

Reports on surveys with the R/V Dr Fridtjof Nansen.

Surveys on the
Marine Fish Resources
of Burma

Sep. - Nov. 1979 and Mar. - Apr. 1980

Institute of Marine Research, Bergen



«Dr. Fridtjof Nansen»

The fishery research vessel «Dr. Fridtjof Nansen» belongs to the Norwegian Agency for Development Cooperation (NORAD). It was designed and built for scientific and exploratory investigations of fishery resources of developing countries, under a joint plan with the Fisheries Department of FAO based on a funding of operation to be shared by FAO and Norway.

The first six years of operation have included surveys of the pelagic fish resources of the NW Arabian Sea (1975-76), and of the coastal fish resources of Pakistan, Mozambique, Sri Lanka and Bangladesh (1977-79), and finally those of Burma described in this report. The Institute of Marine Research, Bergen is under a subcontract with NORAD responsible for the operation of the vessel, and the various research programmes were planned and conducted jointly with the relevant fisheries research organizations in the countries concerned.

Results of the previous surveys have been reported on in a number of cruise- and progress reports under each programme.

Surveys of the Marine
Fish Resources of Burma
September-November 1979
and March-April 1980.

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Preface

This document describes the main findings of the surveys of Burmese waters with the R/V "Dr. Fridtjof Nansen". Preliminary results have already been reported on by Nakken and Sann Aung in March 1980 and in separate cruise reports (I-IV). A further report covering biological analysis of fish sampling will be issued later.

Issued in Bergen, February 1981

Drawings by Harald Kismul

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1. INTRODUCTION

In September 1979 a programme of investigations of the marine fish resources of Burma was agreed between the Government of Burma, the United Nations Food and Agricultural Organization (FAO) and the Norwegian Agency for Development Aid (NORAD). In accordance with this the fishery research vessel "Dr. Fridtjof Nansen" was commissioned to survey Burmese waters at two seasons: in September-November 1979 and in March-April 1980. The Institute of Marine Research, Bergen was responsible for the details of planning and the programme was carried out jointly with the Peoples Pearl and Fisheries Corporation, Rangoon. The participating scientific and technical staff is listed in Annex I.

The acoustic/exploratory fishing survey which is here made use of base itself on observations from the following work systems:

Acoustic system observing depth, bottom type, and fish biomass by categories.

Fishing system observing catch, its amount and composition, biological data of fish, fishability.

Oceanographical observations of ambient characteristics (temperature, salinity, oxygen, current.)

The analysis and processing of these data provide information on the quantity and distribution of the fish resources, their composition and aspects of their behaviour and their environment. The survey system has certain limitations particularly as regards the interpretation of the acoustic observations. These will be discussed later. Similar work in other areas has, however, demonstrated that findings from these types of surveys can provide good if often conservative indications of the availability of fish resources.

2. SURVEY COVERAGE

During each of the main surveys in the post-monsoon season in September-November 1979 and the pre-monsoon season in March-April 1980 the Burmese

waters between the border with Bangladesh in the north and that with Thailand in the south was in principle covered twice. There was thus a total of four coverages as follows:

1st	coverage	25/9 -18/10	1979
2nd	"	23/10-18/11	1979
3rd	"	5/3 - 1/4	1980
4th	"	5/4 -27/4	1980

The first and third coverages represented total fixed grid overviews while the research efforts of the second and fourth coverages were concentrated within areas which were found to be of particular interest with regard to fish abundance and distribution. Figures 1 to 4 show the course lines followed during the various parts of the survey and the location of the fishing stations and hydrographical stations worked. The main transects are spaced approximately 30 nautical miles apart and run from a depth of about 15 m seawards with a maximum extension of 110 nautical miles. During cruise 3 also the Coco islands region was covered. Seven hydrographical sections were worked on cruises 1 and 3, three off Arakan, two in the Delta area and two off the Tenasserim coast. Bottom- and pelagic trawls were operated at close to 400 fishing stations.

In the further analysis of the findings the total survey area will be divided into the following four geographical sub-areas which are likely also to represent main ecological divisions:

The Arakan coast, bordering the Bay of Bengal with a narrow shelf and few inlets down to about 16° Lat.N.

The Delta area, covering the mostly shallow and slightly sloping wide shelf between 16° and 13°30' Lat.N. and about 94° to 98° Long.E and dominated by the influence of the outflows of the Irrawaddy and the Salween rivers.

The Tenasserim coast, south of 13°30'N bordering the Andaman Sea, with numerous fjords and inlets and with shallow and medium depths; and finally

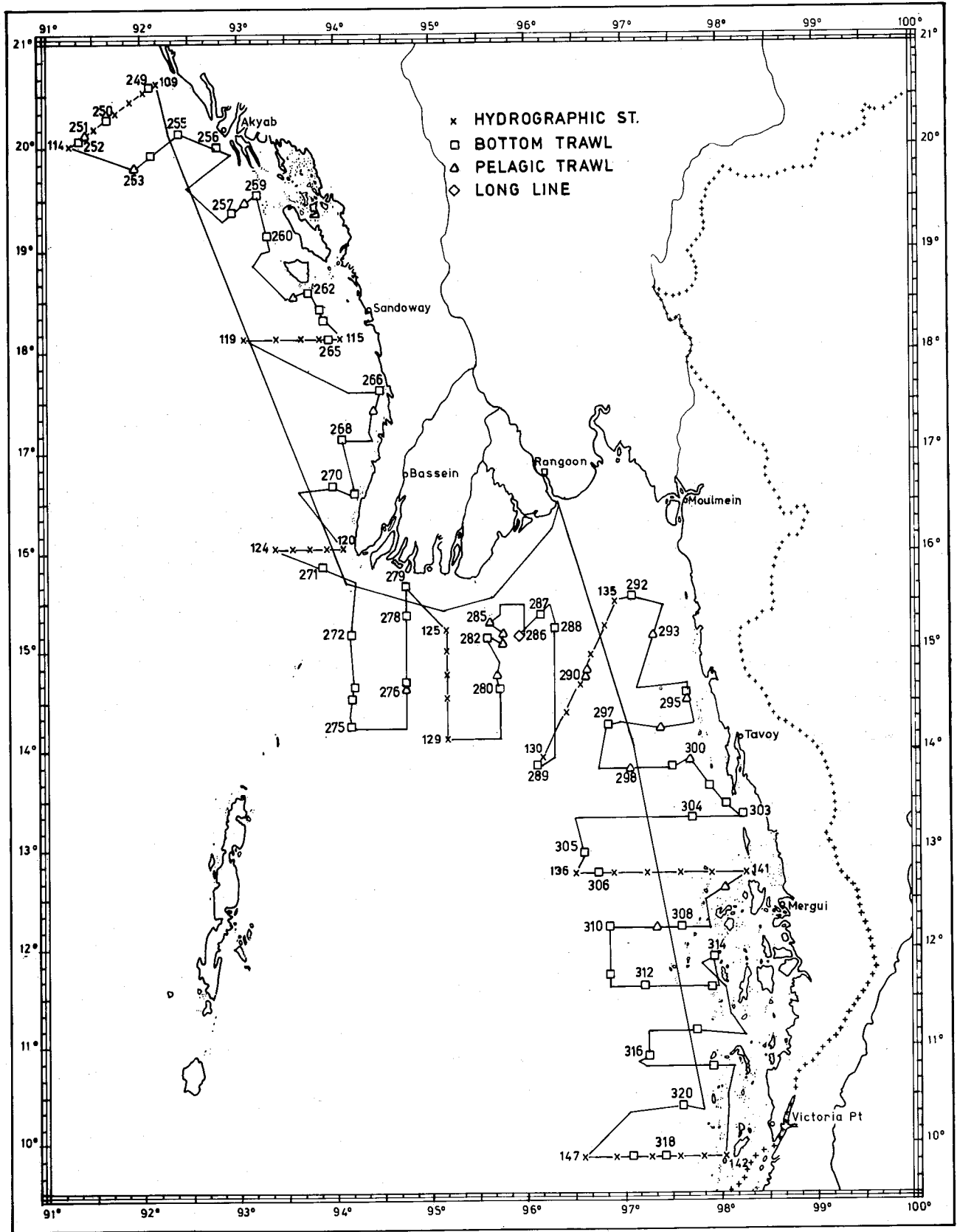


Figure 1. Survey routes and stations 25 Sep-18 Oct 1979.

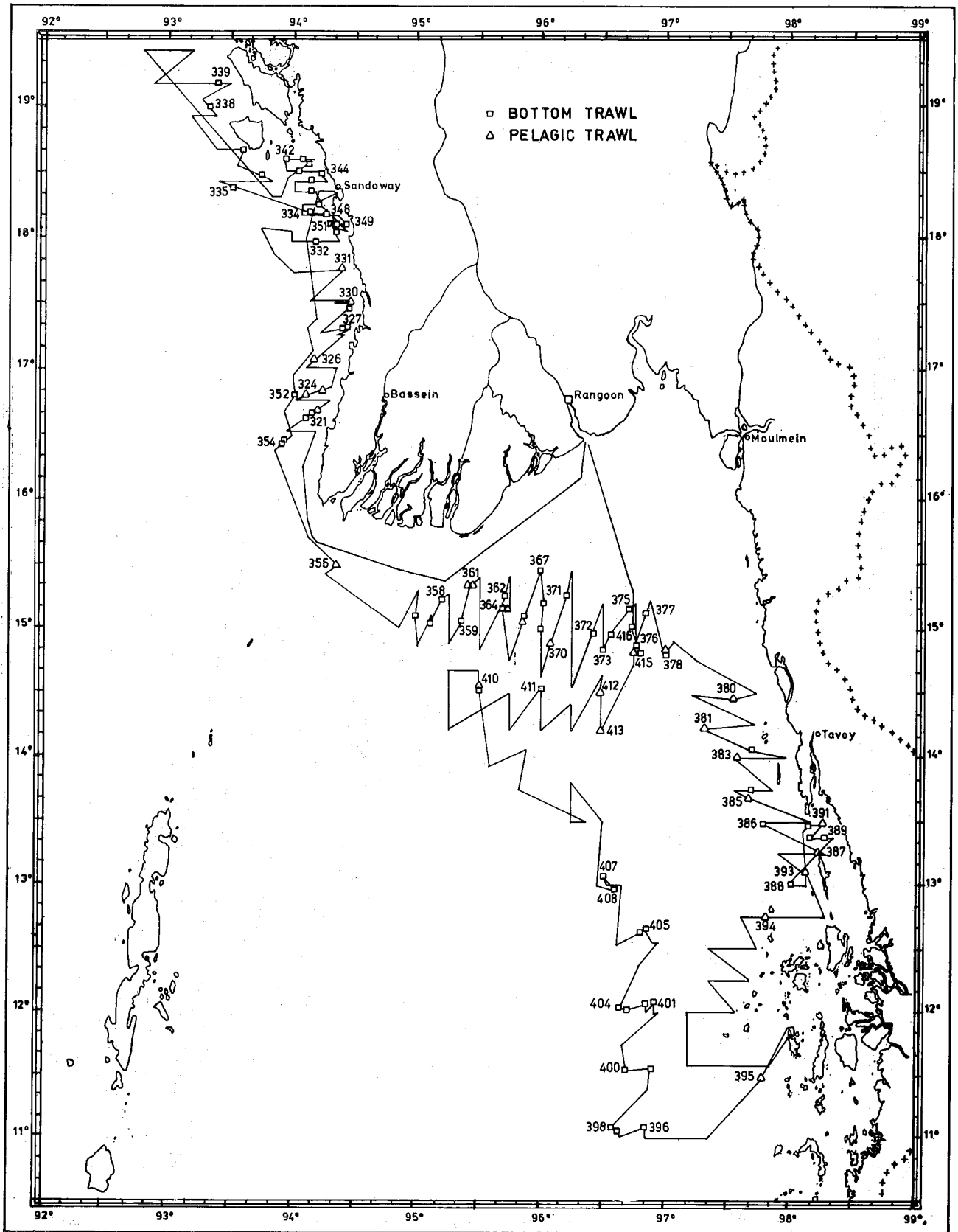


Figure 2. Survey routes and stations 23 Oct-18 Nov, 1979.

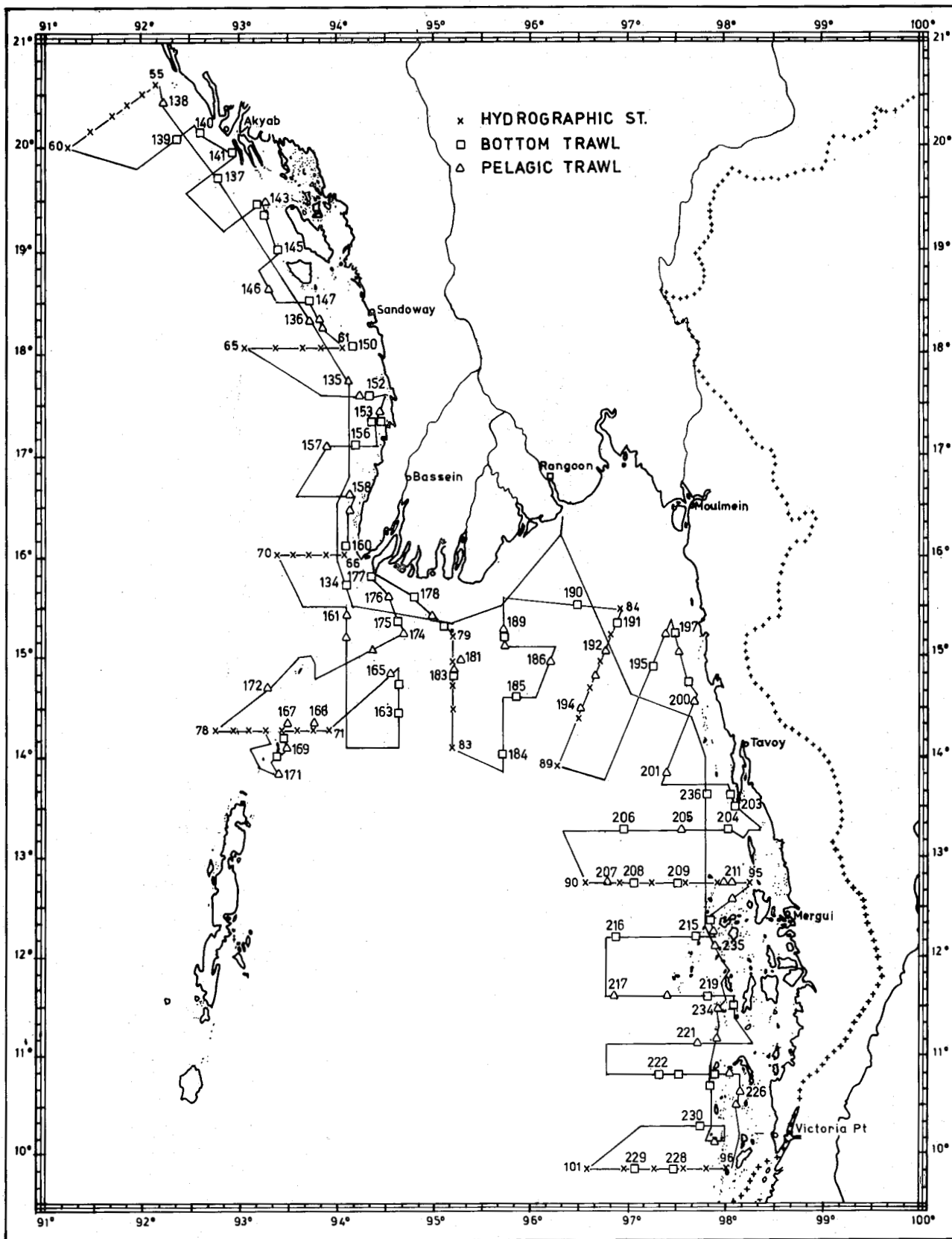


Figure 3. Survey routes and stations 5 March-1 April 1980.

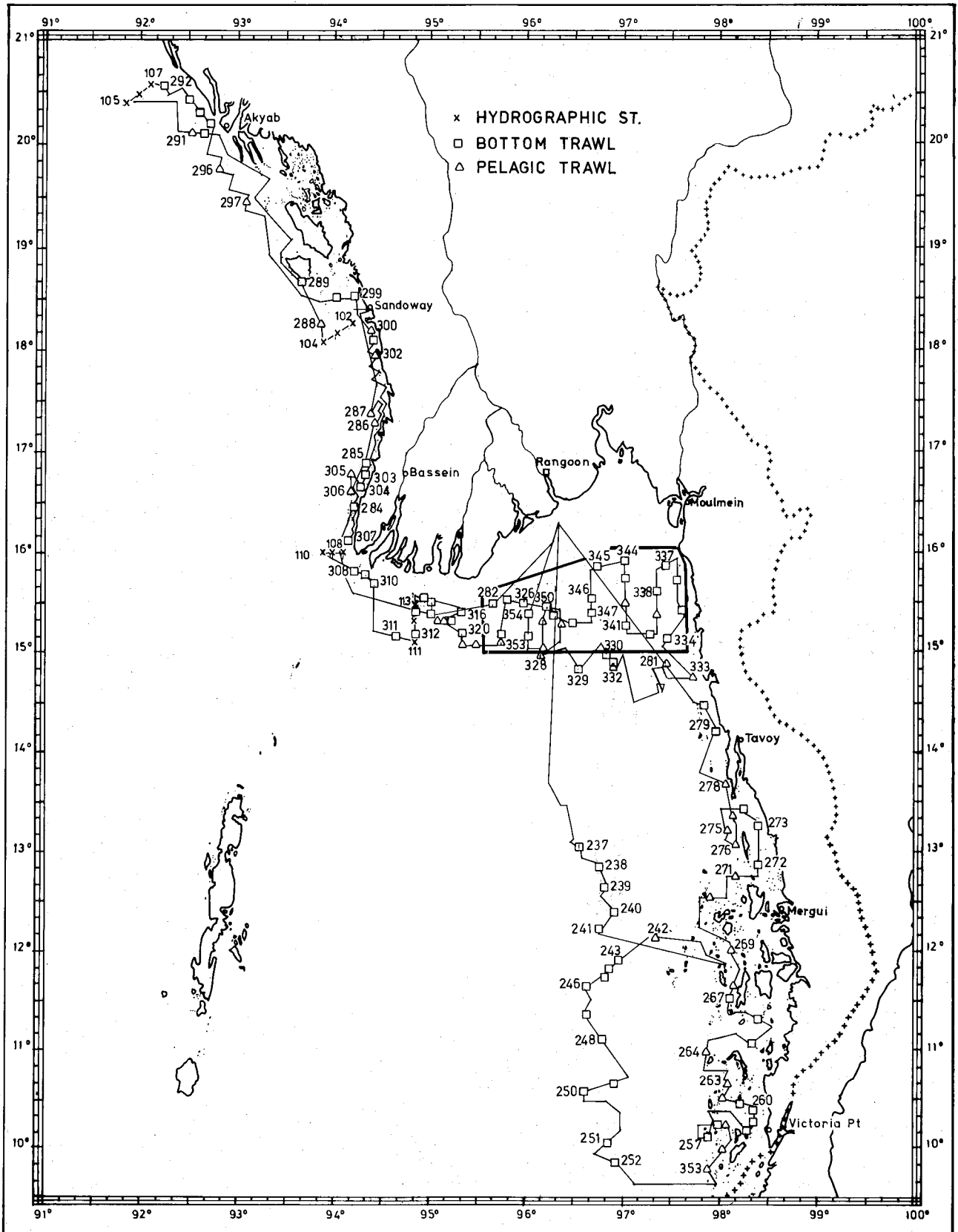


Figure 4. Survey routes and stations 5 April-27 April 1980. The area within frames on the Delta is the trawl survey area dealt with later in the text.

The Deep Sea Trawling Ground on the slope of the shelf from 200 to 400 m depth off the Tenasserim coast from abt 13° Lat.N to 10° Lat.N.

Although these sub-areas have been covered twice in each season all the observations and findings during one season have been analysed and interpreted jointly so that the results are presented as deriving from two surveys, one in the autumn, September-November 1979 and one in the spring, March-April 1980.

Estimates have been made of the area covered by the investigations. These are based on the distribution of the survey grids shown in Figures 1-4. Table 1 shows these estimates. Since the main fish distribution is limited to the shelf area, the parts of the shelf which was covered by the survey have also been calculated. The outer regions of the shelf (to the defined limit of 200 m depth) have generally been fully covered in all sub-areas, but the inshore shallow parts could often not be covered because of a depth limit of about 15 m for the safe operation of the vessel. Estimates have been made of the extent of the shallow inshore shelf which has been left uncovered in the various sub-areas. The estimates of the fish biomass will be adjusted for these areas which had to be left out of the surveys.

Table 1. Area of investigation, degree of covering and shelf area in Burmese waters

AREA	Area of the investigations (nm ²)		Area of the shelf covered (nm ²)		Shallow waters not covered (nm ²)		Shelf area (nm ²)
	Oct-Nov -80	Mar-Apr -80	Oct-Nov -79	Mar-Apr -80	Oct-Nov -79	Mar-Apr -80	
Aracan coast	17.000	16.000	9.400	9.400	2.000	2.000	11.400
Delta area	25.600	35.100	23.800	29.500	9.000	4.800	34.300
Tenasserim coast	22.800	25.300	15.300	17.800	5.700	3.200	21.000
Total	65.400	76.400	48.500	56.700	16.700	10.000	66.700

It is of interest to consider the "survey-" or "sampling intensity". A measure of this is the quotient between the distance travelled during the actual echo-survey and the area of investigation. These are:

Autumn	Spring
<u>7524 n.m.</u>	<u>8291 n.m.</u>
65400 n.m. ²	76400 n.m. ²

For each 100 n.m.² (10x10 n.m.) of survey area there is on an average thus 12 n.m. of survey track during autumn and 11 n.m. during spring. As is evident from Figures 1-4 some areas were much more densely covered than others e.g. the Delta area.

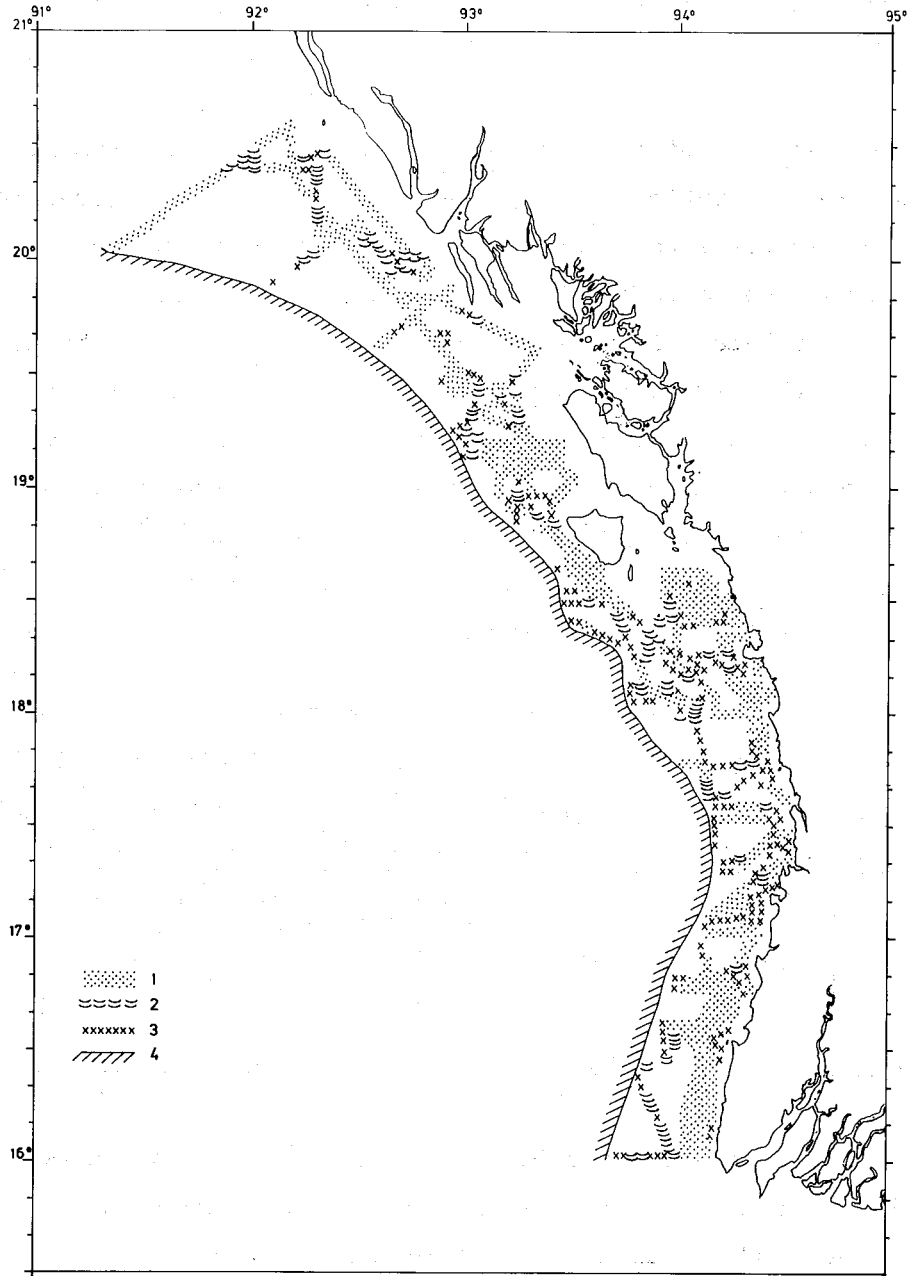


Figure 5. Bottom conditions Aracan Coast: 1) even flat bottom, 2) uneven bottom, 3) rough bottom, 4) steep slope.

3. BOTTOM DESCRIPTION

The type of bottom observed by echo sounder along the cruise tracks was classified according to its assumed suitability for bottom trawling as follows:

1. Even smooth bottom, suitable for all kinds of bottom trawls.
2. Generally smooth, but more uneven bottom where the use of bobbins would be preferable.
3. Rough bottom, unsuitable for trawling.
4. Very steep bottom, unsuitable for trawling.

Figures 5-7 show the total of observations regarding bottom conditions from all cruise tracks.

Off the Arakan coast (Figure 5) the width of the shelf is only about 30-40 n.m. up till about Sandoway, but widens to about 60 n.m. off Akyab. Inside the shelf in waters of less than 100 m depth there are wide areas of good trawling ground, but these are in places interrupted by rocks and corals. North of Sandoway there are extensive inshore very shallow areas where only small boats can operate. The slope of the shelf off the Arakan coast is steep and rough and generally not suitable for trawling. In many places on this coastline isolated small rocks or mud volcanoes were observed in areas with even flat bottom. These irregularities could be detected by the sonar, so during bottom trawling the sonar was frequently used to map the bottom conditions ahead of the vessel in order to avoid gear damage.

The Delta area (Figure 6) is characterized by a wide band of shallow smooth and gently sloping bottom. At about 15° Lat.N the bottom deepens more markedly from 20-30 m down about 100 m and in this region which extends 40 to 60 n.m. southwards the bottom is variable with many areas of good trawling ground interrupted by more uneven or rough bottom.

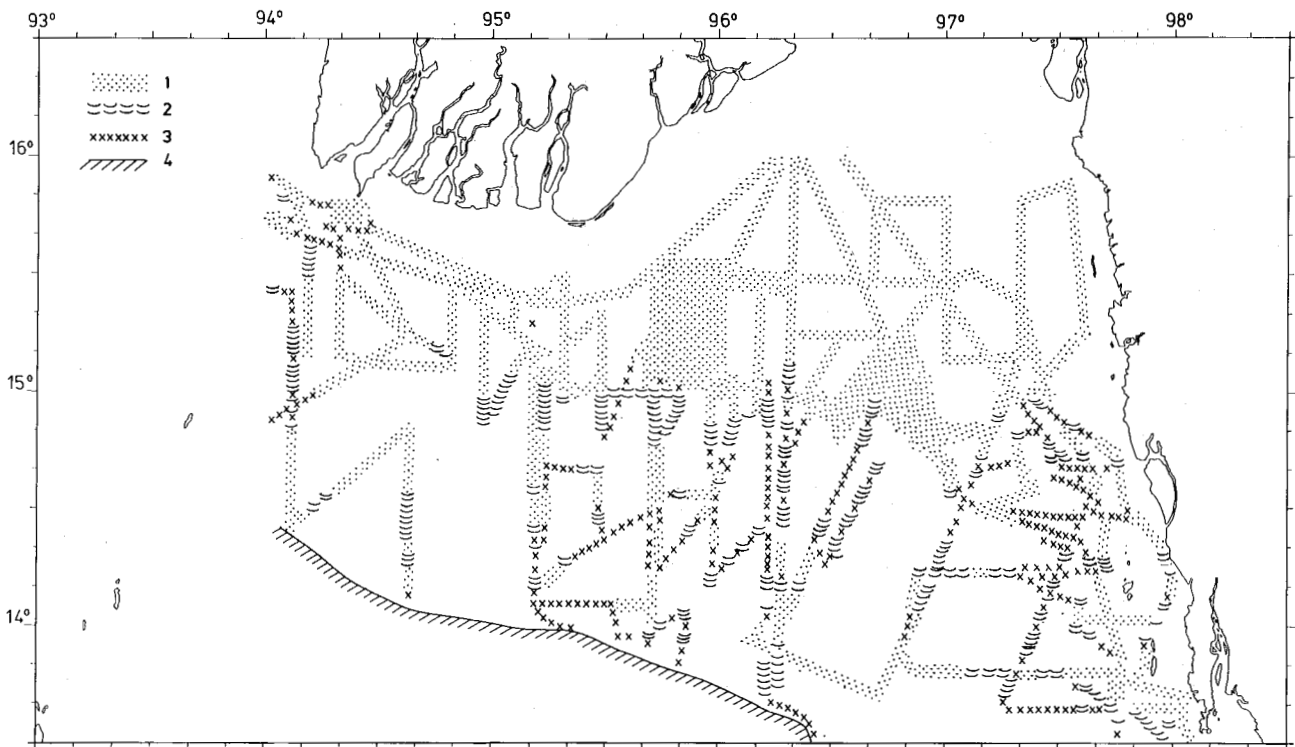


Figure 6. Bottom conditions Delta Area: 1) even flat bottom, 2) uneven bottom, 3) rough bottom, 4) steep slope.

The Tenasserim coast (Figure 7) offers a more varied picture. The shelf is very wide, the 200 m depth countour lies 60-100 n.m. offshore. The slope outside this shelf is not very steep down to about 400 m depth and thus a deep water ground with generally smooth bottom extends over a wide offshore area from about 13° Lat.N southwards to the border with Thailand. There are also extensive areas of trawlable bottom further in towards the archipelago. In between the islands and in the inlets bottom conditions vary greatly between even smooth trawl bottom and rough rocky grounds. There are also here extensive areas of shallow water where only small boats can navigate.

4. GENERAL FEATURES OF THE HYDROGRAPHICAL ENVIRONMENT

The main features in the hydrographic conditions during the two survey periods appear from Figs 8-10. In autumn, the surface waters off the Delta and Arakan coasts (Fig 8) were extensively mixed with freshwater originating from the runoffs of the large rivers (Irrawaddy and Salween). The observation period - October - was just after the rainy season and corresponded with the yearly runoff maximum. Low saline surface water with

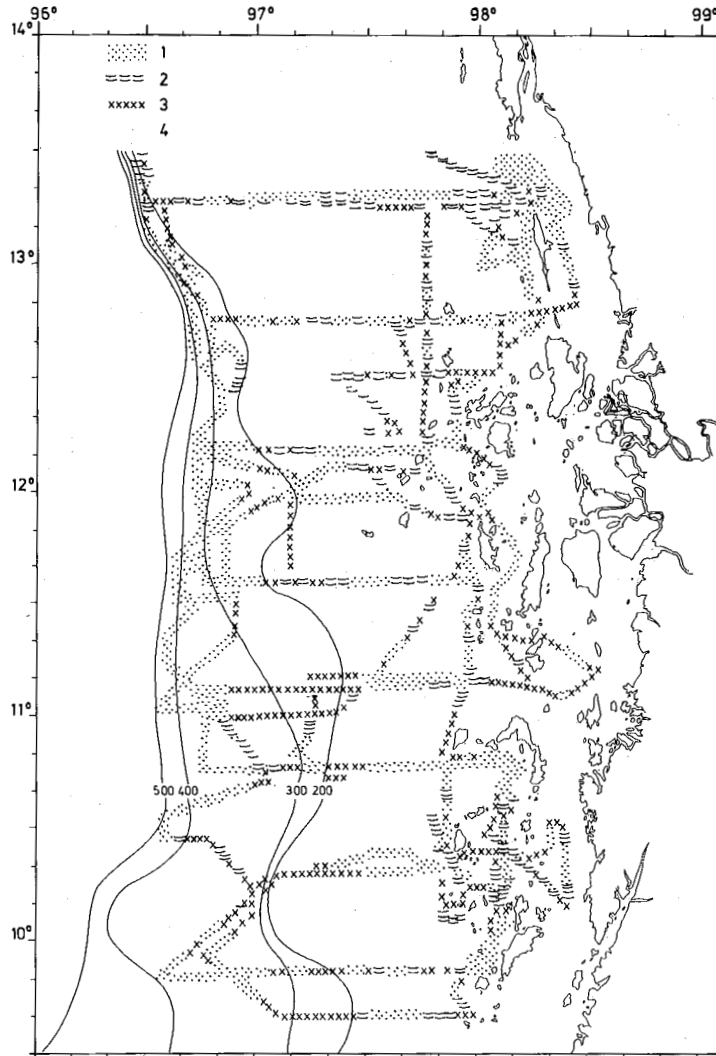


Figure 7. Bottom conditions Tennasserim Coast:
1) even flat bottom, 2) uneven bottom,
3) rough bottom, 4) steep slope.

salinities less than $20^{\circ}/\text{oo}$ was observed over large areas in the Delta region and northward along the Arakan coast, indicating a west- and northward transport of the uppermost coastal watermasses.

During spring, when the river runoff is at a minimum, the conditions were quite different. Now, the highest surface layer salinities ($>33^{\circ}/\text{oo}$) were observed in nearshore waters except for a small area off Akyab (northern Arakan) and another just off the Salween river delta (Moulmein). Thus the salinity distribution of the surface layers over the continental shelf showed large seasonal variations depending on the freshwater inflow to the Delta region.

