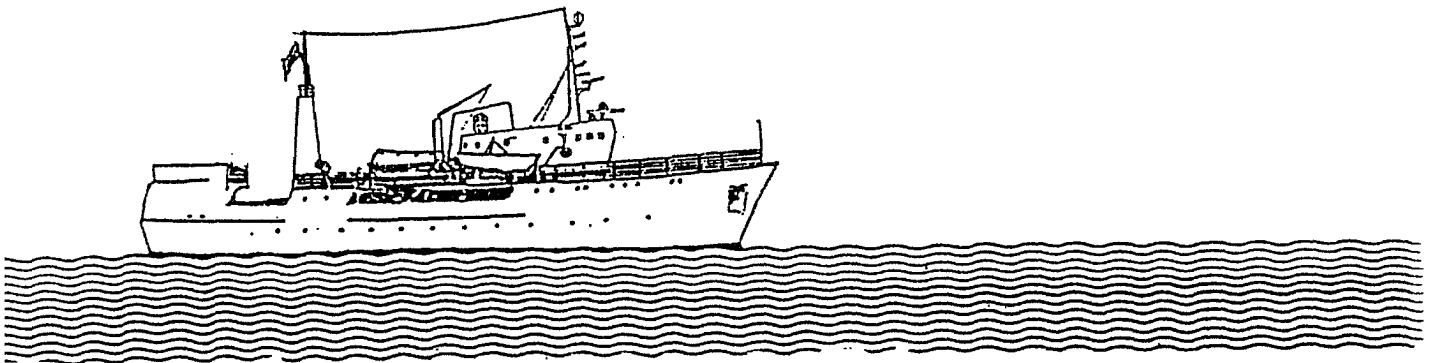


NORAD - FAO/UNDP GLO 82/001

CRUISE REPORTS "DR. FRIDTJOF NANSEN"



SURVEYS OF THE FISH RESOURCES OF ANGOLA

5 August - 22 September 1992

Centre of Fisheries Research
CIP, Luanda

Institute of Marine Research
IMR, Bergen

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1 INTRODUCTION

1.1 OBJECTIVES

The objectives of the survey were discussed at a meeting with the Director and other representatives of the Centro de Investigação Pesqueira prior to the survey. The main purpose of the programme would be the same as in previous surveys. In addition, it was agreed to increase the effort on the deep water shrimp down to 800 m depth from Cabinda to Benguela. The survey consisted of two parts, with different objectives and geographic coverage:

The objectives of the first part were to:

Describe the distribution, composition and abundance of the demersal fish stocks from Cabinda to Benguela by swept-area trawl programme.

Conduct an acoustic survey of the horse mackerel from Cabinda to Benguela.

Conduct an acoustic survey of sardinella stocks in the Cabinda-N'Zeto area, and a pilot survey from N'Zeto to Benguela.

The objectives of the second part were to:

Conduct an acoustic survey of sardinella stocks from N'Zeto to Cunene.

Conduct an acoustic survey of pilchard stock from Tombua to Cunene

Describe the distribution, composition and abundance of demersal stocks from Benguela to Cunene.

Describe the distribution, composition and abundance of horse mackerel from Benguela to Cunene.

Environmental studies would comprise continuous recording of surface temperature distribution and the CIP standard profiles for hydrographical studies.

1.2 PARTICIPATION

The scientific staff from Angola were:

5 - 31 August:

Antónia Nelumba, António Fontes Pereira, Afonso Miguel, Rafael Saraiva, Kumbi Kilongo, Isabel Araujo

2 - 21 September:

Maria Sardinha, Helena Jardim, Luyeye Nkosi, David Quissungu, Kivuna Nkiamby, Domingos Pedro.

From IMR:

Else Torstensen (until 31 August), Reidar Toresen (from 31 August), Helge Ullebust, Ann-Lisbeth Agnalt (until 31 August), Terje Haugland and Tore Mørk.

1.3 NARRATIVE

The vessel left Luanda in the afternoon of 5 August and steamed northwards to Cabinda. The sampling programme commenced north of the Congo River with acoustic transects approximately 10 nm apart, covering the inner, middle and the outer shelf and the slope. Semi-random swept-area hauls were carried out on the shelf during daytime. Acoustic coverage of the shelf and trawling on the slope were covered during nighttime. Five hydrographic transects were sampled in the Cabinda-Luanda region; Cabinda, Pta. da Moita Seca, Ambriz, Luanda and Pta. das Palmeirinhas. The survey of the Cabinda - Luanda region was completed on 20 August.

The vessel continued southwards following the same sampling programme. The Lobito-Benguela shelf area was completed on 27 August and a denser coverage of the slope was made on the return back to Luanda. Luanda was called on 31 August for change of crew and refuelling.

The vessel left Luanda at night 2 September and steamed northwards to N'Zeto to start surveying the coastal stocks of pelagic fish, mainly sardinellas. In the area between N'Zeto and Luanda, 40-50 nm long E-W transects, 10 nm apart were performed, while further south, in the area between Luanda and Benguela, a zigzag survey grid, covering the inner 30-40 nm from the shore was run. From Benguela to Tombua shorter zigzag transects close to shore were sampled. During the last week of the survey, the area between Tombua and Cunene river was covered more intensively, with transects 5 nm apart and carrying out swept-area hauls every 5-10 nm. During night, the area was surveyed acoustically for pelagic fish, while during day, intensive swept-area sampling was carried out. Two hydrographical sections were sampled on the last part of the survey, Lobito and Baia dos Tigres. The survey was completed on 22 September.

1.4 SURVEY EFFORT

Figure 1a-e shows the cruise track with fishing stations and the hydrographic profiles.

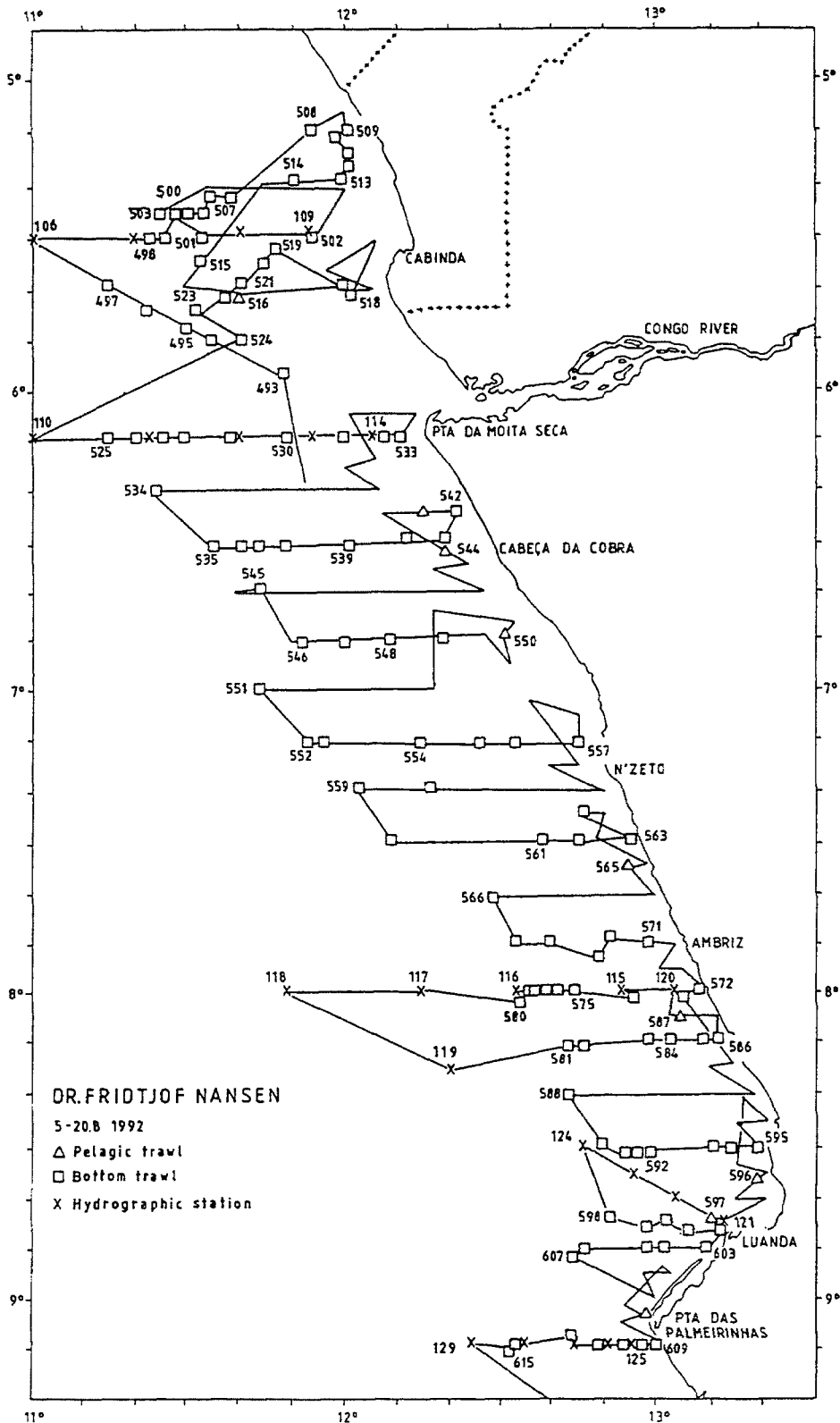


Figure 1a Course tracks with fishing stations and hydrographic profiles, Cabinda-Luanda.

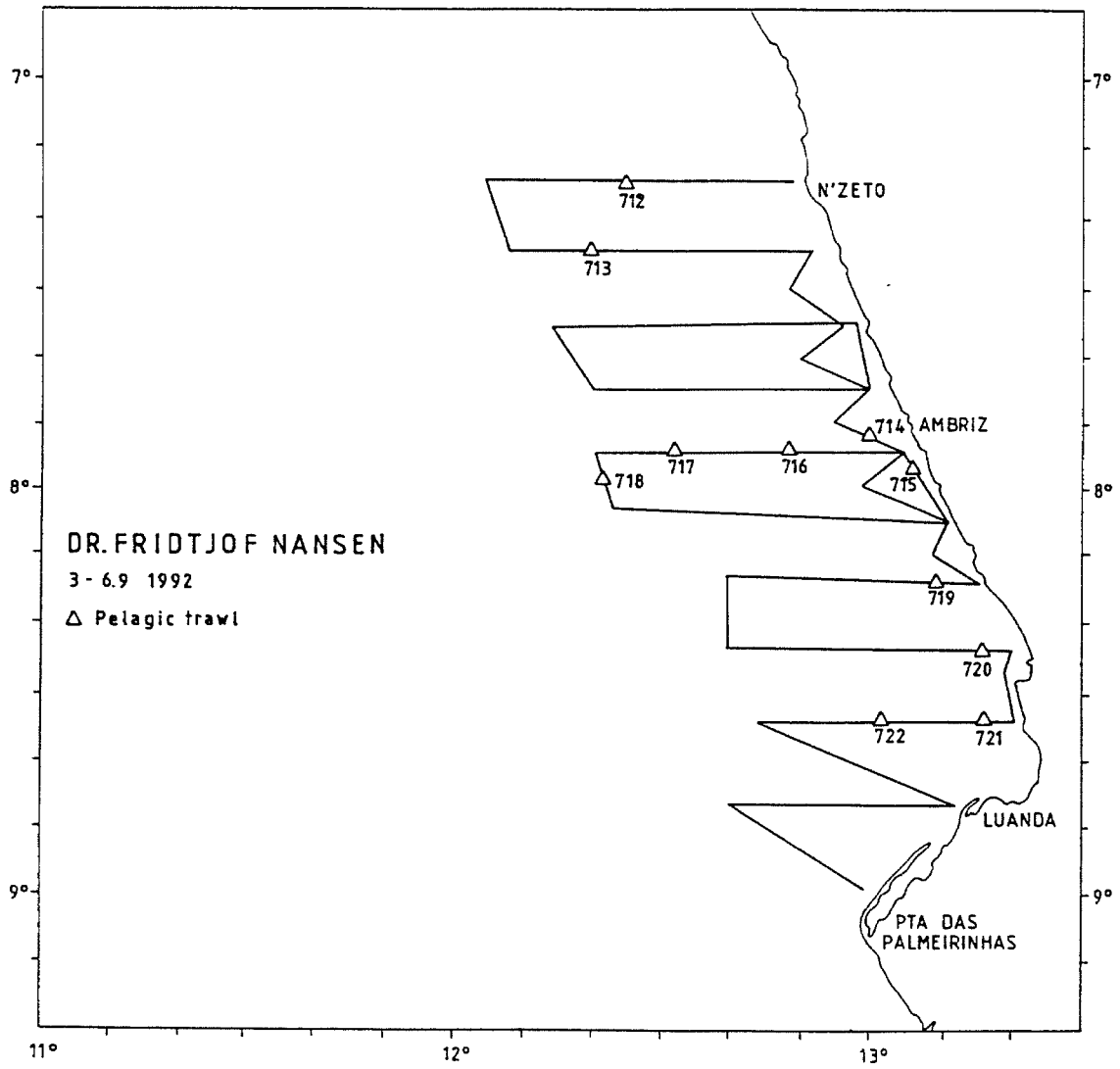


Figure 1b Course tracks with fishing stations and hydrographic profiles, N'Zeto-Luanda

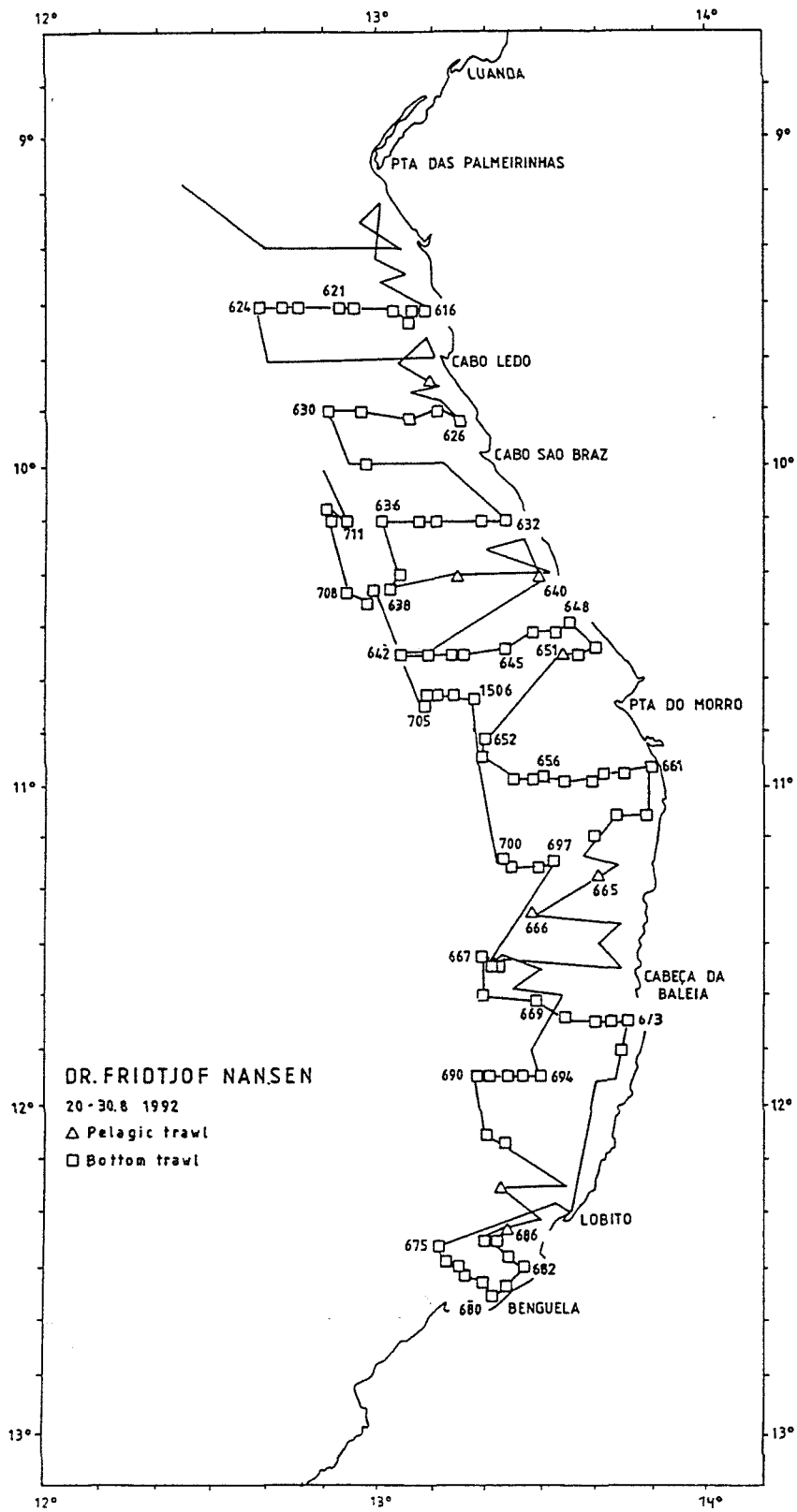


Figure 1c Course tracks with fishing stations and hydrographic profiles, Luanda-Benguela

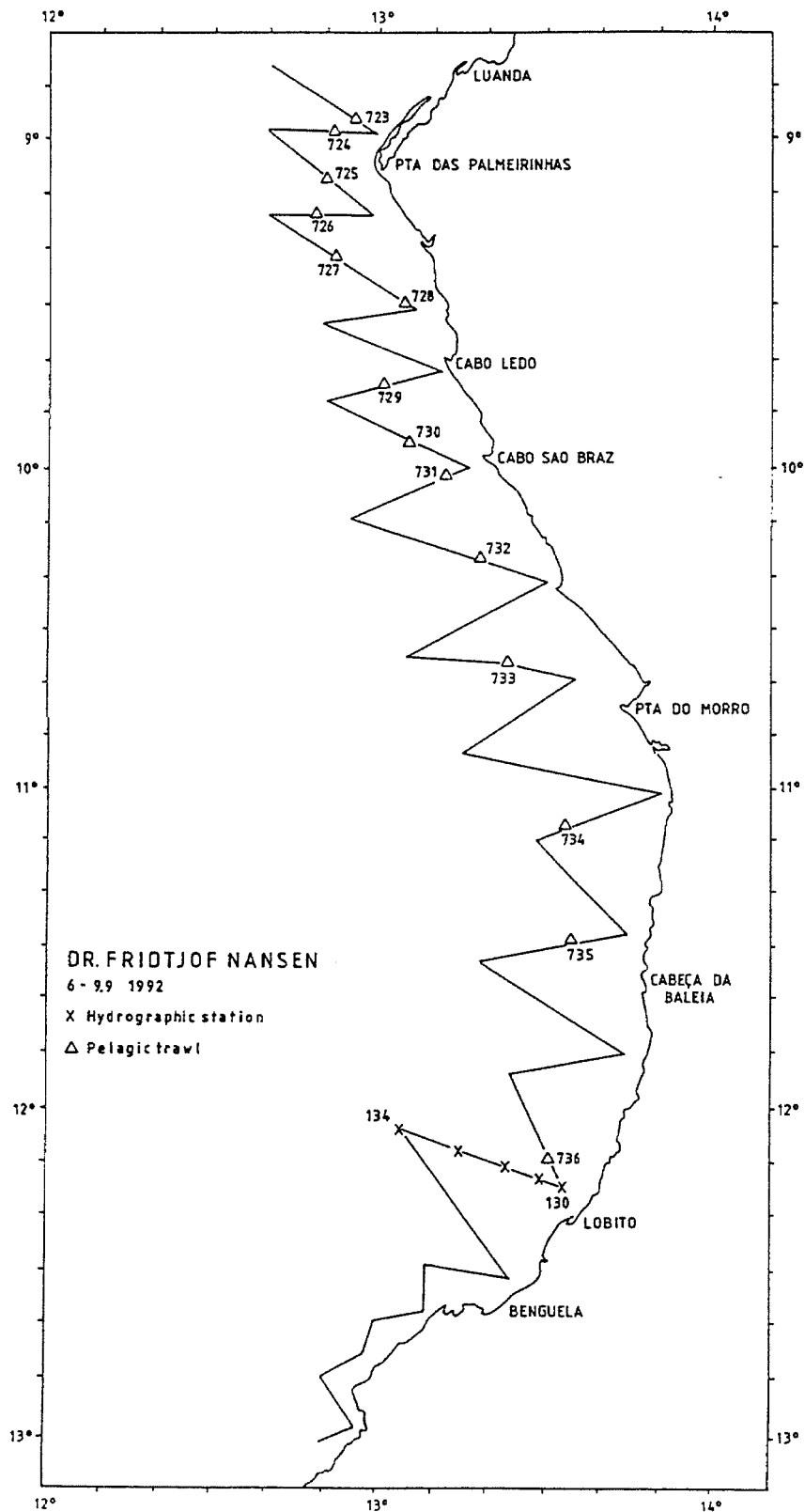


Figure 1d Course tracks with fishing stations and hydrographic profiles, Luanda-Benguela.

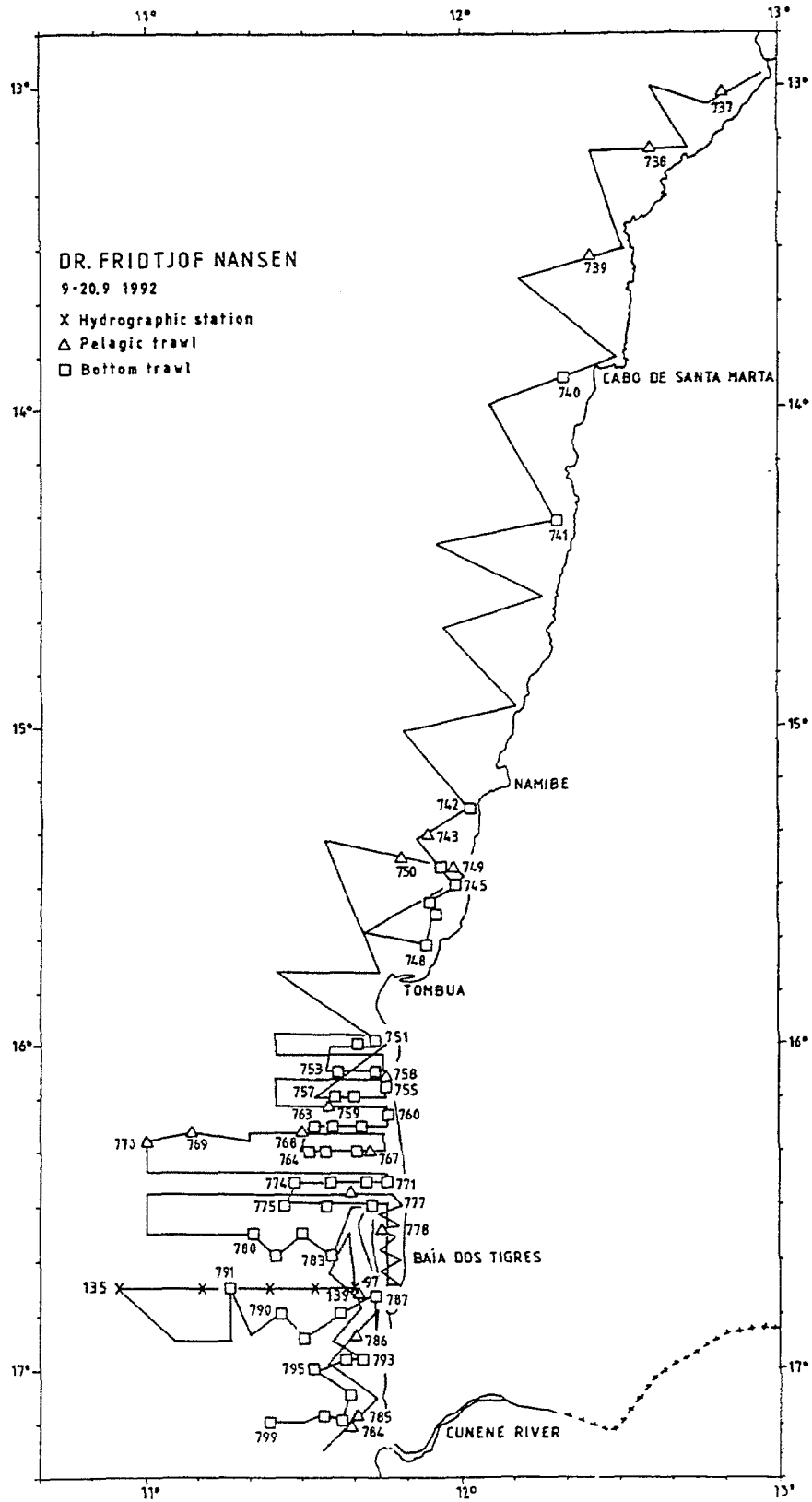


Figure 1e Course tracks with fishing stations and hydrographic profiles, Benguela-Cunene.

The number of hauls by area and depth interval were:

	Swept-area hauls			Other	Total	Distance surveyed
	0-200m	200-400m	400-800m			
Cabinda-Luanda	65	22	26	20	133	2 600 nm
Luanda-Benguela	48	16	24	22	110	1 400 nm
Benguela-Cunene	42	1	1	19	63	1 380 nm
Total	155	39	51	61	306	5 380 nm

1.5 METHODS

The catches were sampled for species composition, by weight and numbers. Biological samples, i.e. length compositions, sex and maturity stages, were taken of the target species. The length compositions are included in this report. Pooled length frequency distributions of selected species by area are shown in Annex II. The records of fishing stations are presented in Annex IV.

The following areas (nm²) are used in the swept-area biomass estimates:

	Cabinda-Luanda	Luanda-Benguela	Tombua-Cunene
0- 50 m	3 023	1 850	507
50-100 m	2 693	1 730	591
100-200 m	2 085	1 252	594
200-300 m	755	500	100
300-400 m	660	350	77
400-500 m	540	445	48
500-600 m	880	450	
600-800 m	1 500	900	

Hydrographical profiles were worked with a portable mini CTD sonde with internal logging of records of temperature, salinity and depth 30 times per minute. Records were selected from standard depths and presented in Figure 3a-c.

Surface temperature was logged automatically and recorded with position and bottom depth every nautical mile sailed.

A description of the acoustic instruments and their standard settings are given in Annex III, which also includes a description of the fishing gear used.

2 HYDROGRAPHY

Figure 2a-c shows the distribution of temperature at 4 m depth demonstrating a typical winter situation, with cold coastal water with a temperature some 5-6°C lower than in the summer season.

Figure 3 a-c shows the salinity and temperature observed in the hydrographic profiles. The situation is similar to that observed in previous 'Dr. Fridtjof Nansen' surveys at this season. The shoreward inclination of the isotherms indicate upwelling processes in the northward moving water. The cold inshore water extends as in 1991 northwards past Cabinda which was not the case in August 1985. This perhaps indicates a fairly intensive northward current system in 1992, an observation which is supported by the clear shoreward inclination of the isotherms in the profiles off Lobito, Luanda, Ambriz and even Cabinda. The profile off Pta da Moita Seca is affected by discharges from the Congo River.

The Baia dos Tigres profile shows as usual inshore upwelling with Angolan waters offshore with observations very similar to those recorded in early September of 1991. The observed hydrography in this area depends, however, to a considerable extent on the prevailing or immediately prior weather conditions.

3 DISTRIBUTION, COMPOSITION AND ABUNDANCE OF PELAGIC FISH

The acoustic biomass estimates are based on the integration technique and assuming a target strength (TS) similar to that of the North Sea herring for all pelagic fish (TS = 20log₁₀-72dB). The units of acoustic reflection (S_A) used are m²/nm² reflecting surface. An arbitrary scale has been used to illustrate different levels of concentration.

The biomass density for clupeids was calculated by length classes, based on representative pooled samples weighted by the catch, in all areas except Cabinda-N'Zeto, where the length frequency samples were too scarce to allow this type of analysis. In the abundance estimates, 1.0 was applied as condition factor for sardinellas (*Sardinella aurita* and *S. maderensis*) and 0.79 for the pilchard (*Sardinops ocellata*). These condition factors were derived from the length frequency samples and reflect the best fit for these samples assuming an isometric growth.

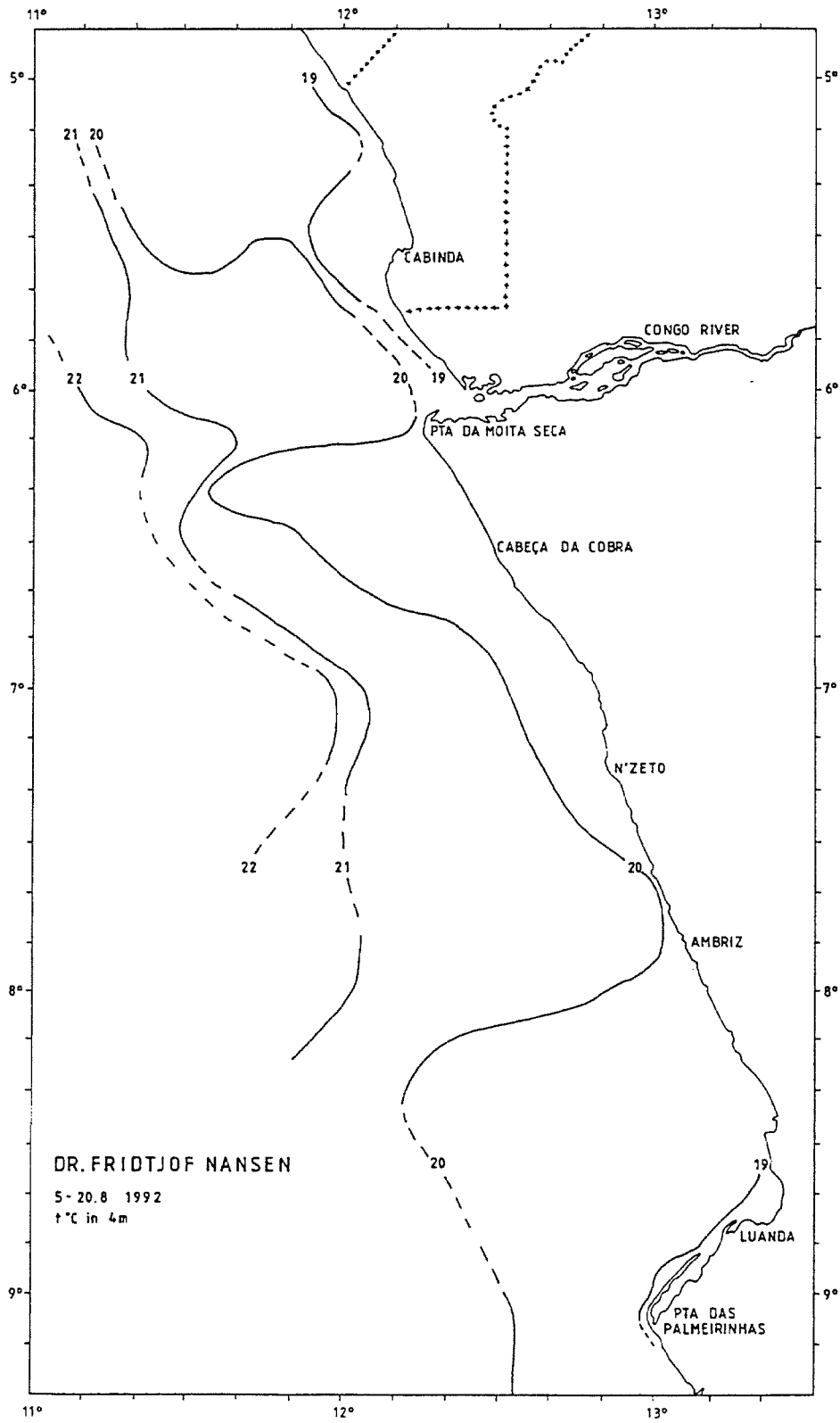


Figure 2a Temperature at sea surface, Cabinda-Luanda.

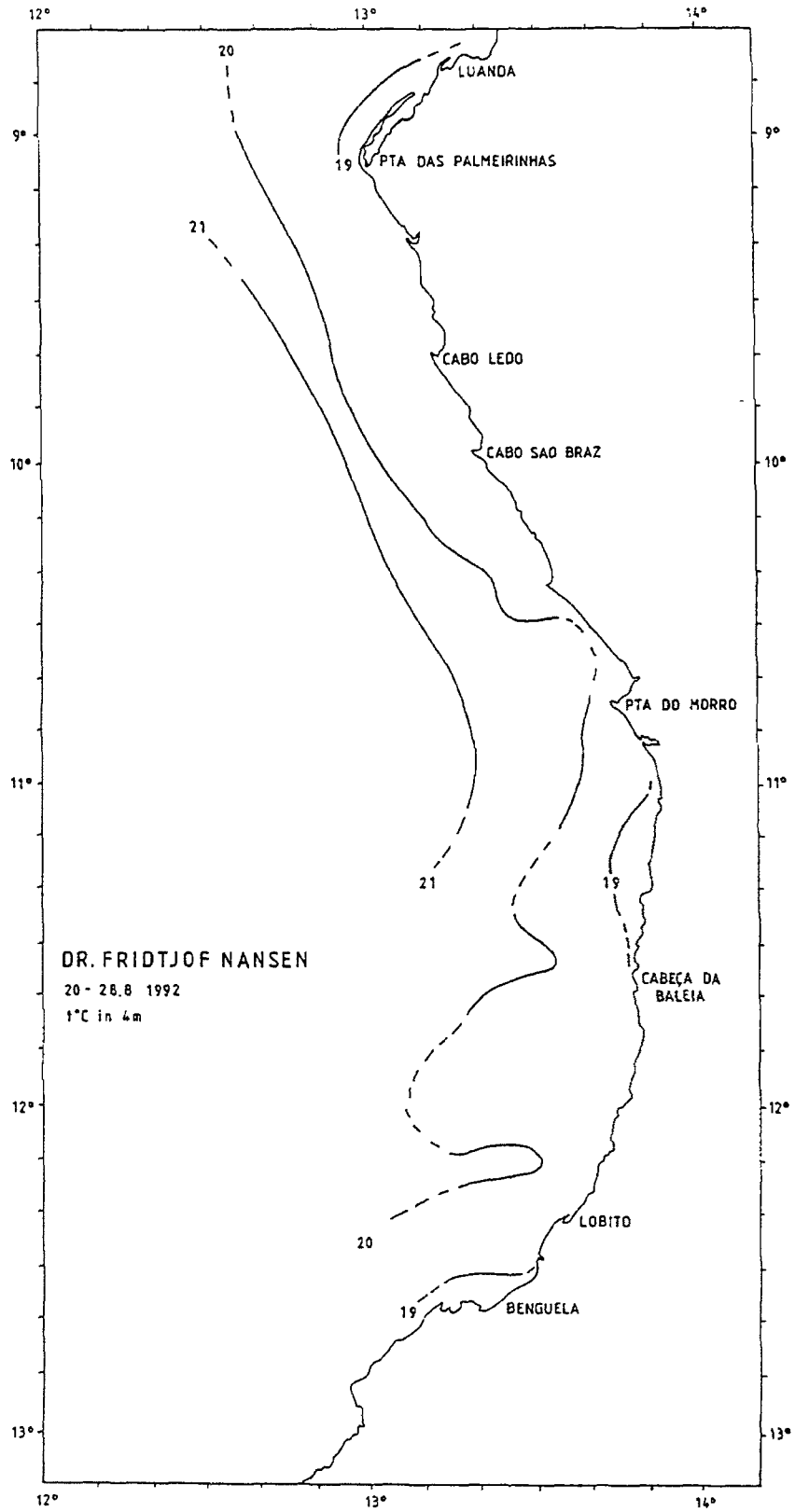


Figure 2b Temperature at sea surface, Luanda-Benguela.

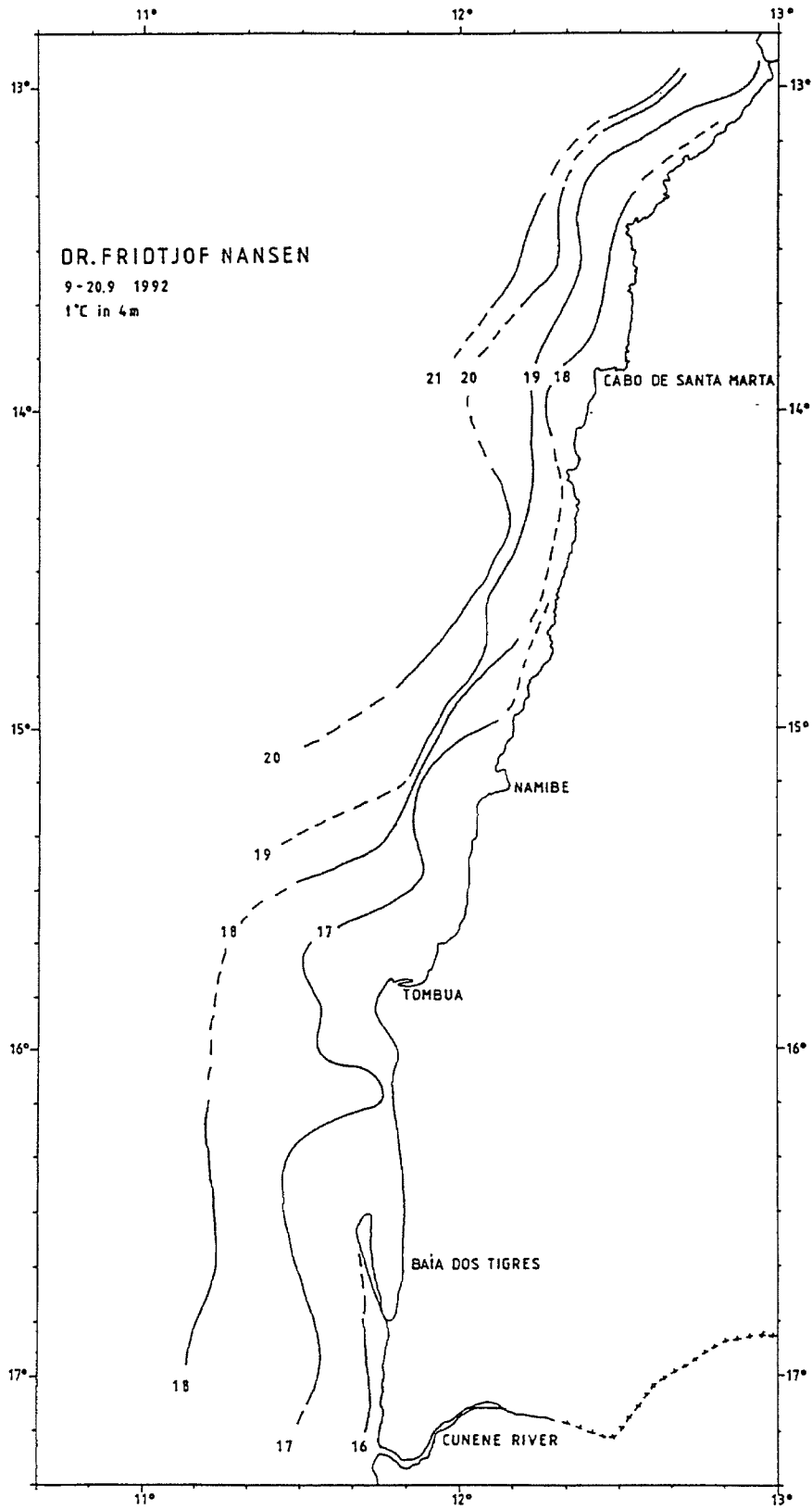
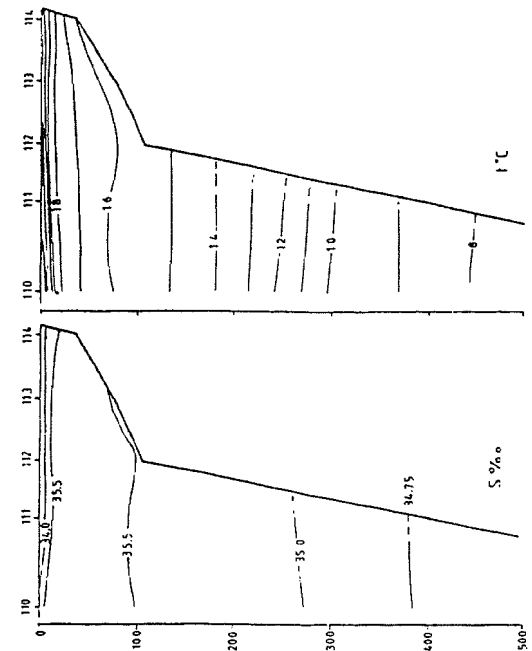
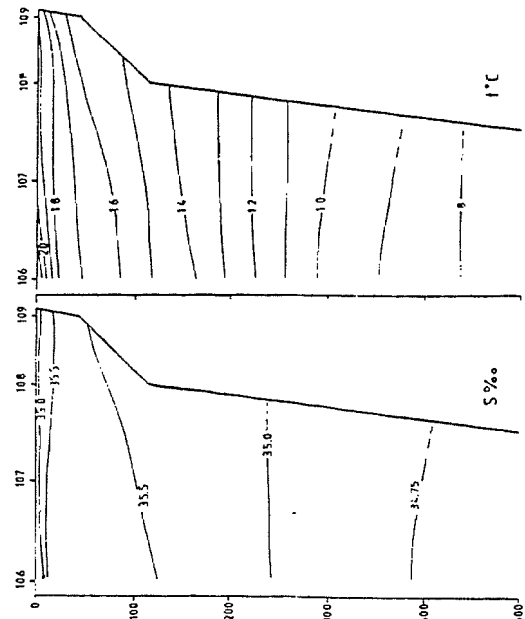


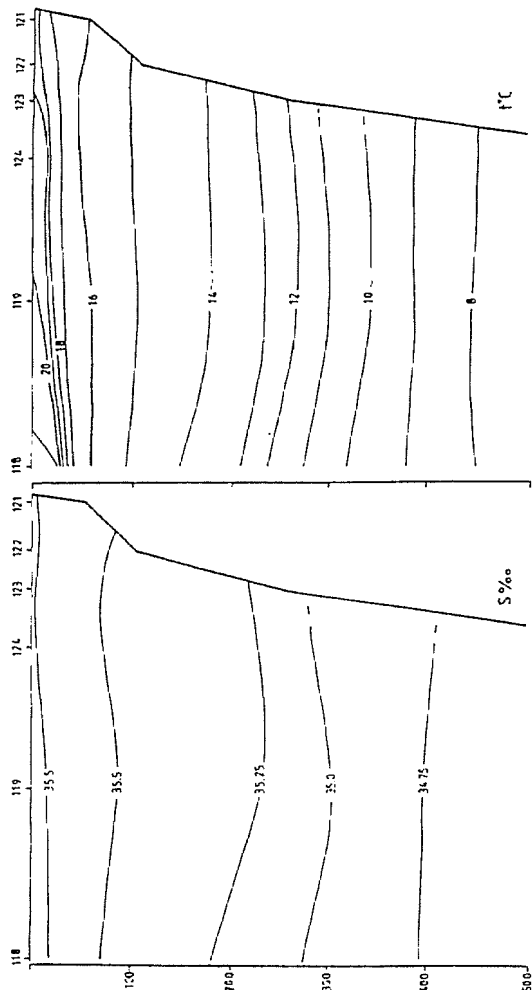
Figure 2c Temperature at sea surface, Benguela-Cunene.



