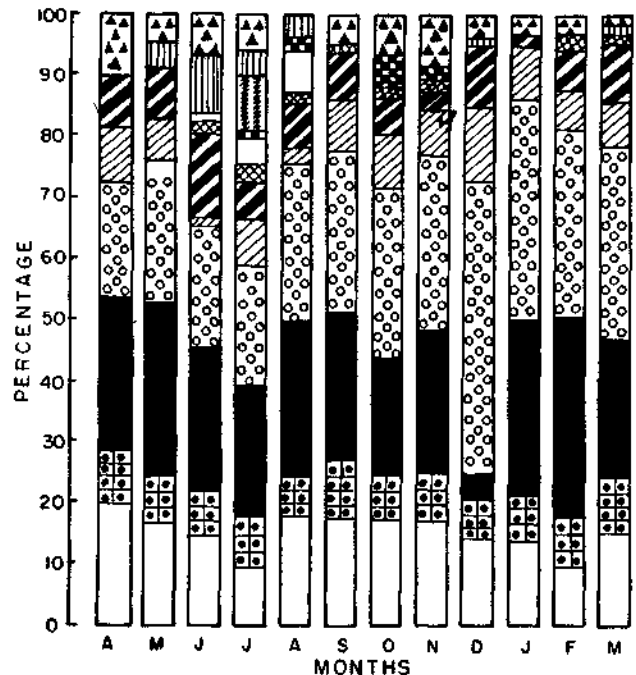


Fig. 28. Monthly species composition of sciaenids in trawl net catch.





Fig. 29. Seasonal abundance of Ghol (*P. diacanthus*) in gill net catch.



Fig. 30. *Protomibea diacanthus*.

Scientific Name : *Protomibea diacanthus*  
 Vernacular Name : 'Ghol'  
 Gear : Trawl net/Gill net/Dol net  
 Percentage in the catch of the group : Trawl net : 8.7  
 Peak period of occurrence : Aug. - May  
 Depth of occurrence : 10 - 90 m  
 Length range in commercial fishery : 200 - 1,200 mm  
 Size at first maturity : 850 mm  
 Spawning season : Jun. - Sep.

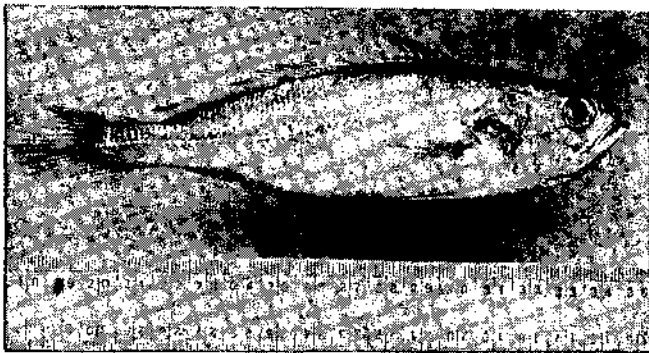


Fig. 31. *Otolithes ruber*.

Scientific Name : *Otolithes ruber*  
 Vernacular Name : 'Dhoma'  
 Gear : Trawl net

Percentage in the catch of the group : Trawl net : 6.0  
 Peak period of occurrence : Occasional  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : Jul. - Oct.

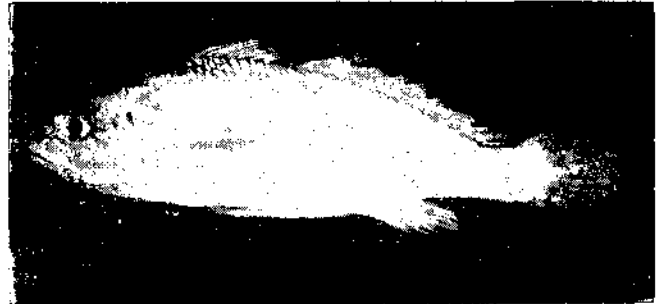


Fig. 32. *Otolithes cuvieri*.