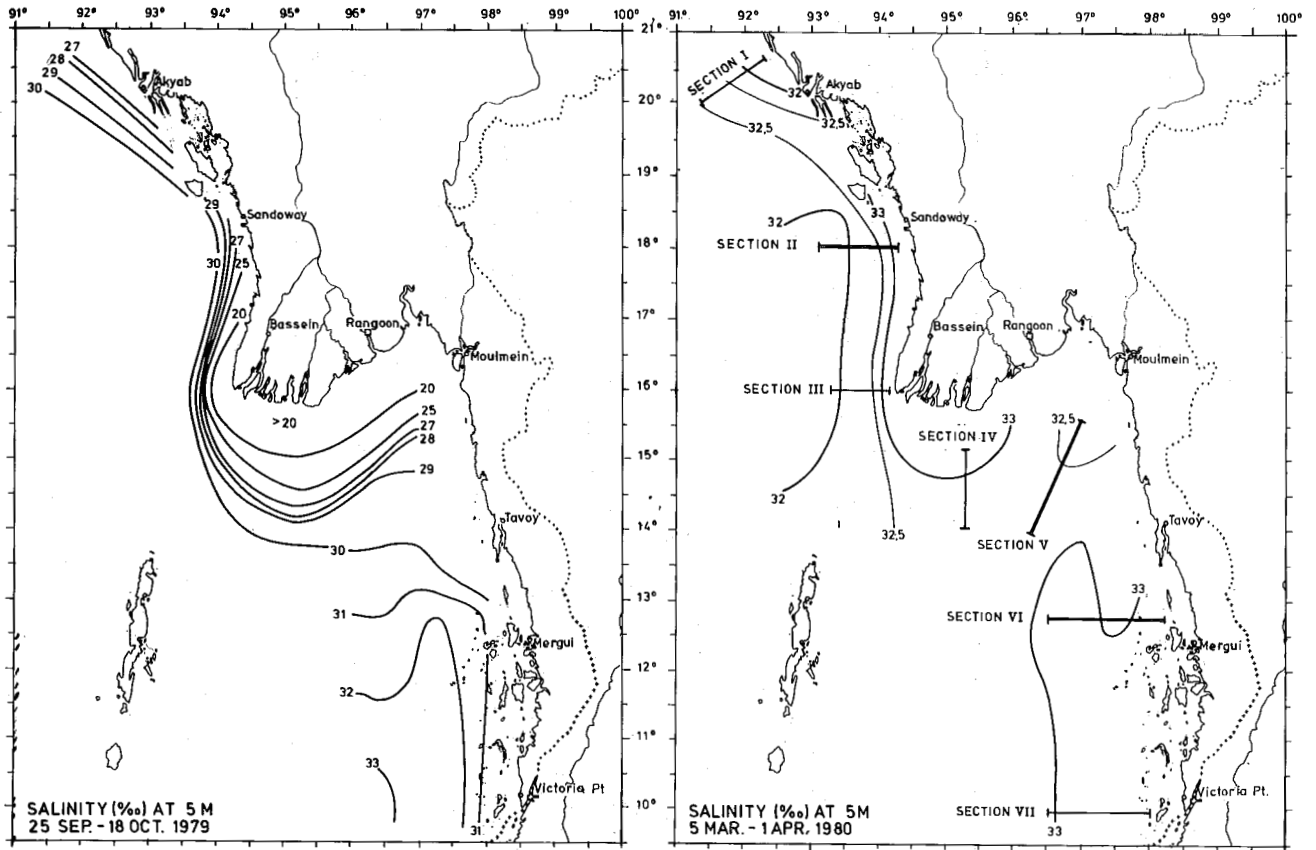


Figure 8. Salinity (‰) at 5 m depth 25 Sep-18 Oct 1979 (left) 5 March-1 April 1980 (right).

Significant changes in the hydrographic conditions of intermediate and deeper water masses from autumn to spring were also observed along the Burma coast. In Figures 9 and 10 the distributions of temperature, salinity and oxygen content in three selected sections can be compared for

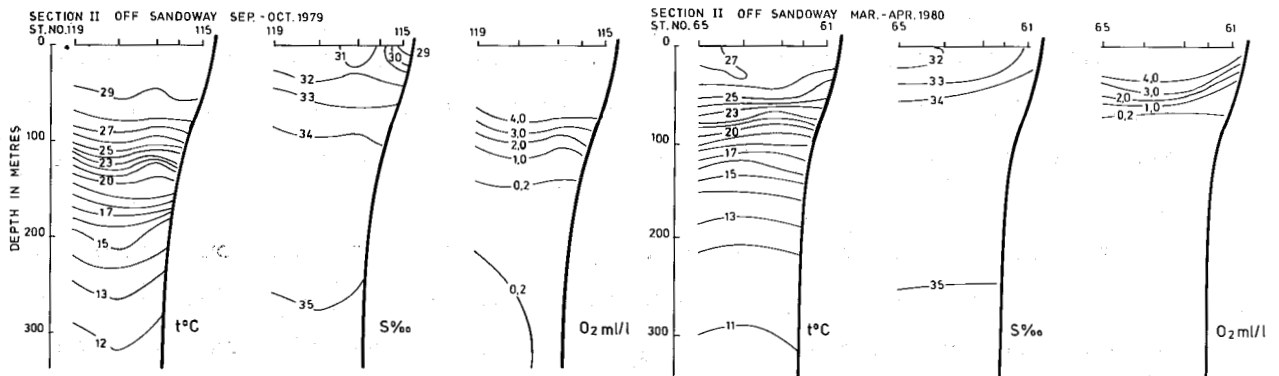


Figure 9. Distribution of temperature (t°C), salinity (‰) and oxygen (ml/l) in the hydrographical section off Sandoway Sep-Oct 1979 (left) and March-April 1980 (right).

the two survey periods. The main features of these distributions appear to be similar for all the three sections: In autumn the transition layer between the upper homogeneous watermasses and the deep water was found at depths between 70 and 150 m; while in spring the transition layer occurred

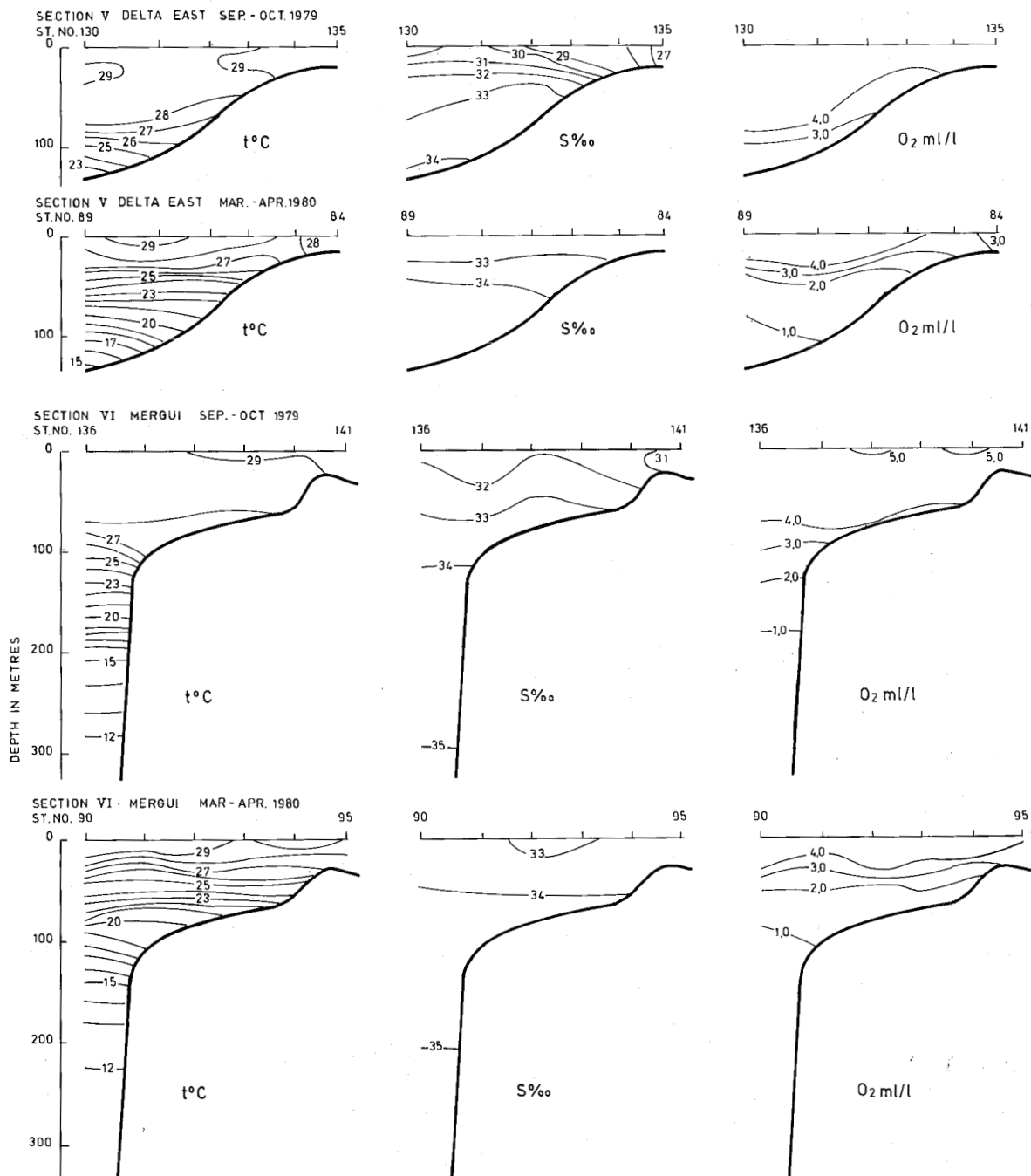


Figure 10. Distribution of temperature (t°C), salinity ‰ and oxygen ml/l in the hydrographical section on the Eastern Delta Sep-Oct 1979, March-April 1980; off Mergui Sep-Oct 1979 and March-April 1980.

much closer to the surface at depths from 20 to 100 m all along the coast. Large areas of the shelf, which in autumn showed values of temperature and oxygen content higher than 26°C and 3 ml/l at the bottom, were during spring, covered with water of lower temperatures (<23°C) and less oxygen content (<2 ml/l). The slopes of the isolines in Figs 9 and 10 may indicate a shorewards movement of the bottom waters on the shelf with corresponding upwelling in near shore areas during spring. In particular this seems to be pronounced off Arakan and in the Delta region.

Thus the observations indicated large seasonal variations in hydrographic conditions both in the surface and bottom layers on the continental shelf; variations which in turn may cause fluctuations in fish distributions patterns both horizontally and vertically.

In deeper waters, at depths greater than 150-200 m, below the transition layer zone, the hydrographic conditions were more stable. It should, however, be noted that the oxygen content of the deep water were lower in the Bay of Bengal (Arakan), less than 0.2 ml/l, than in the Andaman sea (Delta and Tenasserim), not less than 0.8 ml/l.

5. RESULTS OF THE FISH SURVEY WORK

5.1 The echo recordings and their interpretation

Assessment of the abundance of fish resources based on acoustic observations combined with experimental fishing is a method which especially lends itself to fish found in schools or other aggregations in mid-water. This is, however, a type of behaviour which characterizes a considerable number of the fish species found in Burmese waters. But there are also notable exceptions, e.g. surface schooling tunas and tuna-like species and strictly bottom dwelling fish such as rays and flounders. Any fish found very close to the bottom ($\frac{1}{2}$ -1 m) or in the very surface layer will escape echo sounder detection. For navigational reasons the work with the R/V "Dr. Fridtjof Nansen" is limited to waters deeper than about 15 m. The extreme inshore waters of the northern Arakan coast, the eastern Gulf of Martaban and the mid part of the Tenasserim Coast could thus not be covered.

Because of differences in behaviour and size, different species or groups

of fish species may give rise to different types of echo-recordings. Small-sized pelagic fish are for instance often found in well-defined schools, the recordings of which can be distinguished from those of the often looser aggregation in which semi-demersal larger fish are often found. Such classification of the echo recordings is of considerable assistance in interpreting the acoustic observations, but a positive identification by fishing operations is still indispensable and also provides the only means of sampling fish in this type of combined survey.

Based on previous experience and on identification by fishing, the fish recordings from the Burmese waters were classified as follows:

- (i) Recordings of true larger schools or dense layers mostly in upper water, Figure 11. These will most often derive from pelagic schooling fish usually of smaller size e.g. clupeoids, scads. This type was the most common in the coastal areas.
- (ii) All other fish recordings which especially comprised looser aggregations of smaller and larger fish near the bottom and in mid-water. These are ascribed to demersal or semi-demersal fish such as croakers, grunts, breams, snappers, sharks, ponyfish etc. This type of recording was also common, and examples are shown in Figure 12. In this group was also included single fish traces or small schools of bigger fish closer to the surface waters. These recordings are thought to derive from tunas and tuna-like fish. They were less common and probably often "lost" in dense plankton recordings near the surface.

In our analysis we will thus distinguish between the abundance and distribution of "pelagic fish" - anchovies, sardines, scads and small mackerels on the one hand and of "other fish" - croakers, grunts, snappers and other demersal and semi-demersal fish as well as larger pelagic tuna-like fish, - on the other. The catch records provide of course detailed accounts of the species caught by the various gears. One should note, however, that the terms "pelagic" and "demersal" only indicate a general tendency of behaviour. Pelagic fish are often caught in quantities in bottom trawls and pelagic trawls can be used to catch demersal fish when distributed in mid water.

Table 3. Estimated biomass for the total shelf areas (in 1 000 tonnes)

SMALL PELAGIC FISH:

Area:	Autumn 1979	Spring 1980
Aracan coast	180	170
Delta area	370	640
Tennasserim coast	70	520
Total	620	1330

OTHER FISH:

Area:	Autumn 1979	Spring 1980
Aracan coast	130	120
Delta area	290	710
Tennasserim coast	120	130
Total	540	960

while the "other fish" biomass is increased by about 80%. The most likely explanation of this seasonal change is that it is caused by a fluctuation in biological production. Many of the fish species in this area are small-sized and have a brief life-span only. Their main period of production is adjusted to favourable ecological conditions during certain parts of the year. Similar large-scale seasonal fluctuations of the biomass of short-lived species such as sardines and anchovies have been demonstrated in nearby and comparable areas such as the coast off Pakistan and the south-west coast of India.

In the following we will now consider the distribution and composition of fish biomass through a discussion of the charts of echo-abundance and of the findings of the fishing operations.

5.3 Fish distribution on the Arakan Coast

The total estimated biomasses found along this part of the coast were as mentioned above as follows (1000 tons):

	Autumn	Spring
Small pelagic fish	180	170
Other fish	<u>130</u>	<u>120</u>
Total	310	290

5.3.1 The small pelagic fish, Arakan coast

Figure 13 shows that the small pelagic fish are mainly distributed in the inshore areas of the coast south of Sandoway. This area corresponds to the narrowest part of the shelf. Especially in the heavier concentrations the fish occurred in well defined schools during daytime and as layers at night.

Aimed mid water trawling was conducted to identify these pelagic concentrations of fish. The locations of the fishing stations are shown in Figures 1-4 and the catches and their composition are recorded in Annex Table IV. The results for each of the seasons are summarized in Table 4. From this it appears that sardines and anchovies by far dominate in these catches in both seasons. In the autumn sardines occurred in 5 of 7 catches, in the spring in 7 out of 12 catches. The genera found were Sardinella, Dussumeria and Ilisha. The anchovies represented mostly by Stolephorus were almost as common as the sardines, while the remaining pelagic fish consisted of Carangids, Scomberomorus and Sphyraena. From the figures showing the mean part by weight of the catches of these various categories it is evident that the sardines, anchovies and carangids generally make out substantial parts of the catches while Scomberomorus and Sphyraena are by-catches.

Table 4. Identification of small pelagic fish by aimed mid water trawling. Frequency of occurrence (when more than 10% by weight of catch) and mean part of weight of catch (%).

ARAKAN COAST		
	Sept. - Nov.	March - April
Total no. hauls	7	12
<u>Clupeids</u>	5 - 39%	7 - 70%
Sardinella	3 - 30%	2 - 51%
Dussumeria	1 - 14%	7 - 56%
Ilisha	2 - 47%	
<u>Engraulids</u>	5 - 40%	4 - 56%
Stolephorus	4 - 48%	4 - 56%
Thrissina	1 - 10%	
<u>Carangids</u>	1 - 87 %	2 - 53%
Decapterus	1 - 61%	2 - 53%
Caranx	1 - 26%	
Scomberomorus		2 - 16%
Sphyraena	1 - 39%	
Miscellaneous	3 - 20%	3 - 17%

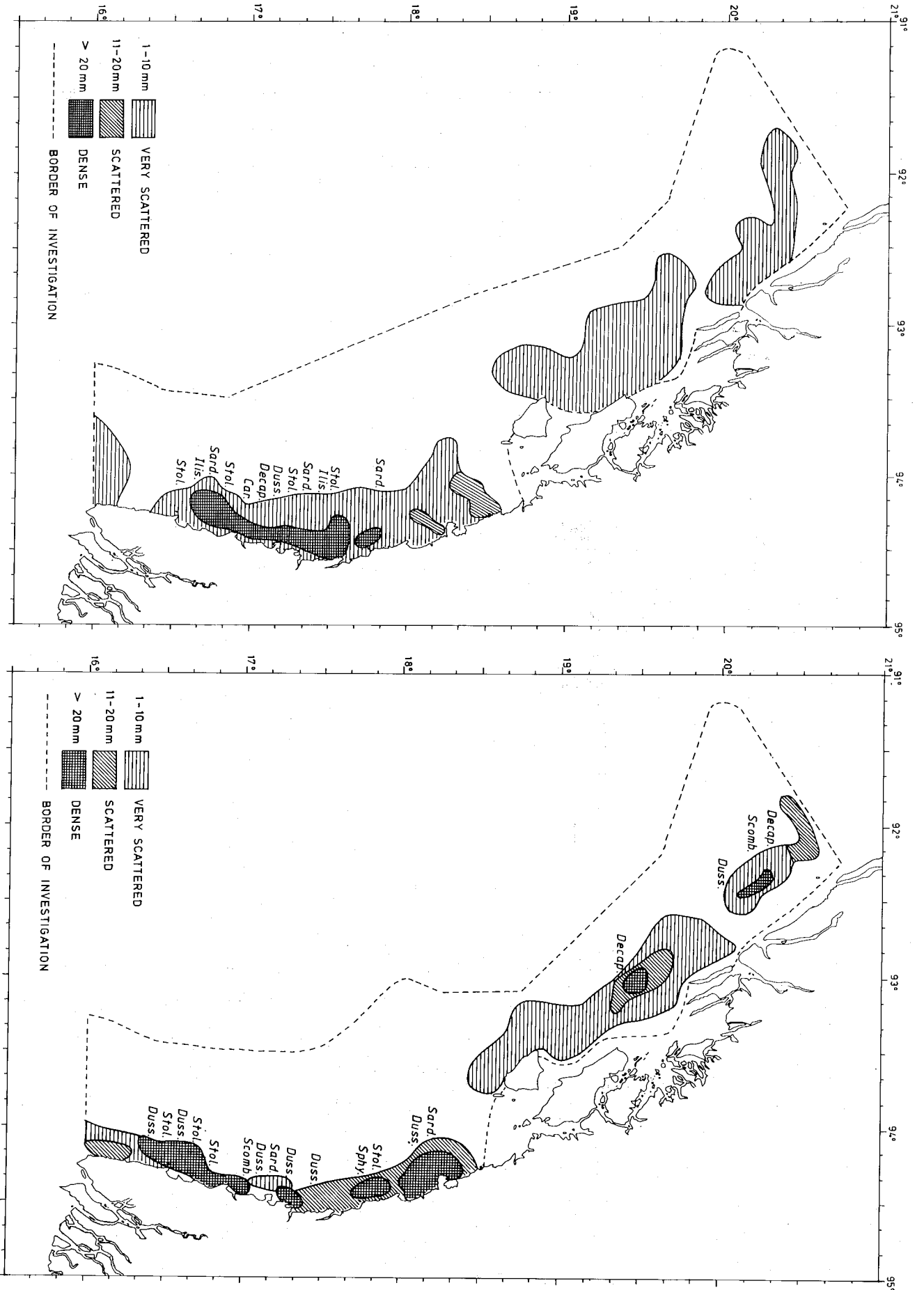


Figure 13. Distribution of small "pelagic fish" on the Aracan Coast, Sep-Nov 1979 (left), and March-April 1980 (right). For explanation of the codes for the fish names, see text.

The composition of the mid water hauls has also been used to indicate the locations of occurrence of the various types of fish in the distribution charts, Figure 13. It is, however, uncertain to which extent these indications of local occurrence provide a typical or general description of the distribution of the fish over a longer period of time.

List of codes used to indicate fish distribution in figure 13 - 18 and their corresponding fish species or group names.

Acrop	=	Acropoma japonicum	Otho	=	Otholithes sp.
Arius	=	Arius sp.	Pamp	=	Pampus sp.
Atrob	=	Atrobucca nibe	Penna	=	Pennahia sp.
Car	=	Caranx sp.	Pent	=	Pentaprion sp.
Congr	=	Congresox sp.	Poly	=	Polynemus sp.
Chrys	=	Chrysochir sp.	Pom	=	Pomadasys sp.
Decap	=	Decapterus sp.	Rac	=	Rachycentron sp.
Duss	=	Dussumeria sp.	Rast	=	Rastrelliger sp.
Eng	=	Engtaulis sp.	Ray/ska	=	Rays and skates
Gerr	=	Gerrus sp.	Sard	=	Sardinella sp.
Harp	=	Harpodon sp.	Saur	=	Saurida sp.
Ilis	=	Ilisha	Scia	=	Scianeidae
Lact	=	Lactarius lactarius	Scomb	=	Scomberoides sp.
Lei	=	Leiognathus sp.	Selar	=	Selar sp.
Lept	=	Lepturacanthus sp.	Shar	=	Sharks
Leth	=	Lethrinus sp.	Shri	=	Shrimps
Loligo	=	Loligo sp.	Sphy	=	Sphyræna sp.
Nemi	=	Nemipterus sp.	Stol	=	Stolephorus sp.
			Thrys	=	Thryssa sp.

The small pelagic fish also frequently occur close to the bottom especially in shallow water and are often caught in the ordinary bottom trawl. Another supplementary way then of identifying and assessing the composition of the pelagic biomass is the analysis of the occurrence of those types of fish which are known to belong to the pelagic community in all catches in the area whether from bottom or mid water trawl hauls. Table 5 shows the frequency of occurrence on the total of fishing stations for the relevant families and their proportion of the total catch of pelagic fish. The findings support those from the mid water hauls in showing the relative importance of clupeids, engraulids and carangids in a similar order. The ribbon fishes represented mainly by Lepturacanthus also make an important contribution to the pelagic biomass.

Table 5. Occurrence by families of pelagic fish on all fishing stations (bottom- and mid water trawl), and proportion by weight of total catch of pelagic fish.

ARAKAN COAST

Total no. of stations	Sept. - Nov.		March - April	
	No. of stations occurring	% of total catch	No. of stations occurring	% of total catch
Clupeidae	30	38	21	52
Engraulidae	22	28	12	25
Trichiuridae	20	21	14	4
Carangidae	19	3	19	16
Sphyrenidae	21	9	11	2
Scombridae	15	1	9	1

5.3.2 Other fish, Arakan coast

As shown in Figure 14 the distribution of demersal and semi-demersal fish as indicated by the acoustic data is also confined to the shelf with the centres of higher concentration well inside the shelf edge. In the March-April survey there is a tendency for this type of fish to be found even further inshore and in shallower waters than in September-October. This may be related to the lifting of the oxygen-deficient layer from autumn till spring as discussed under 4 above. An inshore movement of bottom fish may also explain the lower biomass estimate for the spring survey, a greater part of these fish is then found in the extreme inshore shallow waters which could not be covered by the survey.

Table 6 shows the occurrence of the most common families of demersal- and semi-demersal fish in the catches on the Arakan coast during the two main survey periods. Ponyfishes (Leiognatidae), croakers (Sciaenidae) and grunts (Pomadaridae) were both widespread and made out the greatest part of the catches, but also lizard fishes (Synodontidae) and catfishes (Ariidae) were common. Squids and shrimp were widespread although contributing little to the total weight of the catches in contrast to sharks and rays which made out a significant part of the catch on relatively few stations.

In the distribution maps fishes predominant in the bottom trawl hauls in the various regions have been recorded approximately where caught. In the extreme north rays and skates were found together with ponyfish, Pomadasy

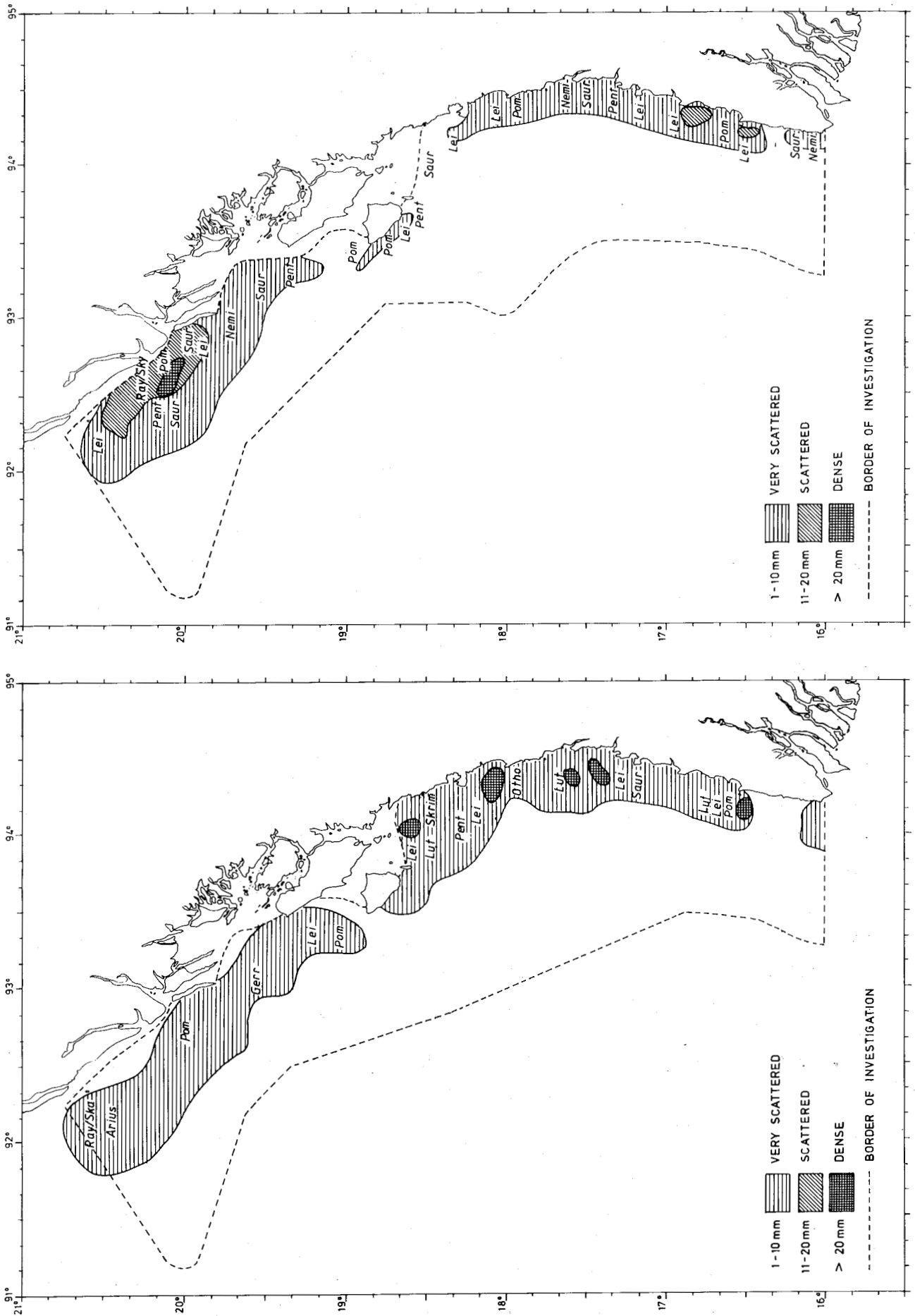


Figure 14. Distribution of other fish on the Aracan Coast, Sep-Nov 1979 (left) and March-April 1980 (right). For explanation of the codes for the fish names, see text.

Table 6. Occurrence by families of "other fish" on all fishing stations, and their proportion by weight of total catch of "other fish".

ARAKAN COAST				
Total no of stations	Sept-Nov 56		March-Apr 49	
	No of stations occurring	% of total catch	No of stations occurring	% of total catch
Ariidae	18	8.4	12	3.0
Carangidae	20	1.4	16	1.4
Gerridae	17	0.8	10	17.2
Lactaridae	17	5.8	9	2.1
Leiognatidae	39	7.5	19	19.0
Lutjanidae	14	1.9	8	0.6
Mullidae	24	1.1	16	2.8
Muraenesocidae	9	0.9	7	1.2
Nemipteridae	24	0.8	18	4.8
Pomadasidae	29	21.4	22	10.4
Sciaenidae	21	33.4	17	4.5
Scombridae	21	2.1	13	1.1
Synodontidae	27	1.8	26	6.2
Sharks and rays	16	3.3	8	9.6
Squids	28	0.5	17	0.8
Shrimp	28	1.4	18	2.6
Miscellaneous*		6.5		12.7

* Includes about 17 families of fish occurring in few catches, and with less than 1% of catch and non-fish catches such as jelly fish.

and Saurida. From Sandoway southwards the dominating forms are again Pomadasys and Leiognatus with Saurida, Lutjanus and Nemipterus spp.

5.3.3 Results of the fishing operations, Arakan coast

A summary of all fishing activities in this area during the two periods is as follows:

	BOTTOM TRAWL		PELAGIC TRAWL	
	Oct-Nov/79	Mar-Apr/80	Oct-Nov/79	Mar-Apr/80
Number of stations	45	28	11	22
Total catch (kg/hour units)	27420	35976	1455	5242
Mean total catch per hour kg	609	1285	132	238
Max. catch rates kg	6390	5250	380	680

The maximum catch rates shown above represent the means of the 3 highest catches.

The detailed data for each station are recorded in Annex Table IV. The average catch rate in bottom trawl in March-April/80 is about twice that in Oct-Nov/79. This should not be interpreted directly as indicating a higher abundance, since a considerable part of the autumn fishing relates

to a special shrimp survey near Sandoway. Also pelagic trawling yielded somewhat higher catches during the spring survey. This may in a general way indicate a higher availability of pelagic schooling fish, but in our survey system fishing with mid-water trawl is conducted for the purpose of identifying the various types of echo-recordings of fish and for sampling and this type of operation does not provide much information of interest for assessment of fish abundance or catchability.

Bottom trawl fishing provides more comprehensive data, both with regard to the availability of the demersal stocks and the composition of the catches. One should, however, note that exploratory fishing conducted as in this survey will not simulate a commercial fishery. One important difference is that commercial fishing will be concentrated in areas with high abundance of desired species whereas the exploratory fishing will cover a wider range of fish densities. The average catch rates in this survey would thus be expected to be lower than those of a commercial fishery. There is on the other hand an effect which will act in the opposite way when the survey is conducted in an unfished virgin area. A commercial fishery will after having been established reduce the standing biomass and result in a decline of catch rates. One should keep these reservations in mind when considering the following analysis of the bottom trawl results.

Tables 7 and 8 show the distribution of the various most common forms of fish on catch groups and the mean catch. The fish forms are ranged in the order in which they contribute to the total catch. It appears that in the autumn croakers made out about 1/4 of the total catch in the area, followed by grunts and clupeoids. These three groups contributed nearly half the catch. The catch rates (standardized to one hour hauls) for each form of fish were mostly lower than 50 kg/h, but with a fair part between 50-199 kg/h and a few above 500 kg/h.

The fewer hauls in the spring were dominated by anchovies, ponyfish, mojarras and grunts with a fair number of catch rates exceeding 500 kg/h. The commercial value of the different types of fish differs considerably. To enable an evaluation on the basis of this criterion the various fish species were allocated on 4 economic classes (Appendix Table III). An analysis of the bottom trawl catches according to their composition of fish of different commercial value is shown in Table 9. It appears that

Table 7. Distribution of the catches by families in 45 bottom trawl hauls on the Aracan coast Oct/Nov 1979.

Catch grouping:	>10kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no. of hauls	Mean catch	% of total catch
FAMILY:								
Sciaenidae	5	8	3	0	2	40	145	24
Pomadasyidae	5	12	9	2	1	64	93	15
Clupeidae	9	9	3	0	1	49	46	8
Ariidae	9	2	1	0	1	29	37	6
Engraulidae	7	1	0	0	1	20	36	6
Trichiuridae	8	5	1	0	1	33	35	6
Leiognathidae	7	12	5	3	0	60	32	5
Lactaridae	8	6	1	0	1	36	25	4
Mesopelagic fish	0	0	1	1	0	4	12	2
Carangidae	15	8	2	0	0	56	11	2
Rays	4	1	2	1	0	18	11	2
Sphyraenidae	6	6	0	1	0	29	10	2
Scombridae	11	7	2	0	0	44	10	2
Synodontidae	13	9	1	0	0	51	8	1
Shrimps	13	7	1	0	0	47	6	1
Lutjanidae	4	7	2	0	0	29	6	1
Lobsters	3	0	1	0	0	9	3	-
Squids	14	2	0	0	0	36	2	-
Other fish							80	13
TOTAL							608	100

Table 8. Distribution of the catches by families in 28 bottom trawl hauls on the Aracan coast March/April 1980

Catch grouping:	>10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
FAMILY:								
Engraulidae	0	2	1	0	1	14	199	17
Leiognathidae	1	1	3	2	5	43	175	15
Gerreidae	1	2	2	1	1	25	160	13
Pomadasyidae	3	4	8	2	1	64	95	8
Rays	3	0	2	0	2	25	89	7
Clupeidae	0	3	2	4	1	36	81	7
Synodontidae	4	7	6	0	1	64	55	5
Nemipteridae	5	6	5	0	1	61	45	4
Sciaenidae	2	7	1	3	0	46	42	4
Carangidae	2	10	2	0	1	54	37	3
Ariidae	4	2	3	1	0	36	27	2
Mullidae	6	3	4	1	0	50	26	2
Shrimps	4	8	2	1	0	54	24	2
Lactaridae	0	4	2	1	0	25	19	2
Lobsters	3	0	0	0	0	11	0.5	-
Squids	5	4	1	0	0	36	6	-
Other fish							107	9
TOTAL							1187	100

more than 80% of the total catch are fish in economic class 2 and 3. The catch rates of these classes of fish (considered as a whole) are fairly high - frequently exceeding 200 kg/h and often also 500 kg/h.

Table 9. Distribution of the catches by economic classes in the bottom trawl on the Aracan coast.

October-November 1979

Class:	<10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
Economic class 1	11	21	10	2	1	84	86	14
Economic class 2	12	5	19	7	2	82	311	51
Economic class 3	11	17	11	5	1	87	193	32
Economic class 4	37	4	4	0	0	44	16	3

March-April 1980

Class:	<10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
Economic class 1	7	6	12	2	1	82	104	9
Economic class 2	5	0	8	7	8	89	494	42
Economic class 3	8	3	5	4	8	86	548	46
Economic class 4	10	10	8	0	0	79	42	3

5.4 Fish distribution in the Delta area

It seems pertinent to stress that the extreme inshore parts of the Delta area particularly those of the eastern Gulf could not be covered for navigational reasons.

The total estimated biomasses during the two surveys were (in 1000 tons):

	Autumn	Spring
Small pelagic fish	370	640
Other fish	<u>290</u>	<u>710</u>
Total	660	1350

5.4.1 The small pelagic fish, Delta Area

Figure 15 shows the distributions of the biomass at the two seasons. The main concentrations are found in a belt not more than about 60 n.m. wide roughly covering the bottom depth countours from about 15 to about 60-70 m.