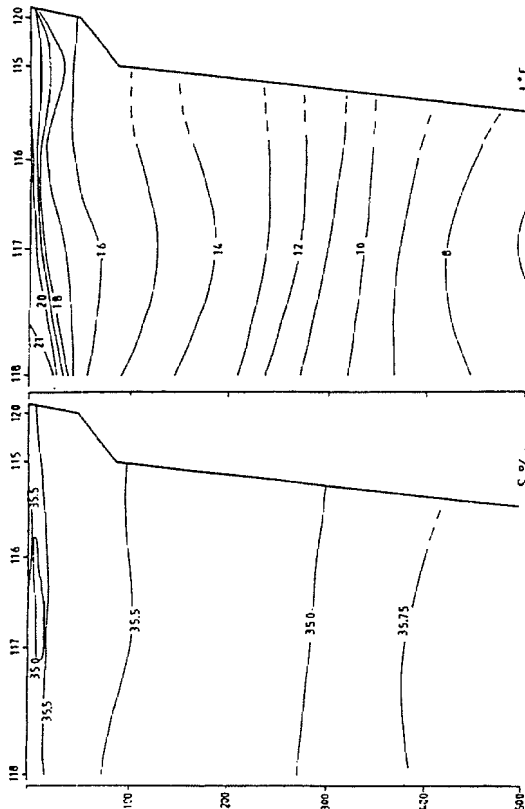
PTA DA MOITA SELA 9-10/8 1992



CABINDA 6-7/8 1992



LUANDA 17-19.8 1992



AMBRIZ 16-17.8 1992

Figure 3a Hydrographic profiles, Luanda-Cabinda.

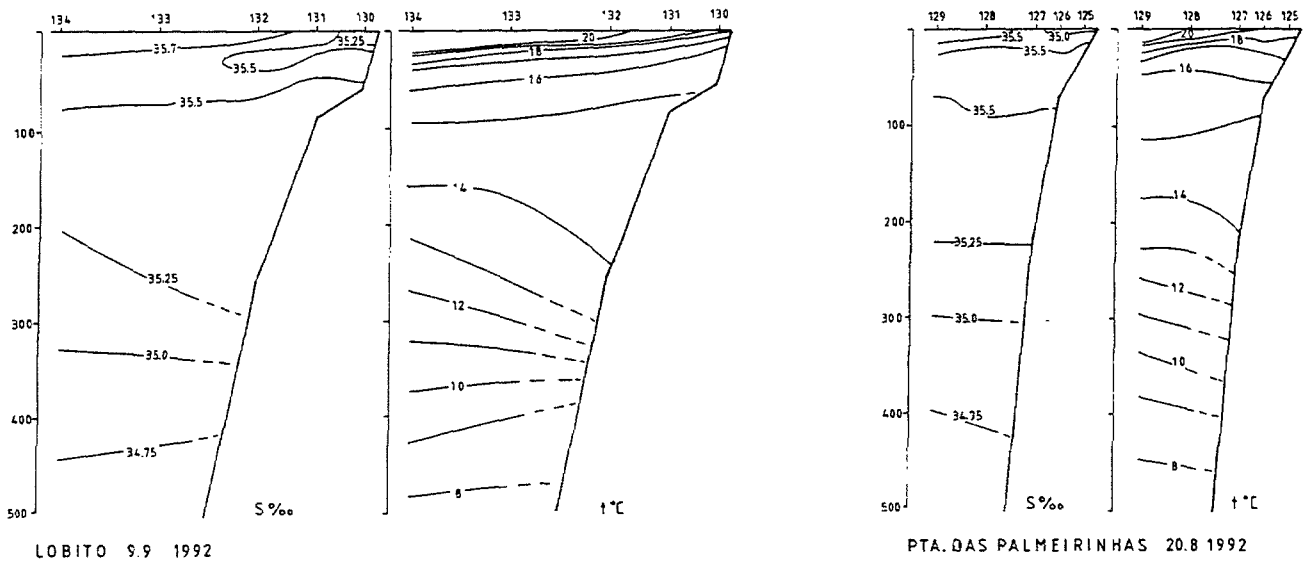


Figure 3b Hydrographic profiles, Luanda-Benguela.

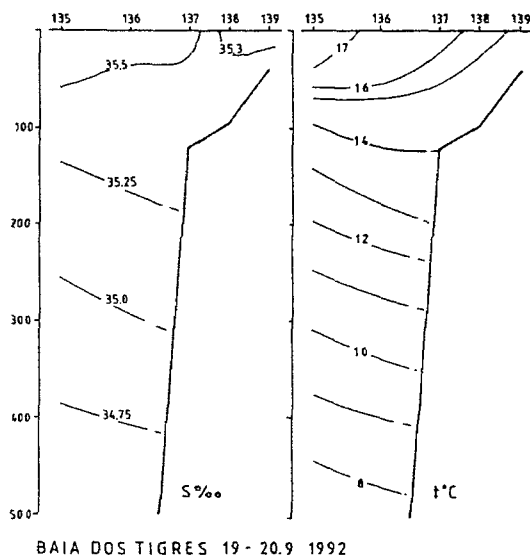


Figure 3c Hydrographic profiles, Benguela-Cunene.

The integrator values were allocated to the following groups on the basis of trawl sampling and characteristic behaviour as deduced from echo diagrams:

- Pelagic fish type 1: Clupeids and anchovy
 Pelagic fish type 2: Carangids, scombrids, barracudas and hairtail

The species included in pelagic fish type 1 are flat (*Sardinella maderensis*) and round (*S. aurita*) sardinella, West African ilisha (*Ilisha africana*) and the anchovy (*Engraulis encrasicolus*). The type 2 group comprises horse mackerel (*Trachurus trecae* and *T. capensis*), chub mackerel, hairtail, lookdowns, bonitos, jacks etc., with the horse mackerels and the hairtail as the main species.

In the swept-area trawl survey, 30 min hauls were made following a semirandom distribution within depth strata, covering the depths from 0 to 600 m. In the deeper ranges 1 hour hauls were made.

3.1 CABINDA - LUANDA

In the area between Cabinda and N'Zeto, one coverage was done, while in the area between N'Zeto and Luanda two coverages of pelagic fish type 1 were carried out, the first in the period 13 - 20 August and the second approximately three weeks later (2 - 6 September) covering the area from N'Zeto to Luanda only.

The interpretation of the acoustic recordings at night was complex due to high abundance of the big-eye grunt *Brachydeuterus auritus*, heavily mixed with the pelagic fish in the shallow areas. The day recordings were easier to interpret as pelagic fish was forming shoals and did not mix with demersal fish. However, the day recordings are under-estimating the stock as the shoals, in some areas, occurred close to the surface and avoidance reactions occurred. North of Luanda few recordings of surface schooling sardinella were observed. Sardinella was caught in pelagic trawling in the surface both day and night. The estimates are based on day recording and they are considered as underestimates.

Pelagic fish type 1: Cabinda-N'Zeto

The distribution of pelagic fish type 1, as observed during the first coverage north of Luanda is presented in Figure 4a.

No sardinella was observed in the Cabinda area. South of the Congo River, sardinella was distributed over the inner part of the shelf. Off Pta. da Moita Seca a scattered distribution was observed out to the shelf edge, a distribution similar to that observed in August 1985. The distribution seems to follow the cold coastal water. In the shallow water off Cabeça da

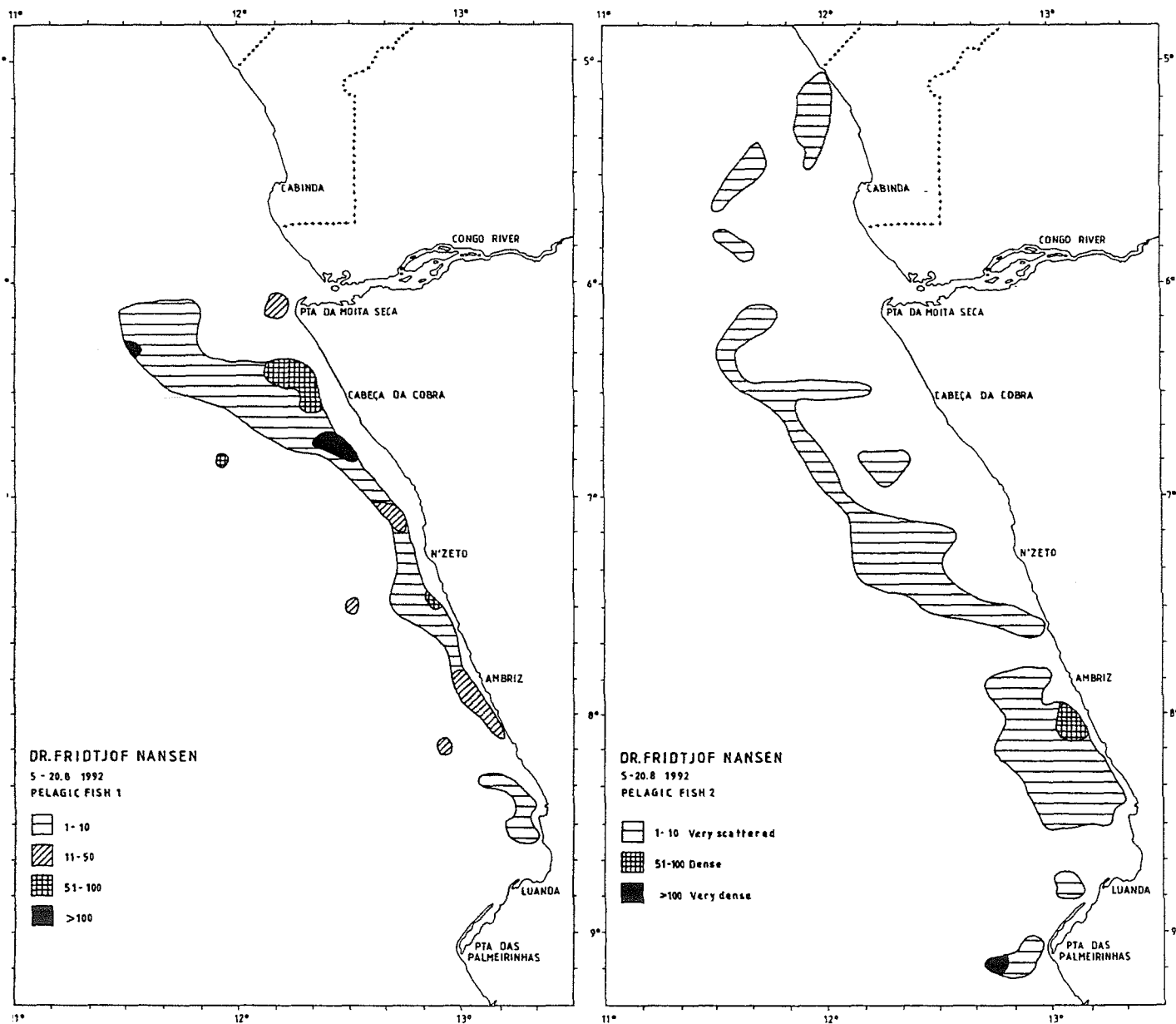


Figure 4a Cabinda-Luanda. Distribution of Pelagic fish type 1 and Pelagic fish type 2.

Cobra a mixture of small-sized sardinella and anchovy was recorded, the anchovy being in prespawning/spawning stages.

The pooled length distributions of the two sardinella species north of N'Zeto are shown in Annex II. There are at least 4 cohorts of the flat sardinella with modal lengths of 8-10, 16, 25 and 30 cm. Mean length was 21 cm. The round sardinella was bigger, mainly 30-36 cm. The average proportion of the two sardinella species was about 75 % flat and 25 % round.

The total biomass estimates for sardinella and anchovy in Cabinda-N'Zeto area were, in tonnes:

	Coastal	Offshore	Total
Sardinella	25 000	25 000	50 000
Anchovy	15 000		15 000
Total			65 000

Some sardinella was caught in swept-area hauls in shallow waters, close to the shore in Cabinda area, but was not recorded with the acoustic system.

Pelagic fish type 1: N'Zeto-Luanda

In the pilot acoustic study performed during the first part of the cruise, the sardinella was observed scattered distributed from N'Zeto and southwards (Figure 4a). In the second coverage of this area about 4 weeks later (Figure 4b), the sardinella was also found scattered distributed, but between N'Zeto and just south of Ambriz the area of distribution was larger extending to some 40-50 nm from the coast. The total biomass estimates for sardinella for the two coverages were, in tonnes:

	1 st coverage	2 nd coverage
Sardinella	25 500	111 000

Nearly all sardinella sampled during the second survey was flat sardinella as less than 5 % in the samples was round sardinella. The rather high estimate during the last coverage may indicate a southward migration of the sardinella found north of N'Zeto during the first survey.

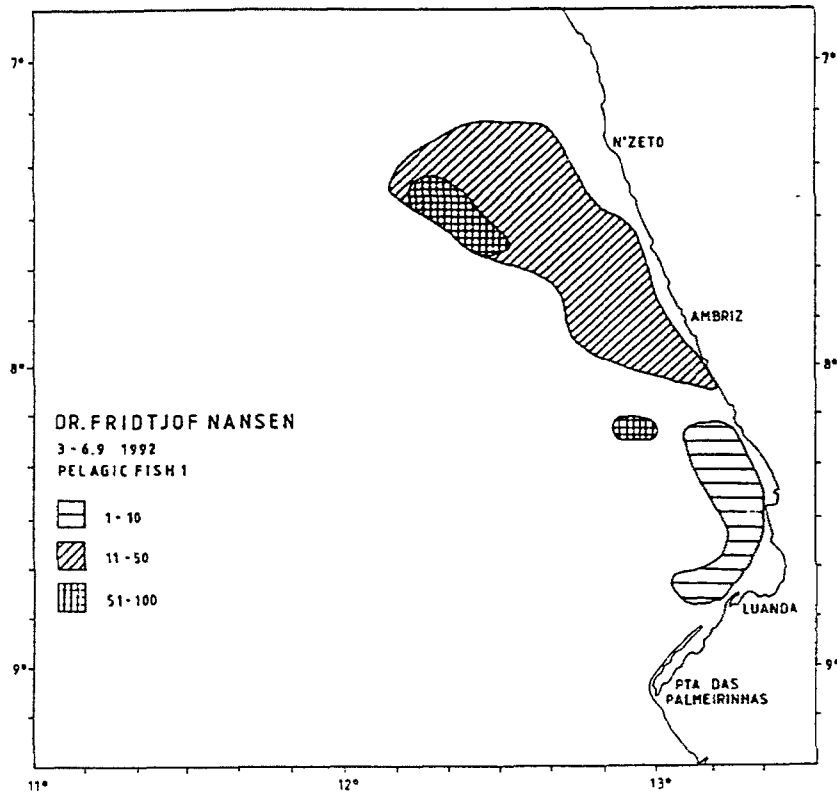


Figure 4b N'Zeto-Luanda. Distribution of Pelagic fish type 1.

Pelagic fish type 2: Cabinda-Luanda

Pelagic fish type 2 consisted mainly of horse mackerel. The distribution is shown in Fig 4a. Horse mackerel was observed in scattered recordings close to the shore and close to the shelf edge. Small areas of dense concentrations were observed off Ambriz and off Pta. das Palmeirinhas. A few, scattered schools of horse mackerel were visually observed close to the beach off Ambriz.

The total biomass estimate of Pelagic fish type 2 in Cabinda-Luanda gives 114 000 tonnes of which 80 000 tonnes of horse mackerel. The remaining is mainly hairtail.

The scattered distribution recorded in the shelf edge area from Cabinda to N'Zeto makes up 22 % of the total estimate. The small, but dense areas make up 45 % of the total biomass.

The pooled length compositions of the horse mackerel (Annex II) show at least 5 cohorts with the modal lengths 5, 16, 21, 25-30 and 40 cm. The larger horse mackerel makes a much bigger share of the catch than in previous year. The smallest cohort, 4 to 7 cm is, due to the selectivity of the trawl, probably underestimated.

3.2 LUANDA - BENGUELA

Also here, two coverages were run. Figure 5 shows the distribution of pelagic fish type 1 from the second coverage of the area. Most of the sardinella was found in the area from Pta. das Palmeirinhas to Cabo Ledo. Smaller concentrations were also detected outside Cabo Sao Braz, Pta. do Morro and Lobito.

Sampling indicated a predominance of flat sardinella as it made up 95 % of the sardinella in the catches.

The length frequency samples (Annex II) show (for *S. maderensis*) mainly large sized fish between 30 and 35 cm of length, as found during the 1991 autumn survey. There is no indication of younger cohorts recruiting.

The biomass estimates for the two coverages give 135 000 and 119 000 tonnes respectively. The main concentrations were found outside Pta. das Palmeirinhas, 26 000 and 25 000 tonnes respectively for the two coverages in this area.

Figure 5 shows the distribution of Pelagic fish type 2. The registrations were scattered, and no major concentrations were located.

The size composition of the horse mackerels is shown in Annex II. Compared to the size distribution north of Luanda the Luanda-Benguela region show very much the same picture. At least four cohorts are predominant, with modal lengths at 6, 15, 19 and 34 cm. The fish at length 25-30 cm is absent in south.

The biomass of horse mackerel was estimated to 86 000 tonnes.

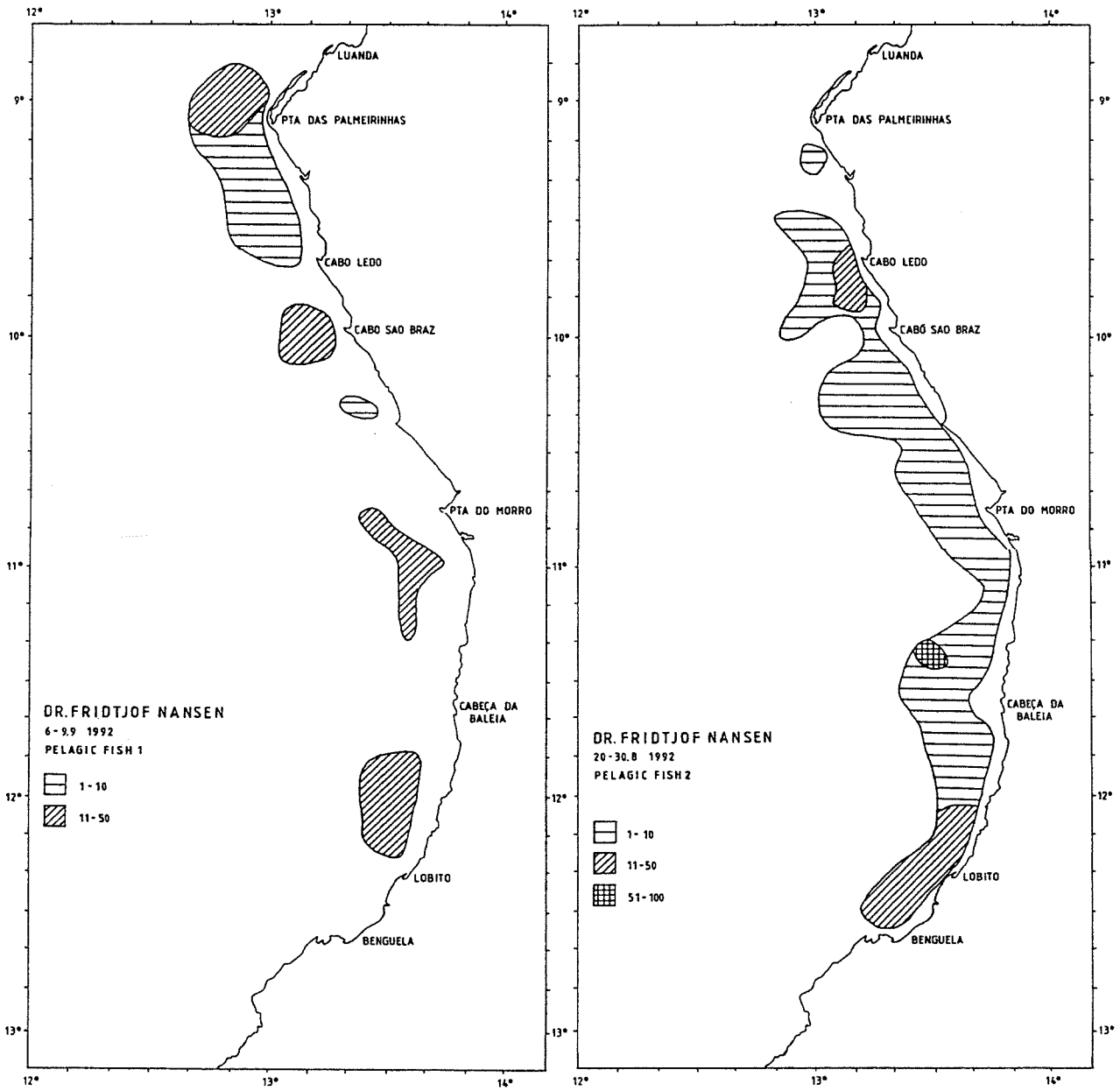


Figure 5 Luanda-Benguela. Distribution of Pelagic fish type 1 and Pelagic fish type 2.

3.3 BENGUELA - CUNENE

Figure 6 shows the distribution of pelagic fish type 1 in this region. The distribution was restricted to the southern part of the region, between Tombua and Cunene. Two main concentrations were detected, one in Baia dos Tigres extending northwards along the shore to about 16°00'S. The biomass here was estimated to 70 000 tonnes, and this was all pilchard (*Sardinops ocellata*). The other concentration was found outside and south of the Peninsula dos Tigres extending southwards to the border. The biomass here was estimated to 160 000 tonnes of which 20 000 tonnes was anchovy and the remaining 140 000 tonnes was pilchard. The total estimate of pilchard in this region thus sums to 210 000 tonnes. Figure 7 shows the % biomass and % numbers by length group. Three cohorts are apparent from the histograms, with modes 15, 19 and 25 cm. Highest percentages for both are made up by the oldest cohort.

The pelagic fish type 2 species have a wider distribution, extending all the way from Cabo de Santa Marta (at about 14°00'S) to the border (Cunene)(Figure 6). Outside Peninsula dos Tigres the distribution extends to about 11°00'E, which is about 50 nm from shore. The main species are the Cape and Cunene horse mackerels.

The size composition of pooled samples of the two species are shown in Annex II. Both species have strong cohorts of younger fish with modal length of 10-13 cm. The youngest cohort of the Cape horse mackerel is a little bigger than the corresponding cohort of the Cunene horse mackerel. Both species also have a smaller medium sized cohort at modal length of 15 and 18 cm respectively. For the larger fish it is more difficult to distinguish one cohort from the other, but it seems that for the Cunene horse mackerel at least two cohorts appear in the group larger than 19 cm. Acoustic biomass estimates gave a total of 345 000 tonnes, 247 000 for the Cape and 98 000 tonnes for the Cunene species.

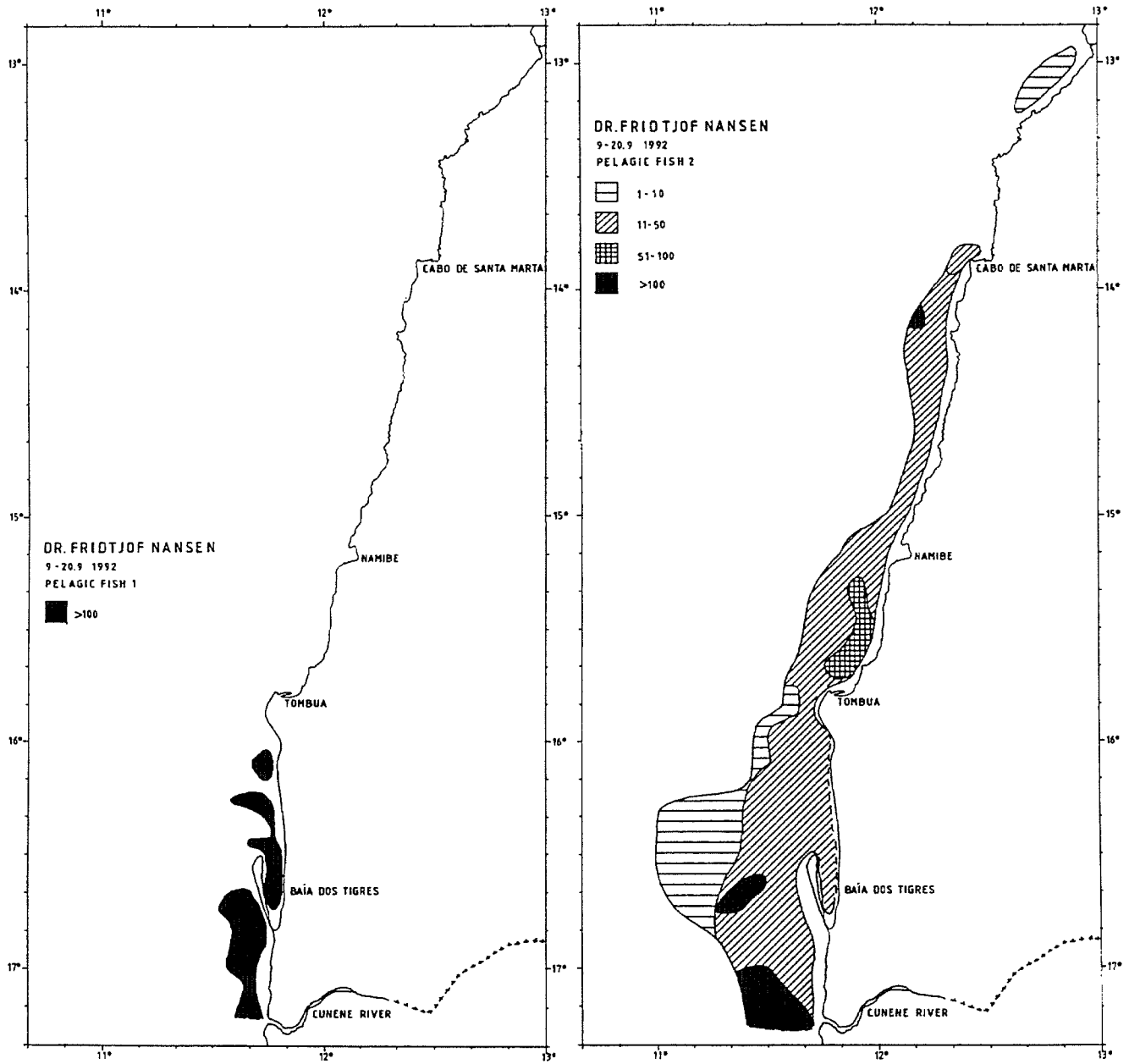


Figure 6 Benguela-Cunene. Distribution of Pelagic fish type 1 and Pelagic fish type 2.

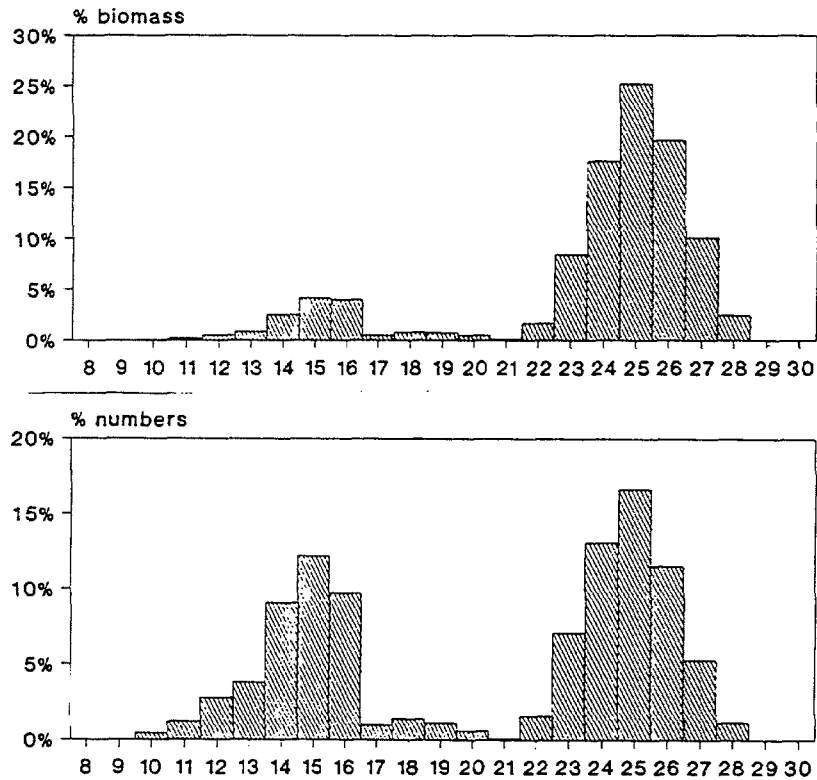


Figure 7 Length frequency distribution by biomass and numbers for pilchard (*Sardinops ocellata*), region Benguela-Cunene

4 RESULTS FROM THE TRAWL SURVEY, CATCH COMPOSITIONS AND SWEEPED-AREA BIOMASS ESTIMATES OF DEMERSAL FISH

4.1 CABINDA - LUANDA

In Cabinda-Luanda 65 swept-area trawl stations were successfully worked. The hauls were distributed as follows: 0-20 m: 9 hauls, 20-50 m: 20 hauls, 50-100 m: 20 hauls and 100-200: m 16 hauls. Mean densities by depth strata of the main species, the incidence and the catch distributions are shown in Annex I.

The big-eye grunt, *Brachydeuterus auritus*, had the highest density with high abundance in 0-50 m depth. The horse mackerel *Trachurus trecae* had high abundance in the middle and outer parts of the shelf and the hairtail was evenly distributed over the shelf. The Angolan dentex *Dentex angolensis* and the red pandora *Pagellus bellottii* were the most common sparids. They were distributed over the whole depth range, with the Angolan dentex having the highest abundance in the deeper and the red pandora in the shallow range. Blackmouth croaker *Pentheroscion mbizi* was the Sciaenidae with the highest mean density, particularly in the outer part of the shelf.

The total biomass of the demersal fish of the Cabinda-Luanda shelf, is estimated from the mean density per depth range. The mean densities and the mean biomass of the main groups, i.e. the species with the highest commercial value, are as follows in Table 1.

Table 1. Cabinda-Luanda. Mean densities of main groups weighted by area of sub-regions and biomass estimates.		
	Density t/nm ²	Biomass tonnes
Seabreams	2.03	16 000
Grunts*	0.17	1 000
Croakers	1.79	14 000
Groupers	0.36	3 000
Sum demersal val.	4.35	34 000
Big eye grunt	3.03	21 000
Horse mackerel	2.43	20 000
Other carangids	0.50	4 000
Barracudas	0.11	1 000
Hairtail	0.91	7 000

* excluding big-eye grunt

The pooled size distributions of the main *Dentex*-species, Angolan dentex, red pandora, Congo dentex (*D. congoensis*) and large-eye dentex (*D. macrophthalmus*) are shown in Annex II.

4.2 LUANDA - BENGUELA

Altogether 48 swept-area hauls were made in the Luanda-Benguela shelf area. The hauls were distributed as follows: 0-50 m 21 hauls, 50-100 m 16 hauls and 100-200 m 11 hauls.

Table 2 shows the mean densities of the main groups and biomass estimates over the shelf to 200 m. The total biomass of "commercial" demersal species is 33 000 tonnes which indicates a decline compared to August 1991 when the biomass was estimated to 50 000 tonnes. The decline seems mainly to be related to a reduction of croakers which was estimated to 19 000 tonnes in previous year. The main croaker was the Canary drum (*Umbrina canariensis*). The main seabream species were large-eye dentex, red pandora and Canary dentex (*D. canariensis*).

Big-eye grunt was the most abundant species, mainly distributed in the upper 50 m. The present biomass estimate of big-eye grunt shows an increase of 34 000 tonnes compared to previous year. The horse mackerel in the bottom layer was abundant in the whole shelf area, with the highest density in the shallow area. Hairtail was more abundant than last year, with highest abundance in the central part of the shelf.

Table 2. Luanda-Benguela. Mean densities of main groups and biomass estimates over the shelf to 200 m.		
	Density t/nm ²	Biomass tonnes
Seabreams	5.81	28 000
Grunts*	0.46	2 000
Croakers	0.37	2 000
Groupers	0.26	1 000
Sum demersal val.	6.90	33 000
Big eye grunt	12.40	52 000
Horse mackerel	xxxxx	75 000*
Other carangids	xxxxx	1 640
Barracudas	0.06	0
Hairtail	2.32	13 000

* excluding big-eye grunt

4.3 TOMBUA - CUNENE

The coverage down to 200 m depth was made with 42 swept-area hauls, distributed as follows: 0-50 m 7 hauls, 50-100 m 25 hauls and 100-200 m 10 hauls. In addition 2 hauls were made on the slope down to 600 m. The swept-area estimates for all species are shown in Annex I. Table 3 shows the mean densities and biomasses for the main groups.

The seabreams are mainly large-eye dentex with some red pandora and Angola and Barnard dentex (*D. barnardi*). The croakers are mainly African weakfish (*Atractoscion aequidens*) and some Canary drum.

Table 3. Tombua-Cunene. Mean densities of main groups and biomass estimates over the shelf to 200 m.		
	Density t/nm ²	Biomass tonnes
Seabreams	23.58	40 000
Croakers	1.56	2 100
Hakes	3.36	5 600
Sum demersal val.	28.20	47 700
Cape horse mck	48.50	82 000*
Cunene hrs.mck.	4.57	8 000*

* These estimates are for horse mackerel occurring very close to the bottom (see also acoustic estimates).

5 RESULTS FROM THE FISHING ON THE SLOPE

The slope off Cabinda-Luanda was covered with 62 swept-area hauls with the following distribution: 100-200 m 14 hauls, 200-300 m 14 hauls, 300-400 m 8 hauls, 400-500 m 8 hauls, 500-600 m 7 hauls and 600-800 m 11 hauls.

The slope from Luanda to Benguela was covered with 51 hauls and these were distributed as follows: 100-200 m 11 hauls, 200-300 m 7 hauls, 300-400 m 9 hauls, 400-500 m 7 hauls, 500-600 m 9 hauls and 600-800 m 8 hauls.

The swept-area estimates of the main species caught per depth intervals are given in Annex I.

5.1 DEEP WATER SHRIMP

Table 4 shows the catch rates of the three commercial species by region and depth range. The three highest catch rates of the species in the Cabinda-Luanda area were: the rose 18, 39 and 167 kg/h, the striped 15, 16 and 23 kg/h and the scarlet 5, 6 and 13 kg/h. In Luanda-Benguela area: rose 34, 36 and 61 kg/h, striped 16, 26 and 35 kg/h and scarlet 2, 4 and 6 kg/h. The pooled length distribution (TL) by sex is shown in Annex II for each species.

The present coverage of the slope has been more comprehensive than during previous 'DR. Fridtjof Nansen' surveys in Angola. A catchability coefficient of 1 is used, assuming that all shrimps in the trawl path are caught. The biomass estimates should be treated as indices. Biomass considerations based on the two previous survey periods 1985/1986 and 1989, indicated a decline of 1/3 of the biomass between these two periods. The present estimate indicates a further decline in biomass of the deep water since August 1991. The deeper depth ranges were more intensively covered during the present investigation compared to previous year. The biomass of the striped red shrimp between 500 and 800 meter, makes a relatively great part of the total biomass.

	Cabinda-Luanda	% incidence	Luanda-Benguela	% incidence
Rose shrimp				
100-200 m	2	6/14	2	3/11
200-300 m	18	12/14	26	7/7
300-400 m	0	3/8	1	3/8
Mean	8			
Striped shrimp				
300-400 m	1	2/8	1	2/8
400-500 m	6	6/8	2	5/7
500-600 m	7	6/7	5	8/9
600-800 m	4	11/11	15	8/8
Mean	4		6	
Scarlet shrimp				
400-500 m	1	1/8	0	1/7
500-600 m	0	3/7	1	2/9
600-800 m	2	7/11	1	3/8
Mean	1		1	

The total biomass indices of commercial deep water shrimps, estimated by region and depth range, are in tonnes:

	Rose	Striped	Scarlet	Total
Cabinda-Luanda	615	515	130	1 260
Luanda-Benguela	680	570	60	1 310
TOTAL				2 570

5.2 BENGUELA HAKE

The mean catch rates of Benguela hake (*Merluccius polli*) for the central and northern region by depth, are shown in Table 5. The maximum catch rates were obtained in 300-500 depth ranges. The present catch rates in 200 to 400 m depths in Cabinda-Luanda are about 50 % of the 1991-rates. This is the main depth range for the rose shrimp, and the reduction is probably related to the exploitation of the shrimp as hake is an important species in the by-catch.

The biomass estimates of hake by areas are:

Cabinda-Luanda	14 000 tonnes
Luanda-Benguela	8 100 tonnes

	Cabinda-Luanda	Luanda-Benguela
100-200 m	13	
200-300 m	104	96
300-400 m	264	225
400-500 m	224	161
500-600 m	21	29
600-800 m	12	

5.3 ORANGE ROUGHY

Species related to the orange roughy (*Hoplostethus* spp. and *Gephyroberyx darwini*) were occasionally caught on the slope, at depths between 220 and 760 m, and catch rates from 1 to 298 kg/hour. The highest catches were obtained in the area between Pta. do Morro and Benguela.

6 REVIEW OF RESULTS BY MAIN STOCKS

Pilchard

Table 6 shows all the estimates from the 'Dr. Fridtjof Nansen' surveys. The present value of 210 000 tonnes is the highest estimate of pilchard in this region, while the previous maximum, 130 000 tonnes, was recorded in August 1991. The pilchard found off southern Angola is part of the Namibian stock. The abundance of pilchard off southern Angola fluctuates seasonally, with highest values during wintertime, when the frontal zone between the Angola and Benguela currents reaches its northmost position. This might explain why a few months earlier (May-June 1992), in connection with an extended survey off Namibia, the pilchard biomass in the Tombua-Cunene area was estimated to 50 000 tonnes only. In general, lowest estimates were obtained during the first part of the year while highest estimates were always obtained in winter-late winter periods.

Survey	1/85	25	1/86	0	1/89	50	1/91	26	May 92	50
"	2/85	0	2/86	0	2/89	10	2/91	131	1/92	210
"	3/85	120			3/89	5	3/91	127		
"	4/85	10								

Sardinellas

Table 7 shows the combined estimates for flat and round sardinella, by region and survey period. Latest estimates are within the range of those obtained since 1985. Figure 8 and 9 shows the composition in numbers and biomass of *S. aurita* and *S. maderensis*, combined from N'zeto to Benguela. The estimated biomass consists of older fish and it appears that recruitment of younger cohorts in later years has been very weak. Some young sardinella (modal lengths 7 and 15 cm, Annex II) was found in the northern part of the area only. In earlier cruises, especially in the period 1985-1986, younger cohorts were sometimes dominant in the samples, also in the region Luanda-Benguela.