Scientific Name : *Otolithes cuvieri*  
 Vernacular Name : 'Dhoma'  
 Gear : Trawl net  
 Percentage in the catch of the group : Trawl net : 26.2  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : 140 - 310 mm  
 Size at first maturity : 170 mm  
 Spawning season : Jul. - Sep.

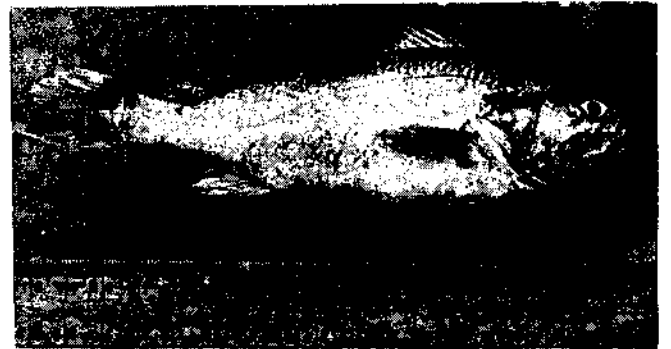


Fig. 33. *Johnius dussumieri*.

Scientific Name : *Johnius dussumieri*  
 Vernacular Name : 'Dhoma'  
 Gear : Trawl net  
 Percentage in the catch of the group : Trawl net : 6.2  
 Peak period of occurrence : Mar. - Apr.

Depth of occurrence : 60- 90 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

Size at first maturity : 150 mm  
 Spawning season : Jul. - Sep

SCOMBRIDAE

Popular English Name : Mackerel/Seer fish/  
 Tuna  
 Vernacular Name (Marathi) : 'Surmai'/'Kuppa'/'Gedra'  
 Annual average catch : 540 t  
 Percentage in total catch : 4.2  
 Fishing methods and their contribution : Gill net: —



Fig. 34. *Johnieops sina*.

Scientific Name : *Johnieops sina*  
 Vernacular Name : 'Dhoma'  
 Gear : Trawl net  
 Percentage in the catch of the group : Trawl net : 4.2  
 Peak period of occurrence : Jan. - May  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : —  
 Size at first maturity : —  
 Spawning season : —

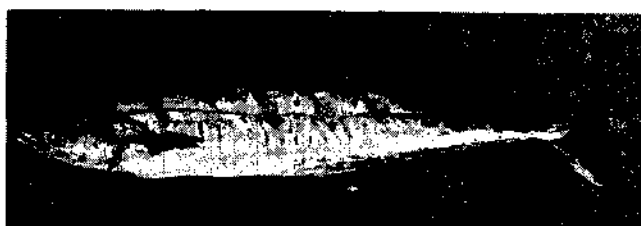


Fig. 36. *Scomberomorus commerson*.

Scientific Name : *Scomberomorus commerson*  
 Vernacular Name : 'Surmai'  
 Gear : Gill net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : 30 - 60 m  
 Length range in commercial fishery : 550 - 1,200 mm  
 Size at first maturity : —  
 Spawning season : —



Fig. 35. *Johnieops vogleri*.

Scientific Name : *Johnieops vogleri*  
 Vernacular Name : 'Dhoma'  
 Gear : Trawl net  
 Percentage in the catch of the group : Trawl net : 23.8  
 Peak period of occurrence : Jan. - Mar.  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : 120 - 290 mm

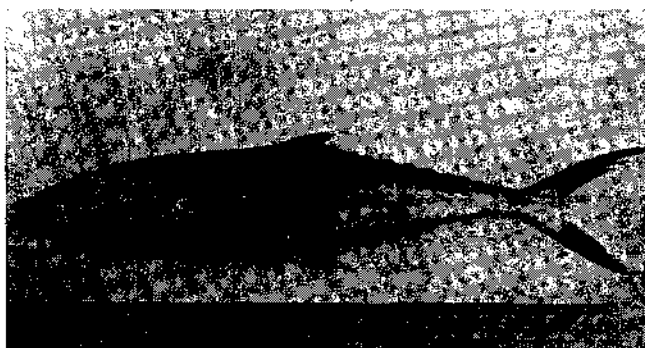


Fig. 37. *Scomberomorus guttatus*.