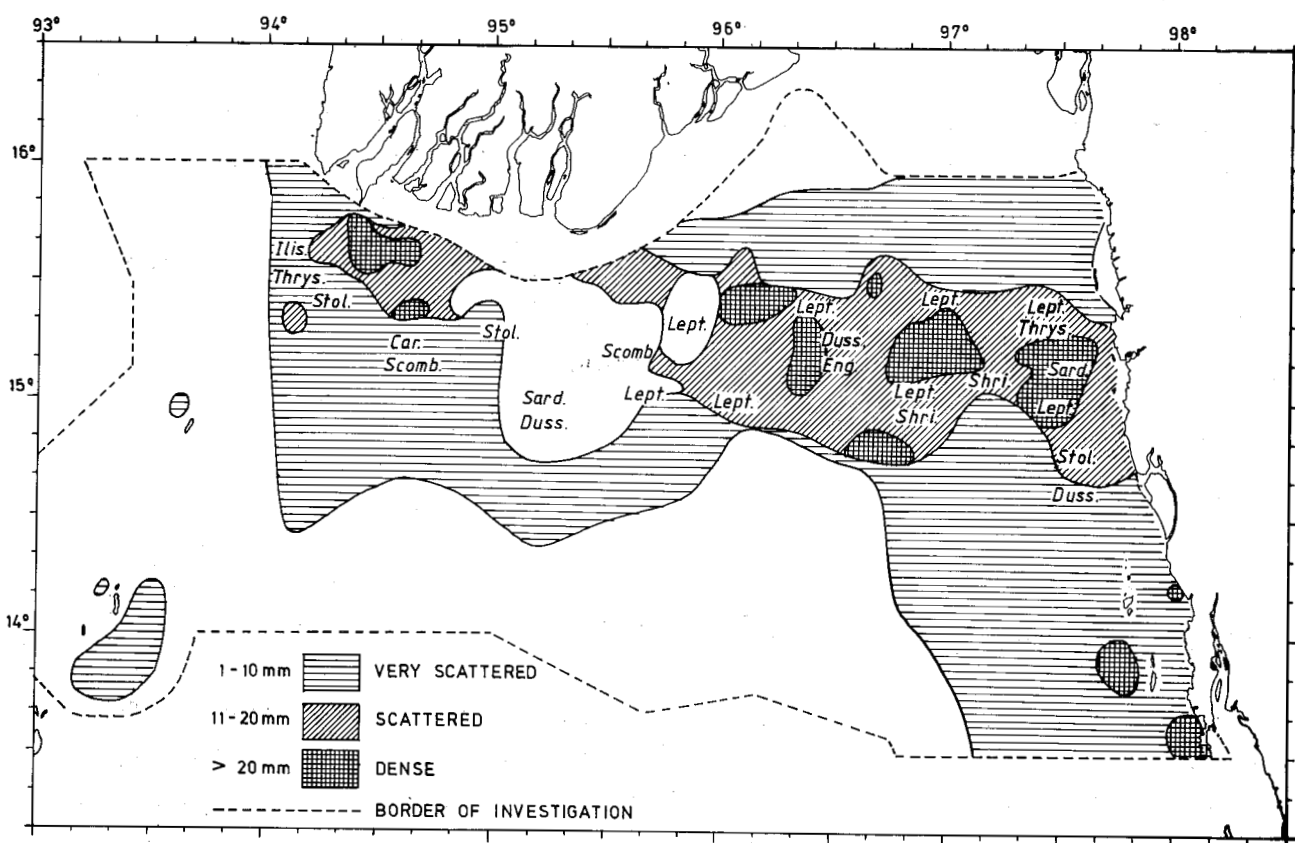
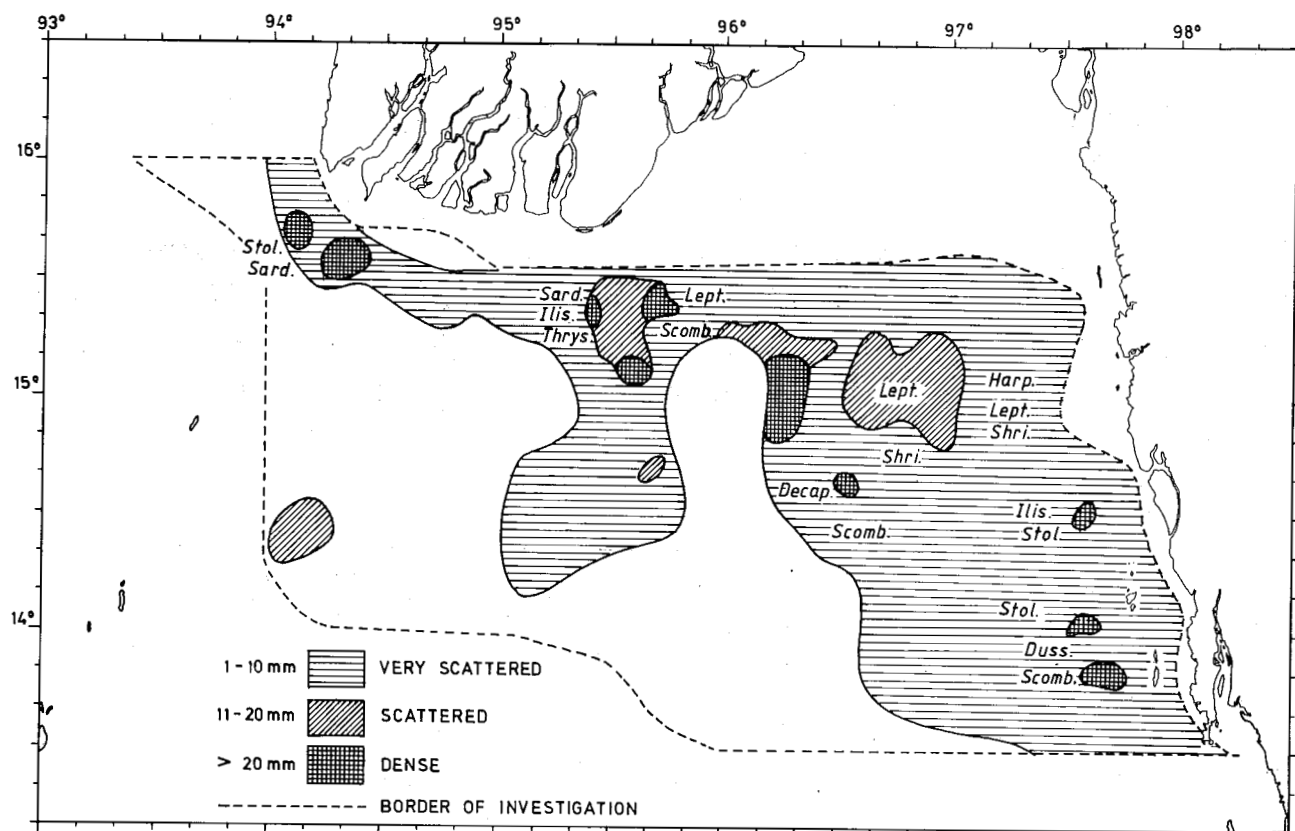


Figure 15. Distribution of pelagic fish on the Delta Area Sep-Nov 1979 (upper) and March-April 1980 (lower). For explanation of the codes for the fish names, see text.

The biomass during the second survey (March-April) is nearly 2 times higher than that of the first, but the composition seems largely to be the same. As shown in Table 10 the most common fish in the mid water hauls were sardines, anchovies and ribbon fish. Scombrids and carangids were also relatively common. In parts of the area small pelagic shrimp (Acetes) could be found in abundance in mid water as well as on the bottom. Leiognathus, Harpodon, squid and fish larvae were also frequently found in the mid water catches.

Table 10. Identification of small pelagic fish by aimed mid water trawling. Frequency of occurrence (when being more than 10% of catch by weight) and mean part of weight of catch (%).

DELTA AREA		
	Sept. - Nov.	March - April
Total no. hauls	19	25
<u>Clupeids</u>	<u>5</u> - 31%	<u>10</u> - 40%
Sardinella	2 - 16%	4 - 44%
Ilisha	3 - 35%	1 - 33%
Dussumeria	1 - 16%	4 - 14%
Raconda		5 - 26%
<u>Engraulids</u>	<u>6</u> - 47%	<u>6</u> - 44%
Thryssa	2 - 36%	2 - 28%
Stolephorus	4 - 53%	4 - 43%
<u>Carangids</u>	<u>1</u> - 59%	<u>3</u> - 40%
Decapterus	1 - 59%	2 - 44%
<u>Scombrids</u>	<u>6</u> - 25%	<u>4</u> - 41%
Scomberomorus	4 - 27%	3 - 36%
Rastrelliger	2 - 16%	
<u>Trichiurids</u>	<u>8</u> - 28%	<u>12</u> - 26%
Lepturacanthus	6 - 25%	12 - 26%
Leiognathus	5 - 43%	5 - 74%
Shrimp	4 - 38%	2 - 16%
Miscellaneous	9 - 39%	13 - 38%

Judging from the occurrence in all catches with both mid water and bottom trawls, the ribbon fishes seem to have the widest and highest abundance followed by engraulids and clupeids, see Table 11. Carangids, scombrids and sphyraenids also occur frequently, but make out a much smaller part of the total catch of pelagic fish.

Table 11. Occurrence by families of pelagic fish on all fishing stations (bottom- and mid water trawl), and proportion by weight of total catch of pelagic fish.

DELTA AREA

Total no. of stations	Sept. - Nov.		March - April	
	No. of stations occurring	% of total catch	No. of stations occurring	% of total catch
	70		95	
Clupeidae	31	11	33	24
Engraulidae	34	35	44	33
Trichiuridae	44	40	55	35
Carangidae	23	6	29	7
Sphyrenidae	12	7	10	1
Scombridae	12	2	5	1

5.4.2 Other fish, Delta Area

The oceanographical regime which no doubt governs the distribution of bottom fish in this area is related to the river outflows and there is as demonstrated in chapter 4 above a marked change in both salinity- and temperature conditions from September-November till March-April. The change in the distribution of the fish with considerably higher concentrations during the last cruise may well be related to the change of the environment.

In the central and eastern parts of the Delta area some difficulties of identification of the echo recordings were encountered with relation to the occurrence both in mid water and closer to the bottom of shrimp of the Genus Acetes which is of little or no commercial interest. Relatively heavy concentrations of mesopelagic fish located in the southern part of the central Delta area are not included in the fish distribution chart.

Table 12 shows the occurrence in the catches of the most common forms of fish during the two surveys. The relatively high abundance of croaker (Sciaenidae) and catfishes (Ariidae) is a common feature with the fauna of the Arakan coast, but otherwise the Delta fauna differs in several respects from those of the coastal regions to the north and south. Noteworthy is

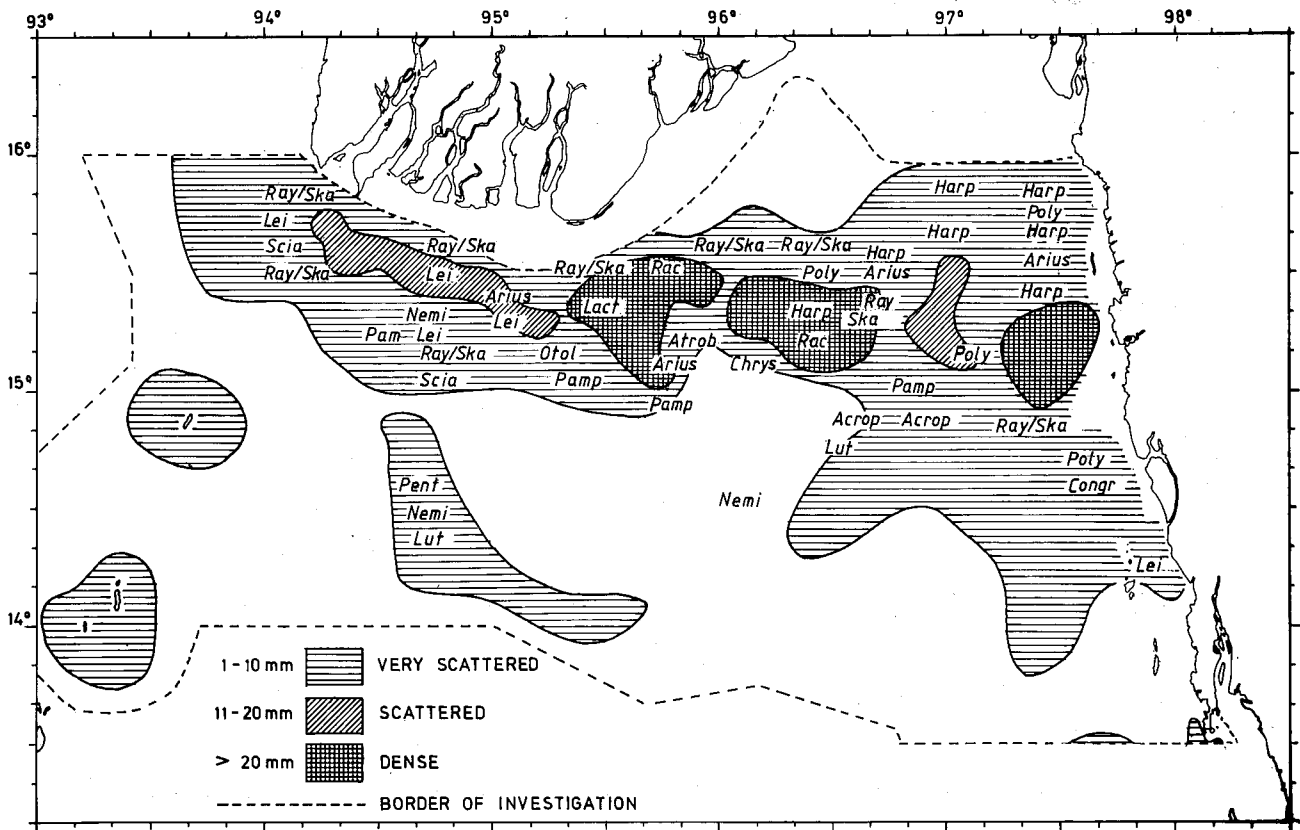
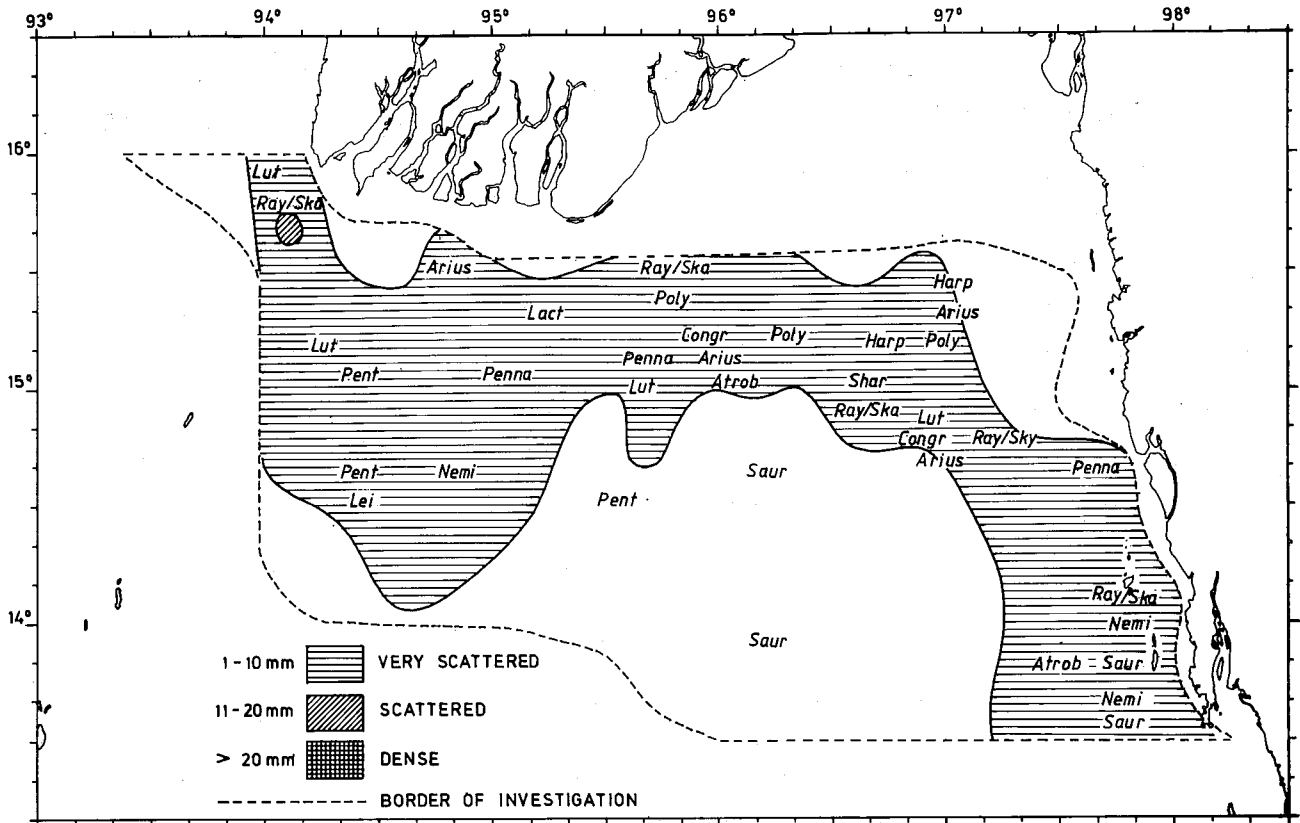


Figure 16. Distribution of other fish on the Delta Area Sep-Nov 1979 (upper) and March-April 1980 (lower). For explanation of the codes for the fish names, see text.

the regular presence of threadfins (Polynemidae), pike congers (Muraenesocidae) and Bombay duck (Harpodontidae). Sharks and rays are very widespread and abundant, while ponyfish (Leiognathus) is far less common than in the other areas.

The prominent forms in the catches are roughly located in Figure 16. Rays and skates are common everywhere while Polynemus is found in the central and eastern parts. Harpodon is particularly dominant in the catches from the shallow eastern parts of the Delta. Saurida and Nemipterus are common in the southeast towards the Tenasserim coast.

Table 12. Occurrence by families of "other fish" on all fishing stations, and their proportion by weight of the total catch of "other fish"

DELTA AREA				
Total no of stations	Sept-Nov 70		March-Apr 95	
	No of stations occurring	% of total catch	No of stations occurring	% of total catch
Ariidae	29	4.4	36	8.1
Carangidae	8	0.2	27	6.1
Gerridae	18	1.3	10	1.0
Harpodontidae	8	2.2	18	20.5
Lactaridae	11	2.1	21	1.6
Leiognatidae	25	2.6	26	1.3
Lutjanidae	22	4.2	20	2.6
Mullidae	24	1.9	23	3.3
Muraenesocidae	20	5.6	19	1.4
Nemipteridae	26	2.6	21	2.9
Polynemidae	19	6.2	25	3.0
Pomadasidae	18	0.9	26	2.7
Sciaenidae	33	18.5	37	9.7
Scombridae	16	2.2	20	0.8
Synodontidae	20	2.8	24	2.4
Sharks and rays	53	18.3	52	13.9
Squids	23	0.8	27	0.6
Shrimp	40	11.6	40	6.9
Miscellaneous		11.2*		12.0

* Include 12 families of fish occurring in few catches and with less than 1% of catch.

5.4.3 Results of the fishing operations, Delta area

A summary of all fishing stations in this area during the two periods is as follows:

	BOTTOM TRAWL		PELAGIC TRAWL	
	Sept-Nov/79	Mar-Apr/80	Sept-Nov/79	Mar-Apr/80
Number of stations	44	57	26	39
Total catch (kg)	18280	29248	6021	21786
Mean total catch per hour (kg)	415	513	232	559
Max. catch rates (kg/h)	2260	1380	1140	5340

Some of the bottom trawling in the spring formed part of a special trawl survey of the eastern Delta to obtain an independent estimate of demersal fish and especially the stock of Bombay duck. The mid water hauls may be interpreted as an indication of increased availability from autumn to spring of small pelagic fish. The maximum catch rates represent the mean of the three highest catches.

Tables 13 and 14 show the distribution on catch groups and mean catch rates for the most common types of fish. The largest parts of the total catch were made out of few forms: croakers, rays, ponyfish, pike congers,

Table 13. Distribution of the catches by families in 44 bottom trawl hauls in the Delta area Oct/Nov 1979

Catch grouping:	>10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
FAMILY:								
Sciaenidae	17	10	15	1	1	68	71	18
Rays	25	8	8	2	1	52	47	12
Shrimps	19	16	7	2	0	70	37	9
Polynemidae	34	3	6	1	0	39	24	6
Muraenesocidae	26	11	7	0	0	43	22	6
Trichiuridae	36	14	3	1	0	43	22	5
Ariidae	25	15	4	0	0	66	17	4
Lutjanidae	32	10	1	1	0	43	16	4
Sharks	31	12	0	1	0	52	14	3
Synodontidae	32	11	0	1	0	41	11	3
Engraulidae	34	9	1	0	0	48	8	2
Nemipteridae	31	11	2	0	0	50	10	3
Sphyraenidae	40	1	0	1	0	14	7	2
Mullidae	34	9	1	0	0	48	7	2
Lactaridae	42	1	0	1	0	11	7	2
Leiognathidae	36	6	2	0	0	34	7	2
Harpadontidae	38	3	3	0	0	16	6	2
Carangidae	37	6	1	0	0	30	5	1
Gerreidae	36	7	0	0	0	36	5	1
Clupeidae	38	5	1	0	0	41	5	1
Other fish							50	12
TOTAL							398	100

Table 14. Distribution of the catches by families in 57 bottom trawl hauls on the Delta area March/April 1980.

Catch grouping:	>10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence		
						in total no of hauls	Mean catch	% of total catch
FAMILY								
Harpadontidae	43	4	2	3	5	28	87	17
Rays	35	7	12	1	2	47	52	10
Sciaenidae	26	16	14	1	0	60	40	8
Leiognathidae	44	4	6	2	1	30	36	7
Ariidae	29	19	7	1	1	63	30	6
Engraulidae	40	7	8	2	0	54	26	5
Shrimps	45	10	2	0	0	40	25	5
Trichiuridae	36	13	7	1	0	60	22	4
Carangidae	42	10	4	1	0	42	17	3
Mullidae	44	10	2	1	0	35	14	3
Clupeidae	46	7	3	1	0	37	13	3
Nemipteridae	40	13	4	0	0	35	12	2
Polynemidae	47	7	2	1	0	39	12	2
Mesopelagic fish	56	0	0	0	1	2	12	2
Pomadasyidae	39	14	4	0	0	40	11	2
Synodontidae	42	13	2	0	0	33	10	2
Lutjanidae	50	6	0	1	0	30	8	2
Sharks	45	10	2	0	0	40	7	1
Lactaridae	53	2	2	0	0	18	6	1
Lethrinidae	54	2	0	1	0	7	6	1
Serranidae	54	2	0	1	0	11	6	1
Muraenesocidae	47	9	1	0	0	29	5	1
Acropomidae	55	1	0	1	0	7	5	1
Other fish							52	10
TOTAL						57	514	99

threadfins, Bombay ducks and ribbonfish. These types also gave the highest catches although the overall means are only of the order of 30-70 kg/h. A special survey was as already mentioned made of the Bombay duck-distribution which accounts for the relatively high values in the spring.

Table 15. Distribution of the catches by economic classes in the bottom trawl on the Delta area.

October-November 1979

Class:	<10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
Economic class 1	4	13	20	5	2	98	116	29
Economic class 2	2	12	25	4	1	100	120	30
Economic class 3	3	12	18	9	2	100	138	34
Economic class 4	20	18	5	1	0	86	26	7

March-April 1980

Class:	<10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
Economic class 1	7	20	23	6	1	98	94	18
Economic class 2	10	16	16	15	0	89	109	21
Economic class 3	9	4	20	12	12	95	272	53
Economic class 4	20	30	6	0	1	89	40	8

The analysis of the catches from a point of view of commercial value, Table 15 shows that the fish of the Delta area tends to be of higher economic value than was the case for the Arakan coast with 20-30% of the catch being referred to the highest value class. The mean catch rate in this class is of the order of 100 kg/h, but there are single catches exceeding 500 kg/h.

5.5 Fish distribution on the Tenasserim Coast

The total estimated biomasses were (1000 tons):

	Autumn	Spring
Small pelagic fish	70	520
Other fish	<u>120</u>	<u>130</u>
Total	190	650

The coverage during the second survey included more of the inshore waters of the southern archipelago, but this can not explain the great difference in the findings since most of the fish occurred in the areas covered by both surveys.

5.5.1 The small pelagic fish on the Tenasserim coast

The biomass of the second survey is some 7 times that of the first. The distributions are shown in Figure 17. From the mid water trawling it is evident that anchovies represented by far the most widely distributed and common fish, see Table 16. But also sardines were wide-spread, while scombrids and carangids were only found in 4 out of 20 hauls in the spring cruise.

The analysis of the total fishing stations, presented in Table 17, indicate a wide distribution by area of both anchovies and sardines, but a marked dominance in catches of anchovy. Also the other pelagic fish families are shown to have a relatively wide distribution, but with small total catches compared to that for anchovy.

The areas of high abundance during the second survey formed a belt some 20 n.m. wide in the waters of the archipelago. The boundaries of these

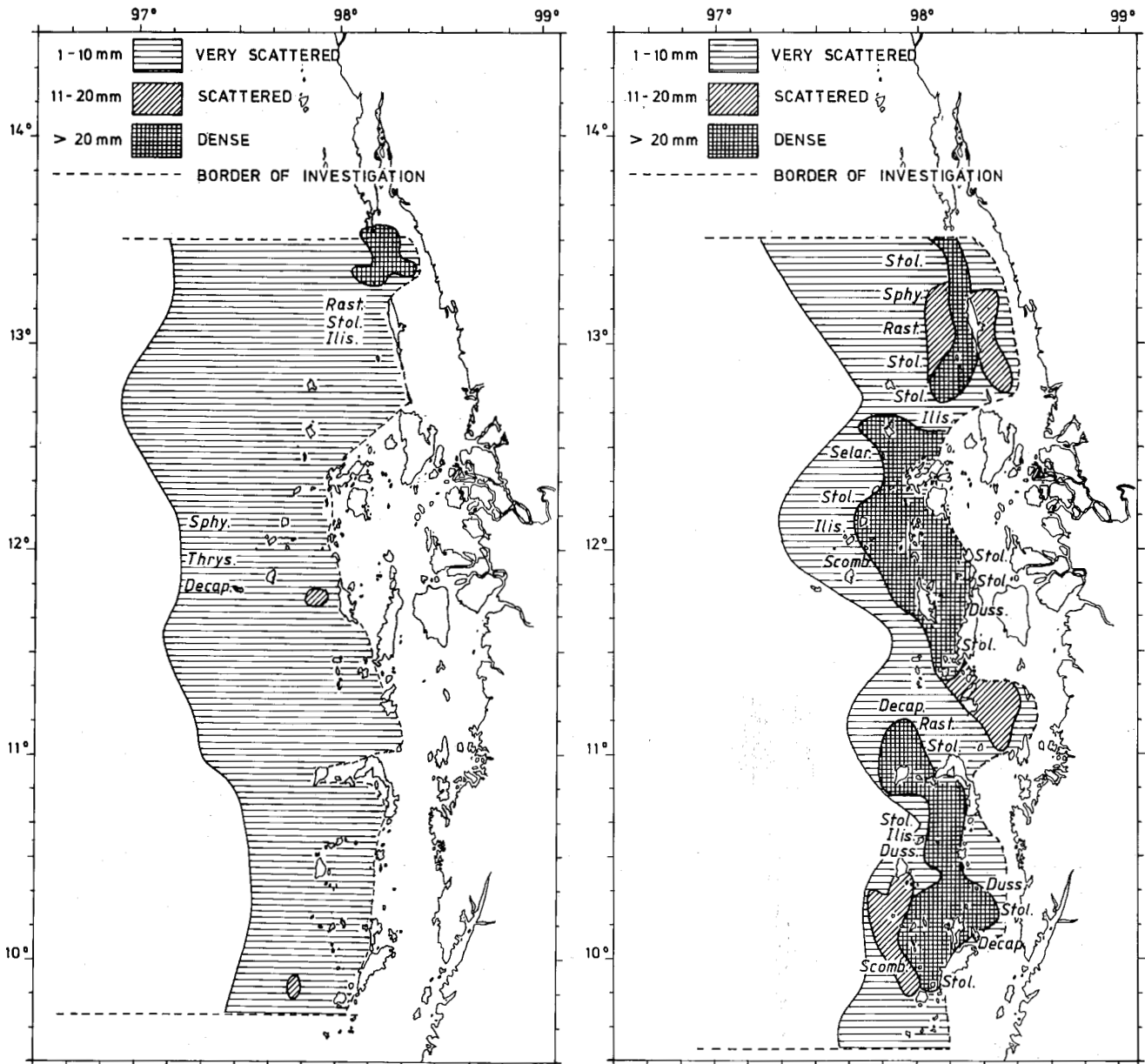


Figure 17. Distribution of small pelagic fish on the Tenasserim coast Sep-Nov 1979 (left) and March-April 1980 (right). For explanation of the codes for the fish names, see text.

fish areas towards the shallower inshore waters were located except in the region from abt. $11^{\circ}50'$ to $12^{\circ}30'$ LN where inshore navigation was not possible.

5.5.2 Other fish on the Tenasserim coast

The densities of demersal and semi-demersal fish are considerably lower on the Tenasserim coast than in the Delta area and also significantly below

Table 16. Identification of small pelagic fish by aimed mid water trawling. Frequency of occurrence (when more than 10% by weight) and mean proportion of weight of catch (%).

TENASSERIM COAST

	Sept. - Nov.	March - April
Total no. hauls	4	20
<u>Clupeids</u>		7 - 33%
Ilisha	2 - 16%	4 - 22%
Dussumeria		5 - 31%
<u>Engraulids</u>	3 - 16%	
Stolephorus	2 - 24%	14 - 70%
Thryssa	1 - 11%	
<u>Scombroids</u>		4 - 36%
Scomberomorus		2 - 57%
Rastrelliger	1 - 31%	2 - 15%
<u>Carangids</u>		4 - 37%
Decapterus	1 - 10%	2 - 46%
Selar		2 - 27%
<u>Trichiurids</u>		
Lepturacanthus	1 - 16%	2 - 34%
Sphyrena	1 - 17%	2 - 21%
Leioqnatius		2 - 24%
Formio	1 - 25%	
Miscellaneous	1 - 78%	3 - 25%

those of the Arakan coast which represent a much smaller shelf area. There are no marked differences in distributional features between the two surveys as seen in Figure 18.

Table 17. Occurrence by families of pelagic fish on all fishing stations (bottom- and mid water trawl), and proportion by weight of total catch of pelagic fish.

TENASSERIM COAST

Total no. of stations	Sept. - Nov.		March - April	
	No. of stations occurring	% of total catch	No. of stations occurring	% of total catch
	23		57	
Clupeidae	8	1	26	14
Engraulidae	9	92	22	74
Trichiuridae	11	1	14	4
Carangidae	13	1	24	5
Sphyrenidae	7	3	15	1
Scombridae	4	1	15	1

Table 18 shows the occurrence in the catches of the most common forms of fish. Ponyfishes (Leiognathidae), grunts (Pomadasyidae), lizardfishes (Synodontidae), and false trevallies (Lactarida) are widespread and relatively abundant. The high percentage of ponyfish in the March-April survey is caused by some exceptionally high catches in shallow waters. More characteristic for the area is perhaps the relatively frequent occurrence of threadfin breems (Nemipteridae) and goatfishes (Mullidae). Squids are widespread, but represent a small part of the catch, while sharks and rays are far less common than in the two northern areas.

Table 18. Occurrence by families of "other fish" on all fishing stations, and their proportion by weight of the total catch of "other fish".

TENASSERIM COAST				
Total no of stations	Sept-Nov 23		March-Apr 57	
	No of stations occurring	% of total catch	No of stations occurring	% of total catch
Ariidae	8	2.7	12	5.4
Carangidae	6	2.1	15	2.3
Gerridae	10	2.1	11	1.3
Lactaridae	6	12.0	11	4.0
Leiognathidae	14	15.5	24	56.9
Lutjanidae	8	1.7	10	2.9
Mullidae	10	4.8	22	2.7
Muraenesocidae	3	3.5	5	0.5
Nemipteridae	11	4.7	21	2.0
Pomadasidae	9	6.4	18	6.5
Sciaenidae	8	12.7	9	0.9
Synodontidae	10	2.6	19	3.6
Sharks and rays	10	3.1	8	0.8
Squids	10	1.9	23	0.6
Shrimp	6	2.5	8	0.3
Miscellaneous		21.7		9.3

The forms dominating the catches in the various locations are shown in Figure 18. Leiognathus has generally the most inshore distribution while Nemipterus, Saurida, Atro Bucca, Lutjanus and Loligo are prominent in the more offshore parts of the archipelago.

5.5.3 Results of the fishing operations, Tenasserim Coast

A summary of the fishing stations in this area during the two periods is as follows:

BOTTOM TRAWL

PELAGIC TRAWL

	Sep -Nov/79	Mar-Apr/80	Sep -Nov/79	Mar-Apr/80
Number of stations	16	26	7	30
Total catch (kg)	14308	27074	579	8923
Mean total catch per hour (kg)	894	1041	83	297
Max. catch rates (kg/h)	3930	5070	510	1060

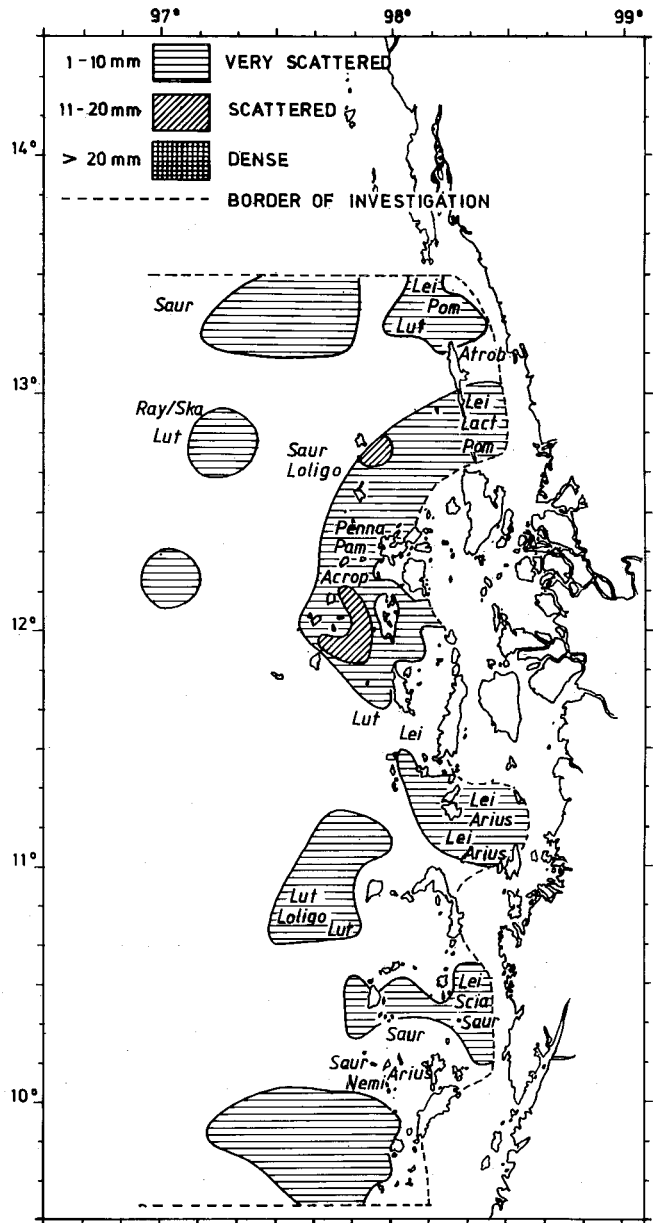
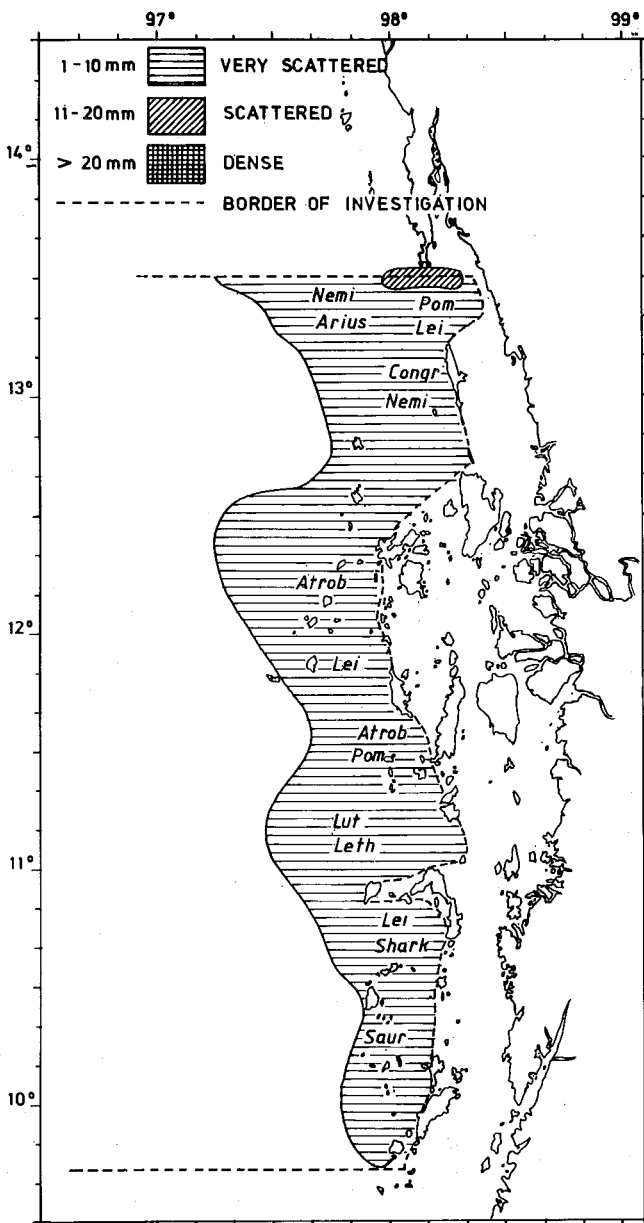


Figure 18. Distribution of other fish on the Tennasserim Coast Sep-Nov 1979 (left) and March-April 1980 (right). For explanation of the codes for the fish names, see text.