Survey	Cunene	Benguela	Luanda	Benguela	Total
1/85	25	220	80	300	325
2/85	110	190	180	370	480
3/85	0	70	190	260	260
4/85	0	200	110	310	310
1/86	10	140	110	250	260
2/86	10	130	130	260	270
1/89	40	200	60	260	300
2/89	20	40	130	170	190
3/89	40	100	60	160	200
1/91	+	180	120	300	300
2/91	+	68	154	222	222
1/92	+	119	161	280	280

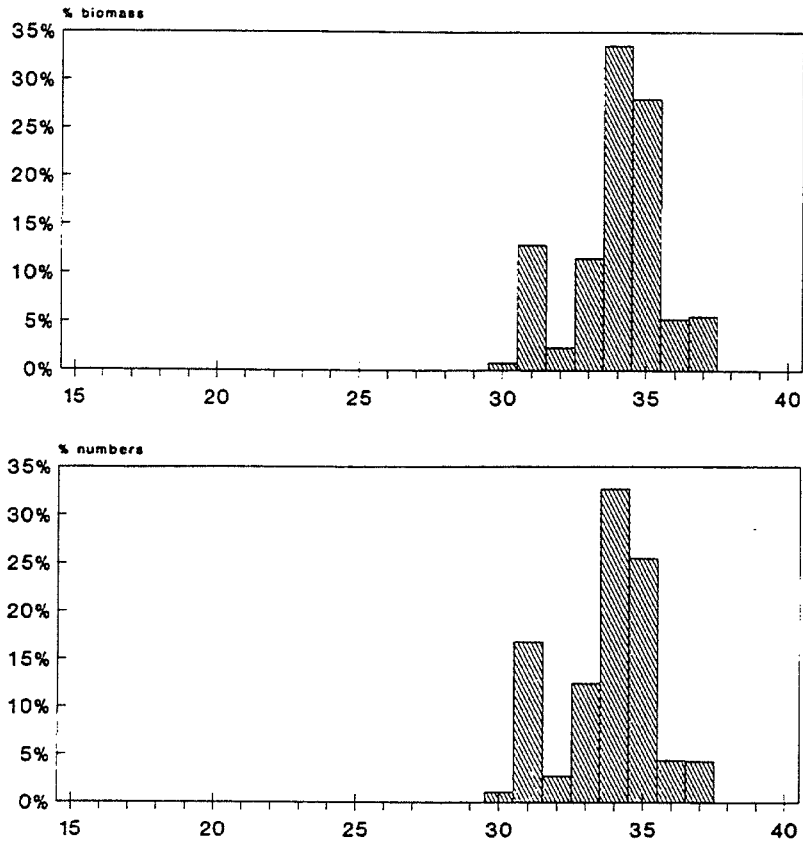


Figure 8 Length frequency distribution by biomass and numbers for round sardinella (*Sardinella aurita*), region N'Zeto-Benguela

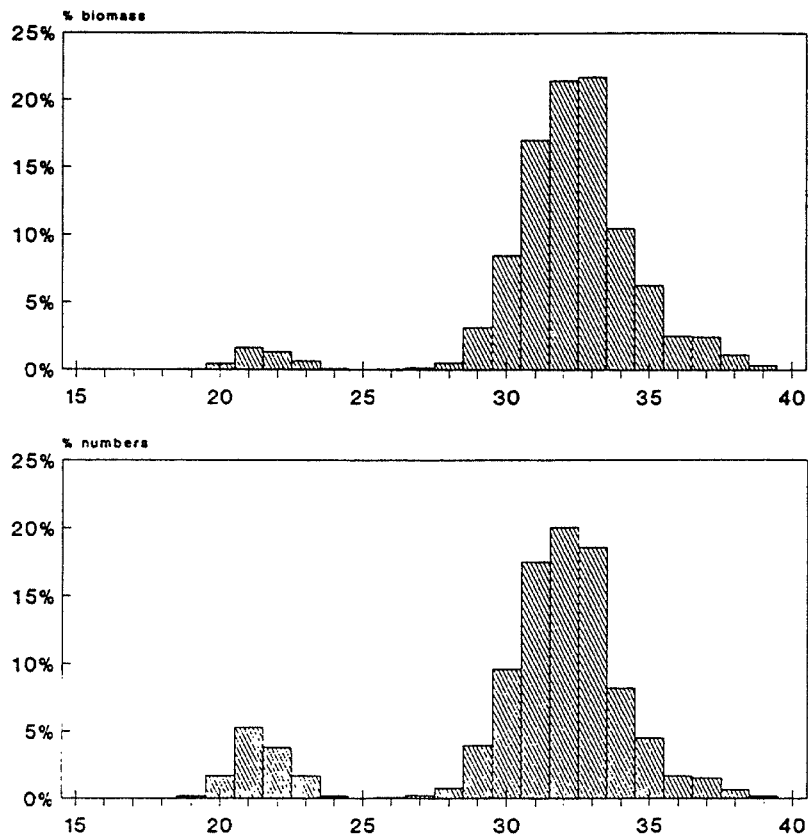


Figure 9 Length frequency distribution by biomass and numbers for flat sardinella (*Sardinella maderensis*), region N'Zeto-Benguela

Cape horse mackerel

This species is restricted to southern Angola (Benguela-Cunene region) and is a shared resource with Namibia. As for the pilchard, its abundance off Angola varies seasonally, following the displacement of the frontal area, with highest estimates in winter and late-winter-early spring period. The estimate obtained during this survey is larger than the one obtained last year in the same period, but is on the same level as the value from November/December 1989 and from the autumn 1985. Table 8 shows the time series of the estimates of these species by surveys since 1985.

Biomass		
Survey	1/85	170
"	2/85	75
"	3/85	220
"	4/85	270
"	1/86	40
"	2/86	10
"	1/89	125
"	2/89	135
"	3/89	240
"	1/91	310
"	2/91	95
"	3/92	247

Cunene horse mackerel

This species is found throughout the Angolan shelf and Table 9 shows the biomass estimates by region, since 1985. While the values obtained in the areas Benguela-Cunene and Benguela-Luanda are within the range of previous estimates, off Luanda-Cabinda the estimate of 80 000 tonnes represents a maximum for the area.

Survey	Cunene-Benguela	Benguela-Luanda	Luanda-Cabinda	Benguela-Cabinda	Total
1/85	30	195	40	235	265
3/85	50	90	40	130	180
4/85-1/86	100	125	20	145	245
1/89	35	55	40	95	130
3/89	170	40	35	75	245
1/91	100	80	20	100	200
2/91	100	70	30	100	200
1/92	98	86	80	166	264

High-value demersal fish

In this category we include species of seabreams, croakers, grunts, groupers etc. that constitute the most valuable food fish. Table 10 shows the results of present and previous surveys. The present estimate is at the same level as in August 1991, both more than 50% higher than previous estimates (1985-1989). According to the FAO Yearbook of fishery statistics, there has been a general decline in the catches of demersal fish off Angola, especially in 1989 and 1990. However, we do not have enough information to relate the possible reduced fishing activity with the observed increase in biomass.

Table 10. High value commercial fish. Mean biomass estimates by survey ang regions. 1 000 tonnes				
Survey	Cunene- Benguela	Benguela -Luanda	Luanda- Cabinda	Total
1/85- 4/85	N.S.	N.S.	48.8	-
1/86- 2/86	15.6	21.2	38.3	78.4
1/89- 2/89	28.2	17.9	25.5	75.1
3/89	N.S.	N.S.	31.7	
Nov/89				68.0 *
1/91	26.4	15.0	15.9	57.3
2/91	36.4	50.1	35.9	122.4
1/92	47.7	33.0	34.0	114.7

* From GOA survey, seabreams only.

Annex I Swept-area estimates

SWEPT AREA ANALYSIS FROM STATION 493 TO STATION 615

Cabinda-Luanda

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			- 50m	50-100m	100-200m	200-200
Brachydeuterus auritus	5	2	4	3	3	26	3.03	6.57				
Trachurus trecae	28	8	3	6		69	2.30	1.33	3.20	3.05		
Synagrops microlepis	5	2	4	1	1	20	1.14		0.89	3.95		
Pentheroscion mbizi	5		3	3		17	1.05	0.01	0.51	4.09		
Trichiurus lepturus	30	10	6			71	0.91	0.82	0.87	1.16		
Dentex angolensis	9	21	2			49	0.77	0.07	1.26	1.53		
Pagellus bellottii	25	8	2			54	0.46	0.78	0.31			
Chloroscombrus chrysurus	2	3		1		9	0.30	0.64				
Diaphus dumerili	2		1	1		6	0.27			1.23		
Dentex congoensis	10	5	1			25	0.25		0.31	0.67		
Pterothrissus bellocci	15	4	1			31	0.24	0.01	0.31	0.63		
Brotula barbata	6	2	1			14	0.21			0.97		
Epinephelus aeneus	18	3				32	0.20	0.19	0.34	0.02		
Pseudolithus senegalensis	1	4	1			8	0.19	0.40				
Arius parkii	6	1	1			12	0.17	0.37	0.01			
Alloteuthis africana	9	3	1			20	0.14	0.20	0.16			
Dentex barnardi	18	3				32	0.14	0.17	0.15	0.04		
Pteroscion pelli	13	1	1			22	0.14	0.30				
Sepia officinalis hierredda	20	3				35	0.13	0.14	0.21			
Dentex macrophthalmus	7	1	1			14	0.13		0.04	0.54		
Trachurus, Juveniles	12		1			20	0.13	0.01	0.07	0.46		
Pomadasy incisus	5	3				12	0.12	0.25	0.01			
Sphyrna guachancho	6	1	1			12	0.11	0.23				
Epinephelus caninus		1	1			3	0.11		0.35			
Raja miraletus	23	1				37	0.11	0.15	0.10	0.04		
Merluccius polli	7	1	1			14	0.11		0.02	0.45		
Ilisha africana	5	1	1			11	0.11	0.23				
Umbrina canariensis	17	2				29	0.10	0.10	0.07	0.13		
Pseudolithus typus	5		1			9	0.10	0.23				
Selene dorsalis	8	2				14	0.10	0.07	0.22			
Decapterus rhonchus	4	1	1			9	0.10	0.15	0.10			
Zenopsis conchifer	7	2				14	0.09		0.01	0.42		
Dentex gibbosus	10	1				17	0.09	0.03	0.22	0.03		
Atractoscion aequidens	8	2				15	0.09	0.06	0.19	0.02		
Zeus faber	30					46	0.08	0.03	0.15	0.08		
Pentanemus quinquarius	2	1	1			6	0.08	0.17				
Argyrosomus hololepidotus	1	3				6	0.07	0.14	0.01			
Illex coindetii	18	1				29	0.06	0.01	0.02	0.22		
Sparus caeruleostictus	11	1				18	0.06	0.11	0.04			
Mustelus mustelus	7	1				12	0.06	0.10	0.03			
Galeoides decadactylus	9					14	0.06	0.14				
Sardinella maderensis	3	2				8	0.06	0.14				
Epinephelus goreensis	1	2				5	0.05		0.07	0.11		
Miracorvina angolensis	9					14	0.05		0.06	0.13		
Cynoponticus ferox	1	2				5	0.05	0.04	0.10			
Branchiostegus semifasciatus	13					20	0.05		0.09	0.08		
Parapenaeopsis atlantica, fem.	6					9	0.01	0.01				
Parapenaeus longirostris, fem.	5					8	0.01			0.04		
Parapenaeus longirostris, male	5					8	0.01			0.03		
Parapenaeopsis atlantica, male	5					8		0.01				
Penaeus notialis	6					9		0.01				
Parapenaeus longirostris	1					2				0.01		
Parapenaeopsis atlantica	1					2						
Plesionika martia	1					2						
Other fish							0.74	0.78	0.36	1.37		
Sum all species							15.14	15.20	10.86	21.50		
Sum Snappers							0.02	0.05				
Sum Groupers							0.36	0.19	0.77	0.13		
Sum Grunts							3.20	6.94	0.01			
Sum Croakers							1.79	1.25	0.84	4.37		
Sum Seabreams							2.03	1.31	2.36	3.03		
Sum Sharks							0.07	0.11	0.04	0.07		
Sum Rays							0.15	0.22	0.13	0.08		
Sum Squids							0.40	0.37	0.47	0.38		
Sum												
Sum shrimps (excl. SHRAA01)							0.03	0.03		0.08		
Number of stations included in analysis, total and by depth strata							65	30	21	14		

SWEPT AREA ANALYSIS FROM STATION 493 TO STATION 615

Cabinda-Luanda

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			200-300m	300-400m	400-500m	500-500
Synagrops microlepis	6	3	3	4	1	57	3.57	7.53	0.10	0.11		
Diaphus dumerilii	10		2	1	1	47	2.54	5.42	0.03	0.01		
Nematocarcinus africanus	6	2	3	3		47	2.29	0.17	2.86	5.43		
Merluccius polli	6	4	9	1		67	2.20	1.55	2.97	2.56		
Merluccius polli, female	2	3	3	2		33	1.86	0.11	2.72	4.07		
Merluccius polli, male	2	2	5	2		37	1.82	1.58	3.14	0.91		
Pterothrissus belloci	10	3		2		50	1.11	2.28	0.20			
Chlorophthalmus atlanticus	10	6	2			60	0.94	1.03	1.66	0.05		
Centrophorus granulosus	1	3	3			23	0.89	0.83	1.69	0.18		
Trichiurus lepturus	9	4	3			50	0.62	1.22	0.14	0.06		
Dentex angolensis	4	5				30	0.36	0.77				
Pentheroscion mbizi	4	2	1			23	0.33	0.60	0.20			
Laemonema laureysi	11	4				50	0.28		0.56	0.49		
Centrophorus uyato			2			7	0.26	0.32		0.40		
Brotula barbata	4	2	1			23	0.22	0.45	0.01			
Zenopsis conchifer	11	1				40	0.17	0.28	0.16			
Neomerinthe folgori	3		1			13	0.17		0.58	0.04		
Parapenaeus longirostris, fem.	6		1			23	0.13	0.28				
Dalatias licha			1			3	0.13		0.50			
Miracorvina angolensis	4	1				17	0.12	0.24	0.01			
Etmopterus sp.	1	1				3	0.10		0.09	0.27		
Parapenaeus longirostris, male	6	1				23	0.09	0.19				
Hoplostethus sp.	2	1				10	0.08		0.02	0.28		
Gephyroberyx darwini	1	1				7	0.08	0.17				
Benthodesmus tenuis	3	1				13	0.07		0.24	0.01		
Trichiurus sp.		1				3	0.06	0.12				
Parapenaeus longirostris	9	1				33	0.06	0.13	0.02			
SCORPAENIDAE		1				3	0.06		0.21			
Brosmiculus imberbis *	11					37	0.06	0.01	0.04	0.17		
S H A R K S	2					7	0.05	0.06	0.07			
Malacocephalus occidentalis	5					17	0.05	0.03	0.11	0.03		
Stereomastis sculpta	9					30	0.05		0.02	0.18		
Aristeus varidens, female	5					17	0.04		0.02	0.12		
Aristeus varidens, male	5					17	0.02		0.01	0.05		
Plesionika martia	5					17	0.01		0.02			
Aristeus varidens	4					13	0.01			0.02		
Solenocera africana	8					27		0.01	0.01			
PANDALIDAE	1					3						
Plesiopenaeus edwardsianus, f.	1									0.01		
Plesiopenaeus edwardsianus, m.	1					3				0.01		
S H R I M P S	1								0.01			
Other fish							0.82	0.65	0.59	1.39		
Sum all species							21.72	26.03	19.01	16.85		
Sum Snappers												
Sum Groupers												
Sum Grunts												
Sum Croakers							0.45	0.85	0.21			
Sum Seabreams							0.38	0.82				
Sum Sharks							1.56	1.21	2.38	1.35		
Sum Rays							0.03	0.04	0.03			
Sum Squids							0.09	0.13	0.05	0.03		
Sum												
Sum shrimps (excl. SHRAA01)							2.65	0.78	2.95	5.64		
Number of stations included in analysis, total and by depth strata							30	14	8	8		

SWEPT AREA ANALYSIS FROM STATION 493 TO STATION 615

Cabinda - Luanda

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			500-600m	600-800m	800-800m	800-800
Nematocarcinus africanus	5	1	3	1			56	2.33	4.99	0.63		
Merluccius polli	10	3					72	0.41	0.52	0.33		
Nezumia sp.	1	2					17	0.25		0.40		
Stereomastis sculpta	10	1					61	0.24	0.19	0.28		
POLYCHAELIDAE	6						33	0.21	0.07	0.30		
Deepwater fish mixture	11						61	0.19	0.27	0.15		
GONOSTOMATIDAE	15						83	0.15	0.26	0.08		
TRACHICHTHYIDAE	4						22	0.11	0.11	0.10		
Aristeus varidens, female	16						89	0.11	0.17	0.07		
Centrophorus granulosus	1	1					11	0.11	0.18	0.06		
Hoplostethus cadenati	8						44	0.09	0.09	0.09		
ALEPOCEPHALIDAE	9						50	0.09	0.03	0.12		
Brosmiculus imberbis *	9						50	0.08	0.11	0.06		
Talismania oregonia	6						33	0.08		0.13		
STOMIIDAE		1						0.06	0.15			
Aristeus varidens, male	16						89	0.06	0.07	0.05		
Merluccius polli, female	2						11	0.06	0.11	0.02		
Merluccius polli, male	2						11	0.06	0.06	0.06		
Trichiurus lepturus	5						28	0.05	0.08	0.03		
OPHIDIIDAE	6						33	0.05	0.04	0.06		
Laemonema laureysi	4						22	0.05	0.06	0.04		
MACROURIDAE	3						17	0.05		0.08		
Plesiopeneaeus edwardsianus, m.	6						33	0.03		0.05		
Shrimps, small, non comm.	3						17	0.03	0.07			
Plesiopeneaeus edwardsianus, f.	6						33	0.02		0.03		
Glyphus marsupialis	1						6					
Parapeneaeus longirostris	1						6					
Plesionika martia	1						6					
Heterocarpus ensifer	1						6					
PANDALIDAE	2						11					
Plesiopeneaeus edwardsianus	4						22		0.01			
Aristeus varidens	1						6					
Other fish								0.56	0.84	0.47		
Sum all species								5.53	8.48	3.69		
Sum Snappers												
Sum Groupers												
Sum Grunts												
Sum Croakers												
Sum Seabreams												
Sum Sharks								0.21	0.37	0.11		
Sum Rays								0.04	0.07	0.02		
Sum Squids								0.03	0.07	0.01		
Sum												
Sum shrimps (excl. SHRAA01)								2.55	5.24	0.83		
Number of stations included in analysis, total and by depth strata								18	7	11		

SWEPT AREA ANALYSIS FROM STATION 616 TO STATION 711

Luanda-Benguela

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			- 50m	50-100m	100-200m	200-200
Brachydeuterus auritus	6	2	2	6	2	2	42	12.40	28.32	0.03		
Trachurus trecae	10	4	11	9	3		75	8.22	9.15	8.23		6.43
Synagrops microlepis			5	6	2		27	4.87		5.34		13.50
Dentex macrophthalmus	9	6	4	3	2		48	3.39		4.29		8.56
Trichiurus lepturus	12	7	3	3	1		54	2.31	0.51	5.48		1.14
Lithognathus momyrus	2	1	1	2			13	0.87	1.99	0.01		
Trachurus, Juveniles	9	1		1			23	0.70	1.57	0.05		
Engraulis encrasicolus	2			1			6	0.54	1.23			
Pagellus bellottii	23	2	4				60	0.53	0.66	0.70		0.04
Pterothrissus belloci	8	3	3				29	0.41		0.53		1.01
Zeus faber	15	2	1				38	0.31	0.36	0.12		0.50
Merluccius polli	10	4	1				31	0.29		0.10		1.11
Dentex canariensis	6	4	1				21	0.27	0.47	0.20		
Pomadasys incisus	4	1	2				15	0.27	0.60	0.03		
Dentex angolensis	13	4					35	0.26		0.13		0.93
Illex coindetii	12	4					33	0.21	0.01	0.19		0.62
Brotula barbata	4	2	1				15	0.20		0.47		0.19
Umbrina canariensis	6		2				17	0.19		0.29		0.42
Todaropsis eblanae	13	3					33	0.18		0.03		0.74
Dentex barnardi	8	2	1				23	0.18	0.22	0.26		
Epinephelus alexandrinus	1	1	1				6	0.17	0.14	0.34		
Branchiostegus semifasciatus	7	1	1				19	0.17		0.47		0.08
Pomadasys jubelini	5	1	1				10	0.14	0.32			
Balistes capriscus	1		1				4	0.11	0.24			
Argyrosomus hololepidotus		3					6	0.10	0.24			
Spicara alta	4	2					13	0.10				0.42
Zenopsis conchifer	7	1					17	0.09				0.40
Squatina oculata	1	2					6	0.08				0.36
Sphyræna guachancho	2	1					6	0.07	0.15			
Dentex congoensis	3	1					8	0.07		0.01		0.29
Boops boops	13						27	0.07	0.04	0.04		0.15
Torpedo torpedo	12						25	0.07	0.02	0.10		0.13
Sparus caeruleostictus	4	1					10	0.05	0.09	0.01		0.03
Epinephelus caninus		1					2	0.05		0.16		
Plectorhinchus mediterraneus	3	1					8	0.05	0.10			
Chaetodon hoefleri	11						23	0.05	0.08	0.05		
Parapenaeus longirostris, fem.	2						4	0.01		0.02		0.02
Parapenaeus longirostris, male	2						4	0.01		0.01		0.01
Parapenaeus longirostris	3						6					
Other fish								0.66	0.92	0.65		0.42
Sum all species								38.72	47.43	28.34		37.50
Sum Snappers								0.26	0.23	0.54		
Sum Groupers								12.86	29.35	0.06		
Sum Grunts								0.36	0.34	0.38		0.42
Sum Croakers								5.81	3.61	5.68		10.14
Sum Seabreams								0.09	0.03			0.36
Sum Sharks								0.14	0.08	0.23		0.19
Sum Rays								0.49	0.14	0.34		1.36
Sum Squids												
Sum												
Sum shrimps (excl. SHRAA01)								0.02		0.03		0.03
Number of stations included in analysis, total and by depth strata								48	21	16		11

SWEPT AREA ANALYSIS FROM STATION 616 TO STATION 711

Luanda-Benguela

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			200-300m	300-400m	400-500m	500-500
<i>Chlorophthalmus atlanticus</i>	16		3		2		87	6.12	13.80	4.83	0.10	
<i>Merluccius polli</i> , female	1	3	12	1			74	4.06	1.81	5.57	4.35	
<i>Synagrops microlepis</i>	9	1		1	1		52	2.80	9.07	0.06	0.05	
<i>Merluccius polli</i> , male	8	6	3				74	1.34	1.40	1.44	1.17	
<i>Nematocarcinus africanus</i>	3		2	1			26	1.12		0.45	3.08	
<i>Centrophorus granulosis</i>	1	2	1	1			22	1.09	2.36	0.66	0.38	
<i>Centrophorus uyato</i>				1			4	0.72		1.83		
<i>Epigonus telescopus</i>	8			1			39	0.59	1.86	0.05	0.01	
<i>Laemonema laureysi</i>	12	3	1				70	0.55	0.10	0.75	0.74	
<i>Merluccius polli</i>	1	2	2				22	0.55	0.52	0.66	0.44	
<i>Gephyroberyx darwini</i>	2	1	1				17	0.47	1.54			
<i>Diaphus dumerili</i>	5	2	1				35	0.46	1.09	0.31	0.02	
<i>Pterothrissus belloci</i>	7	1	1				39	0.44	1.20	0.20		
<i>Hoplostethus cadenati</i>	5	4					39	0.43		0.23	1.10	
<i>Zenopsis conchifer</i>	1	1	1				13	0.42	1.36			
<i>Epinephelus goreensis</i>		1	1				9	0.32	1.05			
<i>Dentex macrophthalmus</i>	3		1				17	0.31	1.00			
<i>Centrophorus sp.</i>		1	1				9	0.29		0.75		
<i>Trichiurus lepturus</i>	11		1				52	0.27	0.75	0.05	0.07	
<i>Etmopterus pusillus</i>	4	2					26	0.20		0.34	0.22	
<i>Parapenaeus longirostris</i>	4	2					26	0.16	0.53			
Shrimps, small, non comm.	4	1					22	0.16		0.20	0.27	
<i>Brotula barbata</i>	1	2					13	0.16	0.54			
CHIMAERIDAE	1	1					9	0.13			0.43	
<i>Miracorvina angolensis</i>		1					4	0.13	0.43			
<i>Dibranchius atlanticus</i>	11						48	0.13	0.01	0.11	0.29	
MYCTOPHIDAE		1					4	0.10	0.34			
Deepwater fish mixture	3	1					17	0.10		0.12	0.17	
<i>Todaropsis eblanae</i>	12						52	0.09	0.14	0.11		
<i>Hymenocephalus italicus</i>	8						35	0.09		0.10	0.15	
<i>Parapenaeus longirostris</i> , fem.	5						22	0.08	0.22	0.02		
<i>Etmopterus spinax</i>	6						26	0.08		0.06	0.17	
<i>Scorpaena angolensis</i>		1					4	0.07	0.21			
<i>Malacocephalus occidentalis</i>	11						48	0.07		0.12	0.07	
OPHIDIIDAE	5						22	0.06	0.02		0.17	
<i>Trigla lyra</i>		1					4	0.05	0.15			
<i>Illex coindetii</i>	7						30	0.05	0.05	0.08		
RHINOCHEMAERIDAE	2						9	0.05		0.11	0.03	
<i>Brosmiculus imberbis</i> *	11						48	0.05		0.03	0.13	
<i>Parapenaeus longirostris</i> , male	5						22	0.04	0.13	0.01		
<i>Aristeus varidens</i> , female	4						17	0.02		0.02	0.03	
<i>Solenocera africana</i>	4						17	0.01	0.02			
<i>Aristeus varidens</i> , male	5						22	0.01		0.01	0.03	
<i>Aristeus varidens</i>	4						17	0.01		0.01	0.02	
<i>Plesionika martia</i>	1						4					
<i>Plesiopenaeus edwardsianus</i>	1						4					
Other fish								0.62	0.89	0.39	0.67	
Sum all species								25.07	42.59	19.68	14.36	
Sum Snappers												
Sum Groupers								0.32	1.05			
Sum Grunts												
Sum Croakers								0.14	0.46			
Sum Seabreams								0.33	1.06			
Sum Sharks								2.59	2.36	3.78	1.31	
Sum Rays								0.05	0.18			
Sum Squids								0.14	0.20	0.20	0.02	
Sum												
Sum shrimps (excl. SHRAA01)								1.45	0.90	0.52	3.16	
Number of stations included in analysis, total and by depth strata								23	7	9	7	

SWEPT AREA ANALYSIS FROM STATION. 616 TO STATION 711

Luanda - Benguela

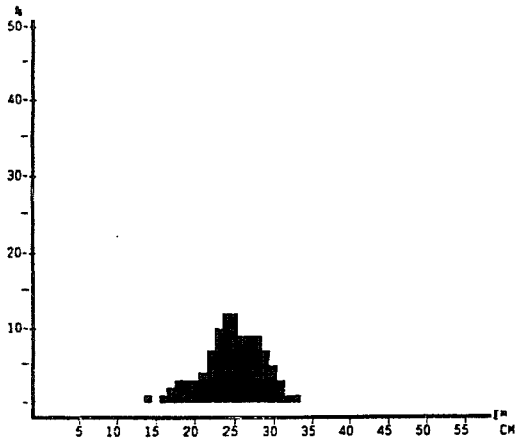
SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			500-600m	600-800m	800-800m	800-800
Nematocarcinus africanus	2	2	2	3			53	2.88	4.06	1.55		
Hoplostethus cadenati	8	7	1	1			100	1.90	1.31	2.56		
Merluccius polli, female	1	2	1				24	0.48	0.91			
Merluccius polli	10	2					71	0.37	0.38	0.36		
GONOSTOMATIDAE	17						100	0.35	0.29	0.41		
Aristeus varidens, female	13	1					82	0.26	0.13	0.40		
MELANOSTOMIATIDAE	16						94	0.19	0.28	0.08		
MACROURIDAE	6	2					47	0.17	0.02	0.35		
OPHIDIIDAE	12						71	0.14	0.11	0.17		
Deepwater fish mixture	9						53	0.14	0.14	0.15		
OPHICHTHIDAE	6	1					41	0.13	0.15	0.12		
Dibranchius atlanticus	11						59	0.10	0.09	0.10		
Aristeus varidens, male	14						82	0.09	0.05	0.12		
Stereomastis sculpta	8						47	0.08	0.04	0.13		
ALEPOCEPHALIDAE	7						41	0.06	0.01	0.11		
POLYCHAELIDAE	8						47	0.05	0.02	0.07		
Shrimps, small, non comm.	5						29	0.03	0.01	0.06		
Plesiopenaeus edwardsianus, m.	2						12	0.02	0.02	0.02		
Plesiopenaeus edwardsianus, f.	2						12	0.01	0.01			
Plesiopenaeus edwardsianus	3						18	0.01	0.01			
Glyphus marsupialis	1						6			0.01		
Parapenaeus longirostris	1						6					
Aristeus varidens	2						12		0.01			
S H R I M P S	1						6		0.01			
Other fish								0.58	0.75	0.45		
Sum all species								8.04	8.81	7.22		
Sum Snappers												
Sum Groupers												
Sum Grunts												
Sum Croakers												
Sum Seabreams												
Sum Sharks								0.12	0.17	0.06		
Sum Rays								0.01		0.01		
Sum Squids								0.04	0.07	0.03		
Sum												
Sum shrimps (excl. SHRAA01)								3.27	4.30	2.10		
Number of stations included in analysis, total and by depth strata								17	9	8		

SWEPT AREA ANALYSIS FROM STATION 737 TO STATION 799

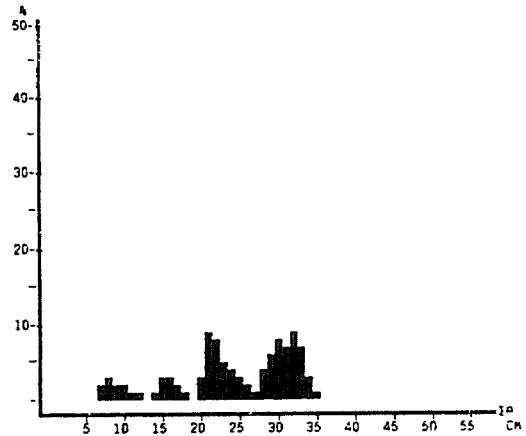
Benguela-Cunene

SPECIES NAME	CATCH DISTRIBUTION BY KG/NM GROUPS						% inci- dence	Mean dens. t/nm ²	Mean densities by bottom depth strata t/nm ²			
	<10	10-30	30-100	100-300	300-1000	>1000			- 50m	50-100m	100-200m	200-200
Trachurus capensis	5	3	4	6	10	6	81	49.16	0.02	57.78	61.99	
Dentex macrophthalmus	3	1	4	16	5	2	74	21.76	0.04	25.23	28.29	
Trachurus trecae	5	3	4	5	2		45	4.37	8.65	4.83	0.24	
Merluccius capensis	3	2	12	4			50	3.36		3.83	4.53	
Sardinops ocellata	3	1			1		12	2.30	13.49	0.09		
Synagrops microlepis	6	1	3		1		26	1.06		1.76	0.04	
Pterothrissus belloci	5	2	2	1			24	1.03		0.17	3.91	
Atractoscion aequidens	6		5	1			29	1.00	0.01	1.46	0.53	
Mustelus mustelus	6	2	4				29	0.78	0.17	0.79	1.19	
Spicara alta		2		1			7	0.69	0.20	1.11		
Arius parkii	4	6	1				26	0.49	0.26	0.70	0.13	
Pagellus bellottii	8	1	2				26	0.44	0.14	0.69	0.04	
Dentex barnardi	5	4	2				26	0.41	0.01	0.66	0.05	
Zeus faber	6	1	2				21	0.35		0.08	1.28	
Dentex angolensis	2	1	2				12	0.30		0.19	0.78	
Diplodus sargus capensis	3	1	1				12	0.24	1.40			
Chelidonichthys capensis	2	1	2				12	0.23		0.38		
Dentex gibbosus	3	1	1				12	0.21		0.31	0.11	
Chloropthalmus agassizi			1				2	0.21			0.86	
Umbrina canariensis	5	1	1				17	0.18	0.03	0.22	0.17	
Trigla lyra	6	3					21	0.17		0.05	0.57	
Loligo vulgaris	13	1					33	0.17	0.17	0.11	0.32	
Sepia officinalis hierredda	8		1				21	0.16	0.63	0.09		
Illex coindetii	7	2					21	0.13	0.29	0.13	0.01	
Scyliorhinus sp.			1				2	0.12			0.50	
Pontinus accraensis			1				2	0.12			0.49	
Zenopsis conchifer			1				2	0.11		0.18		
Myliobatis aquila		1	1				5	0.11	0.21	0.13		
Lithognathus momyrus	1		1				5	0.10	0.53	0.02		
Anthias anthias	1		1				5	0.10			0.43	
Spondyliosoma cantharus	4						10	0.08	0.09	0.10		
Atractoscion sp.			1				2	0.08		0.14		
Trigla capensis		1					2	0.06		0.10		
Squalus megalops	1	1					5	0.05		0.04	0.13	
Scorpaena normani	1	1					5	0.05			0.20	
Other fish								0.36	0.39	0.36	0.41	
Sum all species								90.54	26.73	101.73	107.20	
Sum Snappers												
Sum Groupers												
Sum Grunts												
Sum Croakers								1.26	0.04	1.82	0.70	
Sum Seabreams								23.58	2.21	27.22	29.35	
Sum Sharks								1.00	0.27	0.89	1.82	
Sum Rays								0.13	0.24	0.15		
Sum Squids								0.49	1.11	0.34	0.43	
Sum												
Sum shrimps (excl. SHRAA01)												
Number of stations included in analysis, total and by depth strata								42	7	25	10	

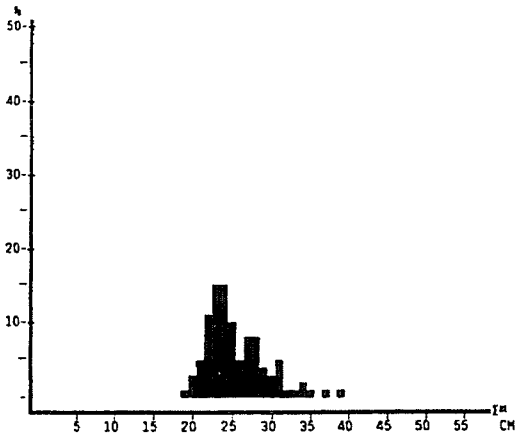
Annex II Size compositions of main species



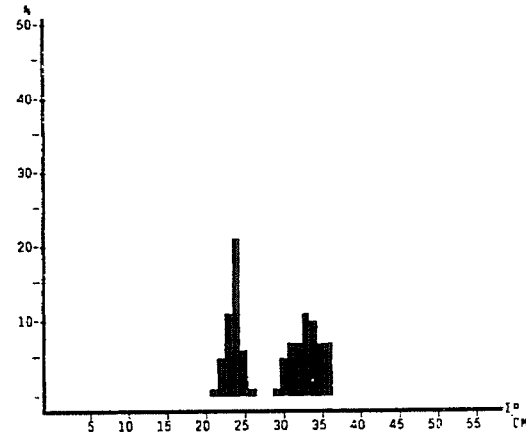
Dentex angolensis
Cabinda - Luanda
MEAN LENGTH = 24.71cm N= 1754
NUMBER OF SUBSAMPLES : 28
SAMPLES FOUND BETWEEN ST. NO.1298 AND 1418.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



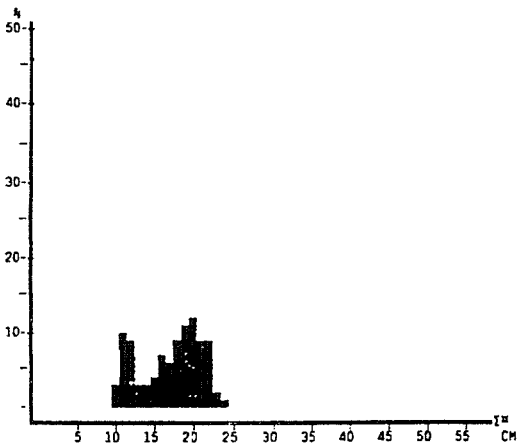
Sardinella maderensis
Cabinda - Luanda
MEAN LENGTH = 24.12cm N= 867
NUMBER OF SUBSAMPLES : 18
SAMPLES FOUND BETWEEN ST. NO.1317 AND 1531.
SAMPLES SEARCHED BETWEEN ST. NO.1517 AND 1531 .



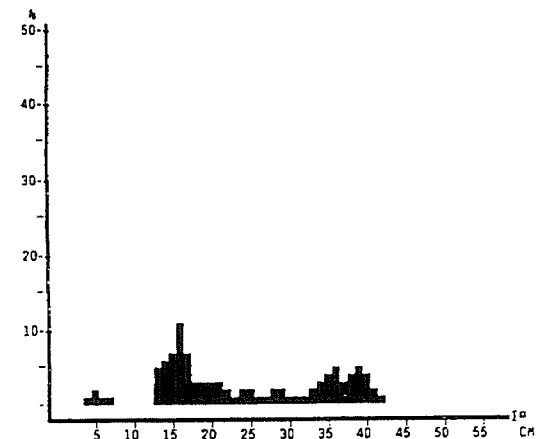
Dentex macrophthalmus
Cabinda - Luanda
MEAN LENGTH = 25.46cm N= 182
NUMBER OF SUBSAMPLES : 4
SAMPLES FOUND BETWEEN ST. NO.1373 AND 1405.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



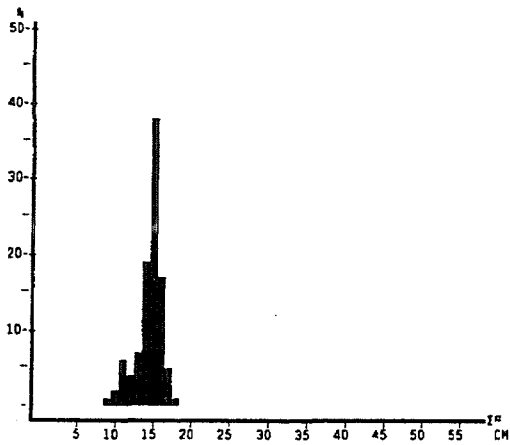
Sardinella aurita
Cabinda - Luanda
MEAN LENGTH = 28.86cm N= 87
NUMBER OF SUBSAMPLES : 3
SAMPLES FOUND BETWEEN ST. NO.1355 AND 1414.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



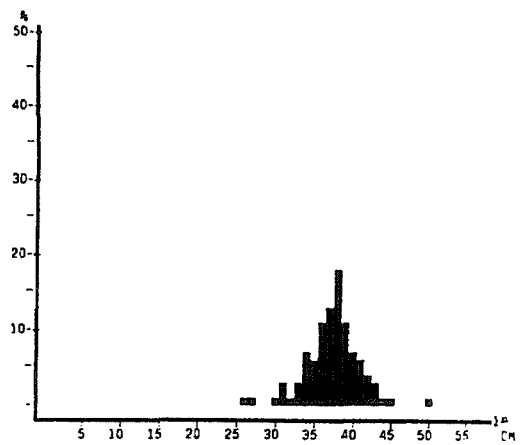
Brachydeuterus auritus
Cabinda - Luanda
MEAN LENGTH = 17.06cm N= 716
NUMBER OF SUBSAMPLES : 11
SAMPLES FOUND BETWEEN ST. NO.1314 AND 1399.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



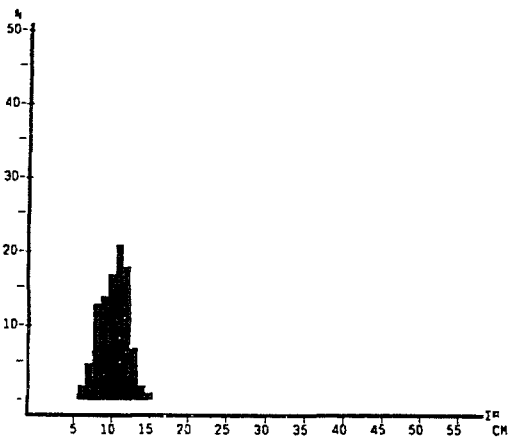
Trachurus trache
Cabinda - Luanda
MEAN LENGTH = 24.45cm N= 2399
NUMBER OF SUBSAMPLES : 32
SAMPLES FOUND BETWEEN ST. NO.1313 AND 1531.
SAMPLES SEARCHED BETWEEN ST. NO.1517 AND 1531 .