Scientific Name : *Scomberomorus guttatus*  
 Vernacular Name : 'Surmai'  
 Gear : Gill net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : 30 - 60 m  
 Length range in commercial fishery : 350 - 550 mm  
 Size at first maturity : —  
 Spawning season : Apr. - Jun.

Percentage in the catch of the group : —  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : 30 - 60 m  
 Length range in commercial fishery : 350 - 750 mm  
 Size at first maturity : —  
 Spawning season : —

STROMATIDAE

Popular English Name : Pomfrets  
 Vernacular Name (Marathi) : 'Paplet'/'Sarga'/'Saranga'/'Halwa'  
 Annual average catch : 845 t  
 Percentage in total catch : 6.6  
 Fishing methods and their contribution : Trawl net/Gill net/Dol net: —

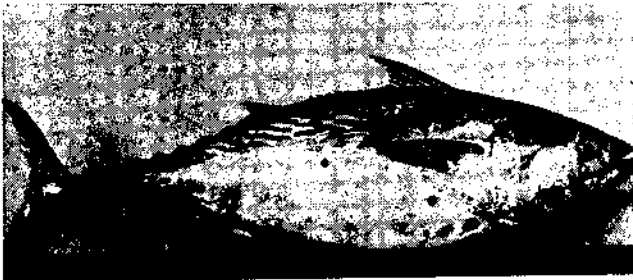


Fig. 38. *Euthynnus affinis*.

Scientific Name : *Euthynnus affinis*  
 Vernacular Name : 'Kuppa'/'Gedra'  
 Gear : Gill net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : 30 - 60 m  
 Length range in commercial fishery : 300 - 700 mm  
 Size at first maturity : —  
 Spawning season : Apr. - Sep.

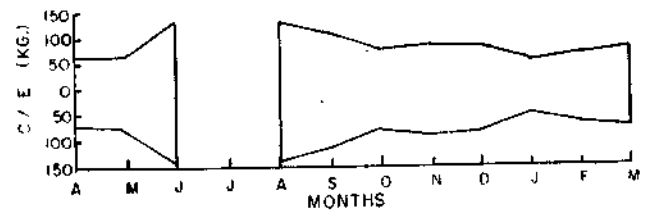




Fig. 40. Seasonal abundance of pomfrets in gill net catch.

 PAMPUS ARGENTEUS    
  PARASTROMATEUS NIGER

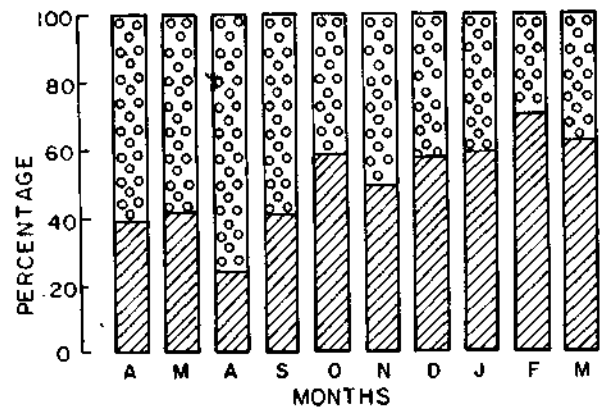


Fig. 41. Month-wise species composition of pomfrets in gill net catch.



Fig. 39. *Thunnus tonggol*.

Scientific Name : *Thunnus tonggol*  
 Vernacular Name : 'Kuppa'/'Gedra'  
 Gear : Gill net

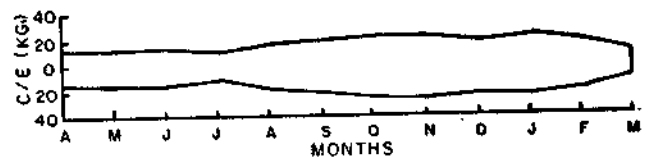


Fig. 42. Seasonal abundance of pomfrets in trawl net catch.