The fishing was considerably less intensive than in the two other areas. The higher catches in the pelagic trawl in the spring support the impression of a higher total biomass of small pelagic fish in this season.

Table 19. Distribution of the catches by families in 16 bottom trawl hauls on the Tennasserim coast Oct/Nov 1979

Catch grouping:	>10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
FAMILY:								
Engraulidae	13	1	1	0	1	19	577	68
Sciaenidae	12	0	4	0	0	44	33	4
Leiognathidae	7	5	4	0	0	63	32	4
Lactaridae	15	0	0	1	0	19	31	4
Pomadasyidae	9	6	1	0	0	56	17	2
Mullidae	13	4	1	0	0	56	12	1
Nemipteridae	10	5	1	0	0	63	12	1
Carangidae	9	7	0	0	0	63	12	1
Trichiuridae	12	3	1	0	0	50	9	1
Muraenesocidae	14	0	2	0	0	19	9	1
Clupeidae	14	1	1	0	0	25	9	1
Other fish							99	12
TOTAL							852	100

The catch distributions are shown in Tables 19 and 20. The dominance of anchovy in the autumn data is caused by one large catch. The spring survey probably gives a better picture of the composition of the bottom fish in the area and the catch rates for the various forms. Ponyfish contributed some high catches, but otherwise the mean catch rates of croakers, catfishes and carangids were about the same as in the Delta area.

Table 20. Distribution of the catches by families in 26 bottom trawl hauls on the Tennasserim coast March - April 1980

Catch grouping:	>10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
FAMILY:								
Leiognathidae	13	1	3	3	6	58	510	49
Sciaenidae	18	3	2	2	1	35	81	8
Pomadasyidae	12	6	6	2	0	69	59	6
Ariidae	18	2	3	3	0	42	49	5
Carangidae	13	7	5	1	0	73	37	4
Lactaridae	17	4	4	1	0	38	36	3
Synodontidae	15	3	8	0	0	62	32	3
Clupeidae	16	6	3	1	0	50	31	3
Lutjanidae	20	3	2	1	0	31	25	2
Mullidae	16	5	5	0	0	73	24	2
Nemipteridae	10	13	3	0	0	73	18	2
Engraulidae	23	2	0	1	0	15	15	1
Gerreidae	23	2	0	1	0	35	11	1
Trichiuridae	22	2	2	0	0	19	11	1
Other fish							104	10
TOTAL							1043	100

The commercial value of the bottom fish on the Tennasserim coast appears, however, as seen in Table 21, to be much lower in general than that of the more northern parts with a dominance of fish of economic class 3.

Table 21. Distribution of the catches by economic classes in the bottom trawl on the Tennasserim coast.

October-November 1979

	<10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
Economic class 1	5	6	5	0	0	88	43	5
Economic class 2	5	2	8	1	0	88	95	11
Economic class 3	3	4	7	1	1	88	671	79
Economic class 4	9	2	4	1	0	81	44	5

March April 1980

	<10 kg/h	10-49 kg/h	50-199 kg/h	200-499 kg/h	>500 kg/h	% incidence in total no of hauls	Mean catch	% of total catch
Economic class 1	2	9	12	3	0	100	95	9
Economic class 2	2	6	8	6	4	96	270	26
Economic class 3	7	3	6	2	8	77	636	61
Economic class 4	8	12	5	1	0	96	43	4

5.6. The distribution by depth of bottom trawl catches

Table 22 shows an analysis of catch rates versus depth, and their composition by economic classes. On the Aracan coast the catch rates in the shallowest zone 10-24 m is clearly higher in the spring than in the autumn. This is probably related to the change in the oceanographical conditions between the two seasons as discussed in chapter 4. In the spring, water with low oxygen content, cover large areas of the shelf and will cause a shoreward movement of the demersal fish. Fishing at depths greater than 50 m gave low catch rates on the Arakan coast, but the economic value of the catch in deeper waters was relatively higher than at shallower depths.

In the Delta there is no clear seasonal difference in the depth distribution of the catches and the catch rates decline more slowly with depth although there is a clear tendency for highest rates in depths of less than 50 m. The value of the fish is relatively higher in the deeper strata. On the Tennasserim coast the relatively few hauls indicate high catch rates in the shallowest strata dominated by fish of economic class 3 (ponyfish), with lower catch rates but relatively more valuable fish in the deeper waters.

Exploratory fishing was carried out on this deep sea ground both in October-November and in March-April. A total of 38 hauls were made with the ordinary shrimp-cum fish trawl equipped with bobbins. Figure 8 shows the locations of the fishing stations set out in a map where also the contours of the 200, 300, 400 and 500 m depth are shown. Table 23 presents a summary of the findings.

Table 23. Catch rates at the Deep Sea Trawling Ground (kgs/h).

	No hauls	Total catch		Shrimp		Lobster		Fish	
		Range	Mean	Range	Mean	Range	Mean	Range	Mean
Oct-Nov 1979	20	40-476	178	0-155	34	0-28	4	40-450	140
March-April 1980	18	46-328	133	0-65	18	0-36	7	46-300	108

The shrimp species were Heterocarpus sp., Aristaeus semidentatus and others. The lobster represents the species Puerulus sewelli. The most common deep sea fish in the catches were: Peristedion weberi, Chlorophthalmus sp. and Palinurichtus pringlei.

The catch rates obtained in this exploration are far too low to be of commercial interest. In a similar survey in the Gulf of Mannar off Sri Lanka catch rates ranged up to abt 500 kg/hour for shrimp, 140 kg/hour for deep sea lobster and 1.2 tons/hour for fish. The total area of the deep water ground in the Andaman Sea is, however, very extensive and the resources of shrimp, lobster and deep sea fish must be very considerable in terms of total biomass. Some further trial fishing should be conducted to see whether there exist seasons or areas of higher concentrations than those found during the present survey.

5.8 Biomass estimates based on catch rates in the bottom trawl

The bottom trawl fishing was in general not distributed in a manner which allows an analysis of the catches for quantitative estimates of the biomass.

In a few areas the trawl survey approximated, however, a fixed grid system. Nakken and Sann Aung (1980) reported on the results of an analysis of such data from the autumn survey. In April a trawl survey was conducted of the eastern shallow part of the Delta area in which the location was chosen on a grid basis, see Figure 4. The data were as follows:

No. of trawl stations:	21
Mean catch per n.m.:	209 kg
SD	141 kg

If the trawl width is taken as 18.5 m (0.01 n.m.), the trawled area per nautical mile will be 0.01 n.m.^2 . If the catchability coefficient is assumed to be 1 i.e, all fish in front of the trawl opening is caught, 209 kg/n.m. will correspond to a fish density of about 21 tons/n.m². The area covered was approximately 6 000 n.m², which would then hold an estimated biomass of 126 000 tons. An estimate of the biomass of demersal and semi-demersal fish based on the acoustic observations within this area gives a figure which exceeds 300 000 tons. This represents, however, the biomass of fish classified as "other fish" in the total water column from about 10 m under the surface to the bottom, whereas the trawl will only catch fish closer than 5 m from the bottom.

In part of the area covered by the trawl-survey Bombay duck was abundant. In 9 hauls the catches of this species ranged from 0 - 390 kg/n.m. with an average of 157 kg/n.m., corresponding to a density of 15.7 tons/n.m². The estimated biomass in a 2 700 n.m² - area was thus about 42 000 tons.

5.9 Analysis of catches of shallow water shrimp

The survey tasks did not include that of the assessing the resources of shallow water shrimp which is of such considerable commercial importance in Burma. A shrimp survey would have required different types of gear, vessel and survey design. However, shrimp formed part of the catch in a number of the trawl hauls especially in shallow waters in the Delta and on the Arakan coast, and an analysis of the shrimp data was made as follows:

In order to limit the study to areas where shrimp is reasonably abundant only trawl hauls with catches of shrimp exceeding 10 kg/h were considered. Furthermore the analysis was limited to Penaeid shrimp by excluding "small shrimp" or "white shrimp", mainly *Acetes* spp. with no commercial value. The results of the analysis are shown in Table 24. The mean catch rates were 28 kg/h and 60 kg/h on the Aracan coast in autumn and spring respectively and 73 kg/h and 65 kg/h in the Delta in the two seasons. The fish catch was on the average very high in these hauls with shrimp only forming between 1 and 13 percent of the total catches. Metapenaeus dominated the catches with Penaeus as the second most important genus. An analysis of the depth distribution of the catches indicated that by far the highest rates were obtained in the 10-24 m stratum. The rates decreased to about 1/4 in the 25-49 m depth stratum on the Aracan coast. The decline of catch rates with depth was even more pronounced in the Delta, but shrimp occurred even to depths beyond 75 m in this region although in small numbers.

Table 24.
Analysis of catches of shrimp in bottom trawl.

	ARACAN		DELTA		TENNASSERIM	
	Oct- Nov-79	Mar- Apr-80	Oct- Nov-79	Mar- Apr-80	Oct- Nov-79	Mar- Apr-80
Total no of hauls	45	28	44	57	16	26
No of hauls with catch >10 kg/h of shrimps*	8	10	10	12	0	1
Mean catch/hour shrimps* (kg)	28	60	73	65		12
Mean bycatch of fish in hauls of shrimp >10 kg/h*	2284	1890	480	698		376
Mean bycatch of fish in %*	99	97	87	91		97
Composition of the catches (%) and no of stations with catch of shrimp >10 kg/h (in brackets)*						
<i>Metapenaeus lyssianasa</i>			50 (3)			
<i>Metapenaeus</i> sp	(2)	67 (6)	29 (6)	91 (11)		
<i>Parapenaeopsis sculptilis</i>				9 (1)		
<i>Penaeus merguensis</i>		12 (2)	3 (1)			
<i>Penaeus monodon</i>	(1)	21 (3)	8 (3)			100 (1)
<i>Solenocera</i> sp			10 (2)			
Unidentified	(5)					

* Excluding all records classified as "shrimp" in the record, if the weight is not > 10 g/specimen. "Small shrimps" are mainly *Acetes* sp.

6. Summary of findings and estimates of sustained yields

During each of the survey periods in the post-monsoon autumn season September-November 1979 and the pre-monsoon spring season March-April 1980 the Burmese waters between the border with Bangladesh in the north and that with Thailand in the south was covered twice. The observations of the distribution and abundance of the fish resources were pooled for each season so that two sets of estimates are available, one from September-November 1979 and one from March-April 1980. Observations of the hydrographical environment demonstrate clear seasonal changes in the distributional characteristics of temperature, salinity and oxygen which are likely to affect the fish resources in various ways.

The acoustic recording of fish were classified into two main groups: "small pelagic fish" and "other fish", the latter consisting mainly of demersal and semi-demersal forms. By the help of nearly 400 fishing stations the species- and size composition of the fish were sampled. The findings from this work are presented in a number of charts and tables which demonstrate the most common types of fish by season and area.

The acoustic observations together with information on the size of the fish form the basis for assessments of the fish biomass at the time of the surveys. For navigational reasons inshore areas of depth less than about 15 m could not be covered in these surveys. These uncovered parts of the shelf comprised about 30% in the autumn and 20% in the spring. The biomass have been raised by simple area ratios to compensate for the uncovered shelf parts.

The assessments of total biomass were (thousand tons).

	Autumn	Spring
Small pelagic fish	620	1330
"Other fish"	<u>540</u>	<u>960</u>
Total	1160	2290

The biomass during the spring is about twice that of the autumn. For small pelagic fish the figure is more than doubled while there is an increase of about 80% in "other fish". The most likely explanation of this difference is that it is caused by a seasonal fluctuation in biological production of these generally short-lived fishes. Similar seasonal changes in biomass have been observed in nearby and comparable areas such as the coast off Pakistan and the SW coast of India. The mean densities of biomass measured over the shelf (down to 200 m depth) were 17 tons/n.m² in the autumn and 34 tons/n.m² in the spring.

The biomass of small pelagic fish was found to be highest in the Delta and on the Tenasserim coast:

Small pelagic fish (1000 tons)

	Autumn	Spring
Arakan	180	170
Delta	370	640
Tenasserim	<u>70</u>	<u>520</u>
	620	1330

"Other fish" was found in highest abundance in the Delta area:

Other fish (1000 tons)

	Autumn	Spring
Arakan	130	120
Delta	290	710
Tenasserim	<u>120</u>	<u>130</u>
	540	960

The total biomass and mean densities in tons/n.m² were distributed on the areas as follows:

	Autumn		Spring	
	Biomass	Mean Density	Biomass	Mean Density
Arakan	310	28 t/n.m ²	290	26 t/n.m ²
Delta	660	19 t/n.m ²	1350	39 t/n.m ²
Tenasserim	190	9 t/n.m ²	650	31 t/n.m ²
	<u>1160</u>	<u>17 t/n.m²</u>	<u>2290</u>	<u>34 t/n.m²</u>

From this it is seen that the relatively limited shelf area along the Arakan coast holds quite high densities of fish biomass both in the autumn and in the spring.

The densities measured as biomass per unit shelf area is thought to be meaningful when used as here to compare seasons or nearby areas. As a general measure of production it is of somewhat doubtful value since biological productivity in some areas extends outside the shelf and in others may be limited to only a part of the shelf.

A few words must be said about the likely systematic errors in these assessments. An attempt has been made to adjust for the incomplete areal coverage of the shelf on the assumption that mean fish densities in the inshore shallow areas are the same as on the outer shelf. Inshore areas are often especially rich in fish and the adjustment may thus be an underestimate. There are two further sources of bias which also lead to underestimation. The acoustic system does not cover the depth layer from the surface down to well below the depth of the transducer at about 15 m, nor will it obtain echoes from fish very close (within about $\frac{1}{2}$ -1 m) to the sea bottom. These effects on the total biomass estimates cannot be quantified, but they are not likely to represent more than a minor fraction.

Only a part of the biomass can be harvested on a sustained basis. For long-lived larger fish the harvestable part is smaller than for smaller short-lived fish. The transformation from standing biomass to sustained yield is also complicated by the observed fluctuations of the biomass and the uncertainties regarding the effects on the stocks of the present fishery which is reported to be about 300 000 tons/year. A yield estimate on the conservative side is obtained by using the simple mean of the two biomass values. This would give an average standing stock of about 1 million ton of small pelagic fish and 750 000 tons of demersal and semi-demersal fish. Assuming the yield fractions for these to be 0.5 and 0.25 (based on assumed values of natural mortality M of 1.0 and 0.5 respectively) the annual potential yields would be 0.5 million tons of small pelagic fish and nearly 200 000 tons of demersal- and semi-demersal fish.

Higher estimates of the sustained yields are obtained if it is assumed that the curves describing the seasonal fluctuations in biomass approximates a sinus form. The mean available biomasses are then well over 1.1 million

tonnes of pelagic fish and 800 thousand tonnes of "other fish". A possible "upper" limit for the yield estimates can be obtained by assuming the natural mortality for small pelagic fish to be 1.2 and that of "other fish" to be 0.7. The latter may include a fishing mortality component. The yield fractions will then be 0.6 and 0.35, and the sustained yields will be 670 thousand tonnes and 290 thousand tonnes.

The estimates can be summarized as follows (1 000 tonnes)

	Lower estimates		Higher estimates	
	Mean biomass	Yield	Mean biomass	Yield
Pelagic fish	1 000	500	1 100	670
Demersal and semi-demersal fish	750	200	830	290
Total	1 750	700	1 930	960

Both of these estimates indicate a considerable potential for increase of the present catch provided the types of resources are economically and technically acceptable. And with the development of the various components of a fishery information will be obtained which can help improve the assessments obtained here.

A total yield of the order of 700-900 thousand tons agrees reasonable well with several previous estimates. In "Notes on Fisheries in Burma" dated 6 January 1978 the following assessments are quoted:

		Tonnes
S. Jones & Banerjee	1968	1 575.000
Prasad R. et al	1970	726.000
Gulland	1972	625.000
Menon	1977	1 512.000

The first and last of these figures probably refer to the total standing biomass.

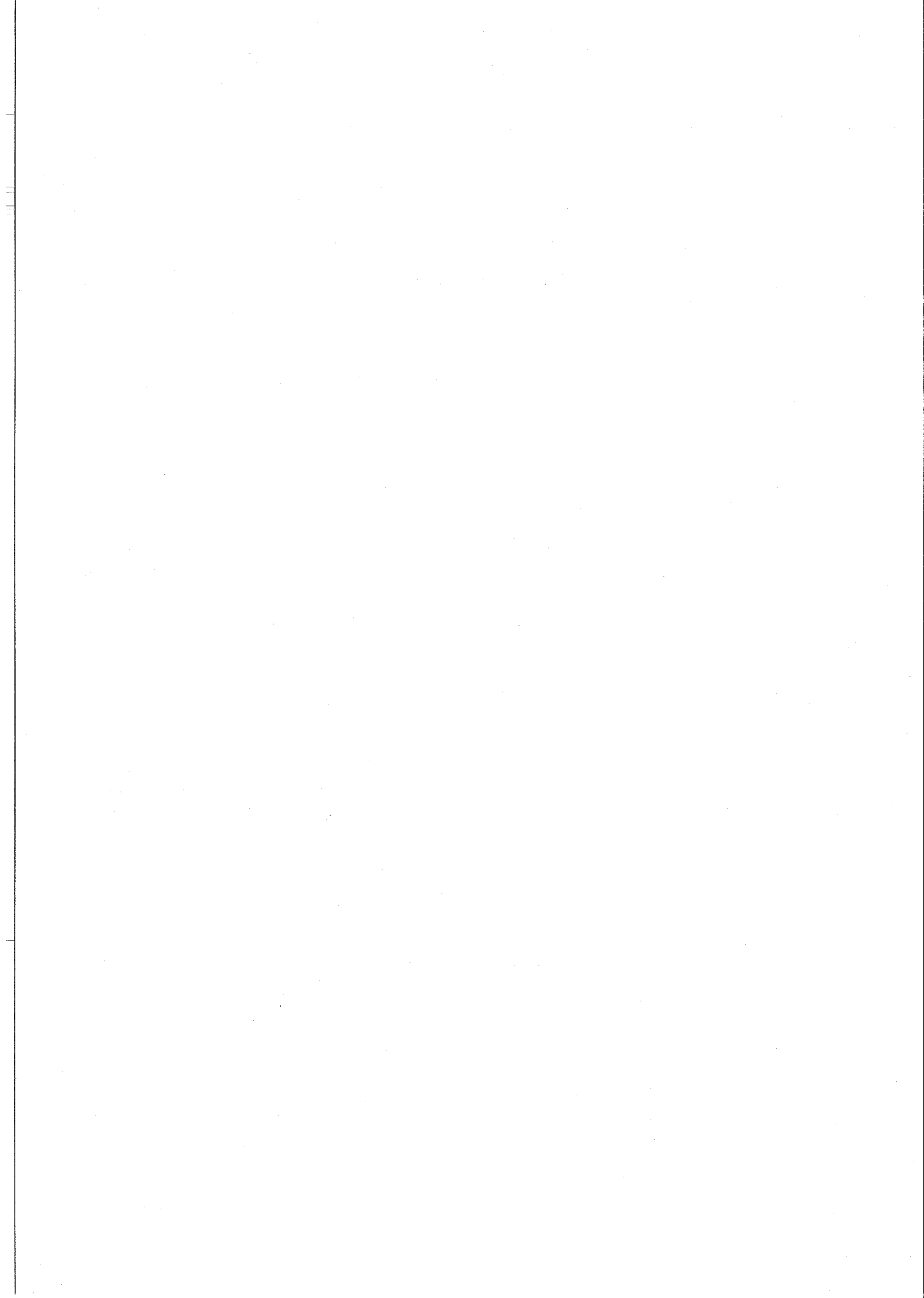
The fishing experiments although carried out for the main purposes of identification and sampling, also provided valuable information on catch rates. On the average catch rates in survey-fishing will be lower than in commercial fisheries. The review of the fishing results below show that the obtained catch rates in a general way confirm the relatively high abundance of fish resources in Burmese waters.

	BOTTOM TRAWL		PELAGIC TRAWL	
	Oct-Nov/79	Mar-Apr/80	Oct-Nov/79	Mar-Apr/80
ARACAN				
Number of stations	45	28	11	22
Mean total catch per hour	609	1285	132	238
Max. catch rates*	6390	5254	378	680
DELTA				
Number of stations	44	57	26	39
Mean total catch per hour	506	513	232	559
Max. catch rates*	2260	1380	1142	5340
TENNASSERIM				
Number of stations	16	26	7	30
Mean total catch per hour	894	1041	83	297
Max. catch rates*	3930	5067	504	1062

* Means of 3 highest catches.

Analysis of the composition of the catches are presented both with regard to taxonomic forms and assessed economic value of the fish.

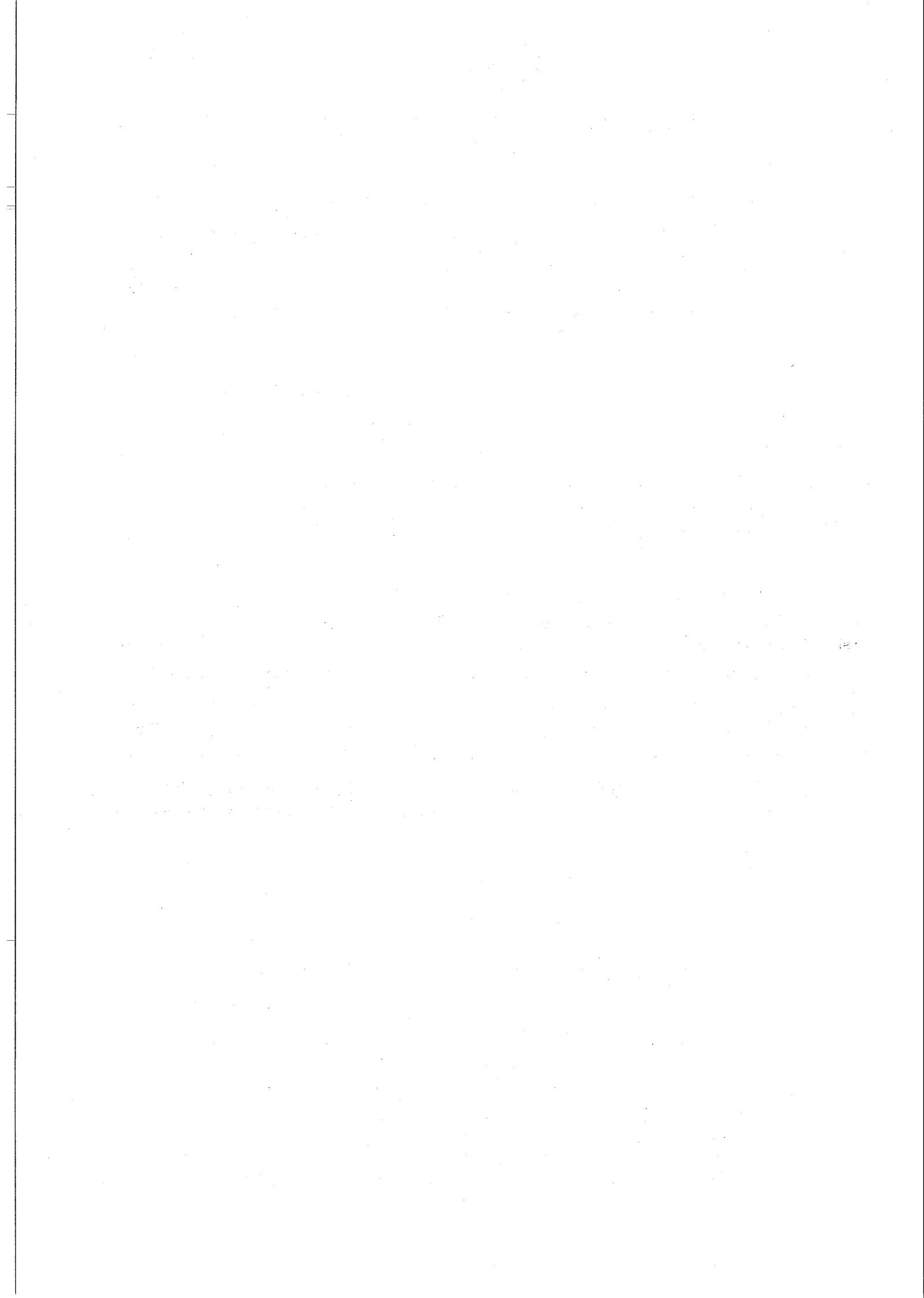
A N N E X E S



ANNEX I

SCIENTIFIC AND TECHNICAL STAFF OF THE SURVEYS

	<u>1st SURVEY</u> <u>25 Sep - 18 Nov 1979</u>	<u>2nd SURVEY</u> <u>5 March - 27 April 1980</u>
Institute of Marine Research, Bergen:	O. Nakken (cruise leader) S. Brattås J. Maude K. Strømsnes	A. Dommasnes (cruise leader 5 March-1 April) G. Sætersdal (cruise leader 5 April-27 April) T. Strømme Ø. Skåtun B. Bakken H. Abrahamsen
Peoples Pearl and Fisheries Corporation, Rangoon:	Sann Aung (team leader) Soe Tin Myo Aung	Sann Aung (team leader) Ohn Maung Myo Aung
Department of Fisheries, Rangoon:	Sein Lwin	Sein Lwin
Burmese Navy:	Sann Muint	Min Hau
FAO, Rome:	D. Thomas (observer 23 Oct-2 Nov)	D. Thomas (observer, few days) J.G. Dewitt (observer, few days)



Annex II State of acoustic instruments and conversion of echo-intensity to fish abundance.

While two echo-sounder/integration systems were used (38 kHz and 120 kHz) the outputs from the 120 kHz system provided the data for computing the indices of echo-abundance of fish. Nearly all fish is found in waters of less than 100 m depth and this high frequency sounder was found to be less influenced and biased by plankton scatterers than the 38 kHz system. The following settings were used:

Basic range: 0-100 m, Transmitter 1/1. Bandwidth and pulse length: narrow, 0.6 m/sec, TVG and gain 20 logR-0 dB, Recorder gain 3, Integrator threshold 8, Integrator gain 20 (x10), Integrator channels 4-25 m and 25 m-bottom or 4-50 m and 50 m-bottom.

The acoustic systems of the "Dr.Fridtjof Nansen" were intercalibrated with those of R/V "Johan Hjort" in March 1978. Calibrations of the source level and the voltage response of the sounders have been made regularly since then and have demonstrated that the systems have remained stable. The intercalibration resulted in a conversion factor C of 10 tons/n.m² with reference to a cod type fish size of 40 cm in length. The conversion factor should, however, be adjusted according to the size of the fish because the scattering cross section per unit weight decreases approximately linearly with length. Ideally each acoustic observation of fish density should be related to the size composition of the fish within the area of observation, but this is not practicable. For assessment of the fish size the length sampling of the catches were analysed as follows:

For small pelagic fish the samples were grouped by families, areas and seasons. The mean lengths were:

	No of samples	Mean length cm:					
		Arakan		Delta		Tenasserim	
		Aut.	Spring	Aut.	Spring	Aut.	Spring
Carangidae	42	13.1	11.9	19.2	22.1	14.7	21.9
Clupeidae	42	12.1	12.8	13.2	13.7	11.4	18.1
Engraulidae	44	6.8	8.6	8.5	8.4	6.9	8.9
Scombridae	25	10.3	23.1	15.6	20.7	16.8	16.1
Weighted mean		10.4	11.3	11.1	11.6	7.6	10.1

For each area and season the mean lengths were then weighted with the corresponding proportion of the taxonomic group in the total catch. This procedure is not strictly correct, but will give a more representative mean length than an unweighted mean. Since the variations in length are relatively small and the fish is only one of several factors which contribute to a variance in the conversion factor it was decided to use an overall mean of 10 cm as representing the size of small pelagic fish.

For the demersal and semi-demersal fish a similar procedure was used, but the observations from each season were pooled.

	No of samples	Mean lengths cm:		
		Arakan	Delta	Tenasserim
Sciaenidae	50	22.9	31.3	18.8
Pomadasyidae	60	25.2	37.4	29.4
Leiognatidae	56	9.5	6.2	12.6
Lactaridae	12	16.7	15.5	
Nemipteridae	53	16.1	16.8	19.0
Harpadontidae	2		17.5	
Synodontidae	8	23.3	17.9	16.8
Lutjanidae	25	61.3	43.0	53.5
Mullidae	8	15.2	13.9	19.9
Ariidae	2		62.1	
Muraenesocidae	8		133.4	
Polynemidae	18		73.5	93.0
Weighted mean		19.3	39.2	22.0

The mean lengths were weighted as for small pelagic fish according to the groups contribution to the overall total catch of demersal fish. This procedure will result in an overrepresentation of large-sized fish as has probably been the case in the Delta area. It was therefore decided to use an overall mean of 20 cm as representing the size of "other fish". The respective conversion factors C will accordingly take the values of 2.5 for small pelagic fish and 5.0 for "other fish"

List of fishes sorted by four economical classes according to their approximate values. The list includes all fishes and taxonomic groups found and used during the two surveys and in the later processing of the records.

ECONOMIC CLASS 1 (>9 Kyats/Viss):

BATHYPELAGIC FISH

Lobotes surinamensis

CARANGIDAE

Alectis indicus
Alepes djeddaba
Alepes melanoptera
Atropus atropus
 Carangidae
Carangoides armatus
Carangoides chrysophrys
Carangoides ciliaris
Carangoides ferdaui
Carangoides malabaricus
Carangoides sp.
Caranx ignobilis
Caranx melampygus
Caranx sp.
Decapterus macrosoma
Decapterus maruadsi
Gnathanodon speciosus
Megalaspis cordyla
Naucrates ductor
Scomberoides commersonianus
Scomberoides tol
Selar boops
Selar crumenophthalmus
Selaroides leptolepis
Seriolina nigrofasciata

CENTROPOMIDAE

Lates calcalifer

CLUPEIDAE

Hilsa ilisha
Hilsa toli

CONGRIDAE

Eels

LETHRINIDAE

Lethrinus nebulosus
Lethrinus lentjan
Lethrinus lutjanus
Lethrinus miniatus
Lethrinus rivulatus
Lethrinus sp.

LUTJANIDAE

Lutjanus argentimaculatus
Lutjanus bangalensis
Lutjanus bohar
Lutjanus gibbus
Lutjanus johni
Lutjanus lineolatus
Lutjanus malabaricus
Lutjanus rivulatus
Lutjanus russelli
Lutjanus sanguineus
Lutjanus sebae
Lutjanus sp.
Pinjalo pinjalo
Tropidinus sp.

MURAENESOCIDAE

Congresox sp.
Congresox talabonoides
Muraenesox sp.

PLECTORHYNCHIDAE

Plectorhynchus pictus
Plectorhynchus sp.

POLYNEMIDAE

Eleutheronema tetradactylum
Polynemus indicus
Polynemus paradiscus

SCIAENIDAE

Protonibea diacanthus

SCOMBRIDAE

Auxis thazard
Euthynnus affinis
Katsuwonus pelamis
Rastrelliger brachysoma
Rastrelliger kanagurta
Rastrelliger sp.
Scomberomorus commersoni
Scomberomorus guttatus
Thunnus orientalis

SERRANIDAE

Epinephelus angularis
Epinephelus awoara
Epinephelus bleekeri
Epinephelus fasciatus
Epinephelus grammotophorus
Epinephelus sp.
Epinephelus tauvina

SPARIDAE

Argyrops spinifer

STROMATEIDAE

Pampus argenteus
Pampus chinensis

SQUIDS

Loligo sp.
 Octopus
Sepia sp.
 Squid

SHRIMPS

Aristeus semidentatus
Heterocarpus gibbosus
Heterocarpus sp.
Heterocarpus woodmasoni
Metapenaeus affinis
Metapenaeus affinis
Metapenaeus lyssianasa
Metapenaeus sp.
Parapenaeopsis sculptilis
Parapenaeopsis stylifera
Penaeopsis rectacuta
Penaeus japonicus
Penaeus merguensis
Penaeus monodon
 Shrimps
Solenocera sp.

LOBSTERS AND CRAYFISH

Lobsters
Nephrops andamanicus
Nephrops sp.
Panilurus homarus
Panilurus sp.
Puerulus sewelli

ECONOMIC CLASS 2 (7-8 Kyats/Viss):

CHIROCENTRIDAE

Chirocentrus dorab
Chirocentrus sp.

CLUPEIDAE

Anodontostoma chacunda
Dussumieria acuta
Ilisha elongata
Ilisha megaloptera
Ilisha melastoma
Ilisha sp.
Opisthopterus tardore
Pellona sp.
Raconda russelliana
Sardinella brachysoma
Sardinella gibbosa
Sardinella melanura
Sardinella sp.

DREPANIDAE

Drepane punctata

FORMIONIDAE

Formio niger

GEMPYLIDAE

Epinnula orientalis

MULLIDAE

Parupeneus heptacanthus
Upeneus bensasi
Upeneus dispilurus
Upeneus moluccensis
Upeneus sp.
Upeneus sulphureus
Upeneus tragula
Upeneus vittatus

NEMIPTERIDAE

Nemipterus bleekeri
Nemipterus delagoae
Nemipterus japonicus
Nemipterus nematophorus
Nemipterus sp.
Nemipterus tambuloides
Nemipterus tolu

POLYNEMIDAE

Polynemus heptadactylus
Polynemus sextarius

POMADASYIDAE

Pomadasys hasta
Pomadasys maculatus
Pomadasys olivaceus
Pomadasys opercularis
Pomadasys sp.