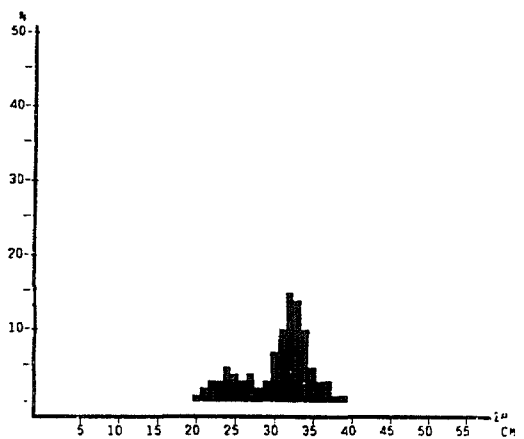
Plesiopeneus edwardsianus, m.
Cabinda - Luanda
MEAN LENGTH = 14.49cm N= 186
NUMBER OF SUBSAMPLES : 5
SAMPLES FOUND BETWEEN ST. NO.1307 AND 1385.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



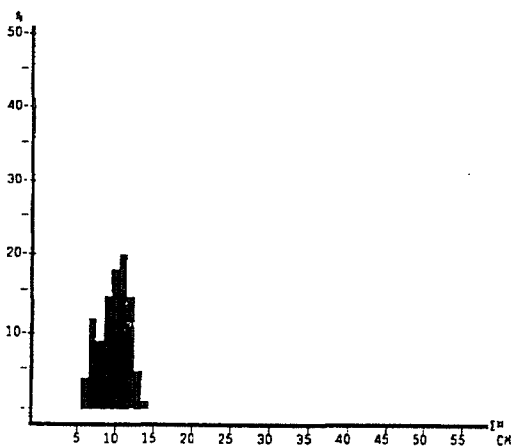
Merluccius polli, female
Cabinda - Luanda
MEAN LENGTH = 37.34cm N= 272
NUMBER OF SUBSAMPLES : 12
SAMPLES FOUND BETWEEN ST. NO.1300 AND 1410.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



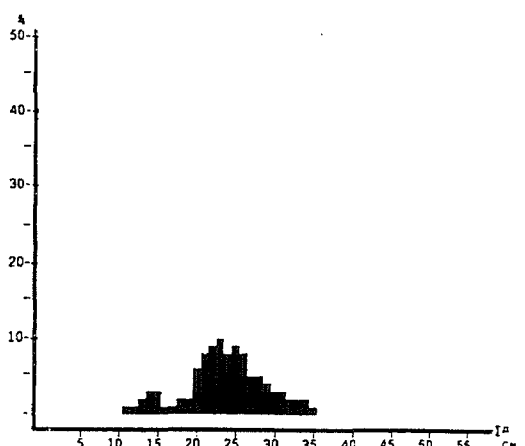
Parapeneus longirostris, fem.
Cabinda - Luanda
MEAN LENGTH = 10.31cm N= 857
NUMBER OF SUBSAMPLES : 18
SAMPLES FOUND BETWEEN ST. NO.1298 AND 1418.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



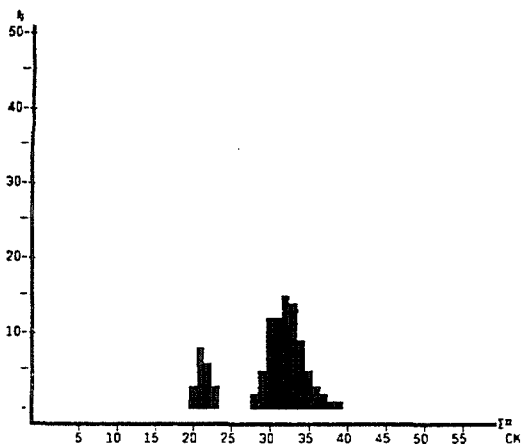
Merluccius polli, male
Cabinda - Luanda
MEAN LENGTH = 30.60cm N= 433
NUMBER OF SUBSAMPLES : 13
SAMPLES FOUND BETWEEN ST. NO.1300 AND 1410.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



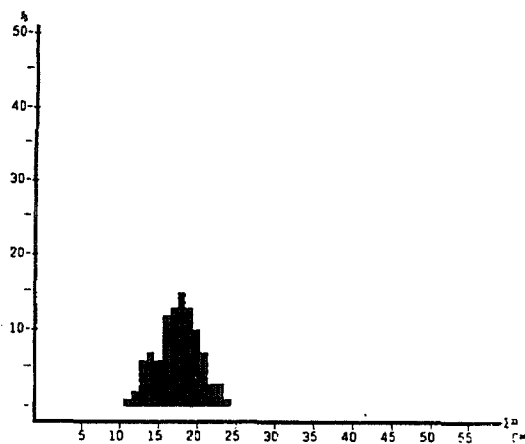
Parapeneus longirostris, male
Cabinda - Luanda
MEAN LENGTH = 9.87cm N= 699
NUMBER OF SUBSAMPLES : 15
SAMPLES FOUND BETWEEN ST. NO.1298 AND 1418.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



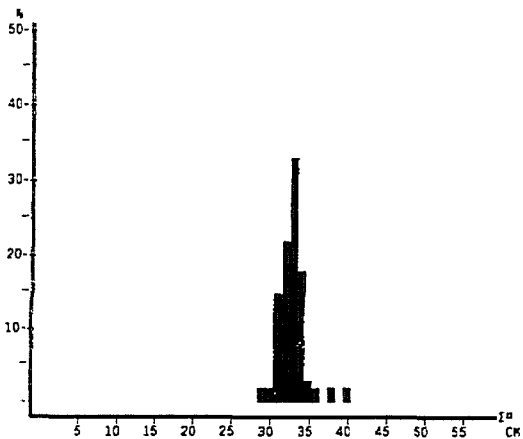
Pagellus bellottii
Cabinda - Luanda
MEAN LENGTH = 23.65cm N= 733
NUMBER OF SUBSAMPLES : 15
SAMPLES FOUND BETWEEN ST. NO.1307 AND 1416.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



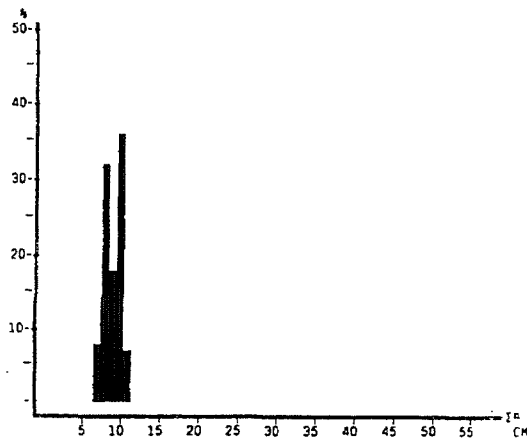
Sardinella maderensis
Luanda - Benguela
MEAN LENGTH = 30.09cm N= 817
NUMBER OF SUBSAMPLES : 19
SAMPLES FOUND BETWEEN ST. NO.1444 AND 1541.
SAMPLES SEARCHED BETWEEN ST. NO.1518 AND 1541 .



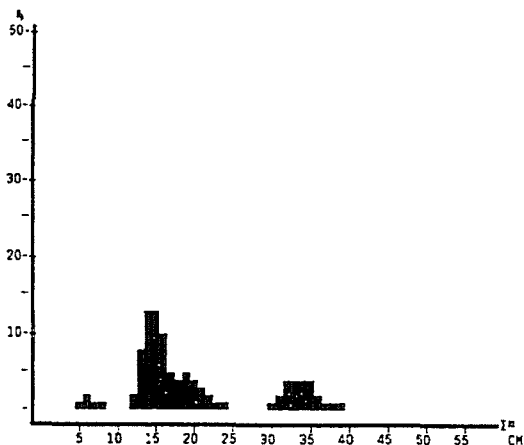
Dentex congoensis
Cabinda - Luanda
MEAN LENGTH = 17.58cm N= 833
NUMBER OF SUBSAMPLES : 10
SAMPLES FOUND BETWEEN ST. NO.1334 AND 1380.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



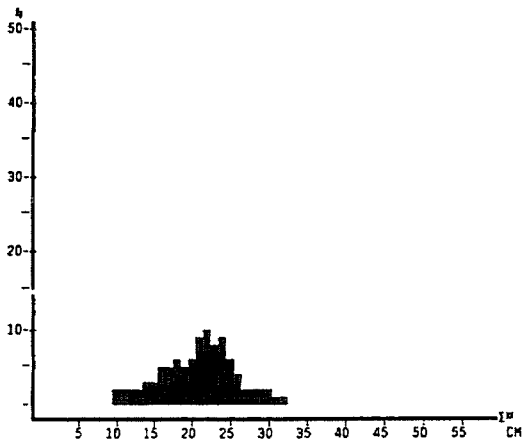
Sardinella aurita
Luanda - Benguela
MEAN LENGTH = 32.87cm N= 60
NUMBER OF SUBSAMPLES : 2
SAMPLES FOUND BETWEEN ST. NO.1444 AND 1456.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



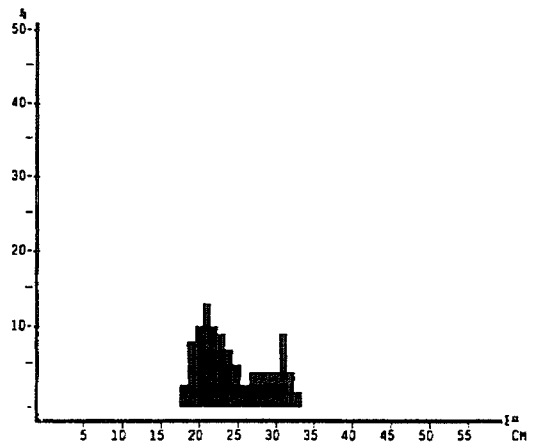
Engraulis encrasicolus
Cabinda - Luanda
MEAN LENGTH = 9.01cm N= 193
NUMBER OF SUBSAMPLES : 2
SAMPLES FOUND BETWEEN ST. NO.1348 AND 1416.
SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



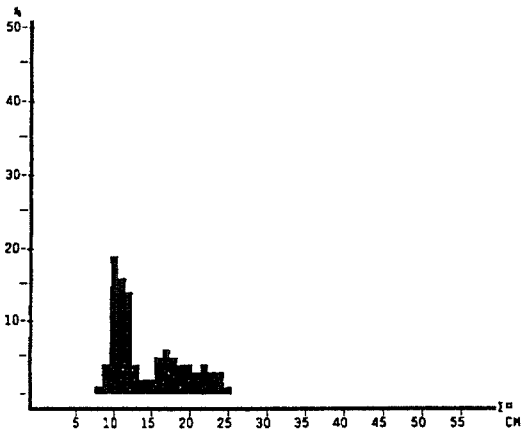
Trachurus tracas
Luanda - Benguela
MEAN LENGTH = 20.13cm N= 4020
NUMBER OF SUBSAMPLES : 50
SAMPLES FOUND BETWEEN ST. NO.1425 AND 1541.
SAMPLES SEARCHED BETWEEN ST. NO.1518 AND 1541 .



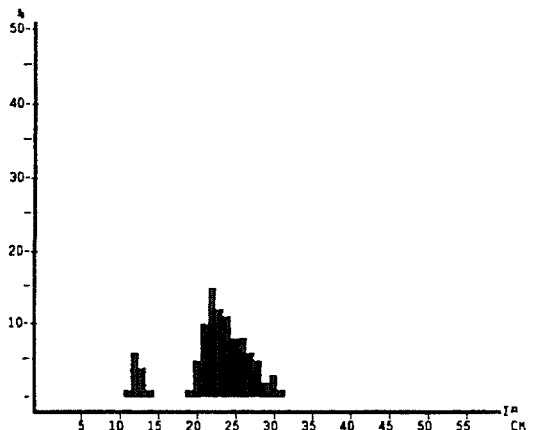
Pagellus bellottii
Luanda - Benguela
MEAN LENGTH = 20.77cm N= 548
NUMBER OF SUBSAMPLES : 7
SAMPLES FOUND BETWEEN ST. NO.1421 AND 1475.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



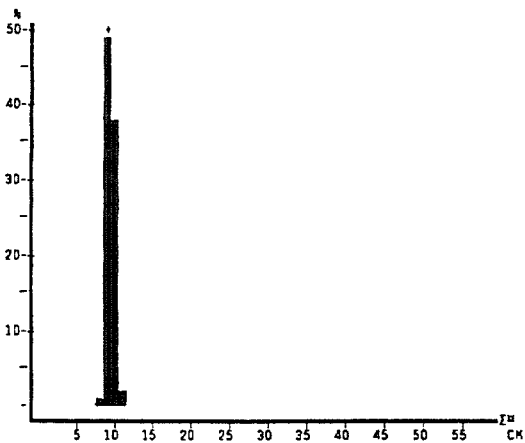
Dentex angolensis
Luanda - Benguela
MEAN LENGTH = 24.33cm N= 206
NUMBER OF SUBSAMPLES : 3
SAMPLES FOUND BETWEEN ST. NO.1425 AND 1449.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



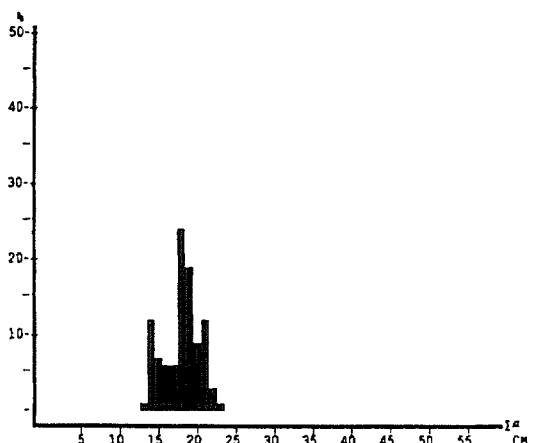
Brachydeuterus auritus
Luanda - Benguela
MEAN LENGTH = 14.34cm N= 955
NUMBER OF SUBSAMPLES : 11
SAMPLES FOUND BETWEEN ST. NO.1430 AND 1487.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



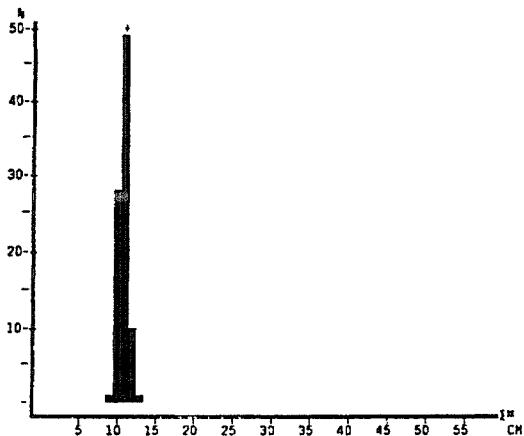
Dentex macrophthalmus
Luanda - Benguela
MEAN LENGTH = 22.65cm N= 785
NUMBER OF SUBSAMPLES : 14
SAMPLES FOUND BETWEEN ST. NO.1434 AND 1490.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



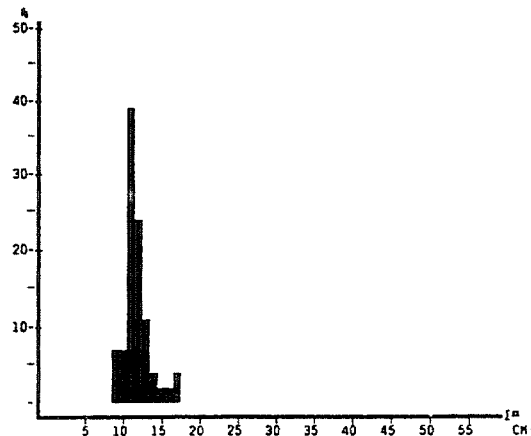
Engraulis encrasicolus
Luanda - Benguela
MEAN LENGTH = 9.41cm N= 199
NUMBER OF SUBSAMPLES : 3
SAMPLES FOUND BETWEEN ST. NO.1430 AND 1454.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



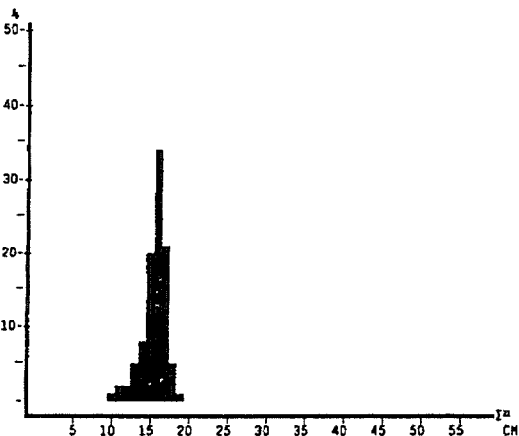
Dentex congouensis
Luanda - Benguela
MEAN LENGTH = 17.97cm N= 68
NUMBER OF SUBSAMPLES : 1
SAMPLES FOUND BETWEEN ST. NO.1434 AND 1434.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1506 .



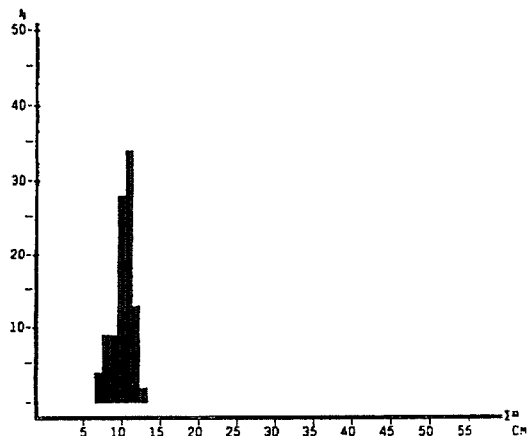
Aristeus varidens, male
Luanda - Benguela
MEAN LENGTH = 10.83cm N= 613
NUMBER OF SUBSAMPLES : 18
SAMPLES FOUND BETWEEN ST. NO.1429 AND 1514.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



Plesiopeneus edwardsianus, f.
Luanda - Benguela
MEAN LENGTH = 11.85cm N= 46
NUMBER OF SUBSAMPLES : 2
SAMPLES FOUND BETWEEN ST. NO.1480 AND 1493.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



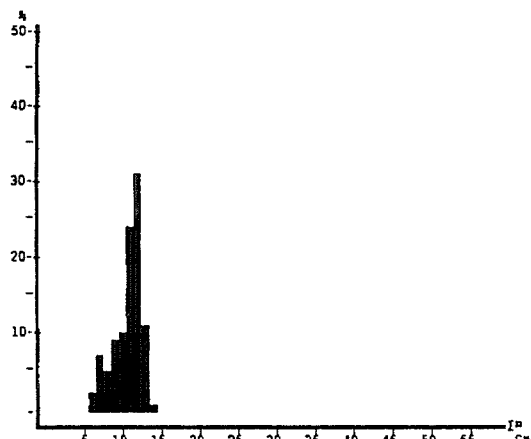
Aristeus varidens, female
Luanda - Benguela
MEAN LENGTH = 15.58cm N= 728
NUMBER OF SUBSAMPLES : 18
SAMPLES FOUND BETWEEN ST. NO.1429 AND 1514.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



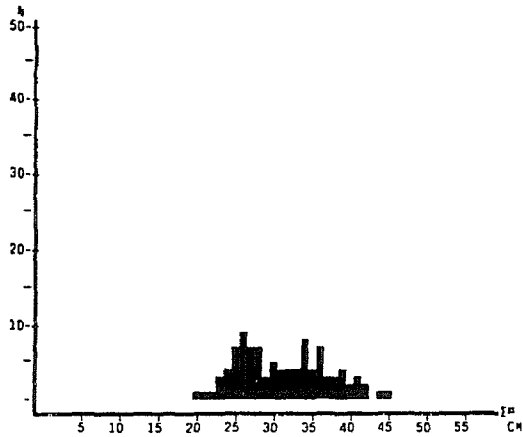
Parapeneus longirostris, male
Luanda - Benguela
MEAN LENGTH = 10.24cm N= 438
NUMBER OF SUBSAMPLES : 7
SAMPLES FOUND BETWEEN ST. NO.1428 AND 1507.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



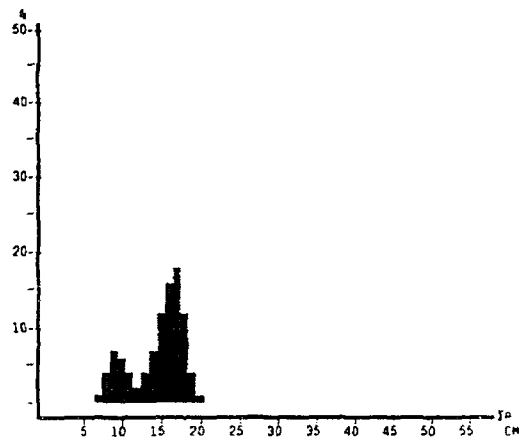
Plesiopeneus edwardsianus, m.
Luanda - Benguela
MEAN LENGTH = 11.83cm N= 114
NUMBER OF SUBSAMPLES : 2
SAMPLES FOUND BETWEEN ST. NO.1480 AND 1493.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



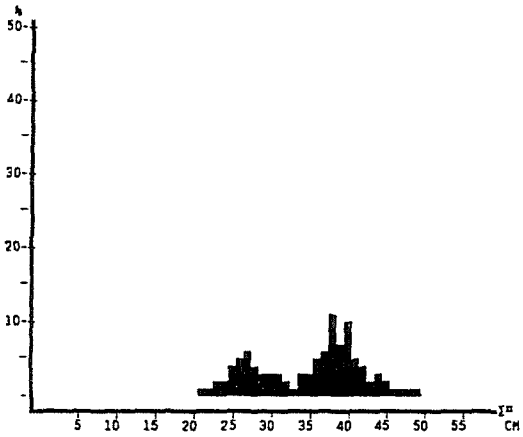
Parapeneus longirostris, fem.
Luanda - Benguela
MEAN LENGTH = 10.71cm N= 536
NUMBER OF SUBSAMPLES : 7
SAMPLES FOUND BETWEEN ST. NO.1428 AND 1507.
SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



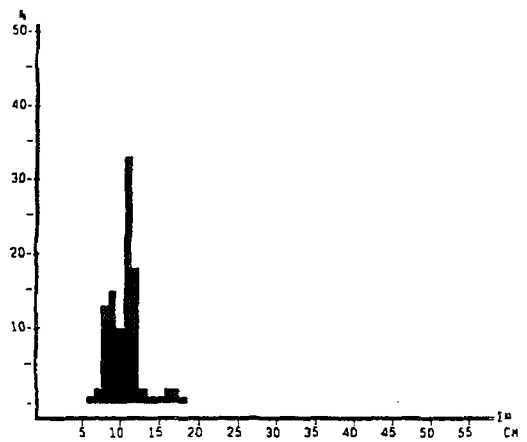
Merluccius polli, male
 Luanda - Benguela
 MEAN LENGTH = 31.20cm N= 378
 NUMBER OF SUBSAMPLES : 18
 SAMPLES FOUND BETWEEN ST. NO.1429 AND 1516.
 SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



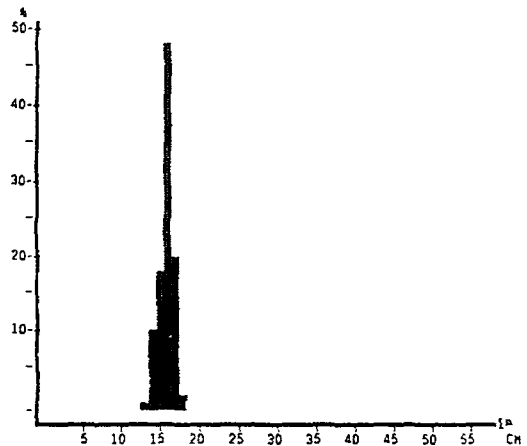
Aristeus varidens, female
 Cabinda - Luanda
 MEAN LENGTH = 14.58cm N= 1012
 NUMBER OF SUBSAMPLES : 16
 SAMPLES FOUND BETWEEN ST. NO.1301 AND 1420.
 SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



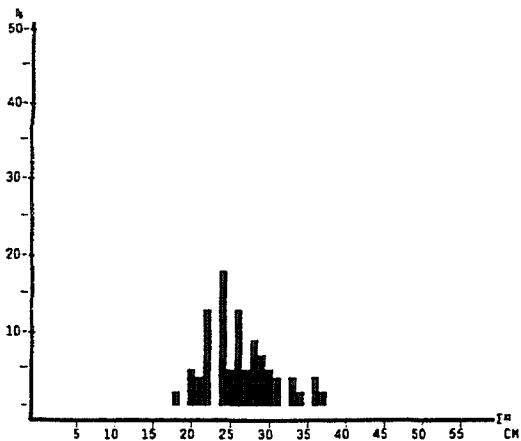
Merluccius polli, female
 Luanda - Benguela
 MEAN LENGTH = 35.10cm N= 732
 NUMBER OF SUBSAMPLES : 20
 SAMPLES FOUND BETWEEN ST. NO.1429 AND 1516.
 SAMPLES SEARCHED BETWEEN ST. NO.1421 AND 1516 .



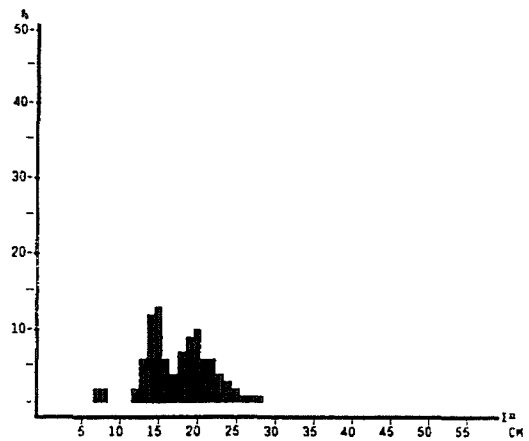
Aristeus varidens, male
 Cabinda - Luanda
 MEAN LENGTH = 10.61cm N= 747
 NUMBER OF SUBSAMPLES : 17
 SAMPLES FOUND BETWEEN ST. NO.1301 AND 1420.
 SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



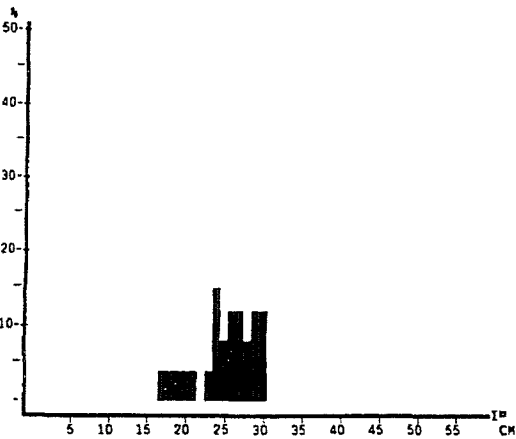
Plesiopeus ed-ardasianus, f.
 Cabinda - Luanda
 MEAN LENGTH = 15.82cm N= 87
 NUMBER OF SUBSAMPLES : 5
 SAMPLES FOUND BETWEEN ST. NO.1302 AND 1385.
 SAMPLES SEARCHED BETWEEN ST. NO.1298 AND 1420 .



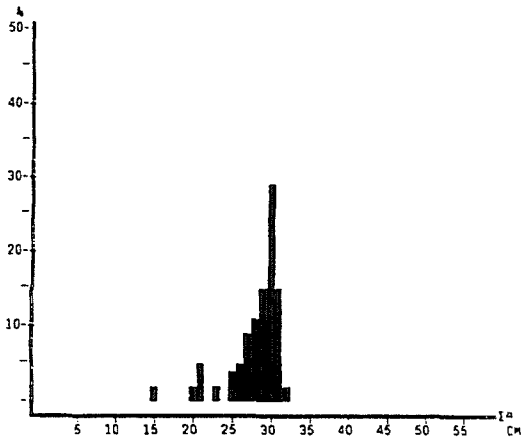
Dentex barnardi
 Benguela - Cunene River
 MEAN LENGTH = 26.23cm N= 56
 NUMBER OF SUBSAMPLES : 1
 SAMPLES FOUND BETWEEN ST. NO.1550 AND 1550.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



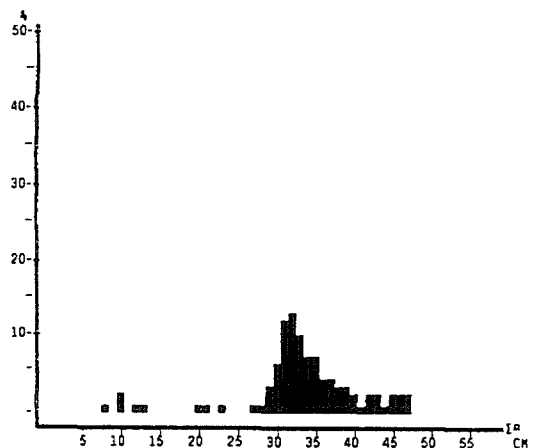
Dentex macrophthalmus
 Benguela - Cunene River
 MEAN LENGTH = 17.66cm N= 2348
 NUMBER OF SUBSAMPLES : 30
 SAMPLES FOUND BETWEEN ST. NO.1546 AND 1603.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



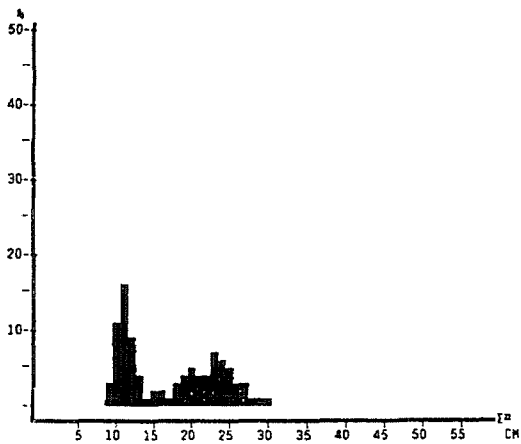
Pagellus bellottii
 Benguela - Cunene River
 MEAN LENGTH = 25.23cm N= 26
 NUMBER OF SUBSAMPLES : 2
 SAMPLES FOUND BETWEEN ST. NO.1549 AND 1550.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



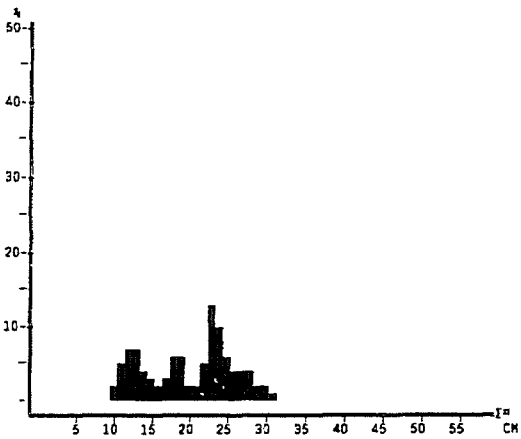
Dentex angolensis
 Benguela - Cunene River
 MEAN LENGTH = 28.07cm N= 55
 NUMBER OF SUBSAMPLES : 3
 SAMPLES FOUND BETWEEN ST. NO.1545 AND 1551.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



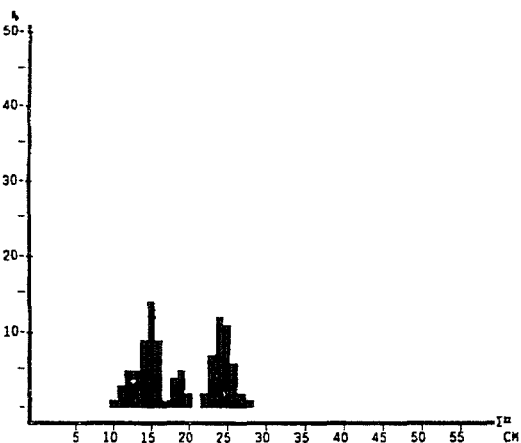
Merluccius capensis
 Benguela - Cunene River
 MEAN LENGTH = 33.64cm N= 420
 NUMBER OF SUBSAMPLES : 10
 SAMPLES FOUND BETWEEN ST. NO.1570 AND 1604.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



Trachurus lrecae
 Benguela - Cunene River
 MEAN LENGTH = 17.35cm N= 1718
 NUMBER OF SUBSAMPLES : 23
 SAMPLES FOUND BETWEEN ST. NO.1542 AND 1599.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



Trachurus capensis
 Benguela - Cunene River
 MEAN LENGTH = 20.25cm N= 2795
 NUMBER OF SUBSAMPLES : 36
 SAMPLES FOUND BETWEEN ST. NO.1549 AND 1604.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .



Sardinops ocellata
 Benguela - Cunene River
 MEAN LENGTH = 19.01cm N= 528
 NUMBER OF SUBSAMPLES : 7
 SAMPLES FOUND BETWEEN ST. NO.1563 AND 1599.
 SAMPLES SEARCHED BETWEEN ST. NO.1542 AND 1604 .

Annex III Instruments and fishing gear used

Acoustic instruments

The SIMRAD EK500 scientific sounder was used during the survey. A 38 kHz transceiver was used for estimation of fish density. In addition a 120 kHz transceiver was used to more easily distinguish between fish and plankton. The EK500 has a built-in digital echo integrator. The details of the instrument settings are as follows:

Transceiver settings:

38 kHz transceiver:

Bandwidth	Wide (3.8 kHz)
Pulse length	Medium (1 ms)
Max. power	2 000 watt
Sv transducer gain	27.9 dB
Ts transducer gain	28.0 dB

120 kHz transceiver:

Bandwidth	Wide (3.8 kHz)
Pulse length	Medium (1 ms)
Max. power	1 000 watt
Sv transducer gain	23.3 dB
Ts transducer gain	23.3 dB

Integrator settings:

6 surface referred layers covering the area from 4 to 500 meter depth. Sv threshold -80 dB.

2 bottom referred layers covering the area from 0.5 to 10 m and 10 to 20 m above the bottom Sv threshold -80 dB.

1 surface layer covering the total area from 4 to 200 m. Sv threshold -57 dB.

1 surface layer covering the total area from 4 to 200 m. Sv threshold -54 dB.

Printer settings:

38 kHz transceiver:

Range	0-100 or 0-250 m
TVG	20 log R
TS colour min.	-50 dB
Sv colour min.	-67 dB

120 kHz transceiver:

Range	0-100 m
TVG	20 log R
TS colour min.	-50 dB
Sv colour min.	-56 dB

An ES38B transducer with a 6.9° -3 dB beamwidth was used for integration.

Glossary:

Sv transducer gain:	Peak transducer gain assumed during computation of volume backscattering strength.
Ts transducer gain:	Peak transducer gain assumed during computation of target strength.
Ts colour min.:	Lower limit of colour scale relative to target strength.
Sv colour min.:	Lower limit of colour scale relative to volume back scattering.

Hydrography:

Temperature and salinity were sampled from the surface down to 500 m depth or the bottom with an STD sonde. Surface temperature was recorded at 4 m depth with a Furuno TI-20 temperature indicator.

Fishing gear:

Bottom trawl: High opening shrimp and fish trawl with net headline 31 m (floatline), footrope 47 m, 40 m sweeps, estimated headline height 6 m and distance between wings during towing 18 m.

Pelagic trawl: Swedish type mid-water trawl with vertical opening of 20-25 m.

Cod ends of trawls with fine inner lining.

Annex IV Records of fishing stations

PROJECT STATION: 493
 DATE: 6/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 557 Long W 1148
 start stop duration
 TIME :12:28:00 12:58:00 30 (min) Purpose code: 3
 LOG :3045.00 3046.00 1.50 Area code :
 FDEPTH: 84 92 GearCond.code:
 BDEPTH: 84 92 Validity code:
 Towing dir: 310 Wire out: 350 m Speed:300 kn*10
 Sorted: 66 Kg Total catch: 65.72 CATCH/HOUR: 131.44

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex angolensis	58.60	262	43.06	1
Trichurus lepturus	21.00	32	15.98	
Dentex gibbosus	18.20	4	13.85	
Umbrina canariensis	11.20	30	8.52	
Epinephelus aeneus	6.20	2	4.72	
Mustelus mustelus	4.60	2	3.50	
Branchiostegus semifasciatus	2.50	4	1.90	
Brotula barbata	2.20	2	1.67	
Sparus pagrus africanus	2.00	2	1.52	
Raja miraletus	1.80	4	1.37	
Uranoscopus cadenati	1.60	20	1.22	
Illex coindetii	1.00	44	0.76	
Neomerinthe folgori	0.90	12	0.68	
Todaropsis eblanae	0.60	26	0.46	
Spicara alta	0.40	6	0.30	
Parapenaeopsis atlantica, male	0.24	46	0.18	2
Boops boops	0.12	6	0.09	
Monolele microstoma	0.10	4	0.08	
ANTHRIDAE	0.08	2	0.06	
Parapenaeopsis atlantica, fem.	0.06	22	0.05	3
Trigla lyra	0.04	2	0.03	
Total		131.44	100.00	

PROJECT STATION: 496
 DATE: 6/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 545 Long W 1122
 start stop duration
 TIME :17:47:00 18:17:00 30 (min) Purpose code: 3
 LOG :3078.00 3079.00 1.30 Area code : 1
 FDEPTH: 397 400 GearCond.code:
 BDEPTH: 397 400 Validity code:
 Towing dir: 360 Wire out:1200 m Speed:310 kn*10
 Sorted: 53 Kg Total catch: 160.40 CATCH/HOUR: 320.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli	145.60	424	45.39	14
Dalatias licha	104.00	28	32.42	
Laemonema laureysi	26.40	1216	8.23	
Etmopterus sp.	18.40	80	5.74	
Nematocarcinus africanus	10.40	496	3.24	
Hoplostethus sp.	4.80	16	1.50	
Aristeus varidens, female	3.20	344	1.00	13
Chaunax pictus	3.20	32	1.00	
Aristeus varidens, male	1.60	392	0.50	12
Neomerinthe folgori	1.60	24	0.50	
Stereomastis sculpta	1.60	32	0.50	
Total		320.80	100.02	

PROJECT STATION: 497
 DATE: 6/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 540 Long W 1115
 start stop duration
 TIME :19:50:00 20:50:00 60 (min) Purpose code: 3
 LOG :3090.00 3092.00 2.80 Area code : 1
 FDEPTH: 790 805 GearCond.code:
 BDEPTH: 790 805 Validity code:
 Towing dir: 10 Wire out:2000 m Speed:290 kn*10
 Sorted: 22 Kg Total catch: 66.42 CATCH/HOUR: 66.42

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Deepwater fish mixture	17.40		26.20	
ALEPOCEPHALIDAE	13.50	96	20.33	
MACROURIDAE	11.10	174	16.71	
Plesiopenaeus edwardsianus, m.	7.20	426	10.84	15
Etmopterus sp.	5.70	6	8.58	
Plesiopenaeus edwardsianus, f.	5.40	120	8.13	16
Aristeus varidens, female	2.82	243	4.25	18
Halosaurus sp.	1.50	24	2.26	
Falismania oregonia	1.20	6	1.81	
Aristeus varidens, male	0.60	186	0.90	17
Total		66.42	100.01	

PROJECT STATION: 494
 DATE: 6/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 551 Long W 1136
 start stop duration
 TIME :14:26:00 14:56:00 30 (min) Purpose code: 3
 LOG :3058.00 3059.00 1.00 Area code : 1
 FDEPTH: 159 158 GearCond.code:
 BDEPTH: 159 158 Validity code:
 Towing dir: 360 Wire out: 600 m Speed:200 kn*10
 Sorted: 76 Kg Total catch: 255.71 CATCH/HOUR: 511.42

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pentheroscion mbizi	257.40	2574	50.33	
Pterothrissus belloci	54.60	462	10.68	
Synagrops microlepis	52.80	5232	10.32	
Dentex angolensis	35.80	180	7.00	4
Micacorvina angolensis	18.00	18	3.52	
Brotula barbata	18.00	42	3.52	
Heptranchias perlo	14.20	6	2.78	
Uranoscopus cadenati	9.00	96	1.76	
Zenopsis conchifer	6.60	12	1.29	
Trichurus lepturus	6.00	18	1.17	
Parapenaeus longirostris, fem.	5.40	888	1.06	6
Umbrina canariensis	5.40	12	1.06	
Squatina oculata	5.00	2	0.98	
Chelidonichthys gabonensis	3.60	24	0.70	
Raja miraletus	3.60	6	0.70	
Trachurus trachurus	3.60	6	0.70	
Parapenaeus longirostris, male	2.40	4234	0.47	5
Neomerinthe folgori	1.80	6	0.35	
Illex coindetii	1.50	12	0.29	
Bembrops greyi	1.50	12	0.29	
Todaropsis eblanae	1.20	36	0.23	
Monolele microstoma	1.20	60	0.23	
Zeus faber	0.90	6	0.18	
Saurida brasiliensis	0.90	84	0.18	
Trachurus, Juveniles	0.60	102	0.12	
Diaphus dumerilli	0.30	102	0.06	
Sepia orbignyana	0.12	18	0.02	
Total		511.42	99.99	

PROJECT STATION: 498
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 530 Long W 1123
 start stop duration
 TIME :02:40:00 03:40:00 60 (min) Purpose code: 3
 LOG :3137.00 3140.00 3.00 Area code : 1
 FDEPTH: 665 658 GearCond.code:
 BDEPTH: 665 658 Validity code:
 Towing dir: 360 Wire out:1750 m Speed:300 kn*10
 Sorted: 24 Kg Total catch: 100.66 CATCH/HOUR: 100.66

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Centrophorus granulosus	22.20	48	21.06	
Stereomastis sculpta	11.20	604	11.13	
Aristeus varidens, male	9.60	1962	9.54	21
Laemonema laureysi	8.80	264	8.74	
MACROURIDAE	7.20	116	7.15	
Nezumia aequalis	6.80	112	6.76	
HALOSAURIDAE	6.80	112	6.76	
Deepwater fish mixture	5.20	316	5.17	
ALEPOCEPHALIDAE	4.40	32	4.37	
CHIMAERIDAE	3.80	1	3.78	
Aristeus varidens, female	3.20	142	3.18	22
Raja sp.	2.80	12	2.78	
GONOSTOMATIDAE	2.80	40	2.78	
Trachyrhinus scabrus	2.00	8	1.99	
Hoplostethus mediterraneus	1.60	8	1.59	
Plesiopenaeus edwardsianus, m.	1.60	48	1.59	19
Plesiopenaeus edwardsianus, f.	1.20	27	1.09	20
Heterocarpus ensifer	0.56	44	0.56	
Total		100.66	100.02	