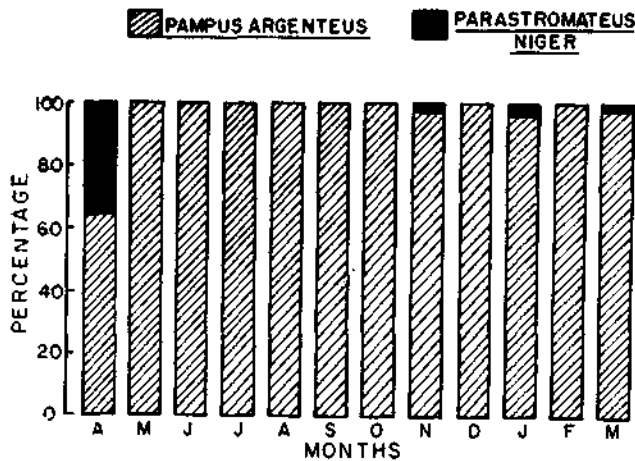


Fig. 43. Month-wise species composition of pomfrets in trawl net catch.



Fig. 44. Seasonal abundance of black pomfret (*P. argenteus*) in dol net catch.

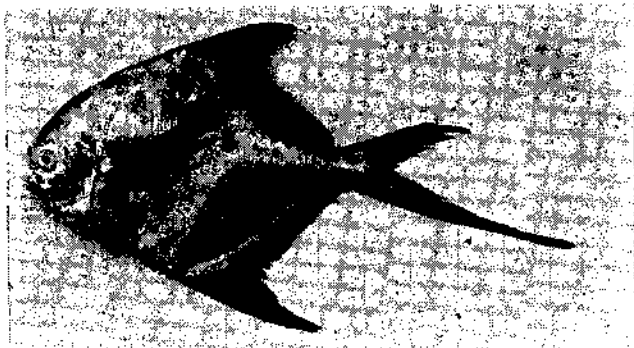


Fig. 45. *Pampus argenteus*.

Scientific Name	: <i>Pampus argenteus</i>
Vernacular Name	: 'Saranga'/'Paplet'
Gear	: Trawl net/Gill net/Dol net
Percentage in the catch of the group	: Trawl net : 97.4 Gill net : 49.7
Peak period of occurrence	: Aug. - May
Depth of occurrence	: 10 - 90 m
Length range in commercial fishery	: 40 - 320 mm
Size at first maturity	: 220 - 240 mm
Spawning season	: Aug. - Sep. and Jan. - Mar.

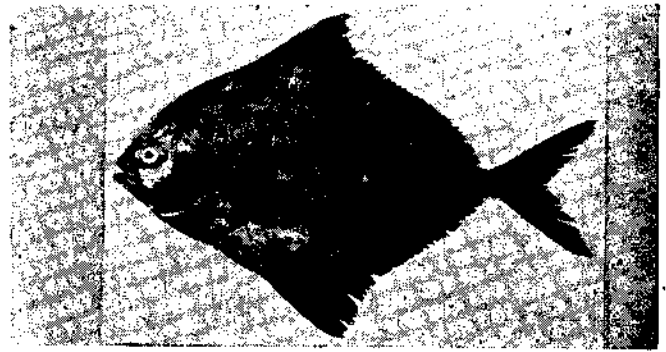


Fig. 46. *Parastromateus niger*.

Scientific Name	: <i>Parastromateus niger</i>
Vernacular Name	: 'Halwa'
Gear	: Trawl net/Gill net
Percentage in the catch of the group	: Trawl net : 2.6 Gill net : 50.3
Peak period of occurrence	: Aug. - May
Depth of occurrence	: 30 - 90 m
Length range in commercial fishery	: 150 - 500 mm
Size at first maturity	: —
Spawning season	: —

#### SYNODONTIDAE

Popular English Name	: Lizard fish
Vernacular Name (Marathi)	: 'Chor bombil'
Annual average catch	: 668 t
Percentage in total catch	: 5.3
Fishing methods and their contribution	: Trawl net: —