PSETTODIDAE

Psettodes erumei

RACHYCENTRIDAE

Rachycentron canadus

SCIAENIDAE

Atrobucca nibe
Bahaba taipingensis
Chrysochir aureus
Collichthys crocea
Dendrophysa russelli
Johnnieops sina
Johnnieops vogleri
Johnius belangeri
Johnius coitor
Johnius dussumieri
Johnius sp.
Nibea soldado
Otholithes ruber
Otholithes sp.
Otholithus maculatus
Panna microdon
Pennahia macrocephalus
Pennahia macrophthalmus
Pennahia sp.
Pterolithus maculatus
Sciaenidae

SPHYRAENIDAE

Barracudas
Sphyrna forsteri
Sphyrna jello
Sphyrna obtusata
Sphyrna sp.
Sphyrna barracuda

SYNODONTIDAE

Saurida elongata
Saurida micropectoralis
Saurida sp.
Saurida tumbil
Saurida undosquamis
Trachinocephalus myops

MISCELLANEOUS FISH

Monacanthus monoceros
Platax teira
Sillago domina

ECONOMIC CLASS 3 (4-6 Kyats/Viss):

APOGONIDAE
Synagrops japonicus

ARIIDAE
Arius caelatus
Arius sp.
Arius thalassinus
Arius venosus
Osteogeniosus militaris

ARIOMMIDAE
Ariomma indica
Psenes sp.

CYNOGLOSSIDAE
Cynoglossus macrolepidotus
Cynoglossus sp.
Soles

ENGRAULIDAE
Coilia dussumieri
Coilia sp.
Engraulidae
Engraulis sp.
Engraulis telara
Setipinna sp.
Setipinna taty
Stolephorus bataviensis
Stolephorus commersoni
Stolephorus indicus
Stolephorus sp.
Thrissina baelama
Thrissina sp.
Thryssa dussumieri
Thryssa hamiltoni
Thryssa mystax
Thryssa setirostris
Thryssa sp.

EXOCOETIDAE
Exocoetus sp.

GERREIDAE
Gerres filamentosus
Pentaprion longimanus
Pentaprion sp.

HARPADONTIDAE
Harpodon nehereus
Harpodon sp.

LACTARIDAE
Lactarius lactarius

LEIOGNATHIDAE
Gazza minuta
Leiognathus bindus
Leiognathus elongatus
Leiognathus equulus
Leiognathus leuciscus
Leiognathus smithursti
Leiognathus sp.
Leiognathus splendus
Ponyfishes
Secutor insidiator
Secutor reconius

MENIDAE
Mene maculata
Menidae

MESOPELAGIC FISH
Cubiceps brevimanus
Cubiceps natalensis
Cubiceps sp.
Palinurichtus pringlei

TRICHIURIDAE
Eupleurogrammus muticus
Lepturacanthus savala
Trichiurus lepturus
Trichiurus sp.

SHARKS & RAYS
Actomylaenus nichofii
Amphostistius zugei
Carcharhinus melanopterus
Carcharhinus palasorrah
Carcharhinus sp.
Dasyatis bleekeri
Dasyatis sp.
Dasyatis uarnac
Gymnura micrura
Haploblephorus edwardsi
Myliobatis sp.
Narcine sp.
Narcine timlei
Rays, skates
Rhina ancylostoma
Rhynchobatus djiddensis
Scoriodon sorrakowah
Scoriodon sp.
Scoriodon walbeehmi
Sharks
Sphyrna blochii
Sphyrna zygaena
Squalus sp.
Sting ray

MISC. CRUSTACEANS
Crustaceans
Thenus sp.

SHRIMPS
Acetes sp.

MISCELLANEOUS FISH
Ephippus orbis
Eupleurogrammus muticus
Flatfish
Holocentrus rubrum
Holocentrus sp.
Plotosus anguillaris
Plotosus sp.
Siganus sp.
Therapon jarbua
Therapon sp.
Therapon theraps

ECONOMIC CLASS 4 (<4 Kyats/Viss):

ACANTHURIDAE
Acanthurus strigosus

ACROPOMIDAE
Acropoma japonicum

APOGONIDAE
Apogon sp.
Apogonidae

BALISTIDAE
Abalistes sp.
Abalistes stellaris
Balistes erythron
Balistes mitis
Balistes stellatus
Balistes viridescens
Odonus niger

BATHYPELAGIC FISH
Alepocephalus sp.
Antennaria sp.
Ateleopus sp.
Bathylupei hoskynii
Bembrops caudimaculata
Benthodesmus sp.
Centrolophus niger
Chaunax pictus
Chaunax sp.
Chimaera sp.
Chlorophthalmus agassizi
Coelorhynchus denticulatus
Coelorhynchus fasciatus
Coelorhynchus parallelus
Coryphaenoides sp.
Dibranchus stellatus
Diretmus sp.
Emmelichtys nitidus
Gobius sp.
Haliutaea stellata
Hoplobrutula gnathopus
Laeops sp.
Lepidopidae
Macrorhamphosus gracilis
Malacocephalus laevis
Neoscopeleus macrolepidotus
Neosopelus sp.
Peristedion adeni
Peristedion weberi
Polymixia sp.
Scorpaenids
Sebastes capensis
Squatina sp.
Stomia sp.
Synapobranchus sp.
Trachichtodes sp.
Trigla sp.
Zenion hololepis

BRAMIDAE
Brama raii
Taractes longipinnis
Taractes sp.

BROTULIDAE
Brotulidae
Cataetx messieri
Hoplobrutula sp.

BREGMACEROTIDAE
Bregmaceros maccllellandi

CHLOROPHTHALMIDAE
Chlorophthalmus bicornis

CLUPEIDAE
Euplatygaster indica

CORYPHAENIDAE
Coelorhynchus sp.
Malacocephalus sp.

DACTYLOPTERIDAE
Dactylopterus orientalis
Dactylopterus sp.

GADIDAE
Gadidae

GEMPYLIDAE
Thyrstitoides marleyi
Thyrstitoides sp.

LABRIDAE
Inistus pavo
Thalasoma sp.

LOPHIDAE
Lophiodes sp.
Lophius piscatorius

MESOPELAGIC FISH
Bregmaceros sp.
Champsodon capensis
Diaphus sp.
Myctophidae
Myctophum sp.
Photichthys sp.
Sternoptychidae
Synagrops sp.

PLEURONECTIDAE
Pleuronectus sp.

PRIACANTHIDAE
Priacanthus boops
Priacanthus hamrur
Priacanthus macrocanthus
Priacanthus sp.
Priacanthus tayenus

SCORPAENIDAE
Pterois miles
Scorpionfish
Sebastes sp.
Setarches sp.

TRIGLIDAE
Lepidotrigla natalensis
Lepidotrigla sp.

MISC. MOLLUSKS
Mollusks
Shells

MISC. CRUSTACEANS
Crabs

LOBSTERS AND CRAYFISH
Portunus pelagicus
Scylla serrata

MISC. NOT FISH
Miscellaneous

MISCELLANEOUS FISH
Ablennes hians
Ateleopus natalensis
Bembrops sp.
Bothidae
Branchiostegus japonicus
Bregmaceros sp.
Cephalacanthidae
Coryphaenoididae
Diodon maculifer
Diodon sp.
Echeneis naucrates
Echeneis sp.
Fistularia petimba
Fistularia serrata
Fistularidae
Gastrophysus lunaris
Gymnocranius griceus
Heniochus acuminatus
Holacanthus imperator
Kurtus indicus
Macrorhamphosus sp.
Monotaxis grandoculis
Nemichthys scolopacea
Neoharriotta pinnata
Nettastoma parviceps
Nettastoma sp.
Ostracion cornutus
Ostracion turritus
Pelates quadrilineatus
Peristedion sp.
Platycephalus sp.
Platycephalus tuberculatus
Polyipnus spinosus
Pseudorhombus javanicus
Scolopsis sp.
Scolopsis taeniopterus
Tetradon patoca
Tetraodontidae
Tetrosomus concatenatus
Trachichtodes spinosus
Triacanthodes sp.
Triacanthus strigilifer
Unidentified fish
Zeus sp.

Records of fishing operations.

Only the five most important species are listed plus all shrimp catches. For some of the species the percentage of total catch is given as 0%. This means that the species in question is present at the station, but is less than 1% of the total catch.

For the stations missing in the records there are no catches. These are for the autumn survey, station number 250, 281, 283, 286, 290, 350, 353 and 380, and for the spring survey, station number 165, 194, 205, 254, 271, 285, 296, 318 and 345.

AUTUMN ST. 249-265

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 9 -79	249	BTR	20.34 92.10	20	22	357.0KG	357.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Sharks	20%	1.522KG	
Arius sp.	15%	.204KG	
Rays,skates	12%	1.615KG	
Pampus argenteus	10%	.289KG	
Pomadasy hasta	9%	1.000KG	38.9CM
Shrimps	1%		

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 13 2: 36 3: 50 4: 0 5: 0 12% 0% 87%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 9 -79	251	PTR	20.05 91.26	14	0	1.1KG	2.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Myctophidae			
Bregmaceros sp.			

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 9 -79	252	BTR	20.02 91.24	150	525	.5KG	1.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Shrimps			

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 9 -79	253	PTR	19.45 91.56	500	28	.5KG	1.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Eel larvae			

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 9 -79	254	BTR	19.54 92.08	110	120	312.0KG	468.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Decapterus maruadsi	31%	.056KG	14.1CM
Priacanthus macrooanthus	25%	.045KG	
Lobsters	24%		
Saurida sp.	10%	.019KG	
Sciaenidae	4%	.199KG	

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 55 2: 16 3: 1 4: 27 5: 0 31% 0% 68%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 9 -79	255	BTR	20.07 92.24	35	37	210.0KG	420.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Lepturacanthus savala	36%		
Atrobuca nibe	28%	.296KG	27.8CM
Ilisha, elongata	9%	.133KG	25.4CM
Pomadasy hasta	6%	.485KG	29.3CM
Pampus argenteus	5%	.438KG	

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 8 2: 51 3: 40 4: 1 5: 0 11% 1% 88%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 9 -79	256	BTR	19.57 92.48	14	14	411.0KG	411.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Pomadasy hasta	17%	.172KG	18.9CM
Rays,skates	14%	2.240KG	
Atrobuca nibe	9%	.167KG	23.4CM
Johnius belangeri	7%	.053KG	15.2CM
Lutjanus argentimaculatus	6%	3.229KG	
Shrimps	2%		

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 12 2: 53 3: 26 4: 5 5: 0 7% 0% 89%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 9 -79	257	BTR	19.18 92.59	75	75	102.0KG	204.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Sphyraena obtusata	21%	.179KG	
Argyrops spinifer	15%	.367KG	
Nemipterus sp.	14%	1.192KG	
Pomadasy maculatus	13%	.073KG	
Carcharhinus palasorra	6%	3.000KG	

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 30 2: 55 3: 13 4: 2 5: 0 25% 8% 67%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 9 -79	258	PTR	19.24 93.03	36	20	2.0KG	4.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
File larvae			

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 9 -79	259	BTR	19.24 93.13	36	34	.3KG	.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Pentaptrion longimanus	60%	.029KG	
Gerres filamentosus	40%	.033KG	
Leiognathus smithursti	0%		
Leiognathus elongatus	0%		

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 0 2: 0 3: 100 4: 0 5: 0 100% 0% 0%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 9 -79	260	BTR	19.05 93.18	33	33	31.0KG	31.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Lepturacanthus savala	22%	.756KG	
Formio niger	15%	.920KG	
Alepes djeddaba	14%	.147KG	
Scomberomorus guttatus	13%	.557KG	
Ponyfishes	13%	.013KG	
Shrimps	1%	.003KG	

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 44 2: 20 3: 35 4: 0 5: 0 39% 22% 38%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
30. 9 -79	261	PTR	18.28 93.37	95	40	12.0KG	24.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Bregmaceros maclellandi	87%	.200KG	
Barracudas	9%	.008KG	
Squid	2%	.100KG	
Rastrelliger kanagurta	1%	.025KG	
Ariomma indica	1%		

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 4 2: 9 3: 1 4: 87 5: 0 12% 0% 89%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
30. 9 -79	262	BTR	18.29 93.38	79	83	43.0KG	86.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Scomberomorus commersoni	20%	2.867KG	
Sphyraena obtusata	14%	2.000KG	
Rastrelliger kanagurta	13%	1.56KG	
Pentaptrion longimanus	13%	.018KG	
Scomberomorus guttatus	10%	.880KG	

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 47 2: 31 3: 20 4: 0 5: 0 45% 31% 22%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
30. 9 -79	263	BTR	18.19 93.49	65	66	25.0KG	50.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Lutjanus sanguineus	53%	3.250KG	
Pentaptrion longimanus	21%	.033KG	
Carangoides chrysophrys	13%	1.100KG	
Nemipterus japonicus	6%	.068KG	
Psettodes erumei	3%	.800KG	
Shrimps	0%	.017KG	

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 67 2: 9 3: 21 4: 0 5: 0 34% 0% 63%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
30. 9 -79	264	BTR	18.19 93.47	68	64	105.0KG	105.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Pentaptrion longimanus	30%	.026KG	
Lutjanus sanguineus	16%	2.817KG	
Nemipterus nematophorus	8%	.054KG	15.3CM
Saurida tumbil	7%	.185KG	
Nemipterus japonicus	7%	.095KG	18.9CM

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 31 2: 32 3: 31 4: 1 5: 0 33% 3% 59%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
30. 9 -79	265	BTR	18.05 94.03	38	38	33.3KG	67.0KG

MAIN SPECIES:	% IN CATCH	MEAN W.	MEAN L.
Leiognathus sp.	21%	.036KG	
Pomadasy hasta	19%	.094KG	15.9CM
Saurida tumbil	17%	.136KG	
Sciaenidae	13%	.210KG	
Upeneus sulphureus	9%	.046KG	
Shrimps	2%		

% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
 1: 7 2: 62 3: 27 4: 8 5: 0 21% 2% 81%

AUTUMN ST. 266-282

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
1.10 -79 266 BTR North East DEPTH DEPTH CATCH PER HOUR
17.31 94.30 35 33 87.1KG 238.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Lutjanus argentimaculatus 18% 3.864KG
Drepane punctata 17% .872KG
Gazza minuta 9% .031KG
Sphyraena barracuda 8% 1.194KG
Epinephelus tauvina 7% 5.633KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 40 2: 44 3: 17 4: 0 5: 0 26% 9% 66%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
1.10 -79 267 PTR North East DEPTH DEPTH CATCH PER HOUR
17.27 94.27 53 0 40.5KG 61.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stoleporus sp. 67% .029KG
Dussumieria acuta 14% .004KG
Sphyraena barracuda 4% .100KG
Sardinella sp. 4% .004KG
Rastrelliger kanagurta 3% .050KG 9.1CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 4 2: 27 3: 70 4: 0 5: 0 101% 0% 0%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
2.10 -79 268 BTR North East DEPTH DEPTH CATCH PER HOUR
17.04 94.10 110 115 3.1KG 5.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Sphyryna zygaena 32% .850KG
Saurida sp. 26% .022KG
Sclaeinidae 10% .250KG
Leiognathus sp. 10% .002KG
Arius venosus 7% .060KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 39 3: 56 4: 6 5: 0 13% 0% 88%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
2.10 -79 269 BTR North East DEPTH DEPTH CATCH PER HOUR
16.38 94.13 32 32 212.0KG 424.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Pomadasya hasta 22% .155KG 17.6CM
Ilisha elongata 18% .148KG 26.4CM
Lutjanus argentimaculatus 14% 3.575KG
Congresox talabonoides 13% 2.740KG
Lepturacanthus savala 10%
Shrimps 3%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 33 2: 42 3: 25 4: 0 5: 0 33% 0% 67%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
2.10 -79 270 BTR North East DEPTH DEPTH CATCH PER HOUR
16.38 93.59 300 285 59.7KG 298.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Mollusks 25%
Centrolophus niger 22% .064KG 17.5CM
Epimula orientalis 19% .048KG 17.8CM
Bathyclupea hoskynii 8% .034KG
Haploblephorus edwardsi 7%
Shrimps 5%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 12 2: 19 3: 7 4: 63 5: 0 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
3.10 -79 271 BTR North East DEPTH DEPTH CATCH PER HOUR
15.49 93.53 70 73 39.6KG 88.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Carangoides chrysophrys 24% .122KG 19.9CM
Lutjanus bohar 19% 2.386KG
Sharks 13% 2.775KG
Lutjanus argentimaculatus 10% 4.200KG
Pomadasya hasta 7% .214KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 55 2: 24 3: 24 4: 0 5: 0 35% 0% 68%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
3.10 -79 272 BTR North East DEPTH DEPTH CATCH PER HOUR
15.09 94.11 59 58 196.0KG 196.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Lutjanus bohar 22% 2.820KG
Pentaprion longimanus 14% .042KG
Nemipterus japonicus 9% .139KG 20.8CM
Carangoides chrysophrys 8% .194KG 19.1CM
Scorpaenopsis walbeehmi 8% 1.722KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 36 2: 27 3: 30 4: 11 5: 0 27% 0% 77%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
3.10 -79 273 BTR North East DEPTH DEPTH CATCH PER HOUR
14.33 94.13 89 86 186.0KG 183.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Pentaprion longimanus 10% 2.035KG
Lutjanus bohar 9% 2.667KG
Upeneus moluccensis 9% .051KG 14.3CM
Carcharhinus sp. 8% 15.300KG
Nemipterus japonicus 7% .084KG 16.4CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 29 2: 31 3: 28 4: 13 5: 0 18% 3% 80%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
3.10 -79 274 BTR North East DEPTH DEPTH CATCH PER HOUR
14.30 94.10 95 91 69.8KG 68.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus sp. 23%
Pentaprion longimanus 10%
Nemipterus nematophorus 7% .072KG 15.9CM
Miscellaneous 7%
Nemipterus japonicus 6% .081KG 16.0CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 19 2: 25 3: 49 4: 10 5: 0 34% 5% 64%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
3.10 -79 275 BTR North East DEPTH DEPTH CATCH PER HOUR
14.10 94.17 350 350 70.9KG 142.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Chlorophthalmus agassizi 23% .110KG
Shrimps 23%
Cataetx messieri 9%
Shrimps 8%
Miscellaneous 7%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 35 2: 4 3: 6 4: 56 5: 0 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
4.10 -79 276 PTR North East DEPTH DEPTH CATCH PER HOUR
14.36 94.45 70 15 5.0KG 9.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Bregmaceros larvae
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
4.10 -79 277 BTR North East DEPTH DEPTH CATCH PER HOUR
14.35 94.45 72 72 68.0KG 68.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Carangoides chrysophrys 23% .118KG 19.7CM
Nemipterus nematophorus 14% .061KG 15.3CM
Nemipterus japonicus 10% .116KG 19.5CM
Saurida tumbil 8% .170KG
Sepia sp. 8% .319KG
Penaeus monodon 0% .100KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 40 2: 32 3: 9 4: 18 5: 0 31% 0% 68%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
4.10 -79 278 BTR North East DEPTH DEPTH CATCH PER HOUR
15.17 94.46 34 34 233.0KG 466.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Rays, skates 47% 10.000KG
Arius thalassinus 8% .805KG
Upeneus sulphureus 5% .039KG
Leiognathus sp. 5%
Lepturacanthus savala 4% .500KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 8 2: 24 3: 64 4: 5 5: 0 9% 1% 90%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
4.10 -79 279 BTR North East DEPTH DEPTH CATCH PER HOUR
15.35 94.46 16 15 285.0KG 570.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Rays, skates 35% 25.000KG
Arius venosus 11% .233KG
Miscellaneous 9%
Chrysochir aureus 8% .205KG
Lepturacanthus savala 7% .073KG
Penaeus monodon 6%
Metapenaeus lyssianasa 1%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 7 2: 21 3: 61 4: 10 5: 0 3% 0% 96%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
5.10 -79 280 BTR North East DEPTH DEPTH CATCH PER HOUR
14.35 95.43 110 110 164.0KG 164.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Lepturacanthus savala 19% .844KG
Rastrelliger kanagurta 15% .094KG 21.4CM
Ariomma indica 15% .060KG
Miscellaneous 14%
Apogon sp. 9% .015KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 22 2: 22 3: 35 4: 23 5: 0 34% 0% 68%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH CATCH
5.10 -79 282 BTR North East DEPTH DEPTH CATCH PER HOUR
15.03 95.39 92 92 94.6KG 177.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Pennahia macrocephalus 28% .023KG
Lepturacanthus savala 21% .257KG
Miscellaneous 11%
Lutjanus argentimaculatus 10% 2.933KG
Shrimps 5%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 19 2: 40 3: 25 4: 15 5: 0 4% 0% 95%

AUTUMN ST. 284-301

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
5.10 -79	284	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			15.06 95.38	80	0	22.2KG	44.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Trichiurus sp. 47% .165KG							
Myctophidae 32%							
Squid 21%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 21	2: 0	3: 47	4: 32	5: 0	0%	0%	100%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
5.10 -79	285	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			15.16 95.38	30	10	96.9KG	581.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Shrimps 40%							
Lepturacanthus savala 23% .142KG							
Sciaenidae 12% .867KG							
Miscellaneous 10%							
Pampus argenteus 6% .450KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 52	2: 16	3: 23	4: 10	5: 0	0%	0%	101%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
7.10 -79	287	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			15.19 96.07	20	20	396.0KG	742.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Polydora indicus 54% .996KG 108.0CM							
Chrysochir aureus 12% .723KG							
Harpodon nehereus 9%							
Rays,skates 5% 1.300KG							
Collia dussumieri 3%							
Metapenaeus lyssianasa 3%							
Penaeus monodon 2%							
Metapenaeus sp. 0%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 63	2: 16	3: 22	4: 0	5: 0	13%	0%	88%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
7.10 -79	288	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			15.09 96.18	28	27	237.0KG	431.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Chrysochir aureus 28% .511KG 35.8CM							
Polydora indicus 20% .785KG 58.4CM							
Arius caelatus 7% 1.578KG							
Congresox talabonoides 6% 1.893KG							
Shrimps 6%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 33	2: 41	3: 25	4: 3	5: 0	5%	0%	97%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
7.10 -79	289	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			13.46 96.06	150	155	322.0KG	568.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Peristodion weberi 39% .260KG							
Saurida undosquamis 37% .073KG							
Squalus sp. 8% .705KG							
Miscellaneous 8%							
Myctophum sp. 5%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 0	2: 37	3: 12	4: 52	5: 0	0%	0%	101%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
8.10 -79	291	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			14.49 96.38	53	38	106.0KG	106.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Shrimps 34%							
Lepturacanthus savala 11% .127KG							
Lepturacanthus savala 10% .005KG							
Raconda russelliana 9% .036KG							
Scomberomorus guttatus 9% 3.100KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 48	2: 16	3: 30	4: 7	5: 0	6%	10%	85%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
8.10 -79	292	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			15.30 97.06	20	20	158.0KG	316.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Harpodon nehereus 28% .031KG							
Chrysochir aureus 14% .880KG							
Arius caelatus 11% 3.600KG							
Tetradon patoca 9% .700KG							
Scoriodon sorrakawah 8% .520KG							
Shrimps 3% .013KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 7	2: 21	3: 56	4: 17	5: 0	37%	0%	64%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
8.10 -79	293	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			15.06 97.17	22	0	157.0KG	314.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Harpodon nehereus 32% .053KG							
Lepturacanthus savala 26% .047KG							
Shrimps 10%							
Opisthopterus tardore 5% .013KG							
Thryssa dussumieri 5% .011KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 23	2: 6	3: 67	4: 5	5: 0	47%	0%	54%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
9.10 -79	294	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			14.30 94.41	40	40	70.0KG	140.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pennahia macrophthalmus 16% .142KG							
Psettodes erumei 11% 2.600KG							
Seutor reconius 8% .003KG							
Carangoides chrysophrys 7% .118KG							
Lepturacanthus savala 7% .325KG							
Miscellaneous 2%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 11	2: 44	3: 36	4: 9	5: 0	31%	0%	69%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
9.10 -79	295	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			14.31 97.41	39	20	65.0KG	130.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Ilisha megaloptera 77% .005KG							
Stolephorus bataviensis 10% .006KG							
Chirocentrus dorab 5% 1.000KG							
Lepturacanthus savala 3% .167KG							
Miscellaneous 2%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 11	2: 82	3: 14	4: 2	5: 0	11%	0%	88%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
9.10 -79	296	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			14.12 97.23	45	0	1.0KG	2.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Fish larvae							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 0	2: 0	3: 0	4: 0	5: 0	0%	0%	0%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
9.10 -79	297	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			14.13 96.51	73	73	43.0KG	86.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Rastrelliger kanagurta 23% .118KG 20.7CM							
Lutjanus sanguineus 18% 2.567KG							
Lethrinus sp. 9% 1.250KG							
Thrichurus lepturus 7% .700KG							
Nemipterus sp. 7% 3.000KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 61	2: 23	3: 13	4: 4	5: 0	36%	0%	65%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
9.10 -79	298	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			13.48 97.06	84	80	54.0KG	54.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Leiognathus elongatus 57% .004KG							
Dactylopterus orientalis 12% .076KG							
Carangoides chrysophrys 8% .062KG							
Shrimps 5%							
Decapterus macrosoma 4% .100KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 19	2: 8	3: 57	4: 17	5: 0	69%	0%	32%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
9.10 -79	299	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			13.48 97.31	59	59	172.0KG	344.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Atrobucca nibe 16% .084KG							
Nemipterus japonicus 11% .079KG							
Upeneus sulphureus 10% .040KG							
Lutjanus argentimaculatus 8% 2.780KG							
Miscellaneous 8%							
Shrimps 3% .157KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 21	2: 55	3: 11	4: 11	5: 0	5%	0%	93%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
10.10 -79	300	PTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			13.53 97.41	50	23	551.0KG	1181.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Stolephorus indicus 67% .007KG							
Scoriodon sorrakawah 17% 22.500KG							
Scomberomorus commersoni 10% 5.200KG							
Rastrelliger kanagurta 2% .030KG							
Dussumieria acuta 2% .024KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 12	2: 3	3: 84	4: 0	5: 0	72%	10%	17%

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
10.10 -79	301	BTR	North East	DEPTH	DEPTH	CATCH	PER HOUR
			13.37 97.54	38	38	2103.0KG	4206.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Jellyfish 95%							
Synagrops sp. 6% .023KG							
Alepes djeddaba 1% .059KG 18.3CM							
Nemipterus japonicus 1% .116KG 19.5CM							
Upeneus sulphureus 1% .042KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 1	2: 2	3: 1	4: 6	5: 95	2%	0%	103%

AUTUMN ST. 302-317

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.10 -79	302	BTR	13.26	98.06	23	139.0KG	278.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Miscellaneous 3% .773KG Arius sp. 8% 1.000KG Carangoides malabaricus 7% .104KG Scomberomorus guttatus 5% .044KG Upeneus sulphureus 5% .044KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 19 2: 20 3: 21 4: 37 5: 0 8% 13% 76%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.10 -79	303	BTR	13.21	98.12	28	75.0KG	75.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus bindus 19% .005KG Actomylaenus nichofii 15% .100KG Gazza minuta 13% .027KG Trichurus lepturus 11% .608KG Scomberomorus guttatus 9% .733KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 12 2: 5 3: 75 4: 8 5: 0 47% 11% 42%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.10 -79	304	BTR	13.19	97.45	55	187.0KG	321.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Upeneus sulphureus 27% .003KG Miscellaneous 21% .162KG Carangoides malabaricus 11% .169KG Saurida elongata 10% .118KG Nemipterus japonicus 10% 20.8CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 24 2: 52 3: 5 4: 21 5: 0 5% 11% 86%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.10 -79	305	BTR	12.56	96.31	340	105.0KG	197.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 29% 30.000KG Shrimps 16% .006KG Chloropthalmus agassizi 12% .043KG Haploblephorus edwardsi 10% .059KG Zenion hololepis 9% .027KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 19 2: 2 3: 45 4: 34 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.10 -79	306	BTR	12.43	96.45	350	667.0KG	381.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Peristedion adeni 22% 1.006KG Cubiceps natalensis 17% .039KG Chloropthalmus agassizi 15% .048KG Diaphus sp. 13% .005KG Shrimps 9% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 10 2: 5 3: 18 4: 62 5: 0 0% 0% 95%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.10 -79	307	PTR	12.35	98.02	47	.3KG	1.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.10 -79	308	BTR	12.12	97.38	77	150.0KG	310.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Atrobuca nibe 46% .125KG Miscellaneous 15% 3.213KG Pomadasys opercularis 8% 1.850KG Lethrinus lutjanus 7% .607KG Trichurus lepturus 6% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 10 2: 61 3: 12 4: 17 5: 0 8% 0% 92%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.10 -79	309	PTR	12.12	97.20	86	1.9KG	3.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Fish larvae 44% .060KG Sphyræna obtusata 17% .005KG Leiognathus elongatus 15% .010KG Thryssa mystax 11% .060KG Decapterus macrosoma 10% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 13 2: 17 3: 26 4: 44 5: 0 53% 0% 47%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.10 -79	310	BTR	12.13	96.51	250	282.0KG	282.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Peristedion weberi 62% .685KG Synagrops sp. 10% .005KG Chloropthalmus agassizi 9% .020KG Shrimps 7% .005KG Puerulus sewelli 5% .079KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 13 2: 2 3: 0 4: 87 5: 0 0% 0% 102%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.10 -79	311	BTR	11.41	96.53	270	76.0KG	76.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 29% .005KG Peristedion weberi 16% .787KG Palinurichthys pringlei 15% .055KG Cubiceps natalensis 11% .045KG Puerulus sewelli 7% .081KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 36 2: 5 3: 26 4: 34 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.10 -79	312	BTR	11.37	97.11	200	53.0KG	110.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Saurida undosquamis 46% .082KG Peristedion weberi 24% .576KG Chaunax pictus 19% 5.175KG Puerulus sewelli 4% 1.025KG Myctophidae 3% .008KG Shrimps 1% .032KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 46 3: 0 4: 49 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.10 -79	313	BTR	11.33	97.50	46	166.0KG	332.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Atrobuca nibe 35% .126KG Pomadasys opercularis 11% .266KG Pentapriion longimanus 9% .026KG Leiognathus equulus 7% .093KG Nemipterus japonicus 6% .087KG Shrimps 2% .011KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 14 2: 57 3: 23 4: 7 5: 0 19% 0% 82%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
13.10 -79	314	BTR	11.50	97.55	49	85.0KG	146.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus equulus 39% .060KG Carangoides chrysophrys 9% .064KG Arius thalassinus 9% .473KG Pomadasys opercularis 7% .396KG Upeneus sulphureus 6% .050KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 14 2: 23 3: 58 4: 5 5: 0 53% 0% 47%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
14.10 -79	315	BTR	11.08	97.45	66	12.3KG	12.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lutjanus sanguineus 37% 4.500KG Rhynchobatus djiddensis 23% 2.900KG Lethrinus lutjanus 19% .460KG Auxis thazard 10% .029KG Nemipterus delagoae 7% .068KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 67 2: 10 3: 23 4: 0 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
14.10 -79	316	BTR	10.52	97.13	290	104.0KG	104.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Puerulus sewelli 27% .045KG Myctophidae 22% .045KG Palinurichthys pringlei 18% .043KG Shrimps 11% Miscellaneous 10% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 38 2: 0 3: 21 4: 41 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
15.10 -79	317	BTR	10.45	97.55	42	37.7KG	73.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sharks 33% 2.380KG Leiognathus bindus 15% .045KG Upeneus sulphureus 9% .046KG Carangoides chrysophrys 8% .143KG Atrobuca nibe 6% .098KG Penaeus monodon 1% .060KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 15 2: 21 3: 61 4: 5 5: 0 31% 0% 71%							

AUTUMN ST. 318-333

15.10 -79 318 PTR North East 97.20 220 190 42.5KG 67.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophum sp 100% .013KG .013KG

15.10 -79 319 BTR 9.52 97.05 320 320 30.7KG 31.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Neoscopelus sp 24% .013KG .013KG

16.10 -79 320 BTR 10.21 97.37 81 82 42.7KG 43.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Decapterus maruadsi 63% .257KG 15.4CM

24.10 -79 321 BTR 16.36 94.06 59 59 56.0KG 105.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lutjanus sanguineus 29% 1.960KG .008KG

24.10 -79 322 BTR 16.39 94.10 45 45 110.0KG 220.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Scomberomorus commersoni 30% 2.213KG 74.6CM

24.10 -79 323 PTR 16.40 94.11 43 0 223.0KG 446.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Ilisha elongata 60% .002KG 6.1CM

24.10 -79 324 PTR 16.46 94.06 95 0 13.0KG 26.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leioagnathus sp 40% .055KG .055KG

25.10 -79 325 PTR 16.49 94.15 39 0 107.0KG 201.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus bataviensis 66% .001KG 4.7CM

25.10 -79 326 PTR 17.03 94.11 83 45 .1KG .0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Decapterus maruadsi 61% .004KG 6.6CM

25.10 -79 327 BTR 17.16 94.26 32 31 38.0KG 76.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leioagnathus sp 32% .162KG .162KG

25.10 -79 328 BTR 17.17 94.27 39 38 100.0KG 100.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pomadasys hasta 22% .054KG .054KG

25.10 -79 329 BTR 17.27 94.26 52 51 147.0KG 147.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lutjanus sanguineus 14% 2.650KG .170KG

25.10 -79 330 PTR 17.30 94.29 37 0 184.0KG 368.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 37% .002KG 5.3CM

25.10 -79 331 PTR 17.45 94.25 42 0 161.0KG 322.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sardinella gibbosa 39% .039KG 8.4CM

26.10 -79 332 BTR 17.58 94.12 61 60 3.0KG 6.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Scomberomorus guttatus 100% .590KG 45.0CM

26.10 -79 333 BTR 18.02 94.22 29 29 957.0KG 1852.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Otholithes ruber 29% .678KG 38.1CM