PROJECT STATION: 495
 DATE: 6/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 548 Long W 1130
 start stop duration
 TIME :15:58:00 16:28:00 30 (min) Purpose code: 3
 LOG :3067.00 3068.00 1.40 Area code : 1
 FDEPTH: 218 218 GearCond.code:
 BDEPTH: 218 218 Validity code:
 Towing dir: 360 Wire out: 800 m Speed:280 kn*10
 Sorted: 62 Kg Total catch: 326.50 CATCH/HOUR: 653.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	212.40	10752	32.53	
Diaphus dumerilli	112.50	25000	17.23	
Merluccius polli, male	102.60	604	15.71	8
Pterothrissus belloci	59.40	530	9.10	
Pentheroscion mbizi	58.50	378	8.96	
Trichurus lepturus	43.20	80	6.62	
Zenopsis conchifer	13.50	162	2.07	
Dentex angolensis	12.20	58	1.87	7
Merluccius polli, female	11.70	36	1.79	9
Illex coindetii	7.20	90	1.10	
Parapenaeus longirostris, fem.	6.00	548	0.92	11
Brotula barbata	3.60	8	0.55	
Parapenaeus longirostris, male	3.06	486	0.47	10
Todaropsis eblanae	2.70	44	0.41	
Sepia orbignyana	1.80	18	0.28	
Chlorophthalmus atlanticus	1.34	134	0.21	
Hoplostethus mediterraneus	0.82	8	0.13	
Coelorhynchus coelorhynchus	0.46	8	0.07	
Total		652.98	100.02	

PROJECT STATION: 499
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 529 Long W 1126
 start stop duration
 TIME :05:12:00 05:42:00 30 (min) Purpose code: 3
 LOG :3149.00 3150.00 1.40 Area code : 1
 FDEPTH: 526 528 GearCond.code:
 BDEPTH: 526 528 Validity code:
 Towing dir: 10 Wire out:1450 m Speed:280 kn*10
 Sorted: 33 Kg Total catch: 48.80 CATCH/HOUR: 97.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dalatias licha	22.00	4	21.52	
Deepwater fish mixture	18.00		18.44	
Shrimps, small, non comm.	13.60	5400	13.93	
Aristeus varidens, female	9.00	540	9.22	24
GONOSTOMATIDAE	9.00	1170	9.22	
Aristeus varidens, male	6.00	884	6.15	23
Stereomastis sculpta	4.60	226	4.71	
Merluccius polli	4.20	12	4.30	
Hoplostethus sp.	3.00	54	3.07	
Laemonema sp.	3.00	134	3.07	
ALEPOCEPHALIDAE	3.00	88	3.07	
Halosaurus sp.	2.20	216	2.25	
Plesiopenaeus edwardsianus	1.00	90	1.02	
Total		97.60	99.97	

PROJECT STATION: 500
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 527 Long W 1128
 start stop duration
 TIME :06:43:00 07:13:00 30 (min) Purpose code: 3
 LOG :3155.00 3157.00 1.50 Area code : 1
 FDEPTH: 470 454 GearCond.code:
 BDEPTH: 470 454 Validity code:
 Towing dir: 30 Wire out:1250 m Speed:300 kn*10
 Sorted: 24 Kg Total catch: 95.68 CATCH/HOUR: 191.36

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Etmopterus sp.	64.00	152	33.44	
Hoplostethus sp.	44.00	650	22.99	
Laemonema laureysi	36.00	1848	18.81	
Merluccius polli	28.00	56	14.63	
Halosaurus sp.	5.60	248	2.93	
Aristeus varidens, male	4.80	608	2.51	25
Aristeus varidens, female	3.36	248	1.76	26
Stereomastis sculpta	3.20	112	1.67	
Dibranchus atlanticus	2.40	24	1.25	
Total	191.36		99.99	

PROJECT STATION: 501
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 530 Long W 1133
 start stop duration
 TIME :08:35:00 09:05:00 30 (min) Purpose code: 3
 LOG :3167.00 3168.00 1.60 Area code : 1
 FDEPTH: 317 320 GearCond.code:
 BDEPTH: 317 320 Validity code:
 Towing dir: 30 Wire out: 900 m Speed:310 kn*10
 Sorted: 35 Kg Total catch: 277.80 CATCH/HOUR: 555.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli	180.00	1820	32.40	27
Neomerinthe folgori	140.00	4510	25.20	
Nematocarcinus africanus	100.00	35832	18.00	
Pentheroscion mbizi	48.00	240	8.64	
Centrophorus granulosus	36.00	8	6.48	
Trichiurus lepturus	18.00	80	3.24	
Laemonema laureysi	16.00	320	2.88	
Pterothrissus bellocci	10.00	60	1.80	
Ariomma bondi	4.00	20	0.72	
Nezumia aequalis	2.40	160	0.43	
Hymenocephalus italicus	1.00	20	0.18	
Stereomastis sculpta	0.20	20	0.04	
Total	555.60		100.01	

PROJECT STATION: 502
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 531 Long W 1154
 start stop duration
 TIME :12:11:00 12:41:00 30 (min) Purpose code: 3
 LOG :3194.00 3195.00 1.30 Area code : 1
 FDEPTH: 45 45 GearCond.code:
 BDEPTH: 45 45 Validity code:
 Towing dir: 360 Wire out: 250 m Speed:290 kn*10
 Sorted: 86 Kg Total catch: 85.95 CATCH/HOUR: 171.90

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	134.40	578	78.18	28
Epinephelus aeneus	19.20	6	11.17	
Dentex barnardi	5.00	10	2.91	
Sparus pagrus africanus	3.20	2	1.86	
Raja miraletus	2.80	4	1.63	
Arius parkii	2.60	2	1.51	
Dasyatis marmorata	1.60	2	0.93	
Trichiurus lepturus	1.40	2	0.81	
Helicolenus dactylopterus	0.60	24	0.35	
Torpedo torpedo	0.60	2	0.35	
Chaetodon hoeffleri	0.40	2	0.23	
Boops boops	0.10	2	0.06	
Total	171.90		99.99	

PROJECT STATION: 503
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 527 Long W 1126
 start stop duration
 TIME :20:36:00 21:06:00 30 (min) Purpose code: 3
 LOG :3254.00 3256.00 1.40 Area code : 1
 FDEPTH: 587 587 GearCond.code:
 BDEPTH: 587 587 Validity code:
 Towing dir: 10 Wire out:1500 m Speed:280 kn*10
 Sorted: 25 Kg Total catch: 37.05 CATCH/HOUR: 74.10

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Malacocephalus indicus *	15.00	258	20.24	
SQUALIDAE	9.00	14	12.15	
Deepwater fish mixture	9.00	14	12.15	
TRACHICHTHYIDAE	8.40	22	11.34	
Halosaurus sp.	7.50	110	10.12	
Stereomastis sculpta	3.90	326	5.26	
GONOSTOMATIDAE	3.60	600	4.86	
SYNAPHBRANCHIDAE	3.00	6	4.05	
Merluccius polli	3.00	2	4.05	
Hoplostethus sp.	2.70	32	3.64	
Aristeus varidens, female	2.70	50	3.64	30
Georyon maritae	1.80	2	2.43	
Hydrolagus africanus	1.50	8	2.02	
CERATIIDAE	1.50	2	2.02	
Plesioopenaenus edwardsianus	0.60	26	0.81	
Laemonema sp.	0.60	14	0.81	
Aristeus varidens, male	0.30	132	0.40	29
Total	74.10		99.99	

PROJECT STATION: 504
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 526 Long W 1130
 start stop duration
 TIME :22:27:00 22:57:00 30 (min) Purpose code: 3
 LOG :3264.00 3265.00 1.50 Area code : 1
 FDEPTH: 417 418 GearCond.code:
 BDEPTH: 417 418 Validity code:
 Towing dir: 10 Wire out:1250 m Speed:300 kn*10
 Sorted: 32 Kg Total catch: 127.60 CATCH/HOUR: 255.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli	116.00	224	45.45	31
Centrophorus lusitanicus	40.00	8	15.67	
Hoplostethus sp.	22.40	104	8.78	
Deepwater fish mixture	20.00		7.84	
Etmopterus spinax	12.00	8	4.70	
Laemonema sp.	9.60	344	3.76	
Malacocephalus indicus *	6.40	32	2.51	
Aristeus varidens, male	5.60	400	2.19	32
Chlamydoselachus anguineus	5.60	8	2.19	
Halosaurus sp.	5.60	160	2.19	
Chaunax pictus	4.00	8	1.57	
Aristeus varidens, female	2.40	144	0.94	33
Stereomastis sculpta	2.40	184	0.94	
Ariomma bondi	1.60	16	0.63	
Nematocarcinus africanus	0.80	64	0.31	
GONOSTOMATIDAE	0.80	88	0.31	
Total	255.20		99.98	

PROJECT STATION: 505
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 525 Long W 1133
 start stop duration
 TIME :00:00:00 00:30:00 30 (min) Purpose code: 3
 LOG :3270.00 3272.00 1.20 Area code : 1
 FDEPTH: 332 330 GearCond.code:
 BDEPTH: 332 330 Validity code:
 Towing dir: 10 Wire out:1050 m Speed:250 kn*10
 Sorted: 29 Kg Total catch: 247.48 CATCH/HOUR: 494.96

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Centrophorus granulosus	202.40	48	40.89	
Nematocarcinus africanus	134.00	28810	27.07	
Merluccius polli	112.00	310	22.63	34
Laemonema laureysi	25.00	220	5.05	
Epigonus telescopus	6.00	80	1.21	
Zenopsis conchifer	4.00	10	0.81	
Trichiurus lepturus	3.00	150	0.61	
Pentheroscion mbizi	2.00	10	0.40	
Pterothrissus bellocci	2.00	10	0.40	
Setarches guentheri	1.06	60	0.21	
Chaunax pictus	0.80	20	0.16	
POLYCHAELIDAE	0.70	60	0.14	
Galeus polli	0.60	10	0.12	
Hymenocephalus italicus	0.60	70	0.12	
Solenocera africana	0.30	30	0.06	
Dibranchus atlanticus	0.30	40	0.06	
Chlorophthalmus atlanticus	0.20	10	0.04	
Total	494.96		99.98	

PROJECT STATION: 506
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 522 Long W 1135
 start stop duration
 TIME :02:12:00 02:42:00 30 (min) Purpose code: 3
 LOG :3277.00 3279.00 1.50 Area code : 1
 FDEPTH: 239 272 GearCond.code:
 BDEPTH: 239 272 Validity code:
 Towing dir: 350 Wire out: 800 m Speed:310 kn*10
 Sorted: 66 Kg Total catch: 341.48 CATCH/HOUR: 682.96

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pterothrissus bellocci	352.80	2036	51.66	35
Centrophorus granulosus	267.00	70	39.09	
Cynoponticus ferox	19.60	2	2.87	
Pentheroscion mbizi	9.60	54	1.41	
Merluccius polli	8.40	42	1.23	
Brosmiculus imberbis *	5.40	174	0.79	
Setarches guentheri	4.80	18	0.70	
Brotula barbata	3.00	6	0.44	
Zenopsis conchifer	2.40	12	0.35	
Galeus melastomus	1.80	30	0.26	
Peristedion cataphractum	1.20	36	0.18	
Solenocera africana	1.08	114	0.16	
Coelorinchus coelorhincus	1.08	6	0.16	
Illex coindetii	1.02	12	0.15	
Parapenaeus longirostris, male	0.96	198	0.14	36
Parapenaeus longirostris, fem.	0.72	198	0.11	37
Galeus polli	0.60	6	0.09	
Dicologlossa cuneata	0.48	12	0.07	
Diaphus dumerilii	0.36	66	0.05	
Dibranchus atlanticus	0.30	30	0.04	
Chlorophthalmus atlanticus	0.24	48	0.04	
GONOSTOMATIDAE	0.12	12	0.02	
Total	682.96		100.01	

PROJECT STATION: 507
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 523 Long W 1138
 TIME :03:56:00 04:26:00 30 (min) Purpose code: 3
 LOG :3288.00 3289.00 1.30 Area code : 1
 FDEPTH: 120 117 GearCond.code:
 BDEPTH: 120 117 Validity code:
 Towing dir: 350 Wire out: 500 m Speed:260 kn*10

Sorted: 68 Kg Total catch: 169.30 CATCH/HOUR: 338.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pentheroscion mbizi	107.50	892	31.75	
Dentex angolensis	70.50	246	20.82	38
Uranoscopus albesca	50.00	584	14.77	
Pterotrissus belloci	48.50	80	14.32	
Brotula barbata	30.50	34	9.01	
Chelidonichthys gabonensis	10.50	150	3.10	
Synagrops microlepis	5.50	254	1.62	
Umbrina canariensis	4.00	10	1.18	
Branchiostegus semifasciatus	3.00	10	0.89	
Pontinus accraensis	2.00	20	0.59	
Illex coindetii	1.36	20	0.40	
Zeus faber	1.00	4	0.30	
Parapenaeus longirostris, fem.	1.00	180	0.30	40
Diaphus dumerilii	0.94	240	0.28	
Parapenaeus longirostris, male	0.70	140	0.21	39
Monoleone microstoma	0.64	44	0.19	
Trichiurus lepturus	0.44	10	0.13	
Spicara alta	0.22	4	0.06	
Bembrops heterurus	0.20	4	0.06	
Dibranchius atlanticus	0.06	4	0.02	
Thorogobius angolensis	0.04	10	0.01	
Total	338.60		100.01	

PROJECT STATION: 511
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 514 Long W 1202
 TIME :12:12:00 12:42:00 30 (min) Purpose code: 3
 LOG :3345.00 3346.00 1.60 Area code : 1
 FDEPTH: 17 17 GearCond.code:
 BDEPTH: 17 17 Validity code:
 Towing dir: 330 Wire out: 100 m Speed:310 kn*10

Sorted: 32 Kg Total catch: 466.20 CATCH/HOUR: 936.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	689.00	27560	73.58	49
Argyrosomus hololepidotus	44.00	2	4.70	
Chloroscombrus chrysurus	33.80	858	3.61	
Raja miraletus	31.20	78	3.33	
Pomadasy s rogeri	29.40	76	3.14	48
Galeoides decadactylus	23.40	260	2.50	
Selene dorsalis	18.20	468	1.94	
Sardinella maderensis	13.00	234	1.39	
Pomadasy jubelini	8.60	16	0.92	
Pagellus bellottii	8.00	40	0.85	
Mustelus mustelus	7.40	2	0.79	
Arius parkii	6.80	4	0.73	
Sphyaena quachancho	6.76	26	0.72	
Penaeus notialis	4.42	78	0.47	
Pseudolithus typus	4.00	2	0.43	
Decapterus rhonchus	2.86	52	0.31	
Sepia officinalis hierredda	2.00	2	0.21	
Trichiurus lepturus	1.82	52	0.19	
Pteroscion pelli	1.82	26	0.19	
Total	936.48		100.00	

PROJECT STATION: 512
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 516 Long W 1205
 TIME :06:49:00 07:19:00 30 (min) Purpose code: 3
 LOG :3311.00 3313.00 1.70 Area code : 1
 FDEPTH: 45 47 GearCond.code:
 BDEPTH: 45 47 Validity code:
 Towing dir: 335 Wire out: 200 m Speed:320 kn*10

Sorted: 33 Kg Total catch: 391.20 CATCH/HOUR: 782.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	672.00	2640	85.89	41
Brachydeuterus auritus	50.40	360	6.44	
Raja miraletus	16.80	24	2.15	
Stromateus fiatola	14.40	24	1.84	
Pentheroscion mbizi	9.60	72	1.23	
Fistularia petimba	7.20	24	0.92	
Illex coindetii	4.80	24	0.61	
Torpedo torpedo	4.80	24	0.61	
Chelidonichthys capensis	2.40	24	0.31	
Total	782.40		100.00	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chloroscombrus chrysurus	524.40	22080	31.94	51
Arius parkii	230.00	92	14.01	
Brachydeuterus auritus	209.30	7420	12.75	50
Pteroscion pelli	172.50	6140	10.51	
Pentanemus quinquarius	115.00	2806	7.01	
Ilisha africana	89.70	9162	5.46	
Callinectes amnicola	82.80	206	5.04	
Sardinella maderensis	62.10	1770	3.78	52
Trichiurus lepturus	27.60	1012	1.68	
Galeoides decadactylus	27.60	344	1.68	
Sepia officinalis hierredda	23.00	114	1.40	
Mustelus mustelus	23.00	22	1.40	
Pseudolithus typus	20.70	138	1.26	
Raja miraletus	13.80	22	0.84	
Selene dorsalis	13.80	1058	0.84	
Penaeus notialis	3.20	96	0.19	
Cynoglossus browni	1.72	46	0.10	
Alectis alexandrinus	1.32	46	0.08	
Total	1641.54		99.97	

PROJECT STATION: 513
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 518 Long W 1159
 TIME :11:02:00 15:27:00 25 (min) Purpose code: 3
 LOG :3362.00 3364.00 1.40 Area code : 1
 FDEPTH: 27 27 GearCond.code:
 BDEPTH: 27 27 Validity code:
 Towing dir: 330 Wire out: 150 m Speed:320 kn*10

Sorted: 70 Kg Total catch: 70.10 CATCH/HOUR: 168.24

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chloroscombrus chrysurus	39.36	658	23.40	
Trachurus trecae	34.32	310	20.40	53
Decapterus rhonchus	24.24	307	14.41	54
Epinephelus aeneus	21.60	6	12.84	
Sardinella aurita	20.40	144	12.13	56
Pagellus bellottii	17.52	79	10.41	55
Brachydeuterus auritus	5.52	65	3.28	
Dentex barnardi	1.20	5	0.71	
Pseudopenaeus prayensis	1.20	12	0.71	
Sardinella aurita	0.96	7	0.57	
Sphyaena sphyraena	0.72	2	0.43	
Callinectes amnicola	0.58	2	0.34	
Ilisha africana	0.36	5	0.21	
Arius heudeloti	0.31	2	0.18	
Penaeus notialis	0.05	7	0.03	
Total	168.34		100.05	

PROJECT STATION: 514
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 519 Long W 1151
 TIME :16:38:00 17:08:00 30 (min) Purpose code: 3
 LOG :3373.00 3375.00 1.50 Area code : 1
 FDEPTH: 47 51 GearCond.code:
 BDEPTH: 47 51 Validity code:
 Towing dir: 310 Wire out: 250 m Speed:300 kn*10

Sorted: 80 Kg Total catch: 79.88 CATCH/HOUR: 159.76

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Epinephelus aeneus	66.40	26	41.56	
Dentex angolensis	41.20	204	25.79	57
Pagellus bellottii	23.80	84	14.90	59
Sardinella maderensis	7.60	66	4.76	58
Raja miraletus	5.20	8	3.25	
Dentex barnardi	3.80	54	2.38	
Sphyaena quachancho	3.00	2	1.88	
Sparus pagrus africanus	2.00	2	1.25	
Fistularia petimba	1.80	4	1.13	
Sepia officinalis hierredda	1.20	4	0.75	
Trachurus trecae	1.00	16	0.63	
Priacanthus arenatus	0.80	6	0.50	
Sardinella aurita	0.60	6	0.38	
Callinectes sp.	0.44	2	0.28	
Chloroscombrus chrysurus	0.40	4	0.25	
Penaeus notialis	0.36	8	0.23	
Cynoglossus browni	0.16	2	0.10	
Total	159.76		100.02	

PROJECT STATION: 510
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 511 Long W 1157
 TIME :10:41:00 11:11:00 30 (min) Purpose code: 3
 LOG :3335.00 3337.00 1.70 Area code : 1
 FDEPTH: 27 28 GearCond.code:
 BDEPTH: 27 28 Validity code:
 Towing dir: 320 Wire out: 150 m Speed:350 kn*10

Sorted: 58 Kg Total catch: 58.00 CATCH/HOUR: 116.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pomadasy peroteti	47.00	78	40.52	
Pagellus bellottii	34.00	158	29.31	47
Dentex canariensis	14.00	34	12.07	
Dasyatris margarita	5.00	2	4.31	
Sepia officinalis hierredda	3.00	2	2.59	
Rhinobatos rhinobatos	3.00	2	2.59	
Decapterus rhonchus	2.80	36	2.41	
Arius parkii	2.40	4	2.07	
Stromateus fiatola	1.40	2	1.21	
Thamnaconus modestoides	0.60	2	0.52	
MONACANTHIDAE	0.60	2	0.52	
Cynoglossus capensis	0.60	2	0.52	
Zeus faber	0.40	2	0.34	
Sphyaena quachancho	0.40	2	0.34	
Pomadasy incisus	0.40	2	0.34	
Balistes capricus	0.40	2	0.34	
Total	116.00		100.00	

PROJECT STATION: 515
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 534
 start stop duration Long W 1123
 TIME :20:35:00 21:05:00 30 (min) Purpose code: 3
 LOG :3404.00 3405.00 1.50 Area code : 1
 FDEPTH: 285 288 GearCond.code: 1
 BDEPTH: 285 288 Validity code:
 Towing dir: 10 Wire out: 950 m Speed:300 kn*10

Sorted: 22 Kg Total catch: 348.20 CATCH/HOUR: 696.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pterothrissus belloci	360.00	21.80	51.69
Merluccius polli	160.00	500	22.98
Nematocarcinus africanus	70.00	38500	10.05
S H A R K S	25.20	56	3.62
MACROURIDAE	24.00	200	3.45
Raja sp.	16.00	20	2.30
Chlorophtalmus atlanticus	12.00	200	1.72
Pentheroscion mbizi	10.00	60	1.44
Lophius sp.	8.00	20	1.15
CONGRIDAE	4.00	60	0.57
Laemonema sp.	2.00	100	0.29
Nezumia aequalis	2.00	60	0.29
Monolele microstoma	2.00	20	0.29
Solenocera africana	1.00	60	0.14
Coelorhynchus coelorhynchus	0.20	20	0.03
Aristeus varidens	0.00	40	
Total	696.40	100.01	

PROJECT STATION: 519
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 532
 start stop duration Long W 1147
 TIME :10:01:00 10:31:00 30 (min) Purpose code: 3
 LOG :3514.00 3515.00 1.50 Area code : 1
 FDEPTH: 71 72 GearCond.code: 1
 BDEPTH: 71 72 Validity code:
 Towing dir: 350 Wire out: 350 m Speed:300 kn*10

Sorted: 67 Kg Total catch: 67.44 CATCH/HOUR: 134.88

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus trecae	32.00	872	23.72
Dentex angolensis	27.00	136	20.02
Stromateus fiatola	23.20	22	17.20
Epinephelus aeneus	15.60	4	11.57
Squatina sp.	8.00	2	5.93
Sarda sarda	5.40	4	4.00
Miracorvina angolensis	4.00	10	2.97
Trichurus lepturus	3.80	4	2.82
Umbrina canariensis	3.60	4	2.67
Raja miraletus	3.60	6	2.67
Arius parkii	3.40	2	2.52
Pterothrissus belloci	1.60	50	1.19
Zeus faber	0.80	4	0.59
Torpedo torpedo	0.80	4	0.59
Branchiostegus semifasciatus	0.80	2	0.59
Chelidonichthys capensis	0.40	8	0.30
Parapenaeopsis atlantica, fem.	0.40	36	0.30
Saurida brasiliensis	0.20	12	0.15
Dentex congoensis	0.20	2	0.15
Parapenaeopsis atlantica, male	0.06	10	0.04
Scomber japonicus	0.02	2	0.01
Total	134.88	100.00	

PROJECT STATION: 516
 DATE: 8/ 8/92 GEAR TYPE: PT No:3 POSITION:Lat N 541
 start stop duration Long W 1140
 TIME :23:50:00 00:20:00 30 (min) Purpose code: 1
 LOG :3427.00 3429.00 2.10 Area code : 1
 FDEPTH: 0 0 GearCond.code: 1
 BDEPTH: 116 118 Validity code:
 Towing dir: 180 Wire out: 100 m Speed:420 kn*10

Sorted: 69 Kg Total catch: 68.85 CATCH/HOUR: 137.70

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trichurus lepturus	58.60	390	42.56
Selene dorsalis	43.00	164	31.23
Sardinella maderensis	18.00	54	13.07
Trachurus trecae	7.20	16	5.23
Trachurus, Juveniles	5.20	158	3.78
Diaphus dumerilii	3.60	116	2.61
Saurida brasiliensis	1.30	228	0.94
Synagrops microlepis	0.80	64	0.58
Total	137.70	100.00	

PROJECT STATION: 520
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 535
 start stop duration Long W 1144
 TIME :11:28:00 11:58:00 30 (min) Purpose code: 3
 LOG :3523.00 3524.00 1.50 Area code : 1
 FDEPTH: 87 91 GearCond.code: 1
 BDEPTH: 87 91 Validity code:
 Towing dir: 350 Wire out: 400 m Speed:310 kn*10

Sorted: 139 Kg Total catch: 138.50 CATCH/HOUR: 277.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pentheroscion mbizi	93.40	918	33.72
Trachurus trecae	40.20	778	14.51
Trichurus lepturus	38.40	54	13.86
Dentex angolensis	38.20	140	13.79
Epinephelus aeneus	21.00	2	7.58
Pterothrissus belloci	14.60	102	5.27
Umbrina canariensis	10.80	30	3.90
Miracorvina angolensis	7.00	28	2.53
Sarda sarda	3.40	2	1.23
Branchiostegus semifasciatus	2.90	4	1.05
Saurida brasiliensis	1.60	264	0.58
Illex coindetii	1.60	22	0.58
Dasysia margarita	1.20	2	0.43
Chelidonichthys gabonensis	1.00	10	0.36
Parapenaeopsis atlantica, male	0.70	88	0.25
Zeus faber	0.50	4	0.18
Parapenaeopsis atlantica, fem.	0.34	70	0.12
Synagrops microlepis	0.10	68	0.04
Todaropsis eblanae	0.04	16	0.01
Trachurus, Juveniles	0.04	36	0.01
Uranoscopus albesca	0.02	2	0.01
Total	277.04	100.01	

PROJECT STATION: 517
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 540
 start stop duration Long W 1202
 TIME :06:30:00 07:00:00 30 (min) Purpose code: 3
 LOG :3490.00 3491.00 1.60 Area code : 1
 FDEPTH: 21 23 GearCond.code: 1
 BDEPTH: 21 23 Validity code:
 Towing dir: 350 Wire out: 100 m Speed:310 kn*10

Sorted: 27 Kg Total catch: 79.65 CATCH/HOUR: 159.30

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pseudotolithus senegalensis	90.00	714	56.50
Arius parkii	27.00	30	16.95
Pteroscion pelli	9.60	240	6.03
Torpedo sp.	9.60	6	6.03
Pentanemus quinquarius	9.00	132	5.65
Trichurus lepturus	4.80	420	3.01
Raja miraletus	3.60	6	2.26
Ilisha africana	3.00	42	1.88
Sepia officinalis hierredda	1.20	42	0.75
Parapenaeopsis atlantica, fem.	1.20	114	0.75
Selene dorsalis	0.30	78	0.19
Total	159.30	100.00	

PROJECT STATION: 521
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1307
 start stop duration Long W 1337
 TIME :13:07:00 13:37:00 30 (min) Purpose code: 3
 LOG :3532.00 3533.00 1.50 Area code : 1
 FDEPTH: 120 135 GearCond.code: 1
 BDEPTH: 120 135 Validity code:
 Towing dir: 300 Wire out: 500 m Speed:310 kn*10

Sorted: 33 Kg Total catch: 575.41 CATCH/HOUR: 1150.82

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pentheroscion mbizi	690.20	3834	59.97
Synagrops microlepis	187.00	9724	16.25
Trichurus lepturus	180.20	1122	15.66
Pterothrissus belloci	44.20	306	3.84
Dentex angolensis	38.00	122	3.30
Trachurus trecae	6.12	170	0.53
Parapenaeus longirostris	3.40	476	0.30
Illex coindetii	1.70	34	0.15
Total	1150.82	100.00	

PROJECT STATION: 518
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 539
 start stop duration Long W 1159
 TIME :07:48:00 08:18:00 30 (min) Purpose code: 3
 LOG :3497.00 3499.00 1.70 Area code : 1
 FDEPTH: 33 34 GearCond.code: 1
 BDEPTH: 33 34 Validity code:
 Towing dir: 350 Wire out: 150 m Speed:320 kn*10

Sorted: 33 Kg Total catch: 230.37 CATCH/HOUR: 460.74

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NC.
weight	numbers		
Brachydeuterus auritus	322.00	3648	69.89
Arius parkii	70.00	56	15.19
Trichurus lepturus	28.00	1876	6.08
Pteroscion pelli	21.00	70	4.56
Selene dorsalis	9.80	112	2.13
Parulius sp.	1.40	14	-0.82
Cynoglossus senegalensis	1.40	14	0.30
Trachurus trecae	0.14	434	0.03
Boops boops	0.00	14	
Parapenaeopsis atlantica	0.00	14	
Selene dorsalis	0.00	154	
Total	460.74	100.00	

PROJECT STATION: 522
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 542
 start stop duration Long W 1137
 TIME :14:35:00 15:05:00 30 (min) Purpose code: 3
 LOG :3540.00 3541.00 1.50 Area code : 1
 FDEPTH: 156 171 GearCond.code: 1
 BDEPTH: 156 171 Validity code:
 Towing dir: 320 Wire out: 600 m Speed:300 kn*10

Sorted: 68 Kg Total catch: 589.70 CATCH/HOUR: 1179.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pentheroscion mbizi	478.40	2212	40.56
Diaphus dumerilii	388.80	129600	32.97
Synagrops microlepis	83.20	4236	7.05
Broctula barbata	56.00	48	4.75
Dentex angolensis	54.20	168	4.60
Epinephelus goreensis	39.80	2	3.37
Trichurus lepturus	27.20	48	2.31
Zenopsis conchifer	20.80	32	1.76
Pterothrissus belloci	17.60	96	1.49
Parapenaeus longirostris	5.40	528	0.46
Parapenaeus longirostris, fem.	3.60	624	0.31
Uranoscopus albesca	1.20	16	0.10
Neomexinthe folgori	1.20	16	0.10
Trachurus trecae	1.20	48	0.10
Monolele microstoma	0.80	48	0.07
Total	1179.40	100.00	

PROJECT STATION: 523
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 545
 start stop duration Long W 1132
 TIME :16:12:00 16:42:00 30 (min) Purpose code: 3
 LOG :3549.00 3551.00 1.60 Area code : 1
 FDEPTH: 205 207 GearCond.code:
 BDEPTH: 205 207 Validity code:
 Towing dir: 10 Wire out: 700 m Speed:290 kn*10
 Sorted: 30 Kg Total catch: 404.90 CATCH/HOUR: 809.80

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Synagrops microlepis	356.20 18522	43.99	
Pentheroscion mbizi	156.00 832	19.26	
Trichiurus lepturus	88.40 286	10.92	
Pterochirissus bellocci	83.20 624	10.27	
Zenopsis conchifer	39.00 52	4.82	
Dentex angolensis	37.40 114	4.62	80
Diaphus dumerilii	20.80 7394	2.57	
Brotula barbata	15.60 26	1.93	
Merluccius polli	7.80 78	0.96	
Parapenaeus longirostris, male	2.08 208	0.26	
Sepia obignyana	1.04 52	0.13	
Parapenaeus longirostris, fem.	1.04 208	0.13	
Coelorrhinus coelorrhinus	1.04 26	0.13	
Saurida brasiliensis	0.26 26	0.03	
Total	809.86	100.02	

PROJECT STATION: 527
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 609
 start stop duration Long W 1325
 TIME :06:30:00 07:00:00 30 (min) Purpose code: 3
 LOG :3652.00 3654.00 1.70 Area code : 1
 FDEPTH: 352 351 GearCond.code:
 BDEPTH: 352 351 Validity code:
 Towing dir: 180 Wire out:1100 m Speed:330 kn*10
 Sorted: 27 Kg Total catch: 172.90 CATCH/HOUR: 345.80

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Merluccius polli	214.50 948	62.03	91
Chlorophthalmus atlanticus	48.10 754	13.91	
Benthodesmus tenuis	19.50 832	5.64	
S H A R K S	18.20 234	5.26	
Laemonema laureysi	11.70 234	3.38	
Raja sp.	9.10 12	2.63	
Nematocarcinus africanus	5.20 1560	1.50	
Zenopsis conchifer	3.90 12	1.13	
Brotula barbata	3.90 116	1.13	
Hymenoccephalus italicus	2.60 116	0.75	
Stereonastis sculpta	2.60 104	0.75	
Pterochirissus bellocci	2.60 12	0.75	
Plesionika martia	1.30 260	0.38	
Synagrops microlepis	1.30 64	0.38	
Aristeus varidens	0.92 26	0.27	
Parapenaeus longirostris	0.26 26	0.08	
Solenocera africana	0.14 12	0.04	
Chaunax pictus	0.00 12		
Total	345.82	100.01	

PROJECT STATION: 524
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 549
 start stop duration Long W 1141
 TIME :18:16:00 18:46:00 30 (min) Purpose code: 3
 LOG :3563.00 3565.00 1.80 Area code : 1
 FDEPTH: 99 101 GearCond.code:
 BDEPTH: 99 101 Validity code:
 Towing dir: 180 Wire out: 500 m Speed:340 kn*10
 Sorted: 33 Kg Total catch: 300.00 CATCH/HOUR: 600.00

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Pentheroscion mbizi	272.00 3160	45.33	81
Pterochirissus bellocci	136.00 816	22.67	
Epinephelus gorenensis	51.60 2	8.60	
Dentex angolensis	43.20 160	7.20	
Miracorvina angolensis	22.40 48	3.73	
Conger conger	14.00 16	2.33	
Trichiurus lepturus	12.80 272	2.13	
Chelidonichthys capensis	8.00 80	1.33	
Citharus linguatula	8.00 160	1.33	
Zenopsis conchifer	6.40 16	1.07	
Spicara alta	6.40 32	1.07	
Boops boops	3.20 48	0.53	
Parapenaeus longirostris, fem.	3.20 848	0.53	83
Trachurus trecae	3.20 32	0.53	
Synagrops microlepis	3.20 96	0.53	
Uranoscopus polli	1.60 16	0.27	
Saurida brasiliensis	1.60 144	0.27	
Parapenaeus longirostris, male	1.60 752	0.27	82
Trachurus, Juveniles	1.60 240	0.27	
Total	600.00	99.99	

PROJECT STATION: 528
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 609
 start stop duration Long W 1130
 TIME :08:18:00 08:48:00 30 (min) Purpose code: 3
 LOG :3663.00 3665.00 1.80 Area code : 1
 FDEPTH: 217 216 GearCond.code:
 BDEPTH: 217 216 Validity code:
 Towing dir: 180 Wire out: 850 m Speed:350 kn*10
 Sorted: 33 Kg Total catch: 328.70 CATCH/HOUR: 657.40

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Synagrops microlepis	370.00 17178	56.28	
Merluccius polli	128.00 620	19.47	92
Dentex angolensis	84.00 140	12.78	93
Zenopsis conchifer	30.00 80	4.56	
Pentheroscion mbizi	28.00 180	4.26	
Diaphus dumerilii	10.00 3160	1.52	
Trichiurus lepturus	4.00 20	0.61	
Pontinus accraensis	2.00 20	0.30	
Pegusa lascaris	1.00 40	0.15	
Peristedion cataphractum	0.40 20	0.06	
Total	657.40	99.99	

PROJECT STATION: 525
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1115
 TIME :01:43:00 02:43:00 60 (min) Purpose code: 3
 LOG :3629.00 3632.00 2.90 Area code : 1
 FDEPTH: 748 761 GearCond.code:
 BDEPTH: 748 761 Validity code:
 Towing dir: 360 Wire out:1900 m Speed:290 kn*10
 Sorted: 20 Kg Total catch: 63.70 CATCH/HOUR: 63.70

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
POLYCHAELIDAE	20.10 683	31.55	
Deepwater fish mixture	12.00 160	18.84	
TRACHICHTHYIDAE	8.70 48	13.66	
Merluccius polli	6.80 9	10.68	
Etmopterus spinax	3.90 9	6.12	
ALEPOCEPHALIDAE	3.90 18	6.12	
Plesionika edwardsianus, m.	3.50 93	5.49	86
Aristeus varidens, male	1.50 137	2.35	84
Plesionika edwardsianus, f.	1.20 35	1.88	87
Aristeus varidens, female	1.20 37	1.88	85
HALCSAURIDAE	0.90 9	1.41	
Total	63.70	99.98	

PROJECT STATION: 529
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 609
 start stop duration Long W 1140
 TIME :10:38:00 11:08:00 30 (min) Purpose code: 3
 LOG :3678.00 3680.00 1.70 Area code : 1
 FDEPTH: 109 110 GearCond.code:
 BDEPTH: 109 110 Validity code:
 Towing dir: 180 Wire out: 500 m Speed:310 kn*10
 Sorted: 40 Kg Total catch: 161.60 CATCH/HOUR: 323.20

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Dentex angolensis	92.00 360	28.47	96
Dentex congoensis	85.60 784	26.49	94
Sparus pagrus pagrus	39.20 40	12.13	
Illex coindetii	38.40 1314	11.88	
Branchiostegus semifasciatus	23.20 16	7.28	
Trachurus trecae	20.00 512	6.19	95
Dentex gibbosus	15.20 8	4.70	
Zeus faber	4.80 8	1.49	
Arionomus bondi	2.40 16	0.74	
Pagellus bellottii	1.60 16	0.50	
Chelidonichthys capensis	0.80 8	0.25	
Total	323.20	100.02	

PROJECT STATION: 526
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1120
 TIME :04:19:00 04:49:00 30 (min) Purpose code: 3
 LOG :3641.00 3643.00 1.60 Area code : 1
 FDEPTH: 548 555 GearCond.code:
 BDEPTH: 548 555 Validity code:
 Towing dir: 360 Wire out:1500 m Speed:300 kn*10
 Sorted: 22 Kg Total catch: 66.33 CATCH/HOUR: 132.66

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Merluccius polli	42.60 84	32.11	88
Nematocarcinus africanus	23.40 9360	17.64	
Deepwater fish mixture	21.00 570	15.83	
TRACHICHTHYIDAE	15.00 84	11.31	
Aristeus varidens, female	14.40 1104	10.85	90
POLYCHAELIDAE	10.80 756	8.14	
Aristeus varidens, male	2.40 306	1.81	89
S H A R K S	2.40 6	1.81	
Diaphus dumerilii	0.48 420	0.36	
Etmopterus spinax	0.18 6	0.14	
Total	132.66	100.00	

PROJECT STATION: 530
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1150
 TIME :12:39:00 13:09:00 30 (min) Purpose code: 3
 LOG :3693.00 3695.00 1.50 Area code : 1
 FDEPTH: 83 83 GearCond.code:
 BDEPTH: 83 83 Validity code:
 Towing dir: 350 Wire out: 350 m Speed:300 kn*10
 Sorted: 122 Kg Total catch: 121.70 CATCH/HOUR: 243.40

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Dentex angolensis	152.00 594	62.45	97
Dentex barnardi	33.80 22	13.89	98
Trachurus trecae	18.40 52	7.56	99
Trichiurus lepturus	16.40 18	6.74	
Zeus faber	6.00 8	2.47	
Dentex gibbosus	5.60 8	2.30	
Illex coindetii	3.60 86	1.48	
Dentex congoensis	3.00 34	1.23	
Todaropsis eblanae	2.40 114	0.99	
Pagellus bellottii	1.60 10	0.66	
Sparus pagrus africanus	0.36 2	0.15	
Scomber japonicus	0.22 2	0.09	
Total	243.38	100.01	

PROJECT STATION: 531
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1200
 TIME :14:47:00 15:17:00 30 (min) Purpose code: 3
 LOG :3707.00 3709.00 2.00 Area code : 1
 FDEPTH: 50 50 GearCond.code:
 BDEPTH: 50 50 Validity code:
 Towing dir: 355 Wire out: 250 m Speed:344 kn*10
 Sorted: 135 Kg Total catch: 135.00 CATCH/HOUR: 270.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pagellus bellottii	96.80 78	35.85	102
Dentex barnardi	42.00 62	15.56	100
Sparus pagrus africanus	36.40 44	13.48	101
Sparus caeruleostictus	18.00 10	6.67	
Epinephelus aeneus	16.00 6	5.93	
Dentex gibbosus	15.00 12	5.56	
Fistularia petimba	14.40 18	5.33	
Mustelus mustelus	11.40 4	4.22	
Trichiurus lepturus	9.80 6	3.63	
Sphyræna sphyraena	3.40 8	1.26	
Dentex angolensis	2.80 8	1.04	
Raja miraletus	1.60 2	0.59	
Zeus faber	1.00 4	0.37	
Alloteuthis africana	0.40 252	0.15	
Torpedo torpedo	0.40 2	0.15	
Trachurus trecae	0.40 2	0.15	
Chaetodon hoefleri	0.20 4	0.07	
Total	270.00	100.01	