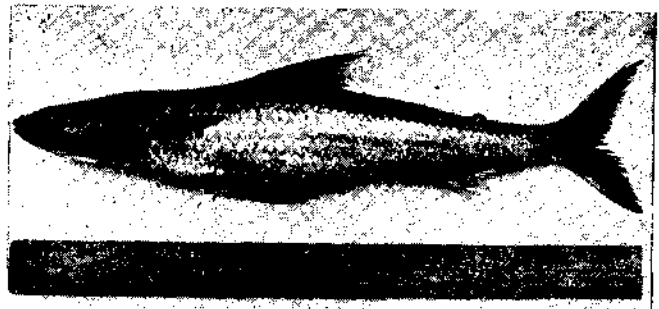


Fig. 47. *Saurida tumbil*.

Scientific Name	: <i>Saurida tumbil</i>
Vernacular Name	: 'Chor bombil'
Gear	: Trawl net
Percentage in the catch of the group	: —

Peak period of occurrence : Oct. - Nov.  
 Depth of occurrence : 60 - 90 m  
 Length range in commercial fishery : 210 - 540 mm  
 Size at first maturity : —  
 Spawning season : —

Length range in commercial fishery : 410 - 950 mm  
 Size at first maturity : —  
 Spawning season : Jun. - Jul.

TACHYSURIDAE

Popular English Name : Cat fish  
 Vernacular Name (Marathi) : 'Singhala'  
 Annual average catch : 1,530 t  
 Percentage in total catch : 12.0  
 Fishing methods and their contribution : Trawl net : —



Fig. 49. *Eupleurogrammus muticus*.

TRICHIURIDAE

Popular English Name : Ribbon fish  
 Vernacular Name (Marathi) : 'Wakti'/'Wagti'  
 Annual average catch : 1,087 t  
 Percentage in total catch : 8.5  
 Fishing methods and their contribution : Trawl net/  
 Dol net: —

Scientific Name : *Eupleurogrammus muticus*  
 Vernacular Name : 'Wagti'  
 Gear : Dol net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Jul. - Sep.  
 Depth of occurrence : 10 - 30 m  
 Length range in commercial fishery : 250 - 400 mm  
 Size at first maturity : —  
 Spawning season : Feb. - May

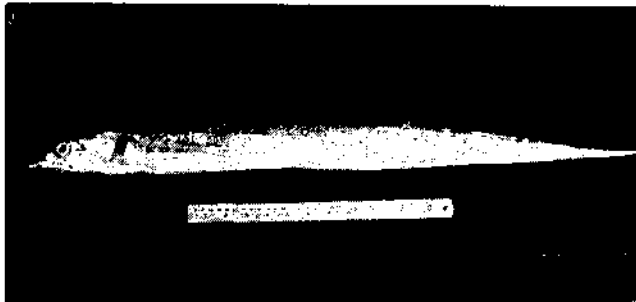


Fig. 48. *Trichiurus lepturus*.

Scientific Name : *Trichiurus lepturus*  
 Vernacular Name : 'Wakti'  
 Gear : Trawl net/Dol net  
 Percentage in the catch of the group : —  
 Peak period of occurrence : Oct. - Dec.  
 Depth of occurrence : 60 - 90 m

XIPHIDAE

Popular English Name : Sword fish  
 Vernacular Name (Marathi) : 'Ghoda'  
 Annual average catch : 115 t  
 Percentage in total catch : 0.9  
 Fishing methods and their contribution : Gill net: —

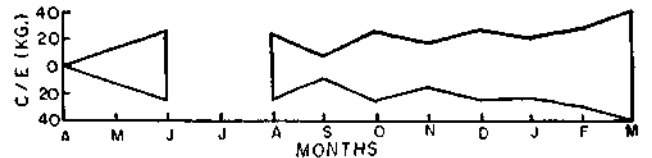


Fig. 50. Seasonal abundance of sword fish (Xiphiidae) in gill net catch.