AUTUMN ST. 334-349

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26.10	-79	334	BTR 18.10 94.09	38	38	220.0KG	400.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Leiongnathus splendens 48% .012KG							
Upeneus sulphureus 8% .033KG							
Pomadasy hasta 5% .222KG 33.8CM							
Pomadasy olivaceus 5% .033KG							
Scomberomorus guttatus 4% .600KG 44.3CM							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 10 2: 32 3: 59 4: 1 5: 0 65% 6% 31%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26.10	-79	335	BTR 18.23 93.31	190	185	5.0KG	5.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Arius thalassinus 46% .343KG							
Cubiceps sp. 18% .031KG							
Squid 10% .500KG							
Psettodes erumei 8% .400KG							
Synagrops japonicus 6% .004KG							
Shrimps 4% .003KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 14 2: 10 3: 72 4: 5 5: 0 2% 0% 99%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
27.10	-79	336	BTR 18.27 93.45	47	46	63.0KG	140.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pentaprion longimanus 18% .022KG							
Saurida tumbil 15% .146KG							
Sepia sp. 10%							
Saurida undosquamis 9% .038KG							
Psettodes erumei 8% .627KG							
Shrimps 5% .020KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 15 2: 57 3: 24 4: 4 5: 0 18% 0% 82%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
27.10	-79	337	BTR 18.39 93.36	43	43	154.0KG	289.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Atrobuca nibe 45% .121KG 19.9CM							
Pomadasy hasta 26% .103KG 16.7CM							
Shrimps 5%							
Lutjanus argentimaculatus 4% .548KG							
Nemipterus nematophorus 3% .018KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 11 2: 79 3: 7 4: 3 5: 0 5% 0% 95%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
27.10	-79	338	BTR 18.59 93.20	33	32	6.0KG	12.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pomadasy hasta 21% .650KG							
Shrimps 19% .008KG							
Leiongnathus bindus 12% .018KG							
Arius thalassinus 12% .750KG							
Ephippus orbis 11% .162KG							
Solenocera sp. 3% .009KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 28 2: 26 3: 45 4: 2 5: 0 15% 3% 83%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
27.10	-79	339	BTR 19.10 93.24	21	21	128.0KG	240.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Congresox talabonoides 22% 3.580KG							
Sardinella brachysoma 19% .028KG 14.2CM							
Leiongnathus sp. 16% .018KG							
Pomadasy hasta 11% .108KG 15.0CM							
Anodontostoma chacunda 6% .058KG 15.9CM							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 29 2: 46 3: 22 4: 4 5: 0 54% 6% 41%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
28.10	-79	340	BTR 18.38 94.08	16	16	33.0KG	66.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Rays,skates 26%							
Pomadasy hasta 25% .125KG 16.4CM							
Pampus argenteus 18% .248KG 22.9CM							
Shrimps 11% .018KG							
Otholithes ruber 7% .277KG 22.5CM							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 30 2: 37 3: 30 4: 1 5: 0 7% 1% 90%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
28.10	-79	341	BTR 18.34 94.06	13	12	438.0KG	796.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pampus argenteus 48% .232KG 25.9CM							
Pomadasy hasta 19% .095KG 15.1CM							
Otholithes ruber 4% .277KG							
Scomberomorus guttatus 3% .238KG							
Leiongnathus sp. 3% .012KG							
Penaeus merguensis 1% .022KG							
Shrimps 1% .014KG							
Metapenaeus affinis 0% .011KG							
Penaeus monodon 0% .050KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 57 2: 34 3: 6 4: 0 5: 0 12% 6% 79%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
28.10	-79	342	BTR 18.35 93.58	23	22	130.0KG	244.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pomadasy hasta 30% .527KG 17.4CM							
Leiongnathus sp. 29% .022KG							
Argyrops spinifer 13% .332KG 22.9CM							
Scomberomorus guttatus 5% .860KG							
Pampus argenteus 4% .382KG 27.4CM							
Penaeus monodon 0% .038KG							
Penaeus merguensis 0% .033KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 27 2: 42 3: 32 4: 0 5: 0 34% 5% 62%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
28.10	-79	343	BTR 18.30 94.04	25	25	380.0KG	760.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pomadasy hasta 31% .134KG 16.0CM							
Rays,skates 30% 8.00KG							
Leiongnathus sp. 20% .020KG							
Drepane punctata 4% .681KG							
Upeneus sulphureus 3% .041KG							
Penaeus monodon 0% .062KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 5 2: 43 3: 53 4: 0 5: 0 23% 4% 74%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
28.10	-79	344	BTR 18.28 94.15	17	17	86.0KG	172.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Shrimps 25%							
Pomadasy hasta 14% .763KG							
Otholithes ruber 12% .070KG 17.3CM							
Johnius sp. 11% .016KG							
Congresox talabonoides 9% 2.000KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 40 2: 50 3: 5 4: 4 5: 0 7% 1% 91%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
28.10	-79	345	BTR 18.25 94.10	28	28	87.0KG	174.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Leiongnathus sp. 40% .064KG 11.5CM							
Pomadasy hasta 20% .064KG 80.3CM							
Scomberoides commersonianus 12%							
Lactarius lactarius 5% .017KG							
Upeneus sulphureus 3% .026KG							
Metapenaeus sp. 1% .030KG							
Penaeus monodon 1% .050KG							
Shrimps 0% .013KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 19 2: 30 3: 50 4: 0 5: 0 50% 12% 37%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
29.10	-79	346	BTR 18.20 94.10	34	34	93.0KG	151.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pomadasy hasta 20% 1.006KG 11.3CM							
Pennahia macrophthalmus 13% .060KG 15.2CM							
Saurida tumbil 13% .139KG							
Congresox talabonoides 11% 3.100KG							
Leiongnathus sp. 10% .022KG							
Shrimps 3% .010KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 16 2: 53 3: 25 4: 0 5: 0 11% 0% 83%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
29.10	-79	347	BTR 18.14 94.13	32	32	114.0KG	228.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Leiongnathus sp. 28% .070KG							
Pomadasy hasta 22% .052KG 13.2CM							
Pentaprion longimanus 13% .250KG							
Pennahia macrophthalmus 11% .056KG 15.3CM							
Shrimps 7%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 11 2: 45 3: 46 4: 0 5: 0 43% 0% 59%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
29.10	-79	348	BTR 18.10 94.17	32	32	73.0KG	146.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pomadasy hasta 46% .220KG 13.8CM							
Leiongnathus sp. 13%							
Psettodes erumei 11% .217KG							
Scomberomorus guttatus 6% .575KG							
Carangoides malabaricus 5% .115KG							
Penaeus monodon 1% .057KG							
Shrimps 0% .018KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 14 2: 69 3: 17 4: 0 5: 0 17% 11% 72%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
29.10	-79	349	BTR 18.05 94.25	17	17	620.0KG	1240.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Leiongnathus sp. 52% .005KG							
Pomadasy hasta 13% .103KG 14.9CM							
Dussumieria acuta 8% .035KG 15.5CM							
Sardinella brachysoma 4% .024KG 14.8CM							
Sardinella gibbosa 4% .032KG 15.0CM							
Shrimps 0% .013KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 8 2: 39 3: 56 4: 0 5: 0 74% 5% 24%							

AUTUMN ST. 351-367

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
29.10 -79	351	BTR	18.05 94.20	30	30	8000.0KG	16000.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Pomadasyss hasta		14%		.078KG	15.1CM								
Otholithes ruber		14%		.521KG	35.8CM								
Thryssa mystax		10%		.021KG	13.0CM								
Arius sp.		9%		.448KG									
Sciaenidae		9%		.090KG									
Penaeus monodon		0%		.075KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	9	2:	56	3:	33	4:	1	5:	0	27	1	71	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
1.11 -79	352	BTR	16.47 91.01	210	210	26.0KG	26.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Mollusks		36%											
Soles		17%		.030KG									
Shrimps		14%											
Leptodotrigla sp.		8%		.018KG									
Lobsters		7%											
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	22	2:	3	3:	20	4:	55	5:	0	0	0	100	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
1.11 -79	354	BTR	16.25 93.55	310	305	330.0KG	660.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Palinurichius pringlei		57%		.051KG									
Epinnulla orientalis		17%		.034KG									
Shells		9%		.014KG									
Chlorophthalmus bicornis		4%		.027KG									
Chaunax sp.		3%		.039KG									
Shrimps		1%											
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	2	2:	17	3:	59	4:	22	5:	0	0	0	100	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
1.11 -79	355	PTR	15.29 94.20	38	0	30.0KG	60.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Stolephorus indicus		59%		.002KG	5.4CM								
Sardinella gibbosa		16%		.004KG	6.8CM								
Rastrelliger kanagurta		7%		.006KG	9.0CM								
Lobsters		7%											
Chirocentrus dorab		5%		.100KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	14	2:	22	3:	65	4:	0	5:	0	87	0	14	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
2.11 -79	356	BTR	15.06 94.59	39	38	214.0KG	428.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Atrubucca nibe		30%		.774KG	19.5CM								
Nemipterus japonicus		11%		.383KG	15.0CM								
Pentaptrion longimanus		10%		.132KG									
Saurida tumbil		8%		.320KG									
Johnieops sina		8%		.765KG									
Shrimps		4%											
Penaeus monodon		1%		.100KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	11	2:	67	3:	21	4:	3	5:	0	13	0	89	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
2.11 -79	357	BTR	15.03 95.04	36	37	796.0KG	1592.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Pennahia macrocephalus		40%		.232KG	21.2CM								
Sphyræna obtusata		18%		.091KG									
Leiognathus sp.		10%											
Arius thalassinus		7%		.683KG									
Nemipterus japonicus		4%		.067KG	16.1CM								
Penaeus monodon		0%		.010KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	6	2:	73	3:	21	4:	0	5:	0	35	3	62	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
2.11 -79	358	BTR	15.13 95.12	31	30	517.0KG	1034.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Lepturacanthus savala		30%		.150KG									
Lactarius lactarius		27%		.028KG	12.6CM								
Arius thalassinus		8%		2.000KG									
Metapenaeus sp.		8%		.014KG									
Soles		5%		.233KG									
Penaeus monodon		0%		.050KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	12	2:	12	3:	77	4:	0	5:	0	35	0	66	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
2.11 -79	359	BTR	15.03 95.21	49	48	698.0KG	1299.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Dasyatis uarnac		47%		295.500KG									
Rhynchobatus djiddensis		23%		145.500KG									
Chelonia mydas		9%		54.600KG									
Leiognathus bindus		4%		.006KG									
Upeneus sulphureus		3%		.031KG									
Shrimps		1%		.020KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	5	2:	11	3:	77	4:	0	5:	9	5	3	94	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
2.11 -79	360	PTR	15.20 95.26	24	0	134.0KG	268.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Scomberomorus commersoni		38%		6.350KG									
Sardinella gibbosa		17%		.024KG	16.1CM								
Ilisha elongata		15%		.165KG	26.1CM								
Formio niger		4%		.291KG									
Secutor reoncius		4%		.008KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	44	2:	38	3:	14	4:	2	5:	0	44	41	13	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
2.11 -79	361	PTR	15.21 95.26	21	10	161.0KG	322.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Thryssa mystax		60%		.007KG	9.8CM								
Leiognathus sp.		18%		.005KG									
Ilisha melastoma		14%		.017KG									
Ilisha melastoma		5%		.020KG									
Dussumeria acuta		5%		.020KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	3	2:	19	3:	80	4:	0	5:	0	98	0	4	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
3.11 -79	362	BTR	15.16 95.43	34	33	380.0KG	760.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Pennahia macrophthalmus		18%		.125KG	19.3CM								
Dasyatis bleekeri		15%		.304KG									
Pampus argenteus		14%		.360KG	27.7CM								
Polynemus indicus		8%		.491KG	39.0CM								
Chrysochir aureus		7%		.083KG	17.1CM								
Shrimps		2%		.008KG									
Penaeus monodon		0%		.142KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	29	2:	37	3:	34	4:	2	5:	0	3	0	99	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
3.11 -79	363	PTR	15.10 95.43	57	40	175.0KG	350.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Trichiurus sp.		27%		.041KG									
Pampus argenteus		20%		.334KG	25.9CM								
Lactarius lactarius		13%		.023KG									
Thryssa sp.		12%		.004KG									
Dussumeria acuta		6%		.034KG									
Shrimps		3%											
Solenocera sp.		3%		.004KG									
Penaeus monodon		0%		.075KG									
Penaeus merguensis		0%		.017KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	33	2:	13	3:	55	4:	0	5:	0	41	4	56	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
3.11 -79	364	BTR	15.10 95.41	58	57	218.0KG	436.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Congresox talabonoides		31%		4.764KG									
Pampus argenteus		14%		.850KG									
Solenocera sp.		12%											
Thrissina baelama		7%		.009KG									
Pennahia macrocephalus		7%		.027KG									
Metapenaeus sp.		5%		.011KG									
Penaeus monodon		3%		.078KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	68	2:	15	3:	16	4:	1	5:	0	12	0	88	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
3.11 -79	365	PTR	15.04 95.52	67	57	45.0KG	71.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Lepturacanthus savala		44%		.260KG									
Fish larvae		22%											
Scomberoides commersonianus		10%		1.217KG	54.0CM								
Formio niger		7%		.783KG									
Atropus atropus		7%		.192KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	20	2:	10	3:	49	4:	22	5:	0	9	13	79	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
3.11 -79	366	BTR	15.05 95.52	60	60	112.0KG	224.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Congresox talabonoides		28%		2.891KG									
Chrysochir aureus		13%		.993KG									
Arius thalassinus		12%		.596KG									
Rays, skates		10%		.345KG									
Solenocera sp.		8%		.007KG									
Metapenaeus affinis		2%		.009KG									
Penaeus monodon		1%		.200KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	44	2:	25	3:	30	4:	1	5:	0	1	0	99	%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR						
3.11 -79	367	BTR	15.28 96.00	18	18	201.0KG	402.0KG						
MAIN SPECIES:		% IN CATCH		MEAN W.	MEAN L.								
Rays, skates		37%		3.524KG									
Polynemus indicus		19%		12.970KG	111.0CM								
Congresox talabonoides		7%		13.300KG									
Arius sp.		7%		2.086KG									
Harpodon nehereus		5%		.036KG									
Penaeus merguensis		5%											
Metapenaeus sp.		3%		.009KG									
% IN ECONOMIC CLASS:		SMALL PEL		LARGE PEL	OTHER								
1:	34	2:	7	3:	57	4:	2	5:	0	8	0	92	%

AUTUMN ST. 368-384

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
4.11 -79	368	BTR	15.12 96.01	23	22	257.0KG	482.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chrysochir aureus 36% .379KG 35.4CM Penaeus indicus 30% 3.659KG 74.8CM Metapenaeus sp. 11% Congresox talabonoides 8% 1.313KG Rays,skates 3% .241KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 50 2: 41 3: 9 4: 3 5: 0 4% 0% 99%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
4.11 -79	369	BTR	14.58 96.00	75	75	103.0KG	167.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Congresox talabonoides 27% 3.492KG Atrobucca nibe 14% .120KG 19.5CM Pennahia macrocephalus 10% .106KG Metapenaeus lyssianasa 8% Lutjanus sanguineus 7% 2.240KG Metapenaeus sp. 5% Penaeus monodon 1% .062KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 51 2: 31 3: 14 4: 6 5: 0 1% 0% 101%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
4.11 -79	370	PTR	14.53 96.05	91	86	988.0KG	1976.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophidae 55% Lepturacanthus savala 22% .488KG Sharks 16% 6.000KG Pampus argenteus 3% .600KG Synagrops sp. 2% .007KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 1 3: 38 4: 57 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
4.11 -79	371	BTR	15.16 96.13	22	22	579.0KG	1158.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Metapenaeus lyssianasa 29% .100KG Chrysochir aureus 18% .550KG 35.4CM Penaeus indicus 14% 4.913KG 85.4CM Colia dussumieri 6% .003KG Kurtus indicus 6% .004KG Metapenaeus sp. 2% .004KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 49 2: 26 3: 18 4: 9 5: 0 11% 0% 91%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
4.11 -79	372	BTR	14.57 96.25	49	49	132.0KG	247.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chrysochir aureus 32% .175KG 23.0CM Congresox talabonoides 24% 3.158KG Pennahia macrocephalus 12% .058KG Rays,skates 10% .331KG Atrobucca nibe 6% .105KG Shrimps 6% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 32 2: 53 3: 13 4: 2 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	373	BTR	14.52 96.31	65	64	132.0KG	240.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 46% .667KG Sciaenidae 18% .221KG Muraenesox sp. 14% 3.633KG Shrimps 10% Lepturacanthus savala 8% .037KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 24 2: 20 3: 58 4: 1 5: 0 5% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	374	BTR	14.58 96.34	38	37	136.0KG	272.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 30% Opisthopterus tardore 26% .015KG 15.0CM Sharks 12% .145KG Lepturacanthus savala 7% .044KG Penaeus indicus 6% 1.275KG 42.6CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 42 2: 31 3: 28 4: 2 5: 0 29% 1% 73%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	375	BTR	15.09 96.43	25	25	179.0KG	358.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lepturacanthus savala 33% Harpodon nehereus 17% .997KG 12.7CM Congresox talabonoides 16% 9.600KG Kurtus indicus 8% .08KG Penaeus indicus 7% 5.800KG 84.0CM Shrimps 4% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 27 2: 4 3: 62 4: 8 5: 0 26% 0% 75%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	376	BTR	14.52 96.46	38	37	492.0KG	984.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Turtles 41% 200.000KG Shrimps 34% Chrysochir aureus 7% .483KG 35.3CM Lepturacanthus savala 6% .055KG Sharks 3% .167KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 36 2: 11 3: 13 4: 0 5: 41 4% 0% 97%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	377	BTR	15.08 96.51	24	24	128.0KG	284.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chrysochir aureus 30% .577KG Penaeus indicus 21% 2.059KG 24.1CM Lepturacanthus savala 10% Shrimps 10% Thrissina baelama 9% .006KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 34 2: 36 3: 29 4: 0 5: 0 12% 0% 87%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	378	BTR	14.49 97.01	42	42	100.0KG	200.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 56% 2.177KG Congresox talabonoides 11% .370KG Shrimps 7% Pterolithus maculatus 5% .112KG Sciaenidae 4% .010KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 22 2: 16 3: 63 4: 0 5: 0 3% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
5.11 -79	379	PTR	14.49 96.58	39	20	120.0KG	180.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 67% .175KG Lepturacanthus savala 12% .018KG Opisthopterus tardore 7% .213KG 23.2CM Pampus argenteus 4% .221KG Atropus atropus 4% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 79 2: 8 3: 14 4: 0 5: 0 12% 1% 88%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
6.11 -79	381	PTR	14.13 97.20	48	40	4.0KG	10.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Fish larvae 80% Scomberomorus guttatus 20% .950KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 20 2: 0 3: 0 4: 80 5: 0 0% 20% 80%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
6.11 -79	382	BTR	14.06 97.45	32	32	145.0KG	290.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 44% 4.000KG Nemipterus japonicus 12% .083KG 17.5CM Saurida tumbil 11% .160KG Upeneus sulphureus 7% .034KG Pentapion longimanus 6% .084KG Penaeus monodon 1% .056KG Metapenaeus sp. 0% .006KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 36 3: 59 4: 3 5: 0 9% 0% 91%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
6.11 -79	383	PTR	14.00 97.38	25	16	91.0KG	182.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 75% .005KG 8.2CM Dussumieria acuta 16% .021KG 13.4CM Scomberomorus guttatus 3% .800KG Lepturacanthus savala 2% .175KG Sardinella gibbosa 2% .013KG 10.7CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 19 3: 77 4: 0 5: 0 95% 3% 2%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7.11 -79	384	BTR	13.45 97.43	48	48	118.0KG	221.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pennahia macrocephalus 30% .997KG 12.7CM Upeneus sulphureus 23% .031KG Nemipterus japonicus 12% .981KG 16.3CM Saurida tumbil 10% .147KG Arius thalassinus 7% .652KG Shrimps 4% .011KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 3 2: 79 3: 11 4: 7 5: 0 5% 0% 95%							

AUTUMN ST. 385-400

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7.11 -79	385	PTR	13.41 97.42	49	34	53.0KG	91.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Scomberomorus guttatus 41% 5.271KG 42.3CM Rastrelliger kanagartha 19% Leiognathidae, juveniles 19% Nemipteridae, juveniles 19% Formio niger 3% .767KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 60 2: 3 3: 0 4: 0 5: 38 38% 41% 22%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.11 -79	393	PTR	12.53 98.08	22	0	98.0KG	196.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 27% .003KG 7.1CM Ilisha elongata 20% .006KG 8.6CM Thryssa dussumieri 9% .001KG 5.1CM Bregmaceros larvae 9% Leiognathus sp. 8% .001KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 7 2: 24 3: 60 4: 9 5: 0 91% 0% 9%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7.11 -79	386	BTR	13.29 97.48	50	50	86.0KG	161.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Nemipterus japonicus 34% .067KG 19.5CM Arius thalassinus 18% .512KG Lepturacanthus savala 12% .274KG Saurida tumbil 11% .123KG Pentaprion longimanus 8% .022KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 45 3: 41 4: 11 5: 0 15% 0% 87%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9.11 -79	394	PTR	12.45 97.50	57	0	5.0KG	7.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Fish larvae 78% Lepturacanthus savala 16% .750KG Atropus atropus 6% .300KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 0 3: 16 4: 78 5: 0 6% 0% 94%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7.11 -79	387	PTR	13.15 98.15	49	0	87.0KG	130.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rastrelliger kanagartha 31% .144KG 32.1CM Formio niger 25% .402KG 26.2CM Stolephorus indicus 11% .005KG 6.4CM Ilisha melastoma 8% .038KG 14.8CM Lepturacanthus savala 8% .162KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 37 2: 38 3: 25 4: 0 5: 0 60% 4% 36%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.11 -79	395	PTR	11.29 97.49	57	42	113.0KG	174.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Squid 38% Ponyfishes 31% Miscellaneous 11% Decapterus maruadsi 8% 4.9CM Rastrelliger kanagartha 7% 5.5CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 57 2: 0 3: 31 4: 12 5: 0 46% 4% 50%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.11 -79	388	BTR	13.00 98.01	46	46	156.0KG	312.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Penahia macrophthalmus 31% .113KG 18.3CM Congresox talabonoides 23% 2.269KG Nemipterus japonicus 10% .060KG 15.9CM Atrobuca nibe 7% .127KG Upeneus sulphureus 6% .035KG Shrimps 4% .008KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 29 2: 63 3: 6 4: 3 5: 0 6% 0% 95%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.11 -79	396	BTR	11.04 97.51	330	325	92.0KG	92.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Puerulus sewelli 30% .055KG 12.2CM Chloropthalmus agassizi 30% .047KG Neoscopelus sp. 8% .014KG Shrimps 8% .055KG Cubiceps sp. 7% .079KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 44 2: 0 3: 9 4: 46 5: 0 0% 0% 99%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.11 -79	389	BTR	13.22 98.18	35	28	161.0KG	302.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 27% .015KG Rays, skates 12% 3.333KG Upeneus sulphureus 11% .035KG Saurida tumbil 7% .058KG Carangoides malabaricus 5% .051KG Shrimps 1% .125KG Penaeus monodon 0% .060KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 20 2: 31 3: 47 4: 1 5: 0 34% 9% 56%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.11 -79	397	BTR	11.03 96.38	400	400	66.0KG	64.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 31% .113KG Chloropthalmus agassizi 8% .049KG Miscellaneous 8% .015KG Neoscopelus sp. 7% .049KG Myctophum sp. 7% .015KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 43 2: 0 3: 4 4: 54 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.11 -79	390	BTR	13.22 98.12	27	25	540.0KG	1080.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 67% .006KG Stolephorus indicus 9% .009KG 6.9CM Lepturacanthus savala 6% .319KG Carangoides chrysophrys 3% .064KG Arius thalassinus 3% .421KG Penaeus monodon 0% .067KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 3 2: 9 3: 86 4: 0 5: 0 84% 0% 14%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.11 -79	398	BTR	11.05 96.36	490	490	21.0KG	42.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 48% .010KG Thalassoma sp. 14% .074KG Coelorhynchus parallelus 10% .026KG Miscellaneous 6% .015KG Sharks 4% .085KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 56 2: 2 3: 4 4: 40 5: 0 0% 0% 102%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.11 -79	391	BTR	13.28 98.16	13	12	603.0KG	754.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pomadasys hasta 16% .147KG 18.9CM Kurtus indicus 14% .007KG Raconda russelliana 13% .015KG Shrimps 11% .004KG Congresox talabonoides 9% 2.463KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 25 2: 50 3: 11 4: 17 5: 0 9% 0% 94%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.11 -79	399	BTR	11.32 96.52	28	275	398.0KG	398.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Peristedion weberi 24% 7.385KG Shrimps 23% Palinurichthys pringlei 17% .652KG Epinna orientalis 10% .600KG 18.6CM Puerulus sewelli 7% .502KG 14.3CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 32 2: 10 3: 17 4: 41 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.11 -79	392	BTR	13.28 98.10	23	22	5000.0KG	10000.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Thryssa dussumieri 91% .009KG 9.1CM Lactarius lactarius 5% .042KG Miscellaneous 3% Leiognathus splendens 1% .025KG Gazza minuta 1% .027KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 0 3: 98 4: 3 5: 0 98% 0% 3%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
12.11 -79	400	BTR	11.32 96.42	350	350	245.0KG	245.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chloropthalmus agassizi 46% .027KG 19.4CM Cubiceps natalensis 11% .036KG 15.8CM Epinna orientalis 9% .050KG 20.2CM Shrimps 8% Puerulus sewelli 7% .097KG 12.4CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 16 2: 9 3: 13 4: 61 5: 0 0% 0% 99%							

AUTUMN ST. 401-416

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
12.11 -79 401 BTR 12.00 96.56 260 260 59.0KG 59.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Shrimps 55% .004KG
Puerulus sewelli 29% .065KG 13.5CM
Chlorophthalmus agassizi 2% .032KG
Mycetophum sp. 2% .055KG
Palaenichthys pringlei 2% .055KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 85 2: 1 3: 3 4: 10 5: 0 0% 0% 99%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
12.11 -79 402 BTR 12.02 96.48 300 300 206.0KG 206.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Shrimps 24% .010KG
Neoscoelus sp. 17% .015KG
Chlorophthalmus agassizi 15% .054KG 17.8CM
Ateleopus sp. 10% .025KG
Catastyx messieri 5% .233KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 29 2: 2 3: 0 4: 69 5: 0 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13.11 -79 403 BTR 12.02 96.42 370 365 40.0KG 40.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Shrimps 33%
Chlorophthalmus agassizi 15% .097KG 20.8CM
Peristedion weberi 12% .320KG
Miscellaneous 10%
Neoscoelus sp. 7% .035KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 42 2: 8 3: 0 4: 51 5: 0 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13.11 -79 404 BTR 12.03 96.40 450 450 81.0KG 81.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Shrimps 24% .044KG
Squalus sp. 21% 5.667KG
Neoscoelus sp. 8% .044KG
Alepocephalus sp. 6% .038KG
Coelohynchus parallelus 6% .041KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 28 2: 6 3: 22 4: 41 5: 0 0% 0% 97%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13.11 -79 405 BTR 12.38 96.52 260 260 476.0KG 476.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Shrimps 33%
Chlorophthalmus agassizi 30% .035KG 15.8CM
Cubiceps natalensis 15% .020KG 11.7CM
Apogonidae 6% .005KG
Priaeanthus macrocanthus 5% .120KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 36 2: 2 3: 16 4: 47 5: 0 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13.11 -79 406 BTR 13.38 96.49 280 285 364.0KG 364.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Shrimps 37%
Chlorophthalmus agassizi 20% .036KG 16.1CM
Cubiceps natalensis 16% .028KG 12.8CM
Mycetophum sp. 5% .021KG
Apogonidae 5% .007KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 38 2: 3 3: 18 4: 44 5: 0 0% 0% 103%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13.11 -79 407 BTR 13.04 96.31 320 320 99.0KG 99.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Chlorophthalmus agassizi 29% .034KG
Shrimps 27% .007KG
Rays,skates 9% 4.600KG
Peristedion sp. 9% .105KG
Sharks 6% 6.200KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 31 2: 0 3: 21 4: 48 5: 0 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13.11 -79 408 BTR 12.59 96.36 370 370 210.0KG 210.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Chlorophthalmus agassizi 36% .045KG 17.3CM
Squalus sp. 27% 4.700KG
Shrimps 21%
Zeus sp. 5% .024KG
Miscellaneous 4%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 22 2: 0 3: 29 4: 49 5: 0 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
14.11 -79 409 BTR 14.32 95.30 83 83 41.0KG 82.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Pentapirion longimanus 24% .019KG
Saurida tumbil 16% .083KG
Upeneus sulphureus 14% .040KG
Flatfish 9%
Nemipterus japonicus 8% .016KG
Shrimps 7%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 19 2: 39 3: 43 4: 0 5: 0 26% 0% 75%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
14.11 -79 410 PTR 14.32 95.30 74 62 9.0KG 12.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Bregmaceros sp. 37%
Sphyræna obtusata 17% .057KG
Saurida undosquamis 17% .005KG
Upeneus sulphureus 10% .008KG
Decapterus macrosoma 5% .025KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 5 2: 47 3: 8 4: 40 5: 0 33% 0% 67%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
15.11 -79 411 BTR 14.31 96.00 100 100 21.0KG 42.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Saurida tumbil 70% .062KG
Priaeanthus sp. 8% .155KG
Rays,skates 8% .533KG
Nemipterus japonicus 5% .032KG
Sepia sp. 3% .010KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 3 2: 75 3: 8 4: 13 5: 0 0% 0% 99%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
16.11 -79 412 PTR 14.31 96.29 80 66 70.0KG 70.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Decapterus maruadsi 59% .036KG 17.1CM
Leiognathus sp. 35% .003KG
Rastrelliger kanagurta 5% .043KG 16.0CM
Miscellaneous 1%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 64 2: 0 3: 35 4: 1 5: 0 99% 0% 1%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
16.11 -79 413 PTR 14.13 96.29 77 45 5.0KG 9.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus elongatus 86% .007KG
Rastrelliger kanagurta 14% .065KG 11.0CM
Sphyræna obtusata 2% .050KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 14 2: 2 3: 86 4: 0 5: 0 102% 0% 0%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
16.11 -79 414 BTR 14.45 96.45 78 72 419.0KG 838.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Lutjanus johni 48% 2.281KG
Congresox talabonoides 14% 2.810KG
Lepturacanthus savala 10%
Rays,skates 8% 11.000KG
Sciaenidae 6% .035KG
Shrimps 2% .005KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 64 2: 10 3: 25 4: 1 5: 0 2% 0% 98%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
16.11 -79 415 BTR 14.48 96.48 64 64 510.0KG 528.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Rays,skates 20% 1.252KG
Congresox talabonoides 16% 2.482KG
Arius thalassinus 10% .875KG
Shrimps 10% .005KG
Lepturacanthus savala 9% .055KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 35 2: 21 3: 43 4: 2 5: 0 4% 0% 97%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
16.11 -79 416 BTR 15.02 96.44 31 31 436.0KG 422.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Congresox talabonoides 37% 1.119KG
Chrysochir aureus 24% .289KG 31.7CM
Shrimps 16% .005KG
Sciaenidae 7% .074KG
Rays,skates 4% .508KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 57 2: 36 3: 8 4: 2 5: 0 4% 0% 99%

SPRING ST. 134-149

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
6. 3 -80	134	BTR	North East	94.04	36	697.0KG	1394.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Lelognathus sp. 44% .009KG							
Upeneus sulphureus 14% .033KG							
Rays,skates 12% 27.000KG							
Saurida tumbil 7% .102KG							
Caranx sp. 5% .360KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 14 2: 26 3: 59 4: 0 5: 0 50% 11% 38%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9. 3 -80	142	BTR	North East	93.10	31	224.0KG	244.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Saurida tumbil 30% .12KG							
Rays,skates 21% 17.430KG							
Sphyaena forsteri 16% .070KG							
Nemipterus japonicus 8% .065KG 15.7CM							
Miscellaneous 5% .060KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 8 2: 60 3: 25 4: 5 5: 0 18% 4% 76%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
6. 3 -80	135	PTR	North East	94.04	98	27.0KG	54.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Bregmaceros larvae 95% .028KG							
Fish larvae 5%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 0 2: 0 3: 0 4: 100 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9. 3 -80	143	PTR	North East	93.13	34	12.5KG	25.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Loligo sp. 99% .001KG							
Decapterus maruadsi 1% .001KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 100 2: 0 3: 0 4: 0 5: 0 1% 0% 99%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7. 3 -80	136	BTR	North East	93.43	83	10.0KG	20.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Bregmaceros larvae 99% .028KG							
Fish larvae 1%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 0 2: 0 3: 0 4: 100 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9. 3 -80	144	BTR	North East	93.15	33	99.6KG	199.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pentaprion longimanus 21% .038KG							
Sphyraena barracuda 17% 4.125KG							
Lutjanus sp. 12% 3.000KG							
Carangoides malabaricus 9% .390KG							
Argyrops spinifer 9% .200KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 42 2: 28 3: 21 4: 10 5: 0 38% 9% 54%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7. 3 -80	137	BTR	North East	92.49	55	59.4KG	119.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Nemipterus japonicus 52% .028KG							
Acropoma japonicum 24% .015KG							
Saurida tumbil 10% .031KG							
Miscellaneous 8% .018KG							
Sphyraena obtusata 3% .041KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 0 2: 67 3: 1 4: 32 5: 0 3% 0% 97%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9. 3 -80	145	BTR	North East	93.20	36	33	94.5KG 189.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Pomadasys hasta 59% .098KG 18.2CM							
Argyrops spinifer 13% .211KG							
Carangoides malabaricus 10% .131KG 22.1CM							
Carangoides sp. 4% .143KG							
Sphyraena forsteri 4% .192KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 28 2: 71 3: 0 4: 0 5: 0 8% 14% 77%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
7. 3 -80	138	PTR	North East	92.13	30	165.0KG	330.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Miscellaneous 17%							
Decapterus maruadsi 16% .005KG							
Scomberomorus guttatus 12% .852KG 50.4CM							
Arius sp. 8% .525KG							
Saurida tumbil 8% .015KG							
Metapenaeus sp. 1% .020KG							
Penaeus monodon 0% .020KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 41 2: 19 3: 24 4: 17 5: 0 38% 13% 50%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9. 3 -80	146	PTR	North East	93.18	37	12.3KG	18.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Palinurichthys pringlei 43% .057KG 17.7CM							
Loligo sp. 12% .049KG							
Epinnula orientalis 7% .035KG 16.7CM							
Benthodesmus sp. 2% .007KG							
Miscellaneous 36%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 12 2: 7 3: 43 4: 38 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8. 3 -80	139	BTR	North East	92.25	50	120.0KG	240.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Nemipterus japonicus 70% .026KG 12.2CM							
Acropoma japonicum 10% .015KG							
Pennahia macrocephalus 5% .055KG							
Metapenaeus sp. 5% .016KG							
Saurida tumbil 4% .032KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 6 2: 81 3: 3 4: 10 5: 0 4% 0% 96%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10. 3 -80	147	BTR	North East	93.42	53	50	7.8KG 16.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Nemipterus japonicus 50% .034KG 13.4CM							
Arius thalassinus 13% 1.000KG							
Carangoides malabaricus 10% .400KG							
Shrimps 9% .007KG							
Pomadasys maculatus 6% .100KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 22 2: 58 3: 19 4: 0 5: 0 6% 10% 83%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8. 3 -80	140	BTR	North East	92.33	27	428.0KG	856.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Miscellaneous 23% 1.025KG							
Pentaprion longimanus 19% .018KG							
Nemipterus japonicus 11% .051KG							
Lelognathus sp. 8% .019KG							
Pomadasys hasta 7% 1.135KG 41.7CM							
Metapenaeus sp. 5% .021KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 13 2: 32 3: 33 4: 23 5: 0 29% 1% 71%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10. 3 -80	148	PTR	North East	93.51	77	9	60.0KG 120.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Bregmaceros maclellandi 98%							
Saurida tumbil 2% .026KG							
Loligo sp. 1% .058KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 1 2: 2 3: 0 4: 98 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9. 3 -80	141	BTR	North East	92.54	18	277.0KG	554.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Saurida tumbil 20% .119KG							
Lelognathus sp. 14% .011KG							
Miscellaneous 13%							
Epinephelus sp. 3% 3.100KG							
Drepane punctata 3% .180KG							
Metapenaeus sp. 3% .006KG							
Penaeus japonicus 0% .050KG							
Penaeus monodon 0% .100KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 11 2: 58 3: 17 4: 13 5: 0 17% 2% 80%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10. 3 -80	149	PTR	North East	93.52	84	32	120.0KG 360.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L.							
Bregmaceros maclellandi 100%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER							
1: 0 2: 0 3: 0 4: 100 5: 0 0% 0% 100%							