PROJECT STATION: 535
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 631
 start stop duration Long W 1136
 TIME :05:35:00 06:05:00 30 (min) Purpose code: 3
 LOG :3837.00 3838.00 1.60 Area code : 1
 FDEPTH: 319 325 GearCond.code:
 BDEPTH: 319 325 Validity code:
 Towing dir: 330 Wire out:1000 m Speed:310 kn*10
 Sorted: 43 Kg Total catch: 237.17 CATCH/HOUR: 474.34

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Chlorophthalmus atlanticus	319.00 6538	67.25	
Merluccius polli	49.50 180	10.44	109
Benthodesmus tenuis	39.60 3420	8.35	
Pterothrissus bellocci	22.00 132	4.64	
Laemonema laureysi	11.00 286	2.32	
Plesionika martia	4.40 956	0.93	
Illex coindetii	3.30 54	0.70	
Peristedion cataphractum	3.30 32	0.70	
Miracorvina angolensis	2.40 2	0.63	
Priacanthus arenatus	2.40 2	0.51	
Parapenaeus longirostris	2.20 176	0.46	
Nematoscarinus africanus	2.20 956	0.46	
Diaphus dumerili	2.20 626	0.46	
Brosmiculus imberbis *	2.20 22	0.46	
Chaunax pictus	2.20 22	0.46	
Solenocera africana	1.44 98	0.30	
Sepia officinalis hierredda	1.10 10	0.23	
Hymenocapalus italicus	1.10 44	0.23	
Stereomastis sculpta	1.10 88	0.23	
Chlorophthalmus sp.	1.10 10	0.23	
Total	474.34	99.99	

PROJECT STATION: 532
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1206
 TIME :16:26:00 16:56:00 30 (min) Purpose code: 3
 LOG :3717.00 3719.00 1.60 Area code : 1
 FDEPTH: 35 33 GearCond.code:
 BDEPTH: 35 33 Validity code:
 Towing dir: 350 Wire out: 200 m Speed:300 kn*10
 Sorted: 264 Kg Total catch: 264.30 CATCH/HOUR: 528.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pseudotolithus typus	152.80 126	28.91	105
Pomadasy incisus	96.00 266	18.16	104
Trichiurus lepturus	45.60 76	8.63	
Mustelus mustelus	44.60 20	8.44	
Epinephelus aeneus	42.80 8	8.10	
Argyrosomus hololepidotus	32.20 4	6.09	
Sparus caeruleostictus	32.00 58	6.05	103
Umbrina canariensis	20.00 20	3.78	
Sparus pagrus africanus	19.60 18	3.71	
Pagellus bellottii	16.80 28	3.18	
Dentex barnardi	9.80 10	1.85	
Dasyatis margarita	7.00 2	1.32	
Zeus faber	4.40 10	0.83	
Fistularia petimba	1.40 2	0.26	
Sphyræna sphyraena	1.20 4	0.23	
Sepia officinalis hierredda	1.00 6	0.19	
Raja miraletus	1.00 2	0.19	
Alloteuthis africana	0.20 150	0.04	
Chaetodon hoefleri	0.20 2	0.04	
Total	528.60	100.00	

PROJECT STATION: 536
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 630
 start stop duration Long W 1140
 TIME :07:10:00 07:40:00 30 (min) Purpose code: 3
 LOG :3846.00 3847.00 1.60 Area code : 1
 FDEPTH: 202 205 GearCond.code:
 BDEPTH: 202 205 Validity code:
 Towing dir: 325 Wire out: 800 m Speed:320 kn*10
 Sorted: 34 Kg Total catch: 234.50 CATCH/HOUR: 469.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	322.00 21662	68.66	
Trichiurus lepturus	35.00 322	7.46	
Chlorophthalmus atlanticus	35.00 3092	7.46	
Ariomma bondi	21.00 126	4.48	
Zenopsis conchifer	14.00 14	2.99	
Illex coindetii	12.60 140	2.69	
Dentex angolensis	11.20 28	2.39	
Pterothrissus bellocci	7.00 56	1.49	
Merluccius polli	4.20 42	0.90	
Spicara alta	4.20 28	0.90	
Parapenaeus longirostris	1.40 84	0.30	
Trachurus trecae	1.40 14	0.30	
Saurida brasiliensis	0.00 14		
Total	469.00	100.02	

PROJECT STATION: 533
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1210
 TIME :17:49:00 18:19:00 30 (min) Purpose code: 3
 LOG :3725.00 3727.00 1.70 Area code : 1
 FDEPTH: 18 18 GearCond.code:
 BDEPTH: 18 18 Validity code:
 Towing dir: 360 Wire out: 100 m Speed:340 kn*10
 Sorted: 13 Kg Total catch: 13.35 CATCH/HOUR: 26.70

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pseudotolithus typus	12.00 8	44.94	
Pomadasy peroteti	3.00 2	11.24	
Arius laticutatus	3.00 2	11.24	
Auxis thazard	2.00 2	7.49	
Pteroscion pelli	2.00 120	7.49	
Pteroscion pelli	2.00 2	7.49	
Zeus faber	1.00 2	3.75	
Trichiurus lepturus	0.60 2	2.25	
Sphyræna guanchancho	0.60 2	2.25	
Cynoglossus senegalensis	0.30 2	1.12	
Brachydeuterus auritus	0.20 6	0.75	
Total	26.70	100.01	

PROJECT STATION: 537
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 631
 start stop duration Long W 1143
 TIME :08:45:00 09:15:00 30 (min) Purpose code: 3
 LOG :3855.00 3856.00 1.60 Area code : 1
 FDEPTH: 153 153 GearCond.code:
 BDEPTH: 153 153 Validity code:
 Towing dir: 325 Wire out: 750 m Speed:300 kn*10
 Sorted: 58 Kg Total catch: 131.20 CATCH/HOUR: 262.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Zenopsis conchifer	81.00 122	30.87	111
Spicara alta	67.50 440	25.72	114
Trachurus trecae	31.50 486	12.00	110
Dentex angolensis	22.50 94	8.57	
Ariomma bondi	15.76 266	6.01	
Trichiurus lepturus	13.50 44	5.14	
Todaropsis eblanae	11.26 238	4.29	113
Illex coindetii	4.50 68	1.71	112
Miracorvina angolensis	4.50 8	1.71	
Pterothrissus bellocci	4.50 54	1.71	
Umbrina canariensis	1.36 4	0.52	
Citharus linguatula	1.36 18	0.52	
Dentex congoensis	0.90 8	0.34	
Scomber japonicus	0.90 4	0.34	
Pontinus kuhlii	0.46 4	0.18	
Pentheroscion mbizi	0.46 4	0.18	
Bembrops heterurus	0.46 4	0.18	
Total	262.42	99.99	

PROJECT STATION: 534
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat S 620
 start stop duration Long E 1124
 TIME :02:36:00 03:06:00 30 (min) Purpose code: 3
 LOG :3814.40 3815.80 1.50 Area code : 1
 FDEPTH: 436 424 GearCond.code:
 BDEPTH: 436 424 Validity code:
 Towing dir: 360 Wire out:1250 m Speed: 29 kn*10
 Sorted: 30 Kg Total catch: 182.70 CATCH/HOUR: 365.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Merluccius polli	307.20 768	84.07	106
Aristeus varidens, female	21.60 1164	5.91	108
Brosmiculus imberbis *	9.60 48	2.63	
Nematoscarinus africanus	5.40 1032	1.48	
Laemonema laureysi	4.80 48	1.31	
POLYCHAEALIDAE	4.80 480	1.31	
Chaunax pictus	3.60 48	0.99	
Aristeus varidens, male	1.68 240	0.46	107
Trichiurus lepturus	1.20 108	0.33	
Etmopterus spinax	1.20 36	0.33	
Centroporus granulosus	1.20 12	0.33	
Coelorrhinus coelorrhinus	1.20 36	0.33	
GONOSTOMATIDAE	1.08 84	0.30	
Gibranchus atlanticus	0.60 60	0.16	
PANDALIDAE	0.24 156	0.07	
Total	365.40	100.01	

PROJECT STATION: 538
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 631
 start stop duration Long W 1148
 TIME :10:25:00 10:58:00 33 (min) Purpose code: 3
 LOG :3865.00 3867.00 1.70 Area code : 1
 FDEPTH: 119 120 GearCond.code:
 BDEPTH: 119 120 Validity code:
 Towing dir: 325 Wire out: 550 m Speed:320 kn*10
 Sorted: 39 Kg Total catch: 216.80 CATCH/HOUR: 394.18

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex congoensis	130.00 1240	32.98	115
Trachurus trecae	120.00 3840	30.44	
Trichiurus lepturus	70.00 31	17.76	
Dentex angolensis	40.00 200	10.15	
Dentex barnardi	15.00 11	3.81	
Illex coindetii	7.00 311	1.78	
Zeus faber	5.00 11	1.27	
Todaropsis eblanae	5.00 240	1.27	
Sarda sarda	2.18 2	0.55	
Boops boops	0.00 11		
Scomber japonicus	0.00 11		
Total	394.18	100.01	

PROJECT STATION: 539
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 630
 start stop duration Long W 1202
 TIME :12:54:00 13:24:00 30 (min) Purpose code: 3
 LOG :3884.00 3886.00 1.70 Area code : 1
 FDEPTH: 83 81 GearCond.code:
 BDEPTH: 83 81 Validity code:
 Towing dir: 355 Wire out: 350 m Speed:330 kn*10
 Sorted: 75 Kg Total catch: 197.60 CATCH/HOUR: 395.20

PROJECT STATION: 543
 PROJECT: A3
 DATE: 11/ 8/92 GEAR TYPE: PT No: POSITION: Lat N 623
 start stop duration Long W 1215
 TIME :18:57:00 19:27:00 30 (min) Purpose code: 1
 LOG :3925.00 3927.00 1.90 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 20 19 Validity code:
 Towing dir: 80 Wire out: 100 m Speed:350 kn*10
 Sorted: 23 Kg Total catch: 96.00 CATCH/HOUR: 192.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex angolensis	92.50	380	23.41
Selene dorsalis	88.78	200	22.46
Dentex congoensis	63.00	490	15.94
Alloteuthis africana	51.50	6980	13.03
Trichiurus lepturus	30.00	34	7.59
Trachurus trecae	24.26	70	6.14
Branchiostegus semifasciatus	21.00	4	5.31
Epinephelus aeneus	11.00	2	2.78
Mustelus mustelus	9.60	2	2.43
Pagellus bellottii	1.20	10	0.30
Neomerinthe folgori	1.16	4	0.29
Chaetodon hoefleri	0.60	4	0.15
Callinectes pallidus	0.50	4	0.13
Todaropsis eblanae	0.10	4	0.03
Dibranchius atlanticus	0.00	4	
Total	395.20	99.99	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Engraulis encrasicolus	144.00	16416	75.00
Brachydeuterus auritus	26.40	1736	13.75
Trichiurus lepturus	8.00	160	4.27
Pomadasys peroteti	7.20	8	3.75
Sardinella maderensis	2.40	32	1.25
Boops boops	1.60	144	0.83
Scomber japonicus	0.80	8	0.42
Galeoides decadactylus	0.80	16	0.42
Sardinella maderensis	0.80	208	0.42
Trachurus trecae	0.00	24	
Decapterus rhonchus	0.00	8	
Total	192.00	100.01	

PROJECT STATION: 540
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 630
 start stop duration Long W 1212
 TIME :14:49:00 15:19:00 30 (min) Purpose code: 3
 LOG :3898.00 3900.00 1.80 Area code : 1
 FDEPTH: 39 38 GearCond.code:
 BDEPTH: 39 38 Validity code:
 Towing dir: 360 Wire out: 250 m Speed:350 kn*10
 Sorted: 69 Kg Total catch: 206.25 CATCH/HOUR: 412.50

PROJECT STATION: 544
 DATE: 11/ 8/92 GEAR TYPE: PT No: POSITION: Lat N 631
 start stop duration Long W 1218
 TIME :22:15:00 22:45:00 30 (min) Purpose code: 1
 LOG :3952.00 3953.00 1.70 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 24 27 Validity code:
 Towing dir: 300 Wire out: 100 m Speed:330 kn*10
 Sorted: 33 Kg Total catch: 984.00 CATCH/HOUR: 1968.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	160.80	1052	38.98
Pagellus bellottii	48.00	138	11.64
Sparus caeruleostictus	43.20	54	10.47
Stromateus fiatola	29.40	54	7.13
Umbrina canariensis	28.80	72	6.98
Pseudotolithus senegalensis	20.40	18	4.95
Dentex gibbosus	17.40	6	4.22
Pomadasys incisus	17.40	60	4.22
Alloteuthis africana	9.30	4650	2.25
Priacanthus aeneus	7.80	30	1.89
Rhinobatos albomaculatus	7.20	6	1.75
Sparus pagrus pagrus	6.60	6	1.60
Atractoscion aequidens	4.20	6	1.02
Sepia officinalis hierredda	3.90	6	0.95
Zeus faber	3.60	12	0.87
Dentex barnardi	2.70	12	0.65
Uranoscopus albesca	1.20	12	0.29
Todaropsis eblanae	0.60	12	0.15
Total	412.50	100.01	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	1260.00	98700	64.02
Engraulis encrasicolus	348.00	39660	17.68
Sardinella maderensis	252.00	22860	12.80
Trachurus trecae	84.00	1320	4.27
Trichiurus lepturus	12.00	240	0.61
Ilisha africana	6.00	60	0.30
Selene dorsalis	6.00	60	0.30
Total	1968.00	99.98	

PROJECT STATION: 541
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 630
 start stop duration Long W 1219
 TIME :16:28:00 16:58:00 30 (min) Purpose code: 3
 LOG :3909.00 3911.00 1.70 Area code : 1
 FDEPTH: 23 23 GearCond.code:
 BDEPTH: 23 23 Validity code:
 Towing dir: 355 Wire out: 150 m Speed:341 kn*10
 Sorted: 52 Kg Total catch: 282.46 CATCH/HOUR: 564.92

PROJECT STATION: 545
 DATE: 12/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 641
 start stop duration Long W 1145
 TIME :06:53:00 07:23:00 30 (min) Purpose code: 3
 LOG :4037.00 4039.00 1.60 Area code : 1
 FDEPTH: 242 250 GearCond.code:
 BDEPTH: 242 250 Validity code:
 Towing dir: 320 Wire out: 900 m Speed:320 kn*10
 Sorted: 32 Kg Total catch: 900.00 CATCH/HOUR: 1800.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pagellus bellottii	120.00	576	21.24
Brachydeuterus auritus	102.40	40832	18.13
Pomadasys incisus	84.00	420	14.87
Argyrosomus hololepidotus	58.60	2	10.37
Sepia officinalis hierredda	50.60	44	8.96
Pseudotolithus senegalensis	38.20	60	6.76
Trichiurus lepturus	31.20	576	5.52
Galeoides decadactylus	21.60	128	3.82
Pteroscion pell	9.60	104	1.70
Ephippion guttifer	8.80	8	1.56
Trachurus trecae	8.80	112	1.56
Pomadasys jubelini	6.40	8	1.13
Raja miraletus	4.80	8	0.85
Cynoglossus canariensis	4.80	8	0.85
Selene dorsalis	3.60	72	0.64
Decapterus rhonchus	3.20	4	0.57
Zeus faber	2.80	8	0.50
Ilisha africana	2.40	56	0.42
Sparus caeruleostictus	2.00	8	0.35
Dentex barnardi	1.04	8	0.18
Echeneis naucrates	0.08	8	0.01
Total	564.92	99.99	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	1255.60	66364	69.76
Merluccius polli	194.40	1556	10.80
Chlorophthalmus atlanticus	194.40	3666	10.80
Trichiurus lepturus	100.00	388	5.56
Trichiurus lepturus	100.00	388	5.56
Dentex angolensis	27.80	56	1.54
Coelorhynchus coelorhynchus	11.00	166	0.61
Todaropsis eblanae	5.60	56	0.31
Parapenaeus longirostris	5.60	444	0.31
Sepia officinalis hierredda	2.80	110	0.16
Diaphys dumerilii	2.80	500	0.16
Plesionika martia	0.00	56	
Peristedion cataphractum	0.00	56	
Total	1900.00	105.57	

PROJECT STATION: 542
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 624
 start stop duration Long W 1221
 TIME :17:34:00 18:04:00 30 (min) Purpose code: 3
 LOG :3916.00 3918.00 1.60 Area code : 1
 FDEPTH: 12 12 GearCond.code:
 BDEPTH: 12 12 Validity code:
 Towing dir: 360 Wire out: 75 m Speed:320 kn*10
 Sorted: 6 Kg Total catch: 6.10 CATCH/HOUR: 12.20

PROJECT STATION: 546
 DATE: 12/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 651
 start stop duration Long W 1152
 TIME :09:24:00 09:54:00 30 (min) Purpose code: 3
 LOG :4056.00 4058.00 1.50 Area code : 1
 FDEPTH: 194 198 GearCond.code:
 BDEPTH: 194 198 Validity code:
 Towing dir: 340 Wire out: 800 m Speed:310 kn*10
 Sorted: 31 Kg Total catch: 646.80 CATCH/HOUR: 1293.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	6.00	522	49.18
Galeoides decadactylus	3.00	12	24.59
Pomadasys peroteti	2.40	4	19.67
Trichiurus lepturus	0.40	12	3.28
Pagellus bellottii	0.40	2	3.28
Trachurus trecae	0.00	2	
Total	12.20	100.00	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	1000.00	22352	77.30
Chlorophthalmus atlanticus	60.00	1840	4.64
Merluccius polli	48.00	320	3.71
Zenopsis conchifer	44.00	480	3.40
Dentex angolensis	40.00	160	3.09
Pentheroscion mbizi	24.00	120	1.86
Ariomma bondi	24.00	560	1.86
Todaropsis eblanae	20.00	200	1.55
Illex coindetii	16.00	120	1.24
Brotula barbata	9.60	8	0.74
Pterotrissus belloci	8.00	40	0.62
Saurida brasiliensis	0.00	40	
Plesionika martia	0.00	40	
Peristedion cataphractum	0.00	40	
Syacium micrum	0.00	40	
Total	1293.60	100.01	

PROJECT STATION: 547
 DATE:12/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 651
 start stop duration Long W 1200
 TIME :11:23:00 11:53:00 30 (min) Purpose code: 3
 LOG :4070.00 4071.00 1.60 Area code : 1
 FDEPTH: 90 88 GearCond.code: 1
 BDEPTH: 90 88 Validity code:
 Towing dir: 335 Wire out: 450 m Speed:330 kn*10
 Sorted: 54 Kg Total catch: 53.55 CATCH/HOUR: 107.10

PROJECT STATION: 551
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 700
 start stop duration Long W 1144
 TIME :03:19:00 04:19:00 60 (min) Purpose code: 3
 LOG :4198.00 4201.00 3.10 Area code : 1
 FDEPTH: 651 651 GearCond.code: 1
 BDEPTH: 651 651 Validity code:
 Towing dir: 340 Wire out:1750 m Speed:290 kn*10
 Sorted: 27 Kg Total catch: 108.30 CATCH/HOUR: 108.30

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	36.80	240	34.36	127
Dentex gibbosus	28.80	46	26.89	126
Epinephelus aeneus	7.00	2	6.54	
Mustelus mustelus	5.60	2	5.23	
Branchiostegus semifasciatus	4.80	2	4.48	
Raja miraletus	4.60	8	4.30	
Sepia officinalis hierredda	4.00	2	3.73	
Sparus caeruleostictus	4.00	6	3.73	
Illex coindetii	3.60	228	3.36	
Sarda sarda	2.40	2	2.24	
Zenopsis conchifer	2.00	14	1.87	
Fistularia petimba	1.40	2	1.31	
Raja sp.	0.52	2	0.49	
Alloteuthis africana	0.50	106	0.47	
Trachurus trecae	0.38	10	0.35	
Pterothrissus belloci	0.28	2	0.26	
Scomber japonicus	0.24	2	0.22	
Ariomma bondi	0.18	4	0.17	
Saurida brasiliensis	0.00	2		
Total	107.10		100.00	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
TRACHICHTHYIDAE	26.00	760	24.01	
POLYCHAETIDAE	25.20	1633	23.27	
Merluccius polli	13.60	24	12.56	
Aristeus varidensis, female	8.00	280	7.39	134
Malacocephalus occidentalis	6.40	112	5.91	
OPHIDIIDAE	6.00	12	5.54	
GONOSTOMATIDAE	6.00	308	5.54	
ALEPOCEPHALIDAE	6.00	272	5.54	
Laemonema laureysi	3.20	104	2.95	
Aristeus varidensis, male	1.80	148	1.66	133
CHIMAERIDAE	1.60	4	1.48	
Etmopterus spinax	0.76	12	0.70	
Nematocarcinus africanus	0.68	72	0.63	
NETTASTOMATIDAE	0.56	8	0.52	
Raja sp.	0.52	12	0.48	
Dibranchius atlanticus	0.52	20	0.48	
PANDALIDAE	0.36	20	0.33	
Deepwater fish mixture	0.36	64	0.33	
MURAENESOCIDAE	0.32	4	0.30	
Brosmiculus imberbis *	0.20	8	0.18	
Trichiurus lepturus	0.16	4	0.15	
Plesiopeanaeus edwardsianus	0.08	4	0.07	
Diaphus dumerilii	0.00	4		
Total	108.32		100.02	

PROJECT STATION: 548
 DATE:12/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 650
 start stop duration Long W 1208
 TIME :13:08:00 13:38:00 30 (min) Purpose code: 3
 LOG :4082.00 4083.00 1.70 Area code : 1
 FDEPTH: 76 74 GearCond.code: 1
 BDEPTH: 76 74 Validity code:
 Towing dir: 360 Wire out: 350 m Speed:320 kn*10
 Sorted: 33 Kg Total catch: 133.10 CATCH/HOUR: 266.20

PROJECT STATION: 552
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 710
 start stop duration Long W 1153
 TIME :06:57:00 07:27:00 30 (min) Purpose code: 3
 LOG :4223.00 4224.00 1.50 Area code : 1
 FDEPTH: 544 552 GearCond.code: 1
 BDEPTH: 544 552 Validity code:
 Towing dir: 300 Wire out:1500 m Speed:280 kn*10
 Sorted: 28 Kg Total catch: 84.00 CATCH/HOUR: 168.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	100.00	2978	37.57	128
Pagellus bellottii	49.60	536	18.63	130
Dentex congoensis	46.40	920	17.43	129
Sepia officinalis hierredda	29.60	16	11.12	
Dentex gibbosus	18.40	16	6.91	
Illex sp.	10.40	1156	3.91	
Torpedo torpedo	8.80	8	3.31	
Alloteuthis africana	1.28	336	0.48	
Squatina oculata	1.20	8	0.45	
Spicara alta	0.32	40	0.12	
Chelidonicichthys gabonensis	0.16	8	0.06	
Total	266.16		99.99	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	24.00	84	14.29	138
Stereomastis sculpta	24.00	2664	14.29	
MORIDAE	18.00	138	10.71	
Torpedo sp.	15.00	6	8.93	
Hoplostethus cadenati	13.20	414	7.86	
Laemonema laureysi	13.20	114	7.86	
Merluccius polli, male	12.00	48	7.14	137
Nematocarcinus africanus	9.00	1590	5.36	
Aristeus varidensis, female	8.40	372	5.00	136
Deepwater fish mixture	7.20	429	4.29	
GONOSTOMATIDAE	6.60	732	3.93	
Brosmiculus imberbis *	6.00	252	3.57	
Aristeus varidensis, male	4.20	474	2.50	135
Etmopterus pusillus	1.80	36	1.07	
Dibranchius atlanticus	1.80	48	1.07	
Coelorhynchus coelorhynchus	1.80	18	1.07	
Halosaurus sp.	1.80	18	1.07	
Total	168.00		100.01	

PROJECT STATION: 549
 DATE:12/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 650
 start stop duration Long W 1218
 TIME :15:00:00 15:01:00 1 (min) Purpose code: 3
 LOG :4095.00 4095.00 Area code : 1
 FDEPTH: 39 39 GearCond.code: 8
 BDEPTH: 39 39 Validity code: 9
 Towing dir: 78 Wire out: 200 m Speed:300 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

PROJECT STATION: 553
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 711
 start stop duration Long W 1156
 TIME :08:43:00 09:13:00 30 (min) Purpose code: 3
 LOG :4232.00 4233.00 1.40 Area code : 1
 FDEPTH: 452 443 GearCond.code:
 BDEPTH: 452 443 Validity code:
 Towing dir: 330 Wire out:1300 m Speed:280 kn*10
 Sorted: 28 Kg Total catch: 267.40 CATCH/HOUR: 534.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
N O C A T C H	0.00			
Total				

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	224.00	528	41.88	140
Merluccius polli, male	128.00	576	23.93	139
Centroprorus uyato	90.00	80	16.83	
Stereomastis sculpta	25.60	1952	4.79	
Etmopterus pusillus	16.00	288	2.99	
MORIDAE	16.00	16	2.99	
Laemonema laureysi	12.80	160	2.39	
Brosmiculus imberbis *	6.40	160	1.20	
Dibranchius atlanticus	4.80	128	0.90	
Plesiopeanaeus edwardsianus, f.	3.20	64	0.60	
Plesiopeanaeus edwardsianus, m.	3.20	80	0.60	
NETTASTOMATIDAE	1.60	16	0.30	
Coelorhynchus coelorhynchus	1.60	16	0.30	
Halosaurus sp.	1.60	32	0.30	
Total	534.80		100.00	

PROJECT STATION: 550
 DATE:12/ 8/92 GEAR TYPE: PT No: POSITION:Lat N 650
 start stop duration Long W 1231
 TIME :19:33:00 20:03:00 30 (min) Purpose code: 1
 LOG :4121.00 4123.00 1.90 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 13 18 Validity code:
 Towing dir: 190 Wire out: 100 m Speed:340 kn*10
 Sorted: 34 Kg Total catch: 338.00 CATCH/HOUR: 676.00

PROJECT STATION: 554
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 711
 start stop duration Long W 1214
 TIME :11:43:00 12:13:00 30 (min) Purpose code: 3
 LOG :4255.00 4257.00 1.40 Area code : 1
 FDEPTH: 126 124 GearCond.code:
 BDEPTH: 126 124 Validity code:
 Towing dir: 90 Wire out: 550 m Speed:306 kn*10
 Sorted: 26 Kg Total catch: 231.50 CATCH/HOUR: 463.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sardinella aurita	360.00	960	53.25	131
Sardinella maderensis	260.00	1040	38.46	132
Boops boops	20.00	2640	2.96	
Brachydeuterus auritus	12.00	100	1.78	
Pomadasys incisus	10.00	40	1.48	
Trachurus trecae	6.00	380	0.89	
Pagellus bellottii	4.00	20	0.59	
Selene dorsalis	4.00	20	0.59	
Decapterus rhonchus	0.00	40		
Total	676.00		100.00	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	193.00	358	41.68	141
Trachurus, Juveniles	181.00	5478	39.09	142
Dentex congoensis	22.50	220	4.86	143
Boops boops	21.00	610	4.54	144
Dentex angolensis	11.00	40	2.38	
Illex coindetii	10.00	650	2.16	
Epinephelus aeneus	8.40	2	1.81	
Umbra canariensis	7.00	20	1.51	
Sarda sarda	5.60	4	1.21	
Zeus faber	3.50	10	0.76	
Total	463.00		100.00	

PROJECT STATION: 500
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 527 Long W 1128
 start stop duration
 TIME :06:43:00 07:13:00 30 (min) Purpose code: 3
 LOG :3155.00 3157.00 1.50 Area code : 1
 FDEPTH: 470 454 GearCond.code:
 BDEPTH: 470 454 Validity code:
 Towing dir: 30 Wire out:1250 m Speed:300 kn*10
 Sorted: 24 Kg Total catch: 95.68 CATCH/HOUR: 191.36

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Etmopterus sp.	64.00	152	33.44	
Hoplostethus sp.	44.00	650	22.99	
Laemonema laureysi	36.00	1848	18.81	
Merluccius polli	28.00	56	14.63	
Halosaurus sp.	5.60	248	2.93	
Aristeus varidens, male	4.80	608	2.51	25
Aristeus varidens, female	3.36	248	1.76	26
Stereomastis sculpta	3.20	112	1.67	
Dibranchus atlanticus	2.40	24	1.25	
Total	191.36		99.99	

PROJECT STATION: 501
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 530 Long W 1133
 start stop duration
 TIME :08:35:00 09:05:00 30 (min) Purpose code: 3
 LOG :3167.00 3168.00 1.60 Area code : 1
 FDEPTH: 317 320 GearCond.code:
 BDEPTH: 317 320 Validity code:
 Towing dir: 30 Wire out: 900 m Speed:310 kn*10
 Sorted: 35 Kg Total catch: 277.80 CATCH/HOUR: 555.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli	180.00	1820	32.40	27
Neomerinthe folgori	140.00	4510	25.20	
Nematocarcinus africanus	100.00	35832	18.00	
Pentheroscion mbizi	48.00	240	8.64	
Centrophorus granulosus	36.00	8	6.48	
Trichiurus lepturus	18.00	80	3.24	
Laemonema laureysi	16.00	320	2.88	
Pterothrissus bellocci	10.00	60	1.80	
Ariomma bondi	4.00	20	0.72	
Nezumia aequalis	2.40	160	0.43	
Hymenocephalus italicus	1.00	20	0.18	
Stereomastis sculpta	0.20	20	0.04	
Total	555.60		100.01	

PROJECT STATION: 502
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 531 Long W 1154
 start stop duration
 TIME :12:11:00 12:41:00 30 (min) Purpose code: 3
 LOG :3194.00 3195.00 1.30 Area code : 1
 FDEPTH: 45 45 GearCond.code:
 BDEPTH: 45 45 Validity code:
 Towing dir: 360 Wire out: 250 m Speed:290 kn*10
 Sorted: 86 Kg Total catch: 85.95 CATCH/HOUR: 171.90

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pagellus bellottii	134.40	578	78.18	28
Epinephelus aeneus	19.20	6	11.17	
Dentex barnardi	5.00	10	2.91	
Sparus pagrus africanus	3.20	2	1.86	
Raja miraletus	2.80	4	1.63	
Arius parkii	2.60	2	1.51	
Dasyatis marmorata	1.60	2	0.93	
Trichiurus lepturus	1.40	2	0.81	
Helicolenus dactylopterus	0.60	24	0.35	
Torpedo torpedo	0.60	2	0.35	
Chaetodon hoeffleri	0.40	2	0.23	
Boops boops	0.10	2	0.06	
Total	171.90		99.99	

PROJECT STATION: 503
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 527 Long W 1126
 start stop duration
 TIME :20:36:00 21:06:00 30 (min) Purpose code: 3
 LOG :3254.00 3256.00 1.40 Area code : 1
 FDEPTH: 587 587 GearCond.code:
 BDEPTH: 587 587 Validity code:
 Towing dir: 10 Wire out:1500 m Speed:280 kn*10
 Sorted: 25 Kg Total catch: 37.05 CATCH/HOUR: 74.10

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Malacocephalus indicus *	15.00	258	20.24	
SQUALIDAE	9.00	14	12.15	
Deepwater fish mixture	9.00	14	12.15	
TRACHICHTHYIDAE	8.40	22	11.34	
Halosaurus sp.	7.50	110	10.12	
Stereomastis sculpta	3.90	326	5.26	
GONOSTOMATIDAE	3.60	600	4.86	
SYNAPHOBRANCHIDAE	3.00	6	4.05	
Merluccius polli	3.00	2	4.05	
Hoplostethus sp.	2.70	32	3.64	
Aristeus varidens, female	2.70	50	3.64	30
Georyon maritae	1.80	2	2.43	
Hydrolagus africanus	1.50	8	2.02	
CERATIIDAE	1.50	2	2.02	
Plesioopenaenus edwardsianus	0.60	26	0.81	
Laemonema sp.	0.60	14	0.81	
Aristeus varidens, male	0.30	132	0.40	29
Total	74.10		99.99	

PROJECT STATION: 504
 DATE: 7/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 526 Long W 1130
 start stop duration
 TIME :22:27:00 22:57:00 30 (min) Purpose code: 3
 LOG :3264.00 3265.00 1.50 Area code : 1
 FDEPTH: 417 418 GearCond.code:
 BDEPTH: 417 418 Validity code:
 Towing dir: 10 Wire out:1250 m Speed:300 kn*10
 Sorted: 32 Kg Total catch: 127.60 CATCH/HOUR: 255.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli	116.00	224	45.45	31
Centrophorus lusitanicus	40.00	8	15.67	
Hoplostethus sp.	22.40	104	8.78	
Deepwater fish mixture	20.00		7.84	
Etmopterus spinax	12.00	8	4.70	
Laemonema sp.	9.60	344	3.76	
Malacocephalus indicus *	6.40	32	2.51	
Aristeus varidens, male	5.60	400	2.19	32
Chlamydoselachus anguineus	5.60	8	2.19	
Halosaurus sp.	5.60	160	2.19	
Chaunax pictus	4.00	8	1.57	
Aristeus varidens, female	2.40	144	0.94	33
Stereomastis sculpta	2.40	184	0.94	
Ariomma bondi	1.60	16	0.63	
Nematocarcinus africanus	0.80	64	0.31	
GONOSTOMATIDAE	0.80	88	0.31	
Total	255.20		99.98	

PROJECT STATION: 505
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 525 Long W 1133
 start stop duration
 TIME :00:00:00 00:30:00 30 (min) Purpose code: 3
 LOG :3270.00 3272.00 1.20 Area code : 1
 FDEPTH: 332 330 GearCond.code:
 BDEPTH: 332 330 Validity code:
 Towing dir: 10 Wire out:1050 m Speed:250 kn*10
 Sorted: 29 Kg Total catch: 247.48 CATCH/HOUR: 494.96

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Centrophorus granulosus	202.40	48	40.89	
Nematocarcinus africanus	134.00	28810	27.07	
Merluccius polli	112.00	310	22.63	34
Laemonema laureysi	25.00	220	5.05	
Epigonus telescopus	6.00	80	1.21	
Zenopsis conchifer	4.00	10	0.81	
Trichiurus lepturus	3.00	150	0.61	
Pentheroscion mbizi	2.00	10	0.40	
Pterothrissus bellocci	2.00	10	0.40	
Setarches guentheri	1.06	60	0.21	
Chaunax pictus	0.80	20	0.16	
POLYCHAELIDAE	0.70	60	0.14	
Galeus polli	0.60	10	0.12	
Hymenocephalus italicus	0.60	70	0.12	
Solenocera africana	0.30	30	0.06	
Dibranchus atlanticus	0.30	40	0.06	
Chlorophthalmus atlanticus	0.20	10	0.04	
Total	494.96		99.98	

PROJECT STATION: 506
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 522 Long W 1135
 start stop duration
 TIME :02:12:00 02:42:00 30 (min) Purpose code: 3
 LOG :3277.00 3279.00 1.50 Area code : 1
 FDEPTH: 239 272 GearCond.code:
 BDEPTH: 239 272 Validity code:
 Towing dir: 350 Wire out: 800 m Speed:310 kn*10
 Sorted: 66 Kg Total catch: 341.48 CATCH/HOUR: 682.96

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pterothrissus bellocci	352.80	2036	51.66	35
Centrophorus granulosus	267.00	70	39.09	
Cynoponticus ferox	19.60	2	2.87	
Pentheroscion mbizi	9.60	54	1.41	
Merluccius polli	8.40	42	1.23	
Brosmiculus imberbis *	5.40	174	0.79	
Setarches guentheri	4.80	18	0.70	
Brotula barbata	3.00	6	0.44	
Zenopsis conchifer	2.40	12	0.35	
Galeus melastomus	1.80	30	0.26	
Peristedion cataphractum	1.20	36	0.18	
Solenocera africana	1.08	114	0.16	
Coelorinchus coelorhincus	1.08	6	0.16	
Illex coindetii	1.02	12	0.15	
Parapenaeus longirostris, male	0.96	198	0.14	36
Parapenaeus longirostris, fem.	0.72	198	0.11	37
Galeus polli	0.60	6	0.09	
Dicologlossa cuneata	0.48	12	0.07	
Diaphus dumerilii	0.36	66	0.05	
Dibranchus atlanticus	0.30	30	0.04	
Chlorophthalmus atlanticus	0.24	48	0.04	
GONOSTOMATIDAE	0.12	12	0.02	
Total	682.96		100.01	

PROJECT STATION: 507
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 523 Long W 1138
 TIME :03:56:00 04:26:00 30 (min) Purpose code: 3
 LOG :3288.00 3289.00 1.30 Area code : 1
 FDEPTH: 120 117 GearCond.code:
 BDEPTH: 120 117 Validity code:
 Towing dir: 350 Wire out: 500 m Speed:260 kn*10

Sorted: 68 Kg Total catch: 169.30 CATCH/HOUR: 338.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pentheroscion mbizi	107.50	892	31.75	
Dentex angolensis	70.50	246	20.82	38
Uranoscopus albesca	50.00	584	14.77	
Pterothrissus belloci	48.50	80	14.32	
Brotula barbata	30.50	34	9.01	
Chelidonichthys gabonensis	10.50	150	3.10	
Synagrops microlepis	5.50	254	1.62	
Umbrina canariensis	4.00	10	1.18	
Branchiostegus semifasciatus	3.00	10	0.89	
Pontinus accraensis	2.00	20	0.59	
Illex coindetii	1.36	20	0.40	
Zeus faber	1.00	4	0.30	
Parapenaeus longirostris, fem.	1.00	180	0.30	40
Diaphus dumerilii	0.94	240	0.28	
Parapenaeus longirostris, male	0.70	140	0.21	39
Monoleone microstoma	0.64	44	0.19	
Trichiurus lepturus	0.44	10	0.13	
Spicara alta	0.22	4	0.06	
Bembrops heterurus	0.20	4	0.06	
Dibranchius atlanticus	0.06	4	0.02	
Thorogobius angolensis	0.04	10	0.01	
Total	338.60		100.01	

PROJECT STATION: 511
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 514 Long W 1202
 TIME :12:12:00 12:42:00 30 (min) Purpose code: 3
 LOG :3345.00 3346.00 1.60 Area code : 1
 FDEPTH: 17 17 GearCond.code:
 BDEPTH: 17 17 Validity code:
 Towing dir: 330 Wire out: 100 m Speed:310 kn*10

Sorted: 32 Kg Total catch: 466.20 CATCH/HOUR: 936.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	689.00	27560	73.58	49
Argyrosomus hololepidotus	44.00	2	4.70	
Chloroscombrus chrysurus	33.80	858	3.61	
Raja miraletus	31.20	78	3.33	
Pomadasy s rogeri	29.40	76	3.14	48
Galeoides decadactylus	23.40	260	2.50	
Selene dorsalis	18.20	468	1.94	
Sardinella maderensis	13.00	234	1.39	
Pomadasy jubelini	8.60	16	0.92	
Pagellus bellottii	8.00	40	0.85	
Mustelus mustelus	7.40	2	0.79	
Arius parkii	6.80	4	0.73	
Sphyræna quachancho	6.76	26	0.72	
Penæus notialis	4.42	78	0.47	
Pseudolithus typus	4.00	2	0.43	
Decapterus rhonchus	2.86	52	0.31	
Sepia officinalis hierredda	2.00	2	0.21	
Trichiurus lepturus	1.82	52	0.19	
Pteroscion pelli	1.82	26	0.19	
Total	936.48		100.00	

PROJECT STATION: 512
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 516 Long W 1205
 TIME :06:49:00 07:19:00 30 (min) Purpose code: 3
 LOG :3311.00 3313.00 1.70 Area code : 1
 FDEPTH: 45 47 GearCond.code:
 BDEPTH: 45 47 Validity code:
 Towing dir: 335 Wire out: 200 m Speed:320 kn*10

Sorted: 33 Kg Total catch: 391.20 CATCH/HOUR: 782.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	672.00	2640	85.89	41
Brachydeuterus auritus	50.40	360	6.44	
Raja miraletus	16.80	24	2.15	
Stromateus fiatola	14.40	24	1.84	
Pentheroscion mbizi	9.60	72	1.23	
Fistularia petimba	7.20	24	0.92	
Illex coindetii	4.80	24	0.61	
Torpedo torpedo	4.80	24	0.61	
Chelidonichthys capensis	2.40	24	0.31	
Total	782.40		100.00	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chloroscombrus chrysurus	524.40	22080	31.94	51
Arius parkii	230.00	92	14.01	
Brachydeuterus auritus	209.30	7420	12.75	50
Pteroscion pelli	172.50	6140	10.51	
Pentanemus quinquarius	115.00	2806	7.06	
Ilisha africana	89.70	9162	5.41	
Callinectes amnicola	82.80	206	5.04	
Sardinella maderensis	62.10	1770	3.78	52
Trichiurus lepturus	27.60	1012	1.68	
Galeoides decadactylus	27.60	344	1.68	
Sepia officinalis hierredda	23.00	114	1.40	
Mustelus mustelus	23.00	22	1.40	
Pseudolithus typus	20.70	138	1.26	
Raja miraletus	13.80	22	0.84	
Selene dorsalis	13.80	1058	0.84	
Penæus notialis	3.20	96	0.19	
Cynoglossus browni	1.72	46	0.10	
Alectis alexandrinus	1.32	46	0.08	
Total	1641.54		99.97	