SPRING ST. 150-166

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
10. 3 -80 150 BTR 18.04 94.02 62 62 13.1KG 7.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Soles 34% .023KG
Miscellaneous 30% .067KG
Lepidotrigla sp. 22% .026KG
Solenocera sp. 10% .004KG
Priacanthus sp. 4% .100KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 10 2: 0 3: 34 4: 56 5: 0 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 151 PTR 17.32 94.16 70 70 85.0KG 170.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Bregmaceros sp. 12% .020KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 0 3: 0 4: 100 5: 0 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 152 BTR 17.32 94.20 50 47 519.0KG 778.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Nemipterus japonicus 73% .049KG 13.4CM
Saurida tumbil 12% .020KG
Lepidotrigla natalensis 7% .071KG
Pennahia macrocephalus 3% .071KG
Miscellaneous 3% .071KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 89 3: 2 4: 10 5: 0 2% 0% 99%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 153 BTR 17.14 94.23 36 33 262.0KG 524.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Saurida tumbil 34% .198KG 29.4CM
Pentaprion longimanus 28% .023KG
Upeneus sulphureus 14% .049KG 15.8CM
Nemipterus japonicus 9% .045KG 14.6CM
Miscellaneous 5% .017KG
Shrimps 1% .017KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 5 2: 64 3: 28 4: 5 5: 0 28% 0% 74%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 154 BTR 17.16 94.28 28 26 2438.0KG 2926.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Lelognathus sp. 42% .016KG
Lactarius lactarius 9% .065KG
Dussumieria acuta 7% .029KG
Ilisha elongata 7% .033KG
Pomadasyd hasta 6% .086KG 46.8CM
Penaeus monodon 0% .038KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 3 2: 28 3: 51 4: 6 5: 0 68% 2% 18%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 155 PTR 17.15 94.28 25 0 87.7KG 164.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Dussumieria acuta 70% .025KG 5.2CM
Pomadasyd hasta 8% .068KG 15.3CM
Sardinella gibbosa 8% .024KG 13.9CM
Miscellaneous 5% .014KG
Saurida tumbil 4% .257KG 17.2CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 2 2: 93 3: 1 4: 5 5: 0 79% 1% 21%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 156 BTR 17.04 94.11 75 72 5.2KG 10.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Priacanthus sp. 41% .093KG
Miscellaneous 37% .003KG
Shrimps 15% .125KG
Pennahia macrocephalus 5% .100KG
Scomberoides commersonianus 2% .100KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 17 2: 5 3: 0 4: 78 5: 0 0% 2% 98%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 157 PTR 17.04 93.54 *** 47 12.0KG 48.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Priacanthus sp. 67% .007KG
Decapterus maruadsi 27% .002KG 5.9CM
Jellyfish 4% .001KG
Loligo sp. 2% .001KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 29 2: 0 3: 0 4: 67 5: 4 27% 0% 73%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
11. 3 -80 158 PTR 16.34 94.08 46 0 120.0KG 240.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus indicus 94% .004KG 8.1CM
Decapterus maruadsi 6% .050KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 6 2: 0 3: 94 4: 0 5: 0 100% 0% 0%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
12. 3 -80 159 PTR 16.24 94.08 30 15 229.0KG 458.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Dussumieria acuta 84% .028KG 15.2CM
Sardinella melanura 8% .025KG 13.4CM
Stolephorus indicus 4% .004KG 7.9CM
Thriechurus lepturus 3% .068KG
Saurida tumbil 1% .029KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 93 3: 8 4: 0 5: 0 97% 0% 4%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
12. 3 -80 160 BTR 16.00 94.03 40 40 227.0KG 227.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Saurida tumbil 28% .038KG 15.2CM
Nemipterus japonicus 27% .026KG 12.1CM
Ariomma india 19% .773KG
Rastrelliger kanagurta 10% .629KG
Arius thalassinus 4% .930KG
Metapenaeus sp. 1% .016KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 19 2: 55 3: 23 4: 3 5: 0 32% 0% 68%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
12. 3 -80 161 PTR 15.24 94.06 33 0 272.0KG 286.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Emmelichthys nitidus 85% .008KG
Sphyræna forsteri 5% .197KG
Rastrelliger kanagurta 5% .135KG 22.8CM
Loligo sp. 3% .021KG
Selaia crumenophthalmus 2% .179KG 24.8CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 10 2: 5 3: 0 4: 85 5: 0 12% 0% 88%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
12. 3 -80 162 PTR 15.12 94.06 62 19 63.2KG 69.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Carangidae juveniles 52% .050KG 6.0CM
Emmelichthyidae juveniles 35% .004KG
Synodontidae juveniles 5% .004KG
Trichiuridae juveniles 2% .002KG
Fish larvae 2% .002KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 0 3: 0 4: 4 5: 96 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13. 3 -80 163 BTR 14.25 94.38 90 90 70.0KG 70.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Saurida tumbil 26% .067KG
Nemipterus japonicus 20% .032KG 12.7CM
Nemipterus nematophorus 16% .050KG 15.2CM
Loligo sp. 8% .014KG
Lutjanus bohar 7% 5.000KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 27 2: 62 3: 1 4: 11 5: 0 1% 2% 98%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
13. 3 -80 164 BTR 14.41 94.38 64 61 88.8KG 178.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Pentaprion longimanus 33% .022KG
Nemipterus japonicus 16% .098KG 19.5CM
Lutjanus sanguineus 10% 2.800KG
Upeneus moluccensis 9% .042KG
Priacanthus sp. 6% .096KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 19 2: 35 3: 35 4: 12 5: 0 37% 1% 63%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
14. 3 -80 166 PTR 14.15 93.47 0 20 2.2KG 4.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Jellyfish 72% .040KG
Loligo sp. 10% .031KG
Cubiceps sp. 10% .031KG
Myctophidae 8% .031KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 10 2: 0 3: 10 4: 8 5: 72 0% 0% 100%

SPRING ST. 167-182

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
14. 3 -80	167	PTR	14.15 93.26	45	27	1.5KG	3.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Spyræna barracuda 52% .750KG Fish larvae 24% .032KG Miscellaneous 12% .003KG Emmelihtys nitidus 8% .005KG Loligo sp. 6% .050KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 52 3: 0 4: 44 5: 0 52% 0% 50%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
14. 3 -80	168	BTR	14.15 93.26	58	55	125.0KG	750.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lethrinus miniatus 38% 2.643KG 58.9CM Gymnocranius griceus 18% 1.020KG 36.4CM Pinjalo pinjalo 11% 1.350KG 45.2CM Lutjanus russelli 6% 4.436KG 29.7CM Lutjanus bohar 5% 2.089KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 77 2: 0 3: 7 4: 19 5: 0 2% 1% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
14. 3 -80	169	PTR	14.09 93.29	80	49	2.2KG	3.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Miscellaneous 53% Spyræna barracuda 32% .900KG Emmelihtys nitidus 15% .007KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 32 3: 0 4: 68 5: 0 32% 0% 68%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
14. 3 -80	170	BTR	13.58 93.18	57	57	56.0KG	56.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lethrinus miniatus 54% 2.143KG 48.0CM Acanthurus strigosus 9% 1.175KG Lutjanus sanguineus 7% 3.800KG Balistes viridescens 7% 1.850KG Lutjanus bohar 5% 2.600KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 71 2: 0 3: 3 4: 29 5: 0 0% 0% 103%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
14. 3 -80	171	PTR	13.50 93.19	90	7	1.0KG	2.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Saurida sp. 50% Fish larvae 30% Jellyfish 20% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 50 3: 0 4: 30 5: 20 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
15. 3 -80	172	PTR	14.39 93.17	500	50	3.7KG	6.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophidae 95% .040KG Loligo sp. 4% .008KG Carangidae, juveniles 1% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 0 3: 0 4: 95 5: 1 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
15. 3 -80	173	PTR	15.03 94.21	52	7	.8KG	1.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Jellyfish 50% Fish larvae 50% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 0 3: 0 4: 50 5: 50 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
15. 3 -80	174	PTR	15.16 94.41	35	19	14.3KG	34.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Jellyfish 41% Carangidae, juveniles 34% .001KG Scomberomorus commersoni 18% 3.150KG Fish larvae 7% .002KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 18 2: 0 3: 0 4: 7 5: 75 0% 18% 82%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
15. 3 -80	175	BTR	15.21 94.38	34	34	416.0KG	416.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Nemipterus japonicus 15% .072KG 16.9CM Upeneus sulphureus 14% .045KG 14.8CM Pomadasys maculatus 14% .032KG Sciaenidae 13% .138KG Saurida tumbil 12% .087KG Metapenaeus affinis 1% .011KG Penaeus monodon 0% .117KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 76 3: 12 4: 7 5: 0 3% 0% 96%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
15. 3 -80	176	PTR	15.36 94.32	23	0	195.0KG	344.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Thryssa dussumieri 40% .008KG 9.9CM Ilisha melastoma 33% .078KG 9.6CM Stolephorus indicus 11% .002KG 5.8CM Lepturacanthus savala 4% .102KG Pomadasys hasta 4% .042KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 40 3: 60 4: 0 5: 0 93% 2% 11%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
17. 3 -80	177	BTR	15.46 94.21	13	13	433.0KG	433.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays, skates 23% 9.091KG Leiognathus sp. 18% .006KG Sciaenidae 13% .081KG Ilisha melastoma 11% .028KG Chrysochir aureus 7% .395KG 30.3CM Penaeus merguensis 0% .050KG Penaeus monodon 0% .086KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 44 3: 51 4: 3 5: 0 35% 0% 65%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
17. 3 -80	178	BTR	15.36 94.46	14	14	528.0KG	528.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays, skates 13% 1.345KG Leiognathus sp. 12% .010KG Scomberoides commersonianus 9% .252KG 32.7CM Nemipterus japonicus 9% .059KG Megalaspis cordyla 6% .270KG 30.6CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 26 2: 47 3: 31 4: 0 5: 0 27% 13% 64%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
17. 3 -80	179	PTR	15.21 94.59	27	0	15.6KG	16.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Scomberomorus commersoni 53% 4.100KG Scomberomorus guttatus 27% 1.075KG Megalaspis cordyla 12% .360KG 33.8CM Scomberoides commersonianus 9% 1.400KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 101 2: 0 3: 0 4: 0 5: 0 12% 89% 0%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
17. 3 -80	180	BTR	15.41 95.08	29	29	612.0KG	612.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 21% .007KG Atrubucca nibe 9% .100KG Ilisha elongata 8% .060KG Lactarius lactarius 8% .046KG Nemipterus japonicus 8% .054KG 17.6CM Metapenaeus sp. 2% .019KG Penaeus monodon 1% .121KG 23.8CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 14 2: 42 3: 47 4: 0 5: 0 37% 1% 65%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
17. 3 -80	181	PTR	14.59 95.12	48	17	179.0KG	179.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lepturacanthus savala 32% .226KG Miscellaneous 29% Sardinella gibbosa 10% .017KG 12.5CM Sting ray 9% 16.000KG Lactarius lactarius 4% .029KG 13.3CM Penaeus monodon 0% .500KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 16 3: 49 4: 29 5: 0 21% 2% 77%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
17. 3 -80	182	PTR	14.48 95.12	69	35	258.0KG	397.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 86% .001KG Lepturacanthus savala 8% .506KG Saurida tumbil 3% .008KG Sphyraena obtusata 1% .076KG Ariomma indica 1% .175KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 1 2: 5 3: 95 4: 0 5: 0 89% 0% 12%							

SPRING ST. 183-199

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 3 -80	183	BTR	14.48 95.12	60	60	383.0KG	383.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Saurida tumbil 34% .114KG 21.5CM Pennahia macrocephalus 12% .085KG 17.2CM Arius sp. 10% .375KG Nemipterus japonicus 8% .081KG 17.1CM Pentaprion longimanus 8% .017KG Metapenaeus sp. 2% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 69 3: 18 4: 7 5: 0 8% 0% 91%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 3 -80	184	BTR	14.01 95.42	15	15	20.3KG	41.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Peristedion adeni 44% .342KG 35.9CM Saurida tumbil 42% .090KG 21.7CM Miscellaneous 7% Lobsters 6% Psettodes erumei 1% .083KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 43 3: 0 4: 51 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 3 -80	185	BTR	14.35 95.47	120	120	113.0KG	113.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Nemipterus japonicus 44% .010KG 14.1CM Sebastosemus sp. 28% .010KG Saurida tumbil 9% .083KG Miscellaneous 6% Acropoma japonicum 5% .029KG Shrimps 2% .016KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 3 2: 53 3: 0 4: 42 5: 0 0% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 3 -80	186	PTR	14.57 96.09	83	27	158.0KG	316.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophum sp. 70% .354KG Lepturacanthus savala 27% .005KG Lolligo sp. 2% Sclips 1% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 0 3: 27 4: 70 5: 1 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 3 -80	187	PTR	15.05 95.43	83	20	40.0KG	80.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Decapterus maruadsi 74% .006KG 8.3CM Lolligo sp. 15% .117KG Lepturacanthus savala 10% .111KG Formio niger 2% .375KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 89 2: 2 3: 10 4: 0 5: 0 74% 0% 27%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 3 -80	188	BTR	15.08 95.44	55	55	184.0KG	172.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Parapenaeopsis sculptilis 38% .014KG 12.3CM Atrobucca nibe 22% .037KG 12.4CM Arius thalassinus 10% .485KG Miscellaneous 9% Nemipterus japonicus 6% .027KG Penaeus monodon 1% .112KG 23.4CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 43 2: 35 3: 14 4: 9 5: 0 1% 2% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 3 -80	189	PTR	15.15 95.43	31	18	91.3KG	91.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Miscellaneous 52% .039KG Lepturacanthus savala 13% .063KG 12.6CM Dussumieria acuta 7% .028KG Raconda russelliana 7% .433KG 28.2CM Pampus argenteus 7% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 12 2: 16 3: 20 4: 52 5: 0 13% 5% 82%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 3 -80	190	BTR	15.31 96.30	18	18	252.0KG	252.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sharks 32% 40.000KG Rays,skates 32% 16.000KG Arius caelatus 9% .833KG Harpodon nehereus 6% .038KG Engraulis telara 4% .014KG 12.8CM Metapenaeus lyssianasa 2% .008KG Parapenaeopsis styliifera 1% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 8 2: 1 3: 86 4: 5 5: 0 13% 0% 87%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 3 -80	191	BTR	15.16 96.51	24	24	728.0KG	728.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 54% .046KG Arius caelatus 28% 2.300KG Collichthys crocea 4% 9.533KG 122.0CM Lepturacanthus savala 3% .090KG Sciaenidae, juveniles 3% .005KG Metapenaeus sp. 1% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 4 3: 86 4: 2 5: 3 55% 0% 45%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
20. 3 -80	192	PTR	15.04 96.45	28	0	121.0KG	484.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lepturacanthus savala 57% .024KG Shrimps 15% Harpodon nehereus 7% .200KG Raconda russelliana 5% .015KG 13.5CM Bregmaceros maclellandi 5% .015KG Shrimps 1% .006KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 23 2: 12 3: 66 4: 5 5: 0 11% 3% 92%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
20. 3 -80	193	PTR	14.40 96.35	90	45	218.0KG	218.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lelognathus elongatus 93% .003KG Formio niger 3% .800KG 36.0CM Auxis thazard 3% .044KG 15.8CM Lepturacanthus savala 1% .214KG Artomma indica 1% .157KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 3 3: 95 4: 0 5: 0 94% 0% 8%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
21. 3 -80	195	BTR	14.47 97.12	27	27	472.0KG	472.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Otholithes ruber 25% .400KG 33.0CM Rays,skates 22% 7.336KG Pennahia macrocephalus 9% .103KG Polynemus indicus 7% 8.775KG 102.0CM Chrysochir aureus 7% .117KG Shrimps 3% Penaeus monodon 0% .100KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 18 2: 50 3: 31 4: 3 5: 0 3% 1% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
21. 3 -80	196	PTR	15.12 97.21	25	25	194.0KG	291.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Acetes sp. 56% .018KG Lepturacanthus savala 24% .014KG Raconda russelliana 7% 7.336KG 168.0CM Congresox talabonoides 5% .008KG Collla sp. 3% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 7 2: 8 3: 83 4: 1 5: 0 3% 0% 96%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
21. 3 -80	197	BTR	15.16 97.26	22	22	328.0KG	328.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 39% .052KG Collla dussumieri 22% .005KG Arius caelatus 15% 4.083KG 68.5CM Miscellaneous 6% Sciaenidae 4% .007KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 8 3: 79 4: 11 5: 0 61% 0% 39%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
21. 3 -80	198	PTR	15.08 97.28	26	0	102.0KG	102.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pampus argenteus 33% .343KG 32.9CM Raconda russelliana 26% .016KG Miscellaneous 16% Lepturacanthus savala 15% .038KG Congresox talabonoides 7% 7.300KG 167.0CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 41 2: 27 3: 16 4: 16 5: 0 2% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
21. 3 -80	199	BTR	14.41 97.37	29	29	238.0KG	238.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Congresox talabonoides 14% 1.645KG 101.0CM Rays,skates 14% Polynemus indicus 11% 1.560KG 58.0CM Harpodon nehereus 9% .074KG Osteogenicus militaris 8% .457KG Shrimps 8% .007KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 34 2: 15 3: 44 4: 6 5: 0 19% 1% 79%							

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DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 3 -80 200 PTR 14.31 97.36 50 30 235.0KG 470.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus elongatus 99% .003KG
Scomberomorus guttatus 1% 2.500KG 60.0CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 1 2: 0 3: 99 4: 0 5: 0 99% 1% 0%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 3 -80 201 PTR 13.43 97.16 72 16 17.0KG 25.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus elongatus 77% .007KG
Decapterus maruadsi 13% .033KG 14.9CM
Lepturacanthus savala 4% .333KG
Rastrelliger kanagurta 3% .053KG 15.9CM
Sphyrna obtusata 1% .050KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 17 2: 2 3: 81 4: 0 5: 0 94% 0% 6%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
22. 3 -80 202 BTR 13.30 98.06 23 23 83.0KG 83.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Carangoides malabaricus 23% .091KG 19.7CM
Pomadasys hasta 16% .344KG 27.5CM
Nemipterus japonicus 11% .102KG 19.7CM
Scomberomorus commersoni 9% 3.500KG
Saurida tumbil 7% .129KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 39 2: 41 3: 18 4: 3 5: 0 8% 32% 61%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
22. 3 -80 203 BTR 13.28 98.07 21 21 155.0KG 155.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Carangoides chrysophrys 18% 1.355KG
Scomberomorus commersoni 18% 5.620KG
Drepane punctata 9% .893KG
Ephippus orbis 8% .165KG
Carangoides malabaricus 6% .100KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 50 2: 29 3: 19 4: 4 5: 0 29% 25% 48%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
23. 3 -80 204 BTR 13.15 98.04 35 35 220.0KG 220.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Alepes djeddaba 24% .101KG 23.4CM
Lutjanus bohar 22% 1.542KG 46.0CM
Miscellaneous 18%
Epinephelus tauvina 12% 2.944KG
Carangoides sp. 6% 1.650KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 77 2: 3 3: 0 4: 18 5: 0 24% 6% 68%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
23. 3 -80 206 BTR 13.15 96.55 100 10 67.0KG 67.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Saurida tumbil 68% .054KG 16.3CM
Miscellaneous 8%
Lepidotrigla sp. 7% .026KG
Trachinocephalus myops 7% .054KG
Upeneus bensasi 5% .028KG
Shrimps 2% .011KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 2 2: 82 3: 0 4: 17 5: 0 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
24. 3 -80 207 PTR 12.45 96.45 270 40 95.0KG 142.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Sphyrna zygaena 84% 60.000KG
Myctophidae 14%
Synagrops japonicus 2% .008KG
Loligo sp. 0% .015KG
Taractes sp. 0% .010KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 0 3: 86 4: 14 5: 0 0% 0% 100%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
24. 3 -80 208 BTR 12.45 97.02 96 96 459.0KG 459.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Lutjanus bohar 79% 3.002KG 59.5CM
Lutjanus lineolatus 11% 4.930KG 75.1CM
Miscellaneous 6%
Epinephelus sp. 5% 7.367KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 95 2: 0 3: 0 4: 6 5: 0 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
24. 3 -80 209 BTR 12.45 97.34 83 83 62.5KG 63.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Sphyrna blochii 38% 24.000KG
Loligo sp. 22% .030KG
Saurida tumbil 18% .037KG 17.0CM
Balistes stellatus 5% 1.000KG
Miscellaneous 5%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 22 2: 27 3: 39 4: 14 5: 0 0% 0% 102%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
24. 3 -80 210 PTR 12.45 97.58 47 46 73.9KG 81.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Therapon jarbua 85% .127KG
Scollodon sp. 12% 4.250KG
Scomberomorus guttatus 2% 1.150KG
Pampus argenteus 2% .600KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 4 2: 0 3: 97 4: 0 5: 0 0% 2% 99%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
24. 3 -80 211 PTR 12.45 97.58 52 26 47.3KG 81.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus indicus 90% .005KG 9.0CM
Lepturacanthus savala 8% .102KG
Rastrelliger kanagurta 2% .107KG
Sardinella gibbosa 0% .200KG
Scomberesocidae juveniles 0% .020KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 2 2: 0 3: 98 4: 0 5: 0 92% 0% 8%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
25. 3 -80 212 PTR 12.37 98.05 38 0 70.7KG 61.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Ilisha elongata 30% .023KG 13.0CM
Stolephorus indicus 28% .006KG
Sesar boops 18% .195KG 24.4CM
Loligo sp. 14% .004KG
Lepturacanthus savala 4% .179KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 36 2: 30 3: 35 4: 0 5: 0 80% 2% 19%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
25. 3 -80 213 BTR 12.21 97.53 49 49 339.0KG 339.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Pennahia macrocephalus 42% .108KG 18.9CM
Pomadasys hasta 15% .478KG 31.6CM
Nemipterus japonicus 7% .070KG 19.7CM
Nibeas soldado 7% .166KG
Lutjanus johni 7% 1.353KG 46.6CM
Metapenaeus sp. 1% .022KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 15 2: 75 3: 8 4: 4 5: 0 6% 0% 96%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
25. 3 -80 214 PTR 12.19 97.53 73 35 400.0KG 800.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus indicus 96% .004KG 8.1CM
Stolephorus commersoni 4% .006KG 9.3CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 0 3: 100 4: 0 5: 0 100% 0% 0%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
25. 3 -80 215 BTR 12.12 97.45 68 68 465.0KG 465.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Acropoma japonicum 33%
Lepturacanthus savala 30% .145KG
Upeneus sulphureus 16% .034KG
Carangoides malabaricus 6% .108KG
Nemipterus japonicus 3% .201KG 23.5CM
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 9 2: 26 3: 33 4: 33 5: 0 4% 6% 91%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
25. 3 -80 216 BTR 12.12 96.50 280 280 137.0KG 137.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Peristodion adeni 25% .739KG
Shrimps 23%
Diaphus sp. 14% .012KG
Puerulus sewelli 9% .128KG 15.5CM
Synagrops sp. 8% .016KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 32 2: 6 3: 6 4: 57 5: 0 0% 0% 101%

SPRING ST. 217-232

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
25. 3 -80	217	PTR	11.35 96.49	340	58	40.0KG	40.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Salps 33% Taractes longipinnis 16% .032KG Unidentified fish 12% .400KG Loligo sp. 11% .025KG Cubiceps brevimanus 11% .010KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 6 3: 11 4: 38 5: 33 0% 0% 99%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
26. 3 -80	218	PTR	11.35 97.23	74	20	6.0KG	24.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Salps 85% Bregmaceros maclellandi 10% Squid 5% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 0 3: 0 4: 10 5: 85 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
26. 3 -80	219	BTR	11.35 97.49	70	69	257.0KG	257.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lutjanus sanguineus 28% 2.908KG 58.3CM Lepturacanthus savala 21% .409KG Eupleurogrammus muticus 11% .047KG Nemipterus japonicus 9% .096KG Miscellaneous 9% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 32 2: 20 3: 35 4: 14 5: 0 3% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
26. 3 -80	220	BTR	11.30 98.03	38	38	191.0KG	191.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 59% .011KG Carangoides malabaricus 10% .347KG Sharks 9% 16.100KG Scomberomorus guttatus 7% .453KG 42.5CM Alepes djeddaba 5% .125KG 22.6CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 26 2: 3 3: 72 4: 0 5: 0 68% 21% 12%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
26. 3 -80	221	PTR	11.07 97.39	72	10	5.0KG	9.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Bregmaceros sp. 85% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 0 3: 0 4: 0 5: 0 0% 0% 0%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 3 -80	222	BTR	10.46 97.18	290	290	306.0KG	216.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Peristedion adeni 29% .914KG Synagrops sp. 20% .084KG Palinurichtus pringlei 12% .045KG 15.4CM Shrimps 9% .004KG Chlorophthalmus agassizi 9% .060KG 19.7CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 14 2: 4 3: 18 4: 66 5: 0 0% 0% 102%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 3 -80	223	BTR	10.46 97.30	87	87	92.0KG	89.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lutjanus sanguineus 39% 4.350KG 68.5CM Loligo sp. 16% .031KG Lutjanus lineolatus 14% 6.350KG 82.5CM Epinephelus tauvina 6% 5.300KG 73.0CM Saurida tumbil 6% .065KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 82 2: 12 3: 1 4: 6 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 3 -80	224	BTR	10.46 97.52	46	46	40.4KG	40.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Ilisha elongata 46% .116KG 23.9CM Rastrelliger kanagurta 15% .117KG 21.1CM Scomberomorus commersoni 12% 4.800KG Nemipterus bleekeri 7% .075KG 17.7CM Saurida tumbil 6% .063KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 82 2: 61 3: 0 4: 5 5: 0 65% 12% 23%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 3 -80	225	PTR	10.46 98.03	35	20	1.0KG	1.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Jellyfish 100% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 0 3: 0 4: 0 5: 100 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 3 -80	226	PTR	10.39 98.07	32	0	1007.0KG	1208.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 68% .002KG Stolephorus commersoni 18% .006KG Leiognathus elongatus 9% .050KG Dussumieria acuta 5% .039KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 5 3: 95 4: 0 5: 0 100% 0% 0%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 3 -80	227	PTR	10.28 98.02	33	16	49.7KG	99.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Dussumieria acuta 61% .042KG Stolephorus indicus 25% .004KG 8.0CM Mene maculata 4% .086KG Sphyræna obtusata 3% .107KG Leiognathus elongatus 3% .036KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 65 3: 32 4: 0 5: 0 95% 0% 4%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 3 -80	228	BTR	9.52 97.29	88	88	55.1KG	44.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Saurida tumbil 20% .085KG Decapterus maruadsi 12% .142KG 22.0CM Lutjanus gibbus 12% 2.600KG Parupeneus heptacanthus 9% .132KG 19.9CM Epinephelus grammotophorus 7% 2.900KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 42 2: 36 3: 8 4: 15 5: 0 12% 0% 89%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
28. 3 -80	229	BTR	9.52 97.05	330	330	135.0KG	135.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 48% Myctophidae 9% .006KG Epinulla orientalis 8% .032KG 18.2CM Neoscopelus sp. 7% .007KG Diaphus sp. 7% .023KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 55 2: 8 3: 3 4: 34 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 3 -80	230	BTR	10.18 97.45	67	67	114.0KG	105.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Saurida tumbil 70% .052KG 17.1CM Nemipterus japonicus 11% .048KG Nemipterus bleekeri 6% .044KG 14.8CM Loligo sp. 4% .046KG Upeneus bensasi 3% .021KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 7 2: 90 3: 0 4: 3 5: 0 2% 1% 97%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 3 -80	231	PTR	10.10 97.54	48	0	26.0KG	39.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Scomberomorus guttatus 100% 1.300KG 58.0CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 100 2: 0 3: 0 4: 0 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
29. 3 -80	232	BTR	10.44 97.52	50	50	790.0KG	790.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus equulus 55% .155KG 20.3CM Rachycentron canadus 13% 3.779KG 77.7CM Arius caelatus 9% .235KG Saurida tumbil 8% .155KG Carangoides malabaricus 3% .064KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 29 3: 64 4: 3 5: 0 56% 3% 41%							

SPRING ST. 233-248

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
29. 3 -80	233	PTR	11.67	97.57	59	25	24.0KG 48.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Decapterus maruadsi 72% .040KG 15.5CM Rastrelliger kanagurta 16% .052KG 17.6CM Sphyræna forsteri 12% 2.800KG Decapterus macrostoma 1% .050KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 89 2: 12 3: 0 4: 0 5: 0 101% 0% 0%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
29. 3 -80	234	PTR	11.30	97.59	46	13	461.0KG 922.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus commersoni 52% .009KG 9.8CM Stolephorus indicus 40% .005KG 8.3CM Lepturaacanthus savala 6% .300KG Sphyræna forsteri 1% 3.800KG Sphyræna obtusata 1% .125KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 2 3: 98 4: 0 5: 0 94% 2% 6%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
30. 3 -80	235	PTR	12.06	97.49	40	0	5.0KG 10.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Loligo sp. 35% .003KG Lillia melastoma 16% .025KG Scomberomorus guttatus 14% .700KG Stolephorus indicus 9% .006KG Lepturaacanthus savala 9% .011KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 51 2: 24 3: 26 4: 1 5: 0 33% 16% 53%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
30. 3 -80	236	BTR	13.39	97.46	48	48	371.0KG 742.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 47% .036KG 13.3CM Upeneus sulphureus 16% .057KG 16.0CM Carangoides malabaricus 7% 1.832KG 49.4CM Lutjanus gibbus 5% .108KG 20.3CM Nemipterus japonicus 5% .086KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 17 2: 28 3: 53 4: 2 5: 0 51% 7% 42%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
6. 4 -80	237	BTR	13.01	96.33	350	350	204.0KG 204.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 25% 5.000KG Chlorophthalmus agassizi 16% .044KG 20.2CM Scorpionfish 14% .014KG Heterocarpus woodmasoni 14% .010KG Coryphaenoididae 13% .086KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 17 2: 0 3: 27 4: 57 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
6. 4 -80	238	BTR	12.53	96.42	300	300	134.0KG 230.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 67% 51.400KG Diaphus sp. 9% .020KG Shrimps 6% .006KG Chlorophthalmus agassizi 6% .055KG 19.5CM Stomia sp. 2% .009KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 8 2: 1 3: 68 4: 24 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
6. 4 -80	239	BTR	12.36	96.47	350	350	46.1KG 46.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 24% .060KG Miscellaneous 21% .023KG Neoscopelus sp. 19% .074KG Chlorophthalmus agassizi 14% .020KG Unidentified fish 6% .020KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 28 2: 0 3: 0 4: 72 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
6. 4 -80	240	BTR	12.21	96.50	250	250	37.0KG 74.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chlorophthalmus agassizi 40% .021KG 14.3CM Puerulus sewelli 17% .061KG Shrimps 16% .007KG Miscellaneous 16% .342KG Peristedion adeni 6% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 33 2: 0 3: 0 4: 69 5: 0 0% 0% 102%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
6. 4 -80	241	BTR	12.12	96.45	320	320	26.0KG 52.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Neoscopelus sp. 27% .032KG Miscellaneous 11% .034KG Coryphaenoididae 10% 1.325KG Peristedion adeni 10% .064KG 19.6CM Chlorophthalmus agassizi 10% .010KG Shrimps 9% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 16 2: 0 3: 4 4: 80 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
7. 4 -80	242	PTR	12.06	97.21	85	50	38.0KG 46.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Eleutheronema tetradactylum 100% .024KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 100 2: 0 3: 0 4: 0 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
8. 4 -80	243	BTR	11.54	96.56	260	260	20.7KG 41.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chlorophthalmus agassizi 64% .256KG Puerulus sewelli 12% .057KG 14.2CM Shrimps 11% .004KG Coelorrhynchus parallelus 5% .024KG Miscellaneous 3% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 23 2: 1 3: 1 4: 75 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
8. 4 -80	244	BTR	11.50	96.50	280	280	29.4KG 59.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chlorophthalmus agassizi 51% .052KG Squid 11% .035KG Shrimps 10% .004KG Puerulus sewelli 8% .078KG Coelorrhynchus parallelus 5% .021KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 29 2: 0 3: 0 4: 70 5: 0 0% 0% 99%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
8. 4 -80	245	BTR	11.46	96.48	300	300	164.0KG 328.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Loligo sp. 37% .052KG Shrimps 15% .010KG Chlorophthalmus agassizi 13% .223KG Puerulus sewelli 11% .087KG Cubiceps brevimanus 6% .048KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 63 2: 2 3: 9 4: 27 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
8. 4 -80	246	BTR	11.37	96.38	420	420	59.0KG 54.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 35% Miscellaneous 33% Aristeus semidentatus 9% Cubiceps brevimanus 7% Squid 5% Heterocarpus sp. 5% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 56 2: 0 3: 9 4: 34 5: 0 0% 0% 99%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
8. 4 -80	247	BTR	11.20	96.37	470	470	65.3KG 65.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sharks 46% 10.000KG Myctophidae 13% .005KG Shrimps 6% .004KG Cubiceps natalensis 6% .056KG Nettastoma sp. 5% .124KG Aristeus semidentatus 4% .023KG Heterocarpus sp. 2% .015KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 16 2: 3 3: 52 4: 30 5: 0 0% 0% 101%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
8. 4 -80	248	BTR	11.04	96.48	350	350	290.0KG 290.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Cubiceps natalensis 68% .050KG Shrimps 6% .004KG Miscellaneous 6% .077KG Chlorophthalmus agassizi 5% .070KG 14.4CM Puerulus sewelli 5% .021KG Heterocarpus sp. 0% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 3 3: 69 4: 17 5: 0 0% 0% 100%							