PROJECT STATION: 513
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 518 Long W 1159
 TIME :11:02:00 15:27:00 25 (min) Purpose code: 3
 LOG :3362.00 3364.00 1.40 Area code : 1
 FDEPTH: 27 27 GearCond.code:
 BDEPTH: 27 27 Validity code:
 Towing dir: 330 Wire out: 150 m Speed:320 kn*10

Sorted: 30 Kg Total catch: 279.70 CATCH/HOUR: 559.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Ilisha africana	100.60		17.98	43
Brachydeuterus auritus	60.60		10.83	44
Pteroscion pelli	50.20	1318	8.97	
Chloroscombrus chrysurus	50.20		8.97	42
Lutjanus dentatus	48.40		8.65	
Trichiurus lepturus	39.80	1734	7.11	
Pentanemus quinquarius	39.80	884	7.11	
Pseudolithus senegalensis	34.60	122	6.19	
Arius parkii	31.20	104	5.58	
Selene dorsalis	22.60	242	4.04	
Cynoglossus senegalensis	20.80	606	3.72	
Drepane africana	17.40	18	3.11	
Dasyatris margarita	12.20	34	2.18	
Stromateus fiatola	8.60	18	1.54	
Sardinella aurita	8.60	190	1.54	
Parapenaeopsis atlantica, fem.	5.20	796	0.93	46
Torpedo nobiliana	3.40	18	0.61	
Ephippion guttifer	1.74	18	0.31	
Parapenaeopsis atlantica, male	1.74	554	0.31	45
Monoleone microstoma	1.74	34	0.31	
Total	559.42		99.99	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chloroscombrus chrysurus	39.36	658	23.40	
Trachurus trecae	34.32	310	20.40	53
Decapterus rhonchus	24.24	307	14.41	54
Epinephelus aeneus	21.60	6	12.84	
Sardinella aurita	20.40	144	12.13	56
Pagellus bellottii	17.52	79	10.41	55
Brachydeuterus auritus	5.52	65	3.28	
Dentex barnardi	1.20	5	0.71	
Pseudopenaeus prayensis	1.20	12	0.71	
Sardinella aurita	0.96	7	0.57	
Sphyræna sphyraena	0.72	2	0.43	
Callinectes amnicola	0.58	2	0.34	
Ilisha africana	0.36	5	0.21	
Arius heudeloti	0.31	2	0.18	
Penæus notialis	0.05	7	0.03	
Total	168.34		100.05	

PROJECT STATION: 514
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 519 Long W 1151
 TIME :16:38:00 17:08:00 30 (min) Purpose code: 3
 LOG :3373.00 3375.00 1.50 Area code : 1
 FDEPTH: 47 51 GearCond.code:
 BDEPTH: 47 51 Validity code:
 Towing dir: 310 Wire out: 250 m Speed:300 kn*10

Sorted: 58 Kg Total catch: 58.00 CATCH/HOUR: 116.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Pomadasy peroteti	47.00	78	40.52	
Pagellus bellottii	34.00	158	29.31	47
Dentex canariensis	14.00	34	12.07	
Dasyatris margarita	5.00	2	4.31	
Sepia officinalis hierredda	3.00	2	2.59	
Rhinobatos rhinobatos	3.00	2	2.59	
Decapterus rhonchus	2.80	36	2.41	
Arius parkii	2.40	4	2.07	
Stromateus fiatola	1.40	2	1.21	
Thamnaconus modestoides	0.60	2	0.52	
MONACANTHIDAE	0.60	2	0.52	
Cynoglossus capensis	0.60	2	0.52	
Zeus faber	0.40	2	0.34	
Sphyræna quachancho	0.40	2	0.34	
Pomadasy incisus	0.40	2	0.34	
Balistes capricus	0.40	2	0.34	
Total	116.00		100.00	

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Epinephelus aeneus	66.40	26	41.56	
Dentex angolensis	41.20	204	25.79	57
Pagellus bellottii	23.80	84	14.90	59
Sardinella maderensis	7.60	66	4.76	58
Raja miraletus	5.20	8	3.25	
Dentex barnardi	3.80	54	2.38	
Sphyræna quachancho	3.00	2	1.88	
Sparus pagrus africanus	2.00	2	1.25	
Fistularia petimba	1.80	4	1.13	
Sepia officinalis hierredda	1.20	4	0.75	
Trachurus trecae	1.00	16	0.63	
Priacanthus arenatus	0.80	6	0.50	
Sardinella aurita	0.60	6	0.38	
Callinectes sp.	0.44	2	0.28	
Chloroscombrus chrysurus	0.40	4	0.25	
Penæus notialis	0.36	8	0.23	
Cynoglossus browni	0.16	2	0.10	
Total	159.76		100.02	

PROJECT STATION: 515
 DATE: 8/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 534
 start stop duration Long W 1123
 TIME :20:35:00 21:05:00 30 (min) Purpose code: 3
 LOG :3404.00 3405.00 1.50 Area code : 1
 FDEPTH: 285 288 GearCond.code: 1
 BDEPTH: 285 288 Validity code:
 Towing dir: 10 Wire out: 950 m Speed:300 kn*10

Sorted: 22 Kg Total catch: 348.20 CATCH/HOUR: 696.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pterothrissus belloci	360.00	21.80	51.69
Merluccius polli	160.00	500	22.98
Nematocarcinus africanus	70.00	38500	10.05
S H A R K S	25.20	56	3.62
MACROURIDAE	24.00	200	3.45
Raja sp.	16.00	20	2.30
Chlorophtalmus atlanticus	12.00	200	1.72
Pentheroscion mbizi	10.00	60	1.44
Lophius sp.	8.00	20	1.15
CONGRIDAE	4.00	60	0.57
Laemonema sp.	2.00	100	0.29
Nezumia aequalis	2.00	60	0.29
Monolene microstoma	2.00	20	0.29
Solenocera africana	1.00	60	0.14
Coelorhynchus coelorhynchus	0.20	20	0.03
Aristeus varidens	0.00	40	
Total	696.40	100.01	

PROJECT STATION: 519
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 532
 start stop duration Long W 1147
 TIME :10:01:00 10:31:00 30 (min) Purpose code: 3
 LOG :3514.00 3515.00 1.50 Area code : 1
 FDEPTH: 71 72 GearCond.code: 1
 BDEPTH: 71 72 Validity code:
 Towing dir: 350 Wire out: 350 m Speed:300 kn*10

Sorted: 67 Kg Total catch: 67.44 CATCH/HOUR: 134.88

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus trecae	32.00	872	23.72
Dentex angolensis	27.00	136	20.02
Stromateus fiatola	23.20	22	17.20
Epinephelus aeneus	15.60	4	11.57
Squatina sp.	8.00	2	5.93
Sarda sarda	5.40	4	4.00
Miracorvina angolensis	4.00	10	2.97
Trichurus lepturus	3.80	4	2.82
Umbrina canariensis	3.60	4	2.67
Raja miraletus	3.60	6	2.67
Arius parkii	3.40	2	2.52
Pterothrissus belloci	1.60	50	1.19
Zeus faber	0.80	4	0.59
Torpedo torpedo	0.80	4	0.59
Branchiostegus semifasciatus	0.80	2	0.59
Chelidonichthys capensis	0.40	8	0.30
Parapenaeopsis atlantica, fem.	0.40	36	0.30
Saurida brasiliensis	0.20	12	0.15
Dentex congoensis	0.20	2	0.15
Parapenaeopsis atlantica, male	0.06	10	0.04
Scomber japonicus	0.02	2	0.01
Total	134.88	100.00	

PROJECT STATION: 516
 DATE: 8/ 8/92 GEAR TYPE: PT No:3 POSITION:Lat N 541
 start stop duration Long W 1140
 TIME :23:50:00 00:20:00 30 (min) Purpose code: 1
 LOG :3427.00 3429.00 2.10 Area code : 1
 FDEPTH: 0 0 GearCond.code: 1
 BDEPTH: 116 118 Validity code:
 Towing dir: 180 Wire out: 100 m Speed:420 kn*10

Sorted: 69 Kg Total catch: 68.85 CATCH/HOUR: 137.70

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trichurus lepturus	58.60	390	42.56
Selene dorsalis	43.00	164	31.23
Sardinella maderensis	18.00	54	13.07
Trachurus trecae	7.20	16	5.23
Trachurus, Juveniles	5.20	158	3.78
Diaphus dumerilii	3.60	116	2.61
Saurida brasiliensis	1.30	228	0.94
Synagrops microlepis	0.80	64	0.58
Total	137.70	100.00	

PROJECT STATION: 520
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 535
 start stop duration Long W 1144
 TIME :11:28:00 11:58:00 30 (min) Purpose code: 3
 LOG :3523.00 3524.00 1.50 Area code : 1
 FDEPTH: 87 91 GearCond.code: 1
 BDEPTH: 87 91 Validity code:
 Towing dir: 350 Wire out: 400 m Speed:310 kn*10

Sorted: 139 Kg Total catch: 138.50 CATCH/HOUR: 277.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pentheroscion mbizi	93.40	918	33.72
Trachurus trecae	40.20	778	14.51
Trichurus lepturus	38.40	54	13.86
Dentex angolensis	38.20	140	13.79
Epinephelus aeneus	21.00	2	7.58
Pterothrissus belloci	14.60	102	5.27
Umbrina canariensis	10.80	30	3.90
Miracorvina angolensis	7.00	28	2.53
Sarda sarda	3.40	2	1.23
Branchiostegus semifasciatus	2.90	4	1.05
Saurida brasiliensis	1.60	264	0.58
Illex coindetii	1.60	22	0.58
Dasycara margarita	1.20	2	0.43
Chelidonichthys gabonensis	1.00	10	0.36
Parapenaeopsis atlantica, male	0.70	88	0.25
Zeus faber	0.50	4	0.18
Parapenaeopsis atlantica, fem.	0.34	70	0.12
Synagrops microlepis	0.10	68	0.04
Todaropsis eblanae	0.04	16	0.01
Trachurus, Juveniles	0.04	36	0.01
Uranoscopus albesca	0.02	2	0.01
Total	277.04	100.01	

PROJECT STATION: 517
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 540
 start stop duration Long W 1202
 TIME :06:30:00 07:00:00 30 (min) Purpose code: 3
 LOG :3490.00 3491.00 1.60 Area code : 1
 FDEPTH: 21 23 GearCond.code: 1
 BDEPTH: 21 23 Validity code:
 Towing dir: 350 Wire out: 100 m Speed:310 kn*10

Sorted: 27 Kg Total catch: 79.65 CATCH/HOUR: 159.30

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pseudotolithus senegalensis	90.00	714	56.50
Arius parkii	27.00	30	16.95
Pteroscion pelli	9.60	240	6.03
Torpedo sp.	9.60	6	6.03
Pentanemus quinquarius	9.00	132	5.65
Trichurus lepturus	4.80	420	3.01
Raja miraletus	3.60	6	2.26
Ilisha africana	3.00	42	1.88
Sepia officinalis hierredda	1.20	42	0.75
Parapenaeopsis atlantica, fem.	1.20	114	0.75
Selene dorsalis	0.30	78	0.19
Total	159.30	100.00	

PROJECT STATION: 521
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1307
 start stop duration Long W 1337
 TIME :13:07:00 13:37:00 30 (min) Purpose code: 3
 LOG :3532.00 3533.00 1.50 Area code : 1
 FDEPTH: 120 135 GearCond.code: 1
 BDEPTH: 120 135 Validity code:
 Towing dir: 300 Wire out: 500 m Speed:310 kn*10

Sorted: 33 Kg Total catch: 575.41 CATCH/HOUR: 1150.82

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pentheroscion mbizi	690.20	3834	59.97
Synagrops microlepis	187.00	9724	16.25
Trichurus lepturus	180.20	1122	15.66
Pterothrissus belloci	44.20	306	3.84
Dentex angolensis	38.00	122	3.30
Trachurus trecae	6.12	170	0.53
Parapenaeus longirostris	3.40	476	0.30
Illex coindetii	1.70	34	0.15
Total	1150.82	100.00	

PROJECT STATION: 518
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 539
 start stop duration Long W 1159
 TIME :07:48:00 08:18:00 30 (min) Purpose code: 3
 LOG :3497.00 3499.00 1.70 Area code : 1
 FDEPTH: 33 34 GearCond.code: 1
 BDEPTH: 33 34 Validity code:
 Towing dir: 350 Wire out: 150 m Speed:320 kn*10

Sorted: 33 Kg Total catch: 230.37 CATCH/HOUR: 460.74

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NC.
weight	numbers		
Brachydeuterus auritus	322.00	3648	69.89
Arius parkii	70.00	56	15.19
Trichurus lepturus	28.00	1876	6.08
Pteroscion pelli	21.00	70	4.56
Selene dorsalis	9.80	112	2.13
Parulius sp.	1.40	14	-0.82
Cynoglossus senegalensis	1.40	14	0.30
Trachurus trecae	0.14	434	0.03
Boops boops	0.00	14	
Parapenaeopsis atlantica	0.00	14	
Selene dorsalis	0.00	154	
Total	460.74	100.00	

PROJECT STATION: 522
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 542
 start stop duration Long W 1137
 TIME :14:35:00 15:05:00 30 (min) Purpose code: 3
 LOG :3540.00 3541.00 1.50 Area code : 1
 FDEPTH: 156 171 GearCond.code: 1
 BDEPTH: 156 171 Validity code:
 Towing dir: 320 Wire out: 600 m Speed:300 kn*10

Sorted: 68 Kg Total catch: 589.70 CATCH/HOUR: 1179.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Pentheroscion mbizi	478.40	2212	40.56
Diaphus dumerilii	388.80	129600	32.97
Synagrops microlepis	83.20	4236	7.05
Broctula barbata	56.00	48	4.75
Dentex angolensis	54.20	168	4.60
Epinephelus goreensis	39.80	2	3.37
Trichurus lepturus	27.20	48	2.31
Zenopsis conchifer	20.80	32	1.76
Pterothrissus belloci	17.60	96	1.49
Parapenaeus longirostris, male	5.40	528	0.46
Parapenaeus longirostris, fem.	3.60	624	0.31
Uranoscopus albesca	1.20	16	0.10
Neomelanthe folgori	1.20	16	0.10
Trachurus trecae	1.20	48	0.10
Monolene microstoma	0.80	48	0.07
Total	1179.40	100.00	

PROJECT STATION: 523
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 545
 start stop duration Long W 1132
 TIME :16:12:00 16:42:00 30 (min) Purpose code: 3
 LOG :3549.00 3551.00 1.60 Area code : 1
 FDEPTH: 205 207 GearCond.code:
 BDEPTH: 205 207 Validity code:
 Towing dir: 10 Wire out: 700 m Speed:290 kn*10

Sorted: 30 Kg Total catch: 404.90 CATCH/HOUR: 809.80

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Synagrops microlepis	356.20 18522	43.99	
Pentheroscion mbizi	156.00 832	19.26	
Trichiurus lepturus	88.40 286	10.92	
Pterochirus bellocci	83.20 624	10.27	
Zenopsis conchifer	39.00 52	4.82	
Dentex angolensis	37.40 114	4.62	80
Diaphus dumerilii	20.80 7394	2.57	
Brotula barbata	15.60 26	1.93	
Merluccius polli	7.80 78	0.96	
Parapenaeus longirostris, male	2.08 208	0.26	
Sepia obignyana	1.04 52	0.13	
Parapenaeus longirostris, fem.	1.04 208	0.13	
Coelorrhinus coelorrhinus	1.04 26	0.13	
Saurida brasiliensis	0.26 26	0.03	
Total	809.86	100.02	

PROJECT STATION: 527
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 609
 start stop duration Long W 1325
 TIME :06:30:00 07:00:00 30 (min) Purpose code: 3
 LOG :3652.00 3654.00 1.70 Area code : 1
 FDEPTH: 352 351 GearCond.code:
 BDEPTH: 352 351 Validity code:
 Towing dir: 180 Wire out:1100 m Speed:330 kn*10

Sorted: 27 Kg Total catch: 172.90 CATCH/HOUR: 345.80

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Merluccius polli	214.50 948	62.03	91
Chlorophthalmus atlanticus	48.10 754	13.91	
Benthodesmus tenuis	19.50 832	5.64	
S H A R K S	18.20 234	5.26	
Laemonema laureysi	11.70 234	3.38	
Raja sp.	9.10 12	2.63	
Nematocarcinus africanus	5.20 1560	1.50	
Zenopsis conchifer	3.90 12	1.13	
Brotula barbata	3.90 116	1.13	
Hymenoccephalus italicus	2.60 116	0.75	
Stereonastis sculpta	2.60 104	0.75	
Pterochirus bellocci	2.60 12	0.75	
Plesionika martia	1.30 260	0.38	
Synagrops microlepis	1.30 64	0.38	
Aristeus varidens	0.92 26	0.27	
Parapenaeus longirostris	0.26 26	0.08	
Solenocera africana	0.14 12	0.04	
Chaunax pictus	0.00 12		
Total	345.82	100.01	

PROJECT STATION: 524
 DATE: 9/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 549
 start stop duration Long W 1141
 TIME :18:16:00 18:46:00 30 (min) Purpose code: 3
 LOG :3563.00 3565.00 1.80 Area code : 1
 FDEPTH: 99 101 GearCond.code:
 BDEPTH: 99 101 Validity code:
 Towing dir: 180 Wire out: 500 m Speed:340 kn*10

Sorted: 33 Kg Total catch: 300.00 CATCH/HOUR: 600.00

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Pentheroscion mbizi	272.00 3160	45.33	81
Pterochirus bellocci	136.00 816	22.67	
Epinephelus gorenensis	51.60 2	8.60	
Dentex angolensis	43.20 160	7.20	
Miracorvina angolensis	22.40 48	3.73	
Conger conger	14.00 16	2.33	
Trichiurus lepturus	12.80 272	2.13	
Chelidonichthys capensis	8.00 80	1.33	
Citharus linguatula	8.00 160	1.33	
Zenopsis conchifer	6.40 16	1.07	
Spicara alta	6.40 32	1.07	
Boops boops	3.20 48	0.53	
Parapenaeus longirostris, fem.	3.20 848	0.53	83
Trachurus trecae	3.20 32	0.53	
Synagrops microlepis	3.20 96	0.53	
Uranoscopus polli	1.60 16	0.27	
Saurida brasiliensis	1.60 144	0.27	
Parapenaeus longirostris, male	1.60 752	0.27	82
Trachurus, Juveniles	1.60 240	0.27	
Total	600.00	99.99	

PROJECT STATION: 528
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 609
 start stop duration Long W 1130
 TIME :08:18:00 08:48:00 30 (min) Purpose code: 3
 LOG :3663.00 3665.00 1.80 Area code : 1
 FDEPTH: 217 216 GearCond.code:
 BDEPTH: 217 216 Validity code:
 Towing dir: 180 Wire out: 850 m Speed:350 kn*10

Sorted: 33 Kg Total catch: 328.70 CATCH/HOUR: 657.40

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Synagrops microlepis	370.00 17178	56.28	
Merluccius polli	128.00 620	19.47	92
Dentex angolensis	84.00 140	12.78	93
Zenopsis conchifer	30.00 80	4.56	
Pentheroscion mbizi	28.00 180	4.26	
Diaphus dumerilii	10.00 3160	1.52	
Trichiurus lepturus	4.00 20	0.61	
Pontinus accraensis	2.00 20	0.30	
Pegusa lascaris	1.00 40	0.15	
Peristedion cataphractum	0.40 20	0.06	
Total	657.40	99.99	

PROJECT STATION: 525
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1115
 TIME :01:43:00 02:43:00 60 (min) Purpose code: 3
 LOG :3629.00 3632.00 2.90 Area code : 1
 FDEPTH: 748 761 GearCond.code:
 BDEPTH: 748 761 Validity code:
 Towing dir: 360 Wire out:1900 m Speed:290 kn*10

Sorted: 20 Kg Total catch: 63.70 CATCH/HOUR: 63.70

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
POLYCHAELIDAE	20.10 683	31.55	
Deepwater fish mixture	12.00 160	18.84	
TRACHICHTHYIDAE	8.70 48	13.66	
Merluccius polli	6.80 9	10.68	
Etmopterus spinax	3.90 9	6.12	
ALEPOCEPHALIDAE	3.90 18	6.12	
Plesionema edwardsianus, m.	3.50 93	5.49	86
Aristeus varidens, male	1.50 137	2.35	84
Plesionema edwardsianus, f.	1.20 35	1.88	87
Aristeus varidens, female	1.20 37	1.88	85
HALCSAURIDAE	0.90 9	1.41	
Total	63.70	99.98	

PROJECT STATION: 529
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 609
 start stop duration Long W 1140
 TIME :10:38:00 11:08:00 30 (min) Purpose code: 3
 LOG :3678.00 3680.00 1.70 Area code : 1
 FDEPTH: 109 110 GearCond.code:
 BDEPTH: 109 110 Validity code:
 Towing dir: 180 Wire out: 500 m Speed:310 kn*10

Sorted: 40 Kg Total catch: 161.60 CATCH/HOUR: 323.20

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Dentex angolensis	92.00 360	28.47	96
Dentex congoensis	85.60 784	26.49	94
Sparus pagrus pagrus	39.20 40	12.13	
Illex coindetii	38.40 1314	11.88	
Branchiostegus semifasciatus	23.20 16	7.28	
Trachurus trecae	20.00 512	6.19	95
Dentex gibbosus	15.20 8	4.70	
Zeus faber	4.80 8	1.49	
Arionna bondi	2.40 16	0.74	
Pagellus bellottii	1.60 16	0.50	
Chelidonichthys capensis	0.80 8	0.25	
Total	323.20	100.02	

PROJECT STATION: 526
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1120
 TIME :04:19:00 04:49:00 30 (min) Purpose code: 3
 LOG :3641.00 3643.00 1.60 Area code : 1
 FDEPTH: 548 555 GearCond.code:
 BDEPTH: 548 555 Validity code:
 Towing dir: 360 Wire out:1500 m Speed:300 kn*10

Sorted: 22 Kg Total catch: 66.33 CATCH/HOUR: 132.66

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Merluccius polli	42.60 84	32.11	88
Nematocarcinus africanus	23.40 9360	17.64	
Deepwater fish mixture	21.00 570	15.83	
TRACHICHTHYIDAE	15.00 84	11.31	
Aristeus varidens, female	14.40 1104	10.85	90
POLYCHAELIDAE	10.80 756	8.14	
Aristeus varidens, male	2.40 306	1.81	89
S H A R K S	2.40 6	1.81	
Diaphus dumerilii	0.48 420	0.36	
Etmopterus spinax	0.18 6	0.14	
Total	132.66	100.00	

PROJECT STATION: 530
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1150
 TIME :12:39:00 13:09:00 30 (min) Purpose code: 3
 LOG :3693.00 3695.00 1.50 Area code : 1
 FDEPTH: 83 83 GearCond.code:
 BDEPTH: 83 83 Validity code:
 Towing dir: 350 Wire out: 350 m Speed:300 kn*10

Sorted: 122 Kg Total catch: 121.70 CATCH/HOUR: 243.40

SPECIES	CATCH/HOUR weight numbers	% OF TOT. C	SAMP.NO.
Dentex angolensis	152.00 594	62.45	97
Dentex barnardi	33.80 22	13.89	98
Trachurus trecae	18.40 52	7.56	99
Trichiurus lepturus	16.40 18	6.74	
Zeus faber	6.00 8	2.47	
Dentex gibbosus	5.60 8	2.30	
Illex coindetii	3.60 86	1.48	
Dentex congoensis	3.00 34	1.23	
Todaropsis eblanae	2.40 114	0.99	
Pagellus bellottii	1.60 10	0.66	
Sparus pagrus africanus	0.36 2	0.15	
Scomber japonicus	0.22 2	0.09	
Total	243.38	100.01	

PROJECT STATION: 531
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1200
 TIME :14:47:00 15:17:00 30 (min) Purpose code: 3
 LOG :3707.00 3709.00 2.00 Area code : 1
 FDEPTH: 50 50 GearCond.code:
 BDEPTH: 50 50 Validity code:
 Towing dir: 355 Wire out: 250 m Speed:344 kn*10
 Sorted: 135 Kg Total catch: 135.00 CATCH/HOUR: 270.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pagellus bellottii	96.80 78	35.85	102
Dentex barnardi	42.00 62	15.56	100
Sparus pagrus africanus	36.40 44	13.48	101
Sparus caeruleostictus	18.00 10	6.67	
Epinephelus aeneus	16.00 6	5.93	
Dentex gibbosus	15.00 12	5.56	
Fistularia petimba	14.40 18	5.33	
Mustelus mustelus	11.40 4	4.22	
Trichiurus lepturus	9.80 6	3.63	
Sphyræna sphyraena	3.40 8	1.26	
Dentex angolensis	2.80 8	1.04	
Raja miraletus	1.60 2	0.59	
Zeus faber	1.00 4	0.37	
Alloteuthis africana	0.40 252	0.15	
Torpedo torpedo	0.40 2	0.15	
Trachurus trecae	0.40 2	0.15	
Chaetodon hoefleri	0.20 4	0.07	
Total	270.00	100.01	

PROJECT STATION: 535
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 631
 start stop duration Long W 1136
 TIME :05:35:00 06:05:00 30 (min) Purpose code: 3
 LOG :3837.00 3838.00 1.60 Area code : 1
 FDEPTH: 319 325 GearCond.code:
 BDEPTH: 319 325 Validity code:
 Towing dir: 330 Wire out:1000 m Speed:310 kn*10
 Sorted: 43 Kg Total catch: 237.17 CATCH/HOUR: 474.34

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Chlorophthalmus atlanticus	319.00 6538	67.25	
Merluccius polli	49.50 180	10.44	109
Benthodesmus tenuis	39.60 3420	8.35	
Pterothrissus bellocci	22.00 132	4.64	
Laemonema laureysi	11.00 286	2.32	
Plesionika martia	4.40 956	0.93	
Illex coindetii	3.30 54	0.70	
Peristedion cataphractum	3.30 32	0.70	
Miracorvina angolensis	2.40 2	0.63	
Priacanthus arenatus	2.40 2	0.51	
Parapenaeus longirostris	2.20 176	0.46	
Nematoscarinus africanus	2.20 956	0.46	
Diaphus dumerili	2.20 626	0.46	
Brosmiculus imberbis *	2.20 22	0.46	
Chaunax pictus	2.20 22	0.46	
Solenocera africana	1.44 98	0.30	
Sepia officinalis hierredda	1.10 10	0.23	
Hymenocapalus italicus	1.10 44	0.23	
Stereomastis sculpta	1.10 88	0.23	
Chlorophthalmus sp.	1.10 10	0.23	
Total	474.34	99.99	

PROJECT STATION: 532
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1206
 TIME :16:26:00 16:56:00 30 (min) Purpose code: 3
 LOG :3717.00 3719.00 1.60 Area code : 1
 FDEPTH: 35 33 GearCond.code:
 BDEPTH: 35 33 Validity code:
 Towing dir: 350 Wire out: 200 m Speed:300 kn*10
 Sorted: 264 Kg Total catch: 264.30 CATCH/HOUR: 528.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pseudotolithus typus	152.80 126	28.91	105
Pomadasy incisus	96.00 266	18.16	104
Trichiurus lepturus	45.60 76	8.63	
Mustelus mustelus	44.60 20	8.44	
Epinephelus aeneus	42.80 8	8.10	
Argyrosomus hololepidotus	32.20 4	6.09	
Sparus caeruleostictus	32.00 58	6.05	103
Umbrina canariensis	20.00 20	3.78	
Sparus pagrus africanus	19.60 18	3.71	
Pagellus bellottii	16.80 28	3.18	
Dentex barnardi	9.80 10	1.85	
Dasyatis margarita	7.00 2	1.32	
Zeus faber	4.40 10	0.83	
Fistularia petimba	1.40 2	0.26	
Sphyræna sphyraena	1.20 4	0.23	
Sepia officinalis hierredda	1.00 6	0.19	
Raja miraletus	1.00 2	0.19	
Alloteuthis africana	0.20 150	0.04	
Chaetodon hoefleri	0.20 2	0.04	
Total	528.60	100.00	

PROJECT STATION: 536
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 630
 start stop duration Long W 1140
 TIME :07:10:00 07:40:00 30 (min) Purpose code: 3
 LOG :3846.00 3847.00 1.60 Area code : 1
 FDEPTH: 202 205 GearCond.code:
 BDEPTH: 202 205 Validity code:
 Towing dir: 325 Wire out: 800 m Speed:320 kn*10
 Sorted: 34 Kg Total catch: 234.50 CATCH/HOUR: 469.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	322.00 21662	68.66	
Trichiurus lepturus	35.00 322	7.46	
Chlorophthalmus atlanticus	35.00 3092	7.46	
Ariomma bondi	21.00 126	4.48	
Zenopsis conchifer	14.00 14	2.99	
Illex coindetii	12.60 140	2.69	
Dentex angolensis	11.20 28	2.39	
Pterothrissus bellocci	7.00 56	1.49	
Merluccius polli	4.20 42	0.90	
Spicara alta	4.20 28	0.90	
Parapenaeus longirostris	1.40 84	0.30	
Trachurus trecae	1.40 14	0.30	
Saurida brasiliensis	0.60 14		
Total	469.00	100.02	

PROJECT STATION: 533
 DATE:10/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 610
 start stop duration Long W 1210
 TIME :17:49:00 18:19:00 30 (min) Purpose code: 3
 LOG :3725.00 3727.00 1.70 Area code : 1
 FDEPTH: 18 18 GearCond.code:
 BDEPTH: 18 18 Validity code:
 Towing dir: 360 Wire out: 100 m Speed:340 kn*10
 Sorted: 13 Kg Total catch: 13.35 CATCH/HOUR: 26.70

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pseudotolithus typus	12.00 8	44.94	
Pomadasy peroteti	3.00 2	11.24	
Arius laticutatus	3.00 2	11.24	
Auxis thazard	2.00 2	7.49	
Pteroscion pelli	2.00 120	7.49	
Pteroscion pelli	2.00 2	7.49	
Zeus faber	1.00 2	3.75	
Trichiurus lepturus	0.60 2	2.25	
Sphyræna guanchancho	0.60 2	2.25	
Cynoglossus senegalensis	0.30 2	1.12	
Brachydeuterus auritus	0.20 6	0.75	
Total	26.70	100.01	

PROJECT STATION: 537
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 631
 start stop duration Long W 1143
 TIME :08:45:00 09:15:00 30 (min) Purpose code: 3
 LOG :3855.00 3856.00 1.60 Area code : 1
 FDEPTH: 153 153 GearCond.code:
 BDEPTH: 153 153 Validity code:
 Towing dir: 325 Wire out: 750 m Speed:300 kn*10
 Sorted: 58 Kg Total catch: 131.20 CATCH/HOUR: 262.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Zenopsis conchifer	81.00 122	30.87	111
Spicara alta	67.50 440	25.72	114
Trachurus trecae	31.50 486	12.00	110
Dentex angolensis	22.50 94	8.57	
Ariomma bondi	15.76 266	6.01	
Trichiurus lepturus	13.50 44	5.14	
Todaropsis eblanae	11.26 238	4.29	113
Illex coindetii	4.50 68	1.71	112
Miracorvina angolensis	4.50 8	1.71	
Pterothrissus bellocci	4.50 54	1.71	
Umbrina canariensis	1.36 4	0.52	
Citharus linguatula	1.36 18	0.52	
Dentex congoensis	0.90 8	0.34	
Scomber japonicus	0.90 4	0.34	
Pontinus kuhlii	0.46 4	0.18	
Pentheroscion mbizi	0.46 4	0.18	
Bembrops heterurus	0.46 4	0.18	
Total	262.42	99.99	

PROJECT STATION: 534
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat S 620
 start stop duration Long E 1124
 TIME :02:36:00 03:06:00 30 (min) Purpose code: 3
 LOG :3814.40 3815.80 1.50 Area code : 1
 FDEPTH: 436 424 GearCond.code:
 BDEPTH: 436 424 Validity code:
 Towing dir: 360 Wire out:1250 m Speed: 29 kn*10
 Sorted: 30 Kg Total catch: 182.70 CATCH/HOUR: 365.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Merluccius polli	307.20 768	84.07	106
Aristeus varidens, female	21.60 1164	5.91	108
Brosmiculus imberbis *	9.60 48	2.63	
Nematoscarinus africanus	5.40 1032	1.48	
Laemonema laureysi	4.80 48	1.31	
POLYCHAEIDAE	4.80 480	1.31	
Chaunax pictus	3.60 48	0.99	
Aristeus varidens, male	1.68 240	0.46	107
Trichiurus lepturus	1.20 108	0.33	
Etmopterus spinax	1.20 36	0.33	
Centroporus granulosus	1.20 12	0.33	
Coelorrhinus coelorrhinus	1.20 36	0.33	
GONOSTOMATIDAE	1.08 84	0.30	
Gibranchus atlanticus	0.60 60	0.16	
PANDALIDAE	0.24 156	0.07	
Total	365.40	100.01	

PROJECT STATION: 538
 DATE:11/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 631
 start stop duration Long W 1148
 TIME :10:25:00 10:58:00 33 (min) Purpose code: 3
 LOG :3865.00 3867.00 1.70 Area code : 1
 FDEPTH: 119 120 GearCond.code:
 BDEPTH: 119 120 Validity code:
 Towing dir: 325 Wire out: 550 m Speed:320 kn*10
 Sorted: 39 Kg Total catch: 216.80 CATCH/HOUR: 394.18

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex congoensis	130.00 1240	32.98	115
Trachurus trecae	120.00 3840	30.44	
Trichiurus lepturus	70.00 31	17.76	
Dentex angolensis	40.00 200	10.15	
Dentex barnardi	15.00 11	3.81	
Illex coindetii	7.00 311	1.78	
Zeus faber	5.00 11	1.27	
Todaropsis eblanae	5.00 240	1.27	
Sarda sarda	2.18 2	0.55	
Boops boops	0.00 11		
Scomber japonicus	0.00 11		
Total	394.18	100.01	

PROJECT STATION: 539
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 630
 start stop duration Long W 1202
 TIME :12:54:00 13:24:00 30 (min) Purpose code: 3
 LOG :3884.00 3886.00 1.70 Area code : 1
 FDEPTH: 83 81 GearCond.code:
 BDEPTH: 83 81 Validity code:
 Towing dir: 355 Wire out: 350 m Speed:330 kn*10
 Sorted: 75 Kg Total catch: 197.60 CATCH/HOUR: 395.20

PROJECT: A3 CATCH DATA PROJECT STATION: 543
 DATE: 11/ 8/92 GEAR TYPE: PT No: POSITION: Lat N 623
 start stop duration Long W 1215
 TIME :18:57:00 19:27:00 30 (min) Purpose code: 1
 LOG :3925.00 3927.00 1.90 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 20 19 Validity code:
 Towing dir: 80 Wire out: 100 m Speed:350 kn*10
 Sorted: 23 Kg Total catch: 96.00 CATCH/HOUR: 192.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex angolensis	92.50	380	23.41
Selene dorsalis	88.78	200	22.46
Dentex congoensis	63.00	490	15.94
Alloteuthis africana	51.50	6980	13.03
Trichiurus lepturus	30.00	34	7.59
Trachurus trecae	24.26	70	6.14
Branchiostegus semifasciatus	21.00	4	5.31
Epinephelus aeneus	11.00	2	2.78
Mustelus mustelus	9.60	2	2.43
Pagellus bellottii	1.20	10	0.30
Neomerinthe folgori	1.16	4	0.29
Chaetodon hoefleri	0.60	4	0.15
Callinectes pallidus	0.50	4	0.13
Todaropsis eblanae	0.10	4	0.03
Dibranchius atlanticus	0.00	4	
Total	395.20	99.99	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Engraulis encrasicolus	144.00	16416	75.00
Brachydeuterus auritus	26.40	1736	13.75
Trichiurus lepturus	8.00	160	4.27
Pomadasys peroteti	7.20	8	3.75
Sardinella maderensis	2.40	32	1.25
Boops boops	1.60	144	0.83
Scomber japonicus	0.80	8	0.42
Galeoides decadactylus	0.80	16	0.42
Sardinella maderensis	0.80	208	0.42
Trachurus trecae	0.00	24	
Decapterus rhonchus	0.00	8	
Total	192.00	100.01	

PROJECT STATION: 540
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 630
 start stop duration Long W 1212
 TIME :14:49:00 15:19:00 30 (min) Purpose code: 3
 LOG :3898.00 3900.00 1.80 Area code : 1
 FDEPTH: 39 38 GearCond.code:
 BDEPTH: 39 38 Validity code:
 Towing dir: 360 Wire out: 250 m Speed:350 kn*10
 Sorted: 69 Kg Total catch: 206.25 CATCH/HOUR: 412.50

PROJECT STATION: 544
 DATE: 11/ 8/92 GEAR TYPE: PT No: POSITION: Lat N 631
 start stop duration Long W 1218
 TIME :22:15:00 22:45:00 30 (min) Purpose code: 1
 LOG :3952.00 3953.00 1.70 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 24 27 Validity code:
 Towing dir: 300 Wire out: 100 m Speed:330 kn*10
 Sorted: 33 Kg Total catch: 984.00 CATCH/HOUR: 1968.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	160.80	1052	38.98
Pagellus bellottii	48.00	138	11.64
Sparus caeruleostictus	43.20	54	10.47
Stromateus fiatola	29.40	54	7.13
Umbrina canariensis	28.80	72	6.98
Pseudotolithus senegalensis	20.40	18	4.95
Dentex gibbosus	17.40	6	4.22
Pomadasys incisus	17.40	60	4.22
Alloteuthis africana	9.30	4650	2.25
Priacanthus aeneus	7.80	30	1.89
Rhinobatos albomaculatus	7.20	6	1.75
Sparus pagrus	6.60	6	1.60
Atractoscion aequidens	4.20	6	1.02
Sepia officinalis hierredda	3.90	6	0.95
Zeus faber	3.60	12	0.87
Dentex barnardi	2.70	12	0.65
Uranoscopus albesca	1.20	12	0.29
Todaropsis eblanae	0.60	12	0.15
Total	412.50	100.01	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	1260.00	98700	64.02
Engraulis encrasicolus	348.00	39660	17.68
Sardinella maderensis	252.00	22860	12.80
Trachurus trecae	84.00	1320	4.27
Trichiurus lepturus	12.00	240	0.61
Ilisha africana	6.00	60	0.30
Selene dorsalis	6.00	60	0.30
Total	1968.00	99.98	

PROJECT STATION: 541
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 630
 start stop duration Long W 1219
 TIME :16:28:00 16:58:00 30 (min) Purpose code: 3
 LOG :3909.00 3911.00 1.70 Area code : 1
 FDEPTH: 23 23 GearCond.code:
 BDEPTH: 23 23 Validity code:
 Towing dir: 355 Wire out: 150 m Speed:341 kn*10
 Sorted: 52 Kg Total catch: 282.46 CATCH/HOUR: 564.92

PROJECT STATION: 545
 DATE: 12/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 641
 start stop duration Long W 1145
 TIME :06:53:00 07:23:00 30 (min) Purpose code: 3
 LOG :4037.00 4039.00 1.60 Area code : 1
 FDEPTH: 242 250 GearCond.code:
 BDEPTH: 242 250 Validity code:
 Towing dir: 320 Wire out: 900 m Speed:320 kn*10
 Sorted: 32 Kg Total catch: 900.00 CATCH/HOUR: 1800.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Pagellus bellottii	120.00	576	21.24
Brachydeuterus auritus	102.40	40832	18.13
Pomadasys incisus	84.00	420	14.87
Argyrosomus hololepidotus	58.60	2	10.37
Sepia officinalis hierredda	50.60	44	8.96
Pseudotolithus senegalensis	38.20	60	6.76
Trichiurus lepturus	31.20	576	5.52
Galeoides decadactylus	21.60	128	3.82
Pteroscion pell	9.60	104	1.70
Ephippion guttifer	8.80	8	1.56
Trachurus trecae	8.80	112	1.56
Pomadasys jubelini	6.40	8	1.13
Raja miraletus	4.80	8	0.85
Cynoglossus canariensis	4.80	8	0.85
Selene dorsalis	3.60	72	0.64
Decapterus rhonchus	3.20	4	0.57
Zeus faber	2.80	8	0.50
Ilisha africana	2.40	56	0.42
Sparus caeruleostictus	2.00	8	0.35
Dentex barnardi	1.04	8	0.18
Echeneis naucrates	0.08	8	0.01
Total	564.92	99.99	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	1255.60	66364	69.76
Merluccius polli	194.40	1556	10.80
Chlorophthalmus atlanticus	194.40	3666	10.80
Trichiurus lepturus	100.00	388	5.56
Trichiurus lepturus	100.00	388	5.56
Dentex angolensis	27.80	56	1.54
Coelorhynchus coelorhynchus	11.00	166	0.61
Todaropsis eblanae	5.60	56	0.31
Parapenaeus longirostris	5.60	444	0.31
Sepia officinalis hierredda	2.80	110	0.16
Diaphys dumerilii	2.80	500	0.16
Plesionika martia	0.00	56	
Peristedion cataphractum	0.00	56	
Total	1900.00	105.57	