SPRING ST. 249-265

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.4-80	249	BTR	10.39 96.53	340	340	45.0KG	45.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Miscellaneous		38%			
		Chlorophthalmus agassizi		18%	.067KG		
		Diaphus sp.		10%	.020KG		
		Squid		9%	.081KG		
		Sharks		8%	.032KG		
		Shrimps		4%			
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	16	2:	1	3:	11	4:	73
		5:	0	0%	0%	101%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
8.4-80	250	BTR	10.32 96.36	500	500	60.0KG	60.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Nettastoma sp.		43%			
		Aristeus semidentatus		9%			
		Shrimps		7%			
		Heterocarpus sp.		6%			
		Coryphaenoididae		5%			
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	22	2:	0	3:	4	73	5
		5:	0	0%	0%	98%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9.4-80	251	BTR	10.00 96.51	330	330	71.4KG	134.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Cubiceps natalensis		23%	.056KG		
		Shrimps		19%	.011KG		
		Neoscopelus sp.		13%	.011KG		
		Epinnula orientalis		13%	.058KG		
		Chlorophthalmus agassizi		11%	.067KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	31	2:	13	3:	25	4:	31
		5:	0	0%	0%	100%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9.4-80	252	BTR	9.51 96.57	330	330	111.0KG	222.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Miscellaneous		19%			
		Shrimps		18%	.012KG		
		Neoscopelus macrolepidotus		16%	.008KG		
		Pallinurichthys pringlei		13%	.067KG		
		Diaphus sp.		11%	.018KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	19	2:	4	3:	20	4:	56
		5:	0	0%	0%	99%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9.4-80	254	PTR	9.58 98.04	28	15	377.0KG	754.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Stolephorus indicus		100%	.003KG	8.3CM	
		Rastrelliger kanagurta		0%	.017KG		
		Saurida tumbil		0%	.050KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	0	2:	0	3:	100	4:	0
		5:	0	100%	0%	0%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9.4-80	255	PTR	10.14 98.02	34	20	35.0KG	70.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Dussumieria acuta		32%	.052KG	17.9CM	
		Stolephorus sp.		31%			
		Decapterus maruadsi		20%	.060KG	16.4CM	
		Rastrelliger kanagurta		6%	.059KG		
		Sphyrna obtusata		3%	.105KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	27	2:	38	3:	32	4:	3
		5:	0	97%	0%	3%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
9.4-80	256	BTR	10.14 98.04	30	30	209.0KG	418.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Saurida tumbil		29%	.144KG		
		Arius caelatus		11%	.183KG		
		Gastrophysus lunaris		10%	2.700KG		
		Nemipterus japonicus		8%	.107KG		
		Miscellaneous		7%			
		Shrimps		6%	.005KG		
		Penaeus monodon		1%	.075KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	15	2:	43	3:	13	4:	26
		5:	0	5%	0%	92%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	257	BTR	10.09 97.57	35	35	194.0KG	388.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Saurida tumbil		26%	.191KG		
		Arius caelatus		15%	.394KG		
		Nemipterus bleekeri		12%	.073KG		
		Pentaprion longimanus		9%	.026KG		
		Siganus sp.		7%	.060KG		
		Penaeus monodon		3%	.075KG	18.5CM	
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	15	2:	48	3:	32	4:	6
		5:	0	10%	6%	85%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	258	BTR	10.11 96.22	21	21	493.0KG	986.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Leiognathus sp.		29%	.206KG		
		Osteogobius solandri		22%	.208KG		
		Lactarius lactarius		14%	.070KG		
		Alopias djeddaba		11%	.131KG	22.0CM	
		Miscellaneous		5%			
		Penaeus monodon		0%	.077KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	15	2:	15	3:	65	4:	5
		5:	0	60%	4%	36%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	259	BTR	10.13 98.24	15	15	81.8KG	245.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Leiognathus equulus		30%	.126KG		
		Pomadoury hasta		13%	.130KG		
		Congresox talabonoides		10%	8.000KG		
		Nemipterus japonicus		9%	.104KG		
		Saurida tumbil		7%	.067KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	14	2:	41	3:	36	4:	10
		5:	0	36%	0%	65%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	260	BTR	10.25 98.22	17	17	378.0KG	1134.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Leiognathus equulus		25%	.036KG		
		Scaenidae		21%	.075KG		
		Saurida tumbil		11%	.060KG		
		Miscellaneous		7%			
		Nemipterus japonicus		5%	.079KG		
		Penaeus monodon		0%	.003KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	5	2:	60	3:	32	4:	7
		5:	0	40%	0%	64%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	261	BTR	10.28 98.19	26	26	519.0KG	1557.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Leiognathus equulus		65%	.033KG		
		Saurida tumbil		7%	.088KG		
		Pomadoury hasta		7%	.047KG	30.8CM	
		Upeneus sulphureus		5%	.032KG		
		Leiognathus sp.		3%	.013KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	5	2:	23	3:	72	4:	1
		5:	0	75%	0%	26%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	262	PTR	10.29 98.05	40	10	190.0KG	380.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Stolephorus indicus		57%	.005KG	8.8CM	
		Dussumieria acuta		26%	.048KG	18.2CM	
		Ilisha melastoma		12%	.019KG		
		Scomberomorus guttatus		2%	.550KG		
		Carangoides chrysophrys		4%	.300KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	4	2:	39	3:	58	4:	0
		5:	0	99%	2%	0%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
10.4-80	263	PTR	10.38 98.08	32	10	140.0KG	140.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Leiognathus sp.		32%	.010KG		
		Ilisha melastoma		31%	.016KG		
		Dussumieria acuta		22%	.041KG		
		Stolephorus indicus		4%	.005KG	9.6CM	
		Pentaprion longimanus		4%	.020KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	0	2:	53	3:	45	4:	3
		5:	0	98%	0%	3%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.4-80	264	PTR	10.58 97.53	53	25	55.1KG	83.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Stolephorus indicus		44%	.004KG		
		Lutjanus johni		26%	3.617KG	64.5CM	
		Sphyrna barracuda		9%	3.750KG		
		Emmelichthys nitidus		5%	.004KG		
		Miscellaneous		5%	.037KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	29	2:	14	3:	47	4:	10
		5:	0	62%	0%	38%	

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
11.4-80	265	BTR	11.02 98.23	16	16	774.0KG	1858.0KG
		MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.	
		Leiognathus sp.		66%	.013KG		
		Arius thalassinus		11%	.079KG		
		Saurida tumbil		6%	.071KG		
		Sardinella brachysoma		3%	.037KG		
		Upeneus sulphureus		3%	.019KG		
		% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER	
1:	4	2:	16	3:	78	4:	3
		5:	0	73%	3%	25%	

SPRING ST. 266-282

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
11. 4 -80	266	BTR	North East	DEPTH	DEPTH	1466.0KG	4398.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus equulus 37% .027KG Leiognathus elongatus 25% .011KG Arius thalassinus 10% .097KG Ilisha melastoma 5% .025KG Upeneus sulphureus 4% .062KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 3 2: 17 3: 80 4: 1 5: 0 77% 2% 22%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
11. 4 -80	267	BTR	North East	DEPTH	DEPTH	2738.0KG	8214.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus elongatus 49% .010KG Atrobucca nibe 14% .154KG Leiognathus equulus 13% .200KG Pomadasys hasta 6% .621KG Stolephorus commersoni 4% .006KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 24 3: 70 4: 3 5: 0 73% 2% 26%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
11. 4 -80	268	PTR	North East	DEPTH	DEPTH	722.0KG	1238.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 83% .003KG Dussumieria acuta 14% .043KG 17.7CM Scomberoides commersonianus 1% 3.200KG Scomberomorus guttatus 1% .200KG 33.7CM Megalaspis cordyla 0% 2.700KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 14 3: 83 4: 0 5: 0 97% 2% 0%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
11. 4 -80	269	PTR	North East	DEPTH	DEPTH	535.0KG	1605.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 94% .002KG 7.1CM Lepturacanthus savala 5% .750KG Sphyræna forsteri 1% 5.767KG Lutjanus argentimaculatus 0% 2.200KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 1 3: 99 4: 0 5: 0 95% 0% 5%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
12. 4 -80	270	PTR	North East	DEPTH	DEPTH	27.3KG	41.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lepturacanthus savala 44% .111KG Selar boops 36% .233KG 26.4CM Synodontidae juveniles 9% Engraulidae juveniles 4% Bregmaeros sp. 4%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 37 2: 1 3: 45 4: 4 5: 13 41% 0% 59%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
12. 4 -80	272	BTR	North East	DEPTH	DEPTH	6909.0KG	1382.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 64% Lactarius lactarius 13% .048KG Pomadasys hasta 11% .031KG 32.5CM Scomberoides commersonianus 3% .550KG 58.8CM Ilisha elongata 2% .086KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 16 3: 78 4: 1 5: 0 79% 4% 17%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
12. 4 -80	273	BTR	North East	DEPTH	DEPTH	1394.0KG	2788.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 32% .012KG Atrobucca nibe 15% .070KG Pomadasys hasta 12% .163KG Lactarius lactarius 9% .059KG Pampus chinensis 6% .500KG Penaeus merguensis 0% .090KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 13 2: 41 3: 42 4: 4 5: 0 42% 3% 55%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
12. 4 -80	274	BTR	North East	DEPTH	DEPTH	262.0KG	524.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 30% .018KG Pomadasys hasta 12% .044KG Raconda russelliana 12% .019KG Lepturacanthus savala 7% .091KG Upeneus sulphureus 7% .420KG Shrimps 2% .009KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 49 3: 45 4: 1 5: 0 47% 0% 53%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
12. 4 -80	275	PTR	North East	DEPTH	DEPTH	6.4KG	13.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sphyræna obtusata 29% .092KG Lepturacanthus savala 24% .258KG Leiognathus elongatus 16% .038KG Rastrelliger kanagurta 13% .106KG Decapterus macrosoma 9% .075KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 28 2: 29 3: 42 4: 0 5: 0 75% 0% 24%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
12. 4 -80	276	PTR	North East	DEPTH	DEPTH	218.0KG	451.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 87% .003KG Dussumieria acuta 4% .100KG Leiognathus sp. 2% .035KG Miscellaneous 2% .025KG Sardinella gibbosa 1% .013KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 5 3: 91 4: 2 5: 0 94% 0% 4%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
13. 4 -80	277	PTR	North East	DEPTH	DEPTH	235.0KG	470.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus sp. 66% .002KG Coilia dussumieri 8% .010KG Jellyfish 6% Pampus argenteus 5% .340KG Lepturacanthus savala 3% .167KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 7 2: 8 3: 81 4: 1 5: 6 86% 1% 16%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
13. 4 -80	278	PTR	North East	DEPTH	DEPTH	74.7KG	149.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Jellyfish 80% Sphyræna forsteri 7% 5.150KG Scomberomorus commersoni 6% 4.450KG Atropus atropus 2% .200KG Alepes djeddaba 2% .092KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 9 3: 0 4: 0 5: 80 11% 6% 83%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
13. 4 -80	279	BTR	North East	DEPTH	DEPTH	257.0KG	441.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 20% Plectorhynchus pictus 17% 2.888KG Jellyfish 15% Selaroides leptolepis 9% Rachycentron canadus 9% 18.850KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 36 2: 21 3: 29 4: 1 5: 15 39% 2% 61%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
13. 4 -80	280	BTR	North East	DEPTH	DEPTH	322.0KG	644.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Epinephelus tauvina 40% 130.000KG Pomadasys hasta 13% Jellyfish 8% Drepane punctata 7% Atrobucca nibe 4%							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 46 2: 30 3: 11 4: 3 5: 8 10% 1% 87%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
13. 4 -80	281	PTR	North East	DEPTH	DEPTH	44.1KG	132.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Jellyfish 68% Formio niger 16% .900KG 35.1CM Lepturacanthus savala 5% .183KG Lutjanus johni 3% 1.433KG Ilisha melastoma 1% .040KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 19 3: 6 4: 1 5: 68 3% 0% 96%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
14. 4 -80	282	BTR	North East	DEPTH	DEPTH	390.0KG	780.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 88% 9.211KG Chrysochir aureus 5% .016KG Arius caelatus 2% .313KG Thriassina sp. 1% .006KG Soles 1% .270KG Shrimps 1% .007KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 1 2: 5 3: 93 4: 1 5: 0 1% 0% 99%							

SPRING ST. 283-300

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
14. 4 -80	283	BTR	15.22 95.01	21	21	355.0KG	1065.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Arius thalassinus 49% .478KG Chrysochir aureus 10% .308KG Sciaenidae 9% .030KG Sciaenidae 9% .030KG Miscellaneous 6% .019KG Shrimps 1% .019KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 41 3: 58 4: 6 5: 0 3% 0% 107%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 4 -80	292	BTR	20.32 92.12	20	20	317.0KG	634.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 48% .020KG Ilisha melastoma 20% .005KG Arius thalassinus 8% .816KG Pomadasys hasta 7% .131KG Carangoides sp. 5% .117KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 30 3: 62 4: 2 5: 0 69% 6% 25%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
15. 4 -80	284	BTR	16.29 94.13	15	20	417.0KG	625.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lactarius lactarius 23% .901KG Pomadasys hasta 20% 2.592KG Leiognathus sp. 14% .749KG Stoleporus indicus 13% .109KG Ilisha melastoma 8% .160KG Shrimps 2% .007KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 33 3: 55 4: 0 5: 0 62% 3% 34%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 4 -80	293	BTR	20.27 92.23	16	16	575.0KG	1150.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Jellyfish 49% .901KG Pennahia macrocephalus 12% .195KG Arius sp. 16% .360KG Ilisha elongata 7% .142KG Pomadasys hasta 6% .047KG Penaeus merguensis 1% .007KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 31 3: 12 4: 4 5: 49 12% 0% 88%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
15. 4 -80	286	PTR	17.17 94.28	30	15	19.5KG	78.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sardinella gibbosa 24% 14.1CM Dussumieria acuta 21% .032KG 1.1CM Scomberomorus commersoni 19% 3.625KG Scomberomorus guttatus 8% 1.775KG Saurida tumbil 8% .375KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 36 2: 62 3: 3 4: 0 5: 0 50% 28% 23%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 4 -80	294	BTR	20.17 92.03	12	12	934.0KG	2802.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 37% 15.500KG Arius sp. 16% .360KG Jellyfish 9% .180KG Pomadasys hasta 7% .142KG 42.9CM Sciaenidae 6% .047KG Penaeus merguensis 1% .007KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 10 2: 23 3: 56 4: 3 5: 9 3% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
15. 4 -80	287	PTR	17.16 94.27	25	17	412.0KG	706.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Dussumieria acuta 77% .037KG 16.8CM Sardinella gibbosa 7% .024KG 13.9CM Formlo niger 3% .013KG 11.5CM Stoleporus indicus 3% .013KG Miscellaneous 3% .750KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 2 2: 88 3: 9 4: 3 5: 0 91% 2% 9%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 4 -80	295	BTR	20.08 92.40	10	10	969.0KG	2907.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Rays,skates 46% 21.200KG Pomadasys hasta 16% .153KG 40.0CM Jellyfish 9% .180KG Pennahia macrocephalus 7% .338KG Ilisha elongata 5% .152KG Shrimps 2% .006KG Penaeus merguensis 1% .040KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 35 3: 51 4: 0 5: 9 5% 1% 94%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
17. 4 -80	288	PTR	28.08 93.51	100	35	63.7KG	127.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Bregmaceros macolellandi 87% .001KG Synagrops sp. 7% .002KG Gastrophysus lunaris 4% .087KG Megalaspis cordyla 1% .100KG Katsuwonus pelamis 0% .400KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 1 2: 0 3: 0 4: 98 5: 0 1% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
18. 4 -80	297	PTR	19.29 93.06	35	17	270.0KG	540.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Decapterus maruadsi 91% .018KG 11.8CM Lepturacanthus savala 9% .381KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 91 2: 0 3: 9 4: 0 5: 0 91% 0% 9%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
17. 4 -80	289	BTR	18.38 93.38	29	32	1013.0KG	3039.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pomadasys hasta 37% .002KG 41.9CM Leiognathus sp. 18% .015KG Pentaprion longimanus 13% .019KG Upeneus sulphureus 10% .045KG Congresox talabonoides 7% 3.194KG Shrimps 1% .040KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 16 2: 48 3: 33 4: 3 5: 0 32% 3% 65%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 4 -80	298	BTR	18.27 94.02	28	28	2.0KG	5.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Saurida tumbil 66% .033KG Nemipterus bleekeri 31% .025KG Palinnurichthys pringlei 3% .050KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 97 3: 3 4: 0 5: 0 0% 0% 100%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
17. 4 -80	290	BTR	20.03 92.37	17	17	2528.0KG	5056.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pentaprion longimanus 73% .023KG Saurida tumbil 14% .082KG Shrimps 6% .030KG Miscellaneous 3% .030KG Upeneus sulphureus 2% .046KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 17 3: 73 4: 3 5: 0 73% 0% 26%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 4 -80	299	BTR	18.30 94.14	14	15	755.0KG	2265.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 46% .030KG Pomadasys hasta 40% .028KG 35.8CM Drepane punctata 3% .079KG Penaeus monodon 3% .090KG Saurida tumbil 2% .110KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 47 3: 46 4: 2 5: 0 48% 0% 51%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
17. 4 -80	291	PTR	20.07 92.28	38	18	351.0KG	702.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Dussumieria acuta 64% .044KG Ariomma indica 18% .069KG Decapterus maruadsi 9% .025KG Arius sp. 4% .602KG Congresox talabonoides 2% 6.200KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 65 3: 22 4: 2 5: 0 91% 0% 9%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
19. 4 -80	300	PTR	18.07 94.23	20	15	300.0KG	600.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sardinella gibbosa 78% .029KG 14.2CM Dussumieria acuta 13% .032KG 15.9CM Lutjanus argentimaculatus 3% 4.400KG Spyraena barracuda 2% 5.600KG Pomadasys hasta 1% .089KG							
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 94 3: 2 4: 0 5: 0 96% 0% 4%							

SPRING ST. 301-316

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
19. 4 -80 301 BTR 18.04 94.26 16 16 791.0KG 1582.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus sp. 39% .015KG
Pomadasys hasta 18% .032KG 37.2CM
Saurida tumbil 7% .132KG
Sardinella gibbosa 6% .028KG
Sardinella brachysoma 5% .033KG
Metapenaeus sp. 1% .028KG
Penaeus monodon 1% .075KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 4 2: 44 3: 50 4: 1 5: 0 58% 0% 41%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
20. 4 -80 302 PTR 17.55 94.27 17 17 128.0KG 256.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus sp. 19% .001KG
Fish larvae 18%
Sphyraena barracuda 14% .100KG
Pomadasys sp. 7% .032KG
Scleroidea leptolepis 7% .100KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 26 2: 29 3: 26 4: 20 5: 0 60% 9% 32%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
20. 4 -80 303 BTR 16.44 94.16 32 32 2556.0KG 7668.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus commersoni 51% .003KG 7.3CM
Stolephorus bataviensis 21% .003KG 8.0CM
Leiognathus sp. 11% .011KG
Ilisha melastoma 5% .014KG
Megalaspis cordyla 4% .420KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 10 2: 6 3: 85 4: 1 5: 0 98% 2% 2%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
20. 4 -80 304 BTR 16.35 94.13 29 29 716.0KG 1718.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Ilisha melastoma 35% .022KG
Leiognathus sp. 14% .012KG
Scleroidea 10% .039KG
Opisthopterus tardore 5% .026KG
Otholithes ruber 4% .366KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 6 2: 69 3: 24 4: 0 5: 0 67% 4% 28%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
20. 4 -80 305 PTR 16.46 94.18 44 44 56.4KG 113.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus indicus 87% .003KG
Dussumieria acuta 4% .030KG
Formio niger 3% .950KG
Lepturacanthus savala 3% .475KG
Leiognathus sp. 1% .032KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 1 2: 8 3: 91 4: 0 5: 0 94% 0% 6%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 306 PTR 16.35 94.12 34 25 66.3KG 133.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Dussumieria acuta 62% .040KG 16.6CM
Stolephorus indicus 13% .005KG
Sardinella gibbosa 8% .017KG
Lepturacanthus savala 7% .460KG
Miscellaneous 4% .625KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 0 2: 73 3: 22 4: 4 5: 2 87% 0% 14%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 307 BTR 16.04 94.10 15 15 94.5KG 189.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Nemipterus bleekeri 19% .070KG
Saurida tumbil 16% .148KG
Arius sp. 14% .047KG
Miscellaneous 10%
Nemipterus japonicus 8% .062KG
Metapenaeus sp. 6% .018KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 24 2: 48 3: 22 4: 10 5: 0 10% 8% 86%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 308 BTR 15.49 94.12 18 18 102.0KG 204.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Rays,skates 44% 7.500KG
Miscellaneous 15% .183KG
Platax teira 9% 4.400KG
Lehrinus rivulatus 7% 6.600KG
Alectis indicus 6% .550KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 20 2: 19 3: 48 4: 15 5: 0 8% 6% 88%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 309 BTR 15.48 94.18 11 11 158.0KG 316.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus sp. 53% .009KG
Rays,skates 19% 10.000KG
Drepane punctata 5% .922KG
Pomadasys hasta 4% 1.513KG
Alectis indicus 3% .275KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 8 2: 11 3: 79 4: 1 5: 0 58% 4% 37%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 310 BTR 15.41 94.24 16 16 27.9KG 56.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Upeneus sulphureus 42% .032KG
Megalaspis cordyla 9% .612KG
Carangoides armatus 7% .238KG
Atropus atropus 7% .146KG
Drepane punctata 7% .700KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 36 2: 55 3: 6 4: 4 5: 0 31% 8% 62%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 311 BTR 15.07 94.34 44 44 63.6KG 153.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Jellyfish 24%
Nemipterus bleekeri 18% .049KG 18.8CM
Miscellaneous 17%
Saurida tumbil 9% .055KG
Pomadasys hasta 6% .290KG
Metapenaeus sp. 1% .022KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 13 2: 41 3: 2 4: 21 5: 24 0% 0% 101%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
21. 4 -80 312 BTR 15.12 94.50 35 35 286.0KG 572.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Leiognathus sp. 18%
Rays,skates 16% 7.500KG
Scleroidea 11%
Pomadasys hasta 8% 3.017KG 36.2CM
Upeneus sulphureus 8%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 8 2: 38 3: 51 4: 2 5: 0 25% 0% 74%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
22. 4 -80 313 BTR 15.23 94.50 30 30 322.0KG 644.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Atrobucca nibe 17% .035KG
Nemipterus japonicus 11% .005KG
Rays,skates 11% 17.500KG
Arius caelatus 10% .658KG
Scleroidea 7% .071KG
Metapenaeus sp. 1% .029KG
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 10 2: 55 3: 34 4: 2 5: 0 8% 0% 93%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
22. 4 -80 314 PTR 15.29 94.55 18 0 91.0KG 182.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Stolephorus sp. 35%
Leiognathus sp. 17%
Jellyfish 17%
Lactarius lactarius 10%
Thryssa mystax 6%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 8 2: 6 3: 69 4: 2 5: 17 76% 0% 26%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
22. 4 -80 315 BTR 15.27 95.00 18 18 458.0KG 916.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Rays,skates 55%
Arius caelatus 16%
Stolephorus sp. 9%
Saurida tumbil 9%
Pomadasys maculatus 2%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 2 2: 11 3: 84 4: 1 5: 0 12% 0% 86%

DATE ST.NO. GEAR POSITION BOTTOM GEAR TOTAL CATCH
22. 4 -80 316 BTR 15.25 95.19 16 16 193.0KG 386.0KG

MAIN SPECIES: % IN CATCH MEAN W. MEAN L.
Fampus argenteus 18%
Lactarius lactarius 17%
Arius sp. 8%
Ilisha elongata 5%
Lepturacanthus savala 5%
Metapenaeus sp. 1%
% IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER
1: 22 2: 21 3: 39 4: 4 5: 0 28% 0% 58%

SPRING ST. 317-333

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
22. 4 -80	317	BTR	15.18 95.10	27	27	478.0KG	956.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Leiognathus sp. 37% Lactarius lactarius 19% Ilisha melastoma 15% Pomadasys hasta 8% 1.190KG 42.4CM Saurida tumbil 3% Metapenaeus sp. 1% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 8 2: 29 3: 61 4: 3 5: 0 75% 1% 25%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
22. 4 -80	319	PTR	15.18 95.08	27	13	254.0KG	508.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus indicus 73% Ilisha elongata 6% Leiognathus sp. 6% Scomberomorus commersoni 5% 3.900KG Ilisha melastoma 3% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 11 3: 83 4: 0 5: 0 93% 5% 2%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	320	BTR	15.11 95.19	32	32	251.0KG	502.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Otholithus maculatus 14% Pampus argenteus 13% .400KG Atrobuca nibe 11% .047KG Nemipterus japonicus 9% .044KG Pomadasys hasta 8% 1.320KG 41.7CM Metapenaeus sp. 2% .018KG Penaeus monodon 1% .175KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 27 2: 56 3: 16 4: 3 5: 0 8% 0% 94%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	321	PTR	15.04 95.19	40	15	186.0KG	372.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sardinella gibbosa 75% .023KG 12.8CM Dussumieria acuta 18% .007KG 11.5CM Scomberomorus guttatus 3% 1.000KG Jellyfish 3% Sphyræna obtusata 1% .143KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 94 3: 1 4: 0 5: 3 95% 3% 4%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	322	PTR	15.03 95.27	58	30	89.1KG	178.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Sardinella gibbosa 77% .040KG 14.6CM Dussumieria acuta 12% .022KG 14.4CM Scomberomorus commersoni 11% 3.333KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 89 3: 0 4: 0 5: 0 89% 11% 0%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	323	PTR	15.07 95.48	55	44	214.0KG	428.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Scomberoides commersonianus 56% 1.307KG Formio niger 39% .741KG 33.7CM Scomberomorus guttatus 3% 1.100KG 56.2CM Fish larvae 2% Eleutheronema tetradactylum 0% .900KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 59 2: 39 3: 0 4: 2 5: 0 0% 59% 41%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	324	BTR	15.09 95.46	50	50	89.1KG	178.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pampus argenteus 37% .337KG 31.9CM Lepturacanthus savala 31% .221KG Atropus atropus 8% .208KG Scomberomorus guttatus 6% .892KG 53.2CM Arius caelatus 5% .667KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 53 2: 7 3: 37 4: 2 5: 0 10% 7% 82%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	325	BTR	15.33 95.49	17	17	229.0KG	458.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Raconda russelliana 38% .021KG Sharks 12% .150KG Lepturacanthus savala 9% .033KG Ilisha melastoma 8% .007KG Metapenaeus sp. 8% .008KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 13 2: 59 3: 24 4: 5 5: 0 14% 0% 87%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	326	BTR	15.30 95.59	17	17	293.0KG	586.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Setipinna sp. 27% .014KG Miscellaneous 12% Lepturacanthus savala 10% .020KG Metapenaeus sp. 9% .010KG Sciaenidae 7% .012KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 22 2: 11 3: 57 4: 12 5: 0 35% 0% 67%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
23. 4 -80	327	PTR	15.15 96.20	23	18	59.0KG	118.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Engraulidae, juveniles 38% Lepturacanthus savala 20% .081KG Raconda russelliana 20% .009KG Scomberomorus commersoni 6% 3.400KG Pampus argenteus 6% .178KG Metapenaeus sp. 1% .008KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 15 2: 27 3: 23 4: 0 5: 38 48% 8% 47%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
24. 4 -80	328	PTR	14.55 96.10	73	18	53.1KG	106.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophidae, juveniles 75% .254KG Lepturacanthus savala 20% Jellyfish 2% Sardinella gibbosa 1% .036KG Ilisha elongata 1% .100KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 0 2: 3 3: 21 4: 0 5: 77 3% 0% 98%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
24. 4 -80	329	BTR	14.48 96.32	80	80	74.8KG	150.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Aeropoma japonicum 27% .008KG Lutjanus sanguineus 18% 2.283KG 56.0CM Epinephelus tauvina 11% 8.500KG Nemipterus japonicus 10% .031KG Metapenaeus sp. 10% .009KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 39 2: 25 3: 5 4: 31 5: 0 1% 0% 99%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
24. 4 -80	330	BTR	14.51 96.49	60	60	12.6KG	25.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Pampus argenteus 54% .523KG 30.6CM Miscellaneous 12% 1.500KG Scomberoides commersonianus 9% 1.150KG Chirocentrus dorab 8% .950KG Megalaspis cordyla 6% .233KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 69 2: 8 3: 12 4: 12 5: 0 6% 9% 86%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
24. 4 -80	331	BTR	14.50 96.53	57	57	317.0KG	1268.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophidae 54% Scomberoides commersonianus 22% 1.228KG 56.4CM Aeropoma japonicum 20% .008KG Arius thalassinus 2% .893KG Scomberomorus commersoni 2% 5.400KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 24 2: 0 3: 2 4: 74 5: 0 0% 24% 76%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
24. 4 -80	332	PTR	14.49 96.51	66	50	6471.0KG	12940.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Myctophidae 93% Scomberoides commersonianus 5% 1.450KG 60.3CM Lepturacanthus savala 2% Lutjanus johni 1% 2.892KG 60.2CM % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 6 2: 0 3: 2 4: 93 5: 0 0% 5% 96%							

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
25. 4 -80	333	PTR	14.48 97.44	34	10	1305.0KG	2610.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Stolephorus sp. 55% Jellyfish 13% Dussumieria acuta 12% .011KG 11.0CM Lepturacanthus savala 7% .414KG Ilisha melastoma 5% .058KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 1 2: 19 3: 67 4: 1 5: 13 77% 0% 24%							

SPRING ST 334-350

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	334	BTR	15.07 97.28	24	24	306.0KG	918.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 31% Lepturacanthus savala 30% .043KG Arius caelatus 10% .024KG Thryssa dussumieri 8% .107KG Congresox talabonoides 7% 5.250KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 38 2: 10 3: 48 4: 5 5: 0 18% 0% 83%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	335	BTR	15.20 97.35	20	20	778.0KG	1556.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 75% .036KG Bahaba taipingensis 5% 6.350KG Arius caelatus 5% 3.917KG Coilia sp. 3% .019KG Miscellaneous 3% Metapenaeus sp. 3% .003KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 7 2: 7 3: 83 4: 3 5: 0 78% 0% 22%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	336	BTR	15.43 97.35	18	18	595.0KG	1190.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 42% .025KG Coilia sp. 14% .304KG Rays,skates 14% 13.300KG Miscellaneous 7% Bahaba taipingensis 5% 6.988KG Metapenaeus sp. 1% .011KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 6 3: 74 4: 7 5: 0 57% 0% 34%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	337	BTR	15.52 97.23	18	18	424.0KG	1272.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 65% .023KG Polynemus indicus 11% 16.000KG Metapenaeus sp. 8% .008KG Thryssa mystax 7% .014KG Lepturacanthus savala 3% .026KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 23 2: 0 3: 75 4: 2 5: 0 72% 0% 28%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	338	BTR	15.35 97.20	19	19	272.0KG	816.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 69% .023KG 18.0CM Metapenaeus sp. 9% .008KG Thryssa mystax 8% .014KG Lepturacanthus savala 3% .026KG Arius caelatus 3% 1.700KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 16 2: 0 3: 83 4: 2 5: 0 77% 0% 24%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	339	PTR	15.21 97.20	22	10	120.0KG	240.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Raconda russelliana 26% .140KG Lepturacanthus savala 23% .032KG Thryssa mystax 15% .004KG Sardinella gibbosa 14% .033KG 14.1CM Polynemus indicus 12% 7.000KG Penaeus monodon 1% .006KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 19 2: 40 3: 39 4: 3 5: 0 34% 0% 67%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	340	BTR	15.10 97.12	23	23	204.0KG	408.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Polynemus indicus 55% 5.861KG Lepturacanthus savala 33% .101KG Miscellaneous 8% Sharks 3% .438KG Thryssa dussumieri 0% .018KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 55 2: 0 3: 36 4: 8 5: 0 0% 0% 99%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	341	BTR	15.12 97.00	23	23	102.0KG	204.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Shrimps 42% Lepturacanthus savala 33% .059KG Coilia dussumieri 11% .006KG Chrysochir aureus 8% .700KG Miscellaneous 3% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 43 2: 9 3: 45 4: 4 5: 0 12% 0% 89%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
25. 4 -80	342	PTR	15.22 97.00	22	8	156.0KG	312.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Lepturacanthus savala 36% .029KG Raconda russelliana 24% .100KG 13.4CM Crustaceans 17% Thryssa dussumieri 8% .005KG Chrysochir aureus 5% .700KG Metapenaeus lyssianasa 2% .006KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 4 2: 29 3: 66 4: 0 5: 0 10% 0% 89%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	343	BTR	15.33 97.00	18	18	302.0KG	906.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 59% .036KG Rays,skates 26% 3.465KG Thryssa dussumieri 6% .788KG Shrimps 4% Sharks 2% .196KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 5 2: 1 3: 94 4: 1 5: 0 66% 0% 35%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	344	BTR	15.53 97.00	14	14	319.0KG	638.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon sp. 59% .026KG Alepes djeddaba 16% 2.500KG Shrimps 13% Tetraodontidae 4% .753KG Miscellaneous 3% % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 30 2: 2 3: 60 4: 7 5: 2 76% 0% 25%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	346	BTR	15.32 96.40	17	17	188.0KG	376.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Harpodon nehereus 60% .059KG Arius thalassinus 15% .621KG Rays,skates 13% 4.000KG Engraulis telara 4% .017KG Fampus argenteus 2% .013KG 9.6CM Shrimps 1% .008KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 3 2: 0 3: 94 4: 3 5: 0 64% 0% 36%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	347	BTR	15.25 96.40	20	20	87.0KG	174.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Arius caelatus 43% 1.974KG 55.7CM Harpodon nehereus 27% .323KG Sciaenidae 12% .005KG Lobotes surinamensis 9% 4.050KG Rays,skates 3% .483KG Metapenaeus sp. 1% .009KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 12 3: 78 4: 0 5: 0 29% 0% 72%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	348	BTR	15.16 96.25	22	19	252.0KG	816.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Chrysochir aureus 23% .616KG Raconda russelliana 22% .118KG Shrimps 14% Lepturacanthus savala 11% .029KG Sharks 7% .152KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 22 2: 50 3: 25 4: 3 5: 0 6% 0% 94%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	349	BTR	15.22 96.18	19	19	384.0KG	768.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Metapenaeus sp. 38% .005KG Lepturacanthus savala 15% .045KG Polynemus indicus 15% 18.830KG 101.0CM Chrysochir aureus 15% .406KG Sharks 7% .272KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 53 2: 20 3: 26 4: 1 5: 0 1% 0% 99%							

DATE	ST.NO.	GEAR	POSITION	BOTTOM	GEAR	TOTAL	CATCH
			North East	DEPTH	DEPTH	CATCH	PER HOUR
26. 4 -80	350	BTR	15.26 96.16	18	18	537.0KG	1074.0KG
MAIN SPECIES: % IN CATCH MEAN W. MEAN L. Engraulis telara 22% .022KG Rays,skates 15% 16.000KG Lepturacanthus savala 14% .003KG Harpodon nehereus 10% .060KG Sciaenidae 10% .006KG Shrimps 5% .010KG % IN ECONOMIC CLASS: SMALL PEL LARGE PEL OTHER 1: 11 2: 10 3: 65 4: 13 5: 0 34% 0% 65%							

SPRING ST. 351-354

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
25. 4 -80	351	BTR	15.17 96.10	21	21	17.4KG	14.0KG

MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.
Lepturacanthus savala		38%	.029KG	
Raconda russelliana		35%	.019KG	
Dussumieria acuta		14%	.008KG	9.8CM
Sardinella gibbosa		6%	.039KG	
Chirocentrus dorsab		3%	.400KG	
% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER
1:	3	2: 58	3: 39	4: 0
5:	0	0	22%	1%
				77%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
26. 4 -80	352	PTR	15.01 96.14	66	16	42.6KG	85.0KG

MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.
Myctophidae		96%		
Scomberoides commersonianus		4%	1.500KG	
Lepturacanthus savala		0%	.075KG	
% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER
1:	4	2: 0	3: 0	4: 96
5:	0	0	0	4%
				96%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 4 -80	353	BTR	15.10 96.00	***	23	47.3KG	14.0KG

MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.
Chrysochir aureus		18%	.430KG	
Sciaenidae		14%	.006KG	
Drepane punctata		12%	.700KG	
Lepturacanthus savala		11%	.530KG	
Shrimps		11%	.009KG	
% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER
1:	24	2: 59	3: 18	4: 0
5:	0	0	9%	0%
				92%

DATE	ST.NO.	GEAR	POSITION North East	BOTTOM DEPTH	GEAR DEPTH	TOTAL CATCH	CATCH PER HOUR
27. 4 -80	354	BTR	15.23 96.00	18	18	129.0KG	258.0KG

MAIN SPECIES:		% IN CATCH	MEAN W.	MEAN L.
Rays,skates		44%	1.263KG	
Chrysochir aureus		30%	.872KG	
Johnius belangeri		5%	.069KG	
Pomadasys hasta		4%	1.917KG	
Lepturacanthus savala		3%	.283KG	
% IN ECONOMIC CLASS:		SMALL PEL	LARGE PEL	OTHER
1:	3	2: 45	3: 51	4: 2
5:	0	0	2%	0%
				99%