PROJECT STATION: 542
 DATE: 11/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 624
 start stop duration Long W 1221
 TIME :17:34:00 18:04:00 30 (min) Purpose code: 3
 LOG :3916.00 3918.00 1.60 Area code : 1
 FDEPTH: 12 12 GearCond.code:
 BDEPTH: 12 12 Validity code:
 Towing dir: 360 Wire out: 75 m Speed:320 kn*10
 Sorted: 6 Kg Total catch: 6.10 CATCH/HOUR: 12.20

PROJECT STATION: 546
 DATE: 12/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 651
 start stop duration Long W 1152
 TIME :09:24:00 09:54:00 30 (min) Purpose code: 3
 LOG :4056.00 4058.00 1.50 Area code : 1
 FDEPTH: 194 198 GearCond.code:
 BDEPTH: 194 198 Validity code:
 Towing dir: 340 Wire out: 800 m Speed:310 kn*10
 Sorted: 31 Kg Total catch: 646.80 CATCH/HOUR: 1293.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	6.00	522	49.18
Galeoides decadactylus	3.00	12	24.59
Pomadasys peroteti	2.40	4	19.67
Trichiurus lepturus	0.40	12	3.28
Pagellus bellottii	0.40	2	3.28
Trachurus trecae	0.00	2	
Total	12.20	100.00	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	1000.00	22352	77.30
Chlorophthalmus atlanticus	60.00	1840	4.64
Merluccius polli	48.00	320	3.71
Zenopsis conchifer	44.00	480	3.40
Dentex angolensis	40.00	160	3.09
Pentheroscion mbizi	24.00	120	1.86
Ariomma bondi	24.00	560	1.86
Todaropsis eblanae	20.00	200	1.55
Illex coindetii	16.00	120	1.24
Brotula barbata	9.60	8	0.74
Pterotrissus bellocci	8.00	40	0.62
Saurida brasiliensis	0.00	40	
Plesionika martia	0.00	40	
Peristedion cataphractum	0.00	40	
Syacium micrum	0.00	40	
Total	1293.60	100.01	

PROJECT STATION: 555
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 711
 start stop duration Long W 1227
 TIME :14:06:00 14:36:00 30 (min) Purpose code: 3
 LOG :4273.00 4274.00 1.50 Area code : 1
 FDEPTH: 73 69 GearCond.code:
 BDEPTH: 73 69 Validity code:
 Towing dir: 360 Wire out: 350 m Speed:300 kn*10
 Sorted: 44 Kg Total catch: 44.00 CATCH/HOUR: 88.00

PROJECT STATION: 559
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 720
 start stop duration Long W 1203
 TIME :04:52:00 05:22:00 30 (min) Purpose code: 3
 LOG :4404.00 4405.00 1.60 Area code : 1
 FDEPTH: 43C 431 GearCond.code:
 BDEPTH: 43C 431 Validity code:
 Towing dir: 340 Wire out:1200 m Speed:285 kn*10
 Sorted: 27 Kg Total catch: 80.30 CATCH/HOUR: 160.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex barnardi	27.20	124	30.91
Dentex gibbosus	11.60	16	13.18
Epinephelus aeneus	11.20	4	12.73
Atractoscion aequidens	8.80	2	10.00
Sparus caeruleostictus	5.40	8	6.14
Pagellus bellottii	5.20	70	5.91
Fistularia petimba	4.60	8	5.23
Sparus pagrus africanus	4.20	8	4.77
Zeus faber	4.00	10	4.55
Sepia officinalis hierredda	4.00	4	4.55
Illex coindetii	1.12	78	1.27
Alloteuthis africana	0.30	130	0.34
Serranus cabrilla	0.30	2	0.34
Anthias anthias	0.04	2	0.05
Total	87.96		99.97

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Laemonena laureysi	45.00	474	28.02
Merluccius polli, female	43.80	108	27.27
Merluccius polli, male	14.20	54	8.84
Nematocarcinus africanus	13.20	5058	8.22
Stereomastis sculpta	10.20	654	6.35
Dibranchius atlanticus	7.80	468	4.86
Stomopterus pusillus	3.60	60	2.24
Nezumia aequalis	3.60	60	2.24
Chaunax pictus	3.60	42	2.24
Illex coindetii	2.40	12	1.49
Diaphus dumerilii	2.40	480	1.49
Priacanthus arenatus	1.80	6	1.12
MORIDAE	1.80	1026	1.12
Coelorhynchus coelorhynchus	1.80	90	1.12
Aristeus varidens, female	1.20	18	0.75
Peristegion cataphractum	1.20	30	0.75
Brosimiculus imberbis *	1.20	30	0.75
GONOSTOMATIDAE	1.20	12	0.75
Aristeus varidens, male	0.60	72	0.75
Trachurus trecae	0.00	24	0.37
Total	160.60		99.99

PROJECT STATION: 556
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 710
 start stop duration Long W 1233
 TIME :15:37:00 16:07:00 30 (min) Purpose code: 3
 LOG :4282.00 4283.00 1.60 Area code : 1
 FDEPTH: 46 43 GearCond.code:
 BDEPTH: 46 43 Validity code:
 Towing dir: 355 Wire out: 250 m Speed:320 kn*10
 Sorted: 78 Kg Total catch: 77.86 CATCH/HOUR: 155.72

PROJECT STATION: 560
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 730
 start stop duration Long W 1209
 TIME :07:30:00 08:00:00 30 (min) Purpose code: 3
 LOG :4422.00 4423.00 1.50 Area code : 1
 FDEPTH: 535 532 GearCond.code:
 BDEPTH: 535 532 Validity code:
 Towing dir: 290 Wire out:1500 m Speed:290 kn*10
 Sorted: 25 Kg Total catch: 345.20 CATCH/HOUR: 690.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Decapterus rhonchus	108.40	6	69.61
Mustelus mustelus	13.20	6	8.48
Fistularia petimba	6.80	10	4.37
Pagellus bellottii	6.60	32	4.24
Sepia officinalis hierredda	6.40	8	4.11
Dentex barnardi	3.80	10	2.44
Raja miraletus	2.20	4	1.41
Zeus faber	2.00	2	1.28
Sparus caeruleostictus	2.00	4	1.28
Trachinus armatus	1.60	2	1.03
Chaetodon hoefleri	1.40	6	0.90
Chelidonichthys gabonensis	0.80	4	0.51
Trachinus radiatus	0.38	4	0.24
Dicologlossa hexopthalma	0.14	2	0.09
Total	155.72		99.99

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Nematocarcinus africanus	644.00	10624	93.28
Bathylagus longirostris	14.00	168	2.03
Brosimiculus imberbis *	8.40	252	1.22
GONOSTOMATIDAE	8.40	672	1.22
Hoplostethus cadenati	5.60	84	0.81
Ommastrephes pteropus	2.80	28	0.41
Stereomastis sculpta	2.80	168	0.41
ASTRONESTHIDAE	2.80	28	0.41
Dibranchius atlanticus	1.40	56	0.20
Xenodermichthys socialis	0.20	28	0.03
Total	690.40		100.02

PROJECT STATION: 557
 DATE:13/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 711
 start stop duration Long W 1246
 TIME :17:53:00 18:23:00 30 (min) Purpose code: 3
 LOG :4300.00 4302.00 1.60 Area code : 1
 FDEPTH: 17 14 GearCond.code:
 BDEPTH: 17 14 Validity code:
 Towing dir: 5 Wire out: 100 m Speed:310 kn*10
 Sorted: 63 Kg Total catch: 931.90 CATCH/HOUR: 1863.80

PROJECT STATION: 561
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 731
 start stop duration Long W 1239
 TIME :11:45:00 12:15:00 30 (min) Purpose code: 3
 LOG :4458.00 4460.00 1.50 Area code : 1
 FDEPTH: 85 88 GearCond.code:
 BDEPTH: 85 88 Validity code:
 Towing dir: 300 Wire out: 400 m Speed:290 kn*10
 Sorted: 25 Kg Total catch: 286.20 CATCH/HOUR: 572.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	1428.00	17696	76.62
Pseudotolithus senegalensis	111.00	66	5.96
Pseudotolithus senegalensis	95.20	224	5.11
Trichurus lepturus	50.40	196	2.70
Atractoscion aequidens	50.40	56	2.70
Sphyræna quachancho	33.60	56	1.80
Trachurus trecae	30.80	280	1.65
Ilisha africana	28.00	448	1.50
Galeoides decadactylus	14.00	140	0.75
Cynoglossus senegalensis	1.20	28	0.60
Pteroscion pelli	5.60	56	0.30
Torpedo torpedo	2.80	56	0.15
Pentanemus quinquarius	2.80	28	0.15
Total	1863.80		99.99

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	226.80	102060	39.62
Dentex angolensis	80.60	92	14.08
Sepia officinalis hierredda	62.20	92	10.87
Epinephelus caninus	54.40	2	9.50
Dentex gibbosus	48.40	34	8.46
Dentex congolensis	24.00	552	4.19
Atractoscion aequidens	22.60	10	3.95
Pagellus bellottii	21.60	192	3.77
Trachurus trecae	14.40	408	2.52
Zeus faber	7.20	24	1.26
Boops boops	4.80	204	0.84
Sparus caeruleostictus	3.00	4	0.52
Sparus auriga	1.40	2	0.24
Dentex barnardi	1.00	2	0.17
Total	572.40		99.99

PROJECT STATION: 558
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 720
 start stop duration Long W 1213
 TIME :02:53:00 03:23:00 30 (min) Purpose code: 3
 LOG :4391.00 4392.00 1.60 Area code : 1
 FDEPTH: 263 248 GearCond.code:
 BDEPTH: 263 248 Validity code:
 Towing dir: 340 Wire out: 850 m Speed:310 kn*10
 Sorted: 19 Kg Total catch: 137.50 CATCH/HOUR: 275.00

PROJECT STATION: 562
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 730
 start stop duration Long W 1246
 TIME :13:29:00 13:59:00 30 (min) Purpose code: 3
 LOG :4470.00 4471.00 1.60 Area code : 1
 FDEPTH: 60 59 GearCond.code:
 BDEPTH: 60 59 Validity code:
 Towing dir: 350 Wire out: 300 m Speed:320 kn*10
 Sorted: 65 Kg Total catch: 461.60 CATCH/HOUR: 923.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	100.80	4968	36.65
Merluccius polli	57.60	240	20.95
Chloropthalmus atlanticus	38.40	692	13.96
Dentex angolensis	35.20	90	12.80
Trichurus lepturus	12.00	40	4.36
Peristegion cataphractum	12.00	456	4.36
Microrhina angolensis	7.80	4	2.84
Coelorhynchus coelorhynchus	3.36	108	1.22
Gephyroberyx darwini	2.28	12	0.83
Diaphus dumerilii	1.44	432	0.52
Parapenaeus longirostris, male	1.20	348	0.44
Sepia officinalis hierredda	0.84	12	0.31
Scorpaena angolensis	0.72	12	0.26
Illex coindetii	0.48	12	0.17
Plesionika martia	0.48	168	0.17
Parapenaeus longirostris, fem.	0.36	84	0.13
Solenocera africana	0.04	12	0.01
Zenion sp.	0.00	12	
Total	275.00		99.98

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	645.40	1204	69.91
Decapterus rhonchus	70.00	42	7.58
Pagellus bellottii	64.40	364	6.98
Alloteuthis africana	32.90	18918	3.56
Sepia officinalis hierredda	29.40	56	3.18
Zeus faber	25.20	70	2.73
Dentex angolensis	15.40	42	1.67
Epinephelus aeneus	14.40	4	1.56
Sparus caeruleostictus	11.20	14	1.21
Dentex barnardi	4.90	14	0.53
Dentex gibbosus	4.20	28	0.45
Chaetodon hoefleri	3.50	14	0.38
Trachurus juveniles	1.54	112	0.17
Dentex congolensis	0.70	14	0.08
Total	923.14		99.99

PROJECT STATION: 563
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 729 Long W 1256
 start stop duration Purpose code: 3
 TIME :15:30:00 16:00:00 30 (min) Area code : 1
 LOG :4485.00 4487.00 1.50 GearCond.code: 1
 FDEPTH: 14 14 Validity code:
 BDEPTH: 14 14
 Towing dir: 160 Wire out: 75 m Speed:300 kn*10

Sorted: 59 Kg Total catch: 504.00 CATCH/HOUR: 1008.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Brachydeuterus auritus	982.60	10618	97.48	162
Galeoides decadactylus	8.50	16	0.84	
Trichiurus lepturus	5.96	186	0.59	
Pteroscacion peli	5.10	152	0.51	
Trachurus trecae	5.10	16	0.51	
Sepia officinalis hierredda	0.68	16	0.07	
Ilisha africana	0.06	16	0.01	
Total	1008.00	100.01		

PROJECT STATION: 564
 DATE:14/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 724 Long W 1247
 start stop duration Purpose code: 3
 TIME :17:51:00 18:21:00 30 (min) Area code : 1
 LOG :4504.00 4505.00 1.50 GearCond.code: 1
 FDEPTH: 39 36 Validity code:
 BDEPTH: 39 36
 Towing dir: 360 Wire out: 250 m Speed:300 kn*10

Sorted: 63 Kg Total catch: 151.80 CATCH/HOUR: 303.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Alloteuthis africana	105.60	28248	34.78	
Pagellus bellottii	90.00	460	29.64	163
Trichiurus lepturus	34.00	36	11.20	
Umbrina canariensis	34.00	100	11.20	
Zeus faber	7.20	8	2.37	
Chelidonichthys capensis	6.00	20	1.98	
Rhinobatos sp.	6.00	4	1.98	
Pomadour peroteti	5.60	4	1.84	
Trachurus, Juveniles	5.60	1428	1.84	
Pomadour incisus	4.00	20	1.32	
Sparus caeruleostictus	2.80	4	0.92	
Raja miraletus	2.40	4	0.79	
Boops boops	0.40	4	0.13	
Total	303.60	99.99		

PROJECT STATION: 565
 DATE:14/ 8/92 GEAR TYPE: PT No:3 POSITION:Lat N 735 Long W 1255
 start stop duration Purpose code: 1
 TIME :21:34:00 22:04:00 30 (min) Area code : 1
 LOG :4536.00 4538.00 2.20 GearCond.code: 1
 FDEPTH: 0 0 Validity code:
 BDEPTH: 31 30
 Towing dir: 330 Wire out: 100 m Speed:430 kn*10

Sorted: 12 Kg Total catch: 7047.50 CATCH/HOUR: 14095.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Brachydeuterus auritus	1216.00	89984	86.27	164
Sphyræna guachancho	1216.00	1216	8.63	
Trachurus trecae	608.00	6080	4.31	
Lutjanus gorensis	99.00	12	0.70	
Seriola lalandi	12.00	4	0.09	
Total	14095.00	100.00		

PROJECT STATION: 566
 DATE:15/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 741 Long W 1228
 start stop duration Purpose code: 3
 TIME :03:15:00 04:15:00 60 (min) Area code : 1
 LOG :4584.00 4587.00 2.90 GearCond.code: 1
 FDEPTH: 757 734 Validity code:
 BDEPTH: 757 734
 Towing dir: 350 Wire out:1900 m Speed:285 kn*10

Sorted: 18 Kg Total catch: 57.26 CATCH/HOUR: 57.26

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
POLYCHAELIDAE	28.80	213	50.30	
ALEPOCEPHALIDAE	5.70	45	9.95	
Trichiurus lepturus	3.90	39	6.81	
Merluccius polli	3.90	9	6.81	
Malacocephalus occidentalis	2.70	42	4.72	
Aristeus varidens, female	2.00	70	3.49	166
C E P H A L O P O D A	1.80	6	3.14	
Deepwater fish mixture	1.80	72	3.14	
GONOSTOMATIDAE	1.80	24	3.14	
OPHOOT	0.90	11	1.57	
ASTRONESTHIDAE	0.90	12	1.57	
TRACHINIDAE	0.60	12	1.05	
Bachyteris sp.	0.60	71	1.05	
Plesiopterus edwardsianus, m.	0.50	17	0.87	167
RAJIDAE	0.30	6	0.52	
NETTASTOMATIDAE	0.30	3	0.52	
Serrivomer parabeani	0.20	6	0.35	
Brosimolus imberbis *	0.20	6	0.35	
PANDALIDAE	0.12	1	0.21	
Glyphus marsupialis	0.10	10	0.17	
Nematocarcinus africanus	0.06	10	0.10	
Plesiopterus edwardsianus, f.	0.04	1	0.07	168
Aristeus varidens, male	0.04	6	0.07	165
Total	57.26	99.97		

PROJECT STATION: 567
 DATE:15/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 751 Long W 1233
 start stop duration Purpose code: 3
 TIME :06:50:00 07:50:00 60 (min) Area code : 1
 LOG :4606.00 4609.00 2.90 GearCond.code: 1
 FDEPTH: 653 665 Validity code:
 BDEPTH: 653 665
 Towing dir: 330 Wire out:1650 m Speed:290 kn*10

Sorted: 53 Kg Total catch: 187.15 CATCH/HOUR: 187.15

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Nematocarcinus africanus	107.40	16654	57.39	
Merluccius polli, male	18.55	35	9.91	169
Brosimolus imberbis *	15.70	438	8.39	
Stereomastis sculpta	14.10	1137	7.53	
Merluccius polli, female	6.30	14	3.37	170
GONOSTOMATIDAE	5.60	324	2.99	
OPHIDIIDAE	4.90	42	2.62	
CONGRIDAE	3.50	38	1.87	
Hoplostethus cadenati	3.10	63	1.66	
Nezumia aequalis	2.80	52	1.50	
Halosaurus sp.	1.70	17	0.91	
Talismania oregonia	1.40	7	0.75	
Aristeus varidens	0.70	17	0.37	
Etmopterus polli	0.70	7	0.37	
Dibranchius atlanticus	0.70	17	0.37	
Total	187.15	100.00		

PROJECT STATION: 568
 DATE:15/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 751 Long W 1240
 start stop duration Purpose code: 3
 TIME :09:34:00 10:04:00 30 (min) Area code : 1
 LOG :4621.00 4623.00 1.60 GearCond.code: 1
 FDEPTH: 126 126 Validity code:
 BDEPTH: 126 126
 Towing dir: 330 Wire out: 550 m Speed:310 kn*10

Sorted: 97 Kg Total catch: 96.50 CATCH/HOUR: 193.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Dentex congoensis	38.00	306	19.69	173
Dentex angolensis	36.60	132	18.96	172
Dentex macrophthalmus	35.60	152	18.45	171
Zenopsis conchifer	23.00	28	11.92	
Sparus pagrus africanus	19.40	22	10.05	
Sarda sarda	13.00	10	6.74	
Spicara alta	8.40	118	4.35	
Trachurus trecae	4.00	66	2.07	
Ariomma bondi	4.00	48	2.07	
Trichiurus lepturus	3.00	2	1.55	
Octopus sp.	2.00	2	1.04	
Branchiostegus semifasciatus	2.00	4	1.04	
Umbrina canariensis	1.20	2	0.62	
Zeus faber	1.00	2	0.52	
Chaetodon hoefleri	1.00	6	0.52	
Boops boops	0.80	6	0.41	
Total	193.00	100.00		

PROJECT STATION: 569
 DATE:15/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 753 Long W 1249
 start stop duration Purpose code: 3
 TIME :11:46:00 11:55:00 9 (min) Area code : 1
 LOG :4636.00 4636.00 0.50 GearCond.code: 1
 FDEPTH: 99 100 Validity code:
 BDEPTH: 99 100
 Towing dir: 150 Wire out: 450 m Speed:330 kn*10

Sorted: 63 Kg Total catch: 63.10 CATCH/HOUR: 420.67

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Epinephelus caninus	185.33	7	44.06	
Epinephelus aeneus	70.00	7	16.64	
Cynoponticus ferox	59.33	7	14.10	
Dentex angolensis	49.33	187	11.73	
Dentex congoensis	18.00	167	4.28	175
Trachurus trecae	10.00	227	2.38	174
Pagellus bellottii	8.67	67	2.06	
Todaropsis eblanae	6.67	680	1.59	
Zeus faber	6.00	13	1.43	
Raja miraletus	4.00	7	0.95	
Chaetodon hoefleri	3.33	13	0.79	
Total	420.66	100.01		

PROJECT STATION: 570
 DATE:15/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 753 Long W 1252
 start stop duration Purpose code: 3
 TIME :12:50:00 13:20:00 30 (min) Area code : 1
 LOG :4643.00 4644.00 1.60 GearCond.code: 1
 FDEPTH: 80 77 Validity code:
 BDEPTH: 80 77
 Towing dir: 355 Wire out: 350 m Speed:300 kn*10

Sorted: 65 Kg Total catch: 65.40 CATCH/HOUR: 130.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.	
weight	numbers			
Trachurus trecae	33.20	224	25.38	177
Dentex angolensis	28.06	174	21.45	176
Alloteuthis africana	17.40	4350	13.30	
Epinephelus aeneus	15.40	4	11.77	
Dentex congoensis	8.70	130	6.65	178
Sepia officinalis hierredda	8.20	10	6.27	
Raja miraletus	6.00	6	4.59	
Trichiurus lepturus	4.40	4	3.36	
Zeus faber	2.80	8	2.14	
Pagellus bellottii	2.40	30	1.83	
Torpedo torpedo	1.70	4	1.30	
Dentex bernardi	0.90	2	0.69	
Boops boops	0.90	32	0.69	
Todaropsis eblanae	0.32	18	0.24	
Illex coindetii	0.22	6	0.17	
Chelidonichthys gabonensis	0.16	6	0.12	
Trachurus, Juveniles	0.04	28	0.03	
Total	130.80	99.98		

PROJECT STATION: 571
 DATE:15/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 751 Long W 1259
 start stop duration Purpose code: 3
 TIME :14:31:00 15:01:00 30 (min) Area code : 1
 LOG :4655.00 4656.00 1.50 GearCond.code:
 FDEPTH: 48 45 Validity code:
 BDEPTH: 48 45
 Towing dir: 360 Wire out: 253 m Speed:310 kn*10
 Sorted: 41 Kg Total catch: 144.10 CATCH/HOUR: 288.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex barnardi	69.30	24.05	179
Alloteuthis africana	54.60	18.95	
Pagellus bellottii	46.90	16.27	180
Raja miraletus	41.30	14.33	
Sepia officinalis hierredda	34.30	11.90	
Dentex angolensis	18.20	6.32	
Sparus caeruleostictus	8.76	3.04	
Zeus faber	8.40	2.91	
Epinephelus aeneus	4.90	1.70	
Chaetodon hoefleri	0.84	0.29	
Trachurus, Juveniles	0.70	0.24	
Total	288.20	100.00	

PROJECT STATION: 575
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 801 Long W 1245
 start stop duration Purpose code: 3
 TIME :12:46:00 13:16:00 30 (min) Area code : 1
 LOG :4716.00 4717.00 1.50 GearCond.code:
 FDEPTH: 122 123 Validity code:
 BDEPTH: 122 123
 Towing dir: 340 Wire out: 500 m Speed:290 kn*10
 Sorted: 59 Kg Total catch: 58.80 CATCH/HOUR: 117.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex angolensis	47.00	39.97	189
Dentex congoensis	20.00	17.01	190
Sparus auriga	16.00	13.61	
Anthias anthias	13.60	11.56	
Todaropsis eblanae	6.00	5.10	
Epinephelus goreensis	4.80	4.08	
Zeus faber	4.20	3.57	
Zenopsis conchifer	2.20	1.87	
Raja miraletus	1.40	1.19	
Dentex macrophthalmus	1.00	0.85	
Illex condeitii	0.80	0.68	
Pagellus bellottii	0.24	0.20	
Erythrocles monodi	0.14	0.12	
Chelidonichthys gabonensis	0.08	0.07	
Boops boops	0.08	0.07	
Trachurus trecae	0.02	0.02	
Total	117.56	99.97	

PROJECT STATION: 572
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 800 Long W 1309
 start stop duration Purpose code: 3
 TIME :07:24:00 07:54:00 30 (min) Area code : 1
 LOG :4679.00 4681.00 1.80 GearCond.code:
 FDEPTH: 23 24 Validity code:
 BDEPTH: 23 24
 Towing dir: 350 Wire out: 150 m Speed:330 kn*10
 Sorted: 33 Kg Total catch: 266.40 CATCH/HOUR: 532.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	416.00	78.08	
Trachurus trecae	56.00	10.51	181
Trichiurus lepturus	49.60	9.31	
Parapenaeopsis atlantica, fem.	4.80	0.90	183
Parapenaeopsis atlantica, male	3.20	0.60	182
Pteroscion pelli	1.60	0.30	
Pterochirissus bellocci	1.60	0.30	
Total	532.80	100.00	

PROJECT STATION: 576
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 800 Long W 1242
 start stop duration Purpose code: 3
 TIME :14:01:00 14:31:00 30 (min) Area code : 1
 LOG :4722.00 4723.00 1.70 GearCond.code:
 FDEPTH: 259 267 Validity code:
 BDEPTH: 259 267
 Towing dir: 160 Wire out: 800 m Speed:310 kn*10
 Sorted: 36 Kg Total catch: 178.70 CATCH/HOUR: 357.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Diaphus dumerilli	236.00	66.03	
Synagrops microlepis	49.00	13.71	
Trichiurus lepturus	16.00	4.48	
Chlorophthalmus atlanticus	15.00	4.20	
Parapenaeus longirostris, fem.	13.00	3.64	192
Todaropsis eblanae	9.00	2.52	
Malacocephalus occidentalis	6.00	1.68	
Parapenaeus longirostris, male	5.00	1.40	191
Merluccius pollii	5.00	1.40	
Pterochirissus bellocci	2.00	0.56	
Zenopsis conchifer	1.00	0.28	
Coelozinchus coelozinchi	0.40	0.11	
Total	357.40	100.01	

PROJECT STATION: 573
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 801 Long W 1305
 start stop duration Purpose code: 3
 TIME :08:49:00 09:19:00 30 (min) Area code : 1
 LOG :4688.00 4690.00 1.50 GearCond.code:
 FDEPTH: 46 48 Validity code:
 BDEPTH: 46 48
 Towing dir: 320 Wire out: 250 m Speed:300 kn*10
 Sorted: 33 Kg Total catch: 134.60 CATCH/HOUR: 269.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	104.00	38.63	184
Trichiurus lepturus	64.00	23.77	
Pagellus bellottii	42.00	15.60	185
Dentex canariensis	23.20	8.62	
Small squids	13.60	5.05	
Sepia officinalis hierredda	6.80	2.53	
Pomadasys incisus	6.40	2.38	
SCIAENIDAE	4.80	1.78	
Pterochirissus bellocci	2.40	0.89	
Epinephelus aeneus	2.00	0.74	
Total	269.20	99.99	

PROJECT STATION: 577
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 801 Long W 1545
 start stop duration Purpose code: 3
 TIME :15:15:00 15:45:00 30 (min) Area code : 1
 LOG :4727.00 4729.00 1.50 GearCond.code:
 FDEPTH: 350 349 Validity code:
 BDEPTH: 350 349
 Towing dir: 360 Wire out:1050 m Speed:290 kn*10
 Sorted: 34 Kg Total catch: 639.20 CATCH/HOUR: 1278.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Nematocarcinus africanus	333.20	26.06	
Merluccius pollii, female	329.80	25.80	194
Merluccius pollii, male	302.60	23.67	193
Centrophorus granulosus	119.60	9.36	
SCORPAENIDAE	51.00	3.99	
Chlorophthalmus atlanticus	37.40	2.93	
Laemonema laureysi	17.00	1.33	
Malacocephalus occidentalis	17.00	1.33	
Chaunax pictus	17.00	1.33	
Trichiurus lepturus	13.60	1.06	
Hymenocephalus italicus	13.60	1.06	
Synagrops microlepis	10.20	0.80	
Etmopterus spinax	6.80	0.53	
S H R I M P S	2.40	0.19	
Todaropsis eblanae	1.60	0.13	
Malacocephalus laevis	1.60	0.13	
Parapenaeus longirostris	1.40	0.11	
Brosmiculus imberbis *	1.40	0.11	
Coelozinchus coelozinchi	0.60	0.05	
GONOSTOMATIDAE	0.60	0.05	
Total	1278.40	100.02	

PROJECT STATION: 574
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 801 Long W 1256
 start stop duration Purpose code: 3
 TIME :10:49:00 11:19:00 30 (min) Area code : 1
 LOG :4702.00 4703.00 1.50 GearCond.code:
 FDEPTH: 88 88 Validity code:
 BDEPTH: 88 88
 Towing dir: 330 Wire out: 400 m Speed:290 kn*10
 Sorted: 64 Kg Total catch: 323.00 CATCH/HOUR: 646.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	485.00	75.08	186
Dentex angolensis	47.00	7.28	187
Dentex congoensis	41.00	6.35	
Trachurus, Juveniles	28.00	4.33	188
Zeus faber	19.00	2.94	
Epinephelus aeneus	6.00	0.93	
Raja miraletus	5.00	0.77	
Atractodeson aequidens	4.00	0.62	
Chaetodon hoefleri	4.00	0.62	
Pagellus bellottii	3.00	0.46	
Uranoscopus sp.	1.00	0.15	
Chelidonichthys capensis	1.00	0.15	
Citharus linguatula	1.00	0.15	
Branchiostegus semifasciatus	0.60	0.09	
Boops boops	0.40	0.06	
Total	646.00	99.98	

PROJECT STATION: 578
 DATE:16/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 800 Long W 1239
 start stop duration Purpose code: 3
 TIME :16:39:00 17:09:00 30 (min) Area code : 1
 LOG :4734.00 4735.00 1.50 GearCond.code:
 FDEPTH: 450 448 Validity code:
 BDEPTH: 450 448
 Towing dir: 350 Wire out:1253 m Speed:275 kn*10
 Sorted: 28 Kg Total catch: 443.70 CATCH/HOUR: 887.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Nematocarcinus africanus	630.00	70.99	
Merluccius pollii, female	129.00	14.54	196
Centrophorus granulosus	42.40	4.06	
Merluccius pollii, male	36.00	4.06	195
Brosmiculus imberbis *	15.00	1.69	
Chlorophthalmus atlanticus	12.00	1.35	
Neomerinthe folgori	9.00	1.01	
Malacocephalus occidentalis	6.00	0.68	
Trachinocephalus sp.	2.00	0.23	
GONOSTOMATIDAE	2.00	0.23	
Aristeus varidens	1.80	0.20	
Laemonema laureysi	0.80	0.09	
Dibranchius atlanticus	0.60	0.07	
Lophius vaillanti	0.60	0.07	
NEMICHTHYIDAE	0.20	0.02	
Total	887.40	100.01	

PROJECT STATION: 579
 DATE: 16/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 800 Long W 1237
 TIME :18:10:00 18:40:00 30 (min) Purpose code: 3
 LOG :4741.00 4742.00 1.40 Area code : 1
 FDEPTH: 556 554 GearCond.code: 9
 BDEPTH: 556 554 Validity code:
 Towing dir: 350 Wire out:1500 m Speed:270 kn*10
 Sorted: 28 Kg Total catch: 139.30 CATCH/HOUR: 278.60

PROJECT STATION: 583
 DATE: 17/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 811 Long W 1259
 TIME :13:45:00 14:15:00 30 (min) Purpose code: 3
 LOG :4890.00 4891.00 1.60 Area code : 1
 FDEPTH: 96 93 GearCond.code:
 BDEPTH: 96 93 Validity code:
 Towing dir: 355 Wire out: 400 m Speed:310 kn*10
 Sorted: 60 Kg Total catch: 230.45 CATCH/HOUR: 460.90

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Nematogobius africanus	230.00	82.56	
Merluccius polli	25.00	8.97	
GONOSTOMATIDAE	6.00	2.15	
MELANOSTOMIATIDAE	4.00	1.44	
Stereomastis sculpata	3.00	1.08	
Chlorophthalmus atlanticus	3.00	1.08	
OPHIIDIIDAE	2.00	0.72	
Etmopterus pusillus	1.00	0.36	
SCORPAENIDAE	1.00	0.36	
Bromisculus imberbis *	1.00	0.36	
Xenodermichthys socialis	1.00	0.36	
Aristeus variidens, male	0.60	0.22	
Dibranchius atlanticus	0.50	0.18	
Aristeus variidens, female	0.20	0.07	
Plesionepaeus edwardsianus	0.20	0.07	
Plesionixia martia	0.10	0.04	
Total	278.60	100.02	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trichiurus lepturus	177.80	38.58	
Dentex angolensis	102.90	22.33	203
Raja miraletus	28.00	6.08	
Trachurus trercae	25.20	5.47	
Dentex macropthalmus	19.60	4.25	
Epinephelus aeneus	18.40	3.99	
Chelidonichthys gabonensis	13.30	2.89	
Atractoscion aequidens	12.60	2.73	
Umbrina canariensis	9.80	2.13	
Cynoponticus ferox	8.80	1.91	
Dentex gibbosus	7.00	1.52	
Pagellus bellottii	6.30	1.37	
Miracorvina angolensis	5.96	1.29	
Zeus faber	4.90	1.06	
Todaropsis eblanae	4.90	1.06	
Branchiostegus semifasciatus	4.90	1.06	
Torpedo torpedo	3.16	0.69	
Pterothrissus belloci	3.16	0.69	
Merluccius polli	2.46	0.53	
Trachurus, juveniles	1.06	0.23	
Boops boops	0.70	0.15	
Total	460.90	100.01	

PROJECT STATION: 580
 DATE: 16/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 802 Long W 1235
 TIME :20:41:00 21:41:00 60 (min) Purpose code: 3
 LOG :4752.00 4755.00 2.80 Area code : 1
 FDEPTH: 780 769 GearCond.code:
 BDEPTH: 780 769 Validity code:
 Towing dir: 360 Wire out:2000 m Speed:270 kn*10
 Sorted: 22 Kg Total catch: 66.00 CATCH/HOUR: 66.00

PROJECT STATION: 584
 DATE: 17/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 810 Long W 1303
 TIME :15:07:30 15:37:00 30 (min) Purpose code: 3
 LOG :4898.00 4899.00 1.60 Area code : 1
 FDEPTH: 73 71 GearCond.code:
 BDEPTH: 73 71 Validity code:
 Towing dir: 350 Wire out: 350 m Speed:310 kn*10
 Sorted: 28 Kg Total catch: 352.75 CATCH/HOUR: 705.50

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Stereomastis sculpata	28.80	43.64	
Deepwater fish mixture	8.70	13.18	
MACROURIDAE	7.50	11.36	
Tallismaia oregonia	4.50	6.82	
Merluccius polli	4.20	6.36	
Plesionepaeus edwardsianus, m.	2.10	3.18	197
Aristeus variidens, female	2.10	3.18	200
Laemonema laureysi	1.80	2.73	
GONOSTOMATIDAE	1.50	2.27	
Hoplostethus cadonati	1.20	1.82	
Aristeus variidens, male	1.20	1.82	199
Bathypterois sp.	0.90	1.36	
Dibranchius atlanticus	0.60	0.91	
ALEPOCEPHALIDAE	0.60	0.91	
Plesionepaeus edwardsianus, f.	0.30	0.45	198
Total	66.00	99.99	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	352.80	50.01	
Trichiurus lepturus	126.00	17.86	
Dentex angolensis	71.40	10.12	204
Atractoscion aequidens	47.60	6.75	206
Epinephelus aeneus	28.20	4.00	
Dentex barnardi	21.20	3.00	
Raja miraletus	12.60	1.79	
Argyrosomus hololepidotus	8.00	1.13	
Trachurus trercae	8.00	1.13	205
Pomadasyus incisus	7.20	1.02	
Chaetodon hoefleri	7.20	1.02	
Epinephelus alexandrinus	3.40	0.48	
Sarda sarda	3.00	0.43	
Torpedo torpedo	2.70	0.38	
Pagellus bellottii	2.60	0.37	
Umbrina canariensis	1.60	0.23	
Miracorvina angolensis	1.50	0.21	
Dentex macropthalmus	0.50	0.07	
Total	705.50	100.00	

PROJECT STATION: 581
 DATE: 17/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 812 Long W 1244
 TIME :09:55:00 10:25:00 30 (min) Purpose code: 3
 LOG :4866.00 4867.00 1.50 Area code : 1
 FDEPTH: 358 344 GearCond.code:
 BDEPTH: 358 344 Validity code:
 Towing dir: 350 Wire out:1100 m Speed:300 kn*10
 Sorted: 29 Kg Total catch: 204.12 CATCH/HOUR: 408.24

PROJECT STATION: 585
 DATE: 17/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 811 Long W 1308
 TIME :16:34:00 16:50:00 16 (min) Purpose code: 3
 LOG :4907.00 4907.00 0.90 Area code : 1
 FDEPTH: 48 47 GearCond.code:
 BDEPTH: 48 47 Validity code:
 Towing dir: 350 Wire out: 250 m Speed:310 kn*10
 Sorted: 64 Kg Total catch: 64.13 CATCH/HOUR: 240.49

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Merluccius polli, male	280.00	68.59	201
Merluccius polli, female	35.00	8.57	202
Zenopsis conchifer	29.40	7.20	
MYCTOPHIDAE	22.40	5.49	
Hymenochelus italicus	8.40	2.06	
Neomerinthe folgori	7.00	1.71	
Laemonema laureysi	5.60	1.37	
Synagrops microlepis	5.60	1.37	
Benthodesmus tenuis	4.20	1.03	
Bromisculus imberbis *	4.20	1.03	
Malacocephalus laevis	2.80	0.69	
Chlorophthalmus atlanticus	2.80	0.69	
Dibranchius atlanticus	0.70	0.17	
Nemichthys scolopacea	0.14	0.03	
OMMASTREPHIDAE	0.00	0.00	
Solenocera africana	0.00	0.00	
Plesionixia martia	0.00	0.00	
Total	408.24	100.00	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trichiurus lepturus	79.13	32.90	
Pomadasyus incisus	40.50	16.84	207
Cynoponticus ferox	36.75	15.28	
Dentex barnardi	29.25	12.16	
Raja miraletus	12.75	5.33	
Alloteuthis africana	9.38	3.90	
Chaetodon hoefleri	7.88	3.28	
Pagellus bellottii	5.81	2.42	
Umbrina canariensis	5.63	2.34	
Cynoglossus canariensis	3.38	1.41	
Epinephelus aeneus	3.00	1.25	
Sepia officinalis hierredda	2.63	1.09	
Sparus caeruleostictus	2.63	1.09	
Trachurus trercae	0.75	0.31	
Dentex angolensis	0.49	0.20	
Penaeus notialis	0.19	0.08	
Boops boops	0.15	0.06	
Merluccius polli	0.11	0.05	
Gobiidae	0.08	0.03	
Total	240.49	99.99	

PROJECT STATION: 582
 DATE: 17/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 811 Long W 1247
 TIME :11:33:00 12:03:00 30 (min) Purpose code: 3
 LOG :4874.00 4875.00 1.50 Area code : 1
 FDEPTH: 217 210 GearCond.code:
 BDEPTH: 217 210 Validity code:
 Towing dir: 335 Wire out: 800 m Speed:290 kn*10
 Sorted: 35 Kg Total catch: 310.60 CATCH/HOUR: 621.20

PROJECT STATION: 586
 DATE: 17/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 813 Long W 1312
 TIME :17:35:00 18:05:00 30 (min) Purpose code: 3
 LOG :4913.00 4915.00 1.70 Area code : 1
 FDEPTH: 27 25 GearCond.code:
 BDEPTH: 27 25 Validity code:
 Towing dir: 350 Wire out: 200 m Speed:330 kn*10
 Sorted: 35 Kg Total catch: 1026.00 CATCH/HOUR: 2052.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	430.20	69.25	
Trichiurus lepturus	91.80	14.78	
Chlorophthalmus atlanticus	45.00	7.24	
Merluccius polli	34.20	5.51	
Zenopsis conchifer	9.00	1.45	
Todaropsis eblanae	7.20	1.16	
Parapenaeus longirostris	1.98	0.32	
Illex coindetii	1.80	0.29	
Total	621.18	100.00	

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Brachydeuterus auritus	1590.00	77.49	208
Trachurus trercae	408.00	19.88	209
Pagellus bellottii	30.00	1.46	
Umbrina canariensis	12.00	0.58	
Trichiurus lepturus	6.00	0.29	
Pteroscion peli	6.00	0.29	
Total	2052.00	99.99	

PROJECT STATION: 587
 DATE:17/ 8/92 GEAR TYPE: PT No: POSITION:Lat N 804 Long W 1305
 start stop duration
 TIME :19:33:00 20:03:00 30 (min) Purpose code: 1
 LOG :4926.00 4926.00 1.70 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 53 41 Validity code:
 Towing dir: 90 Wire out: 100 m Speed:330 kn*10
 Sorted: 69 Kg Total catch: 756.80 CATCH/HOUR: 1513.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1056.00	6938	69.77	211
Trachurus trecae	374.00	1562	24.71	210
Trichiurus lepturus	55.00	110	3.63	
Trachinotus ovatus	15.40	44	1.02	
Sepia sp.	13.20	44	0.87	
Total	1513.60		100.00	

PROJECT STATION: 588
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 821 Long W 1244
 start stop duration
 TIME :03:53:00 04:23:00 30 (min) Purpose code: 3
 LOG :5006.00 5007.00 1.50 Area code : 1
 FDEPTH: 551 553 GearCond.code:
 BDEPTH: 551 553 Validity code:
 Towing dir: 160 Wire out:1500 m Speed:264 kn*10
 Sorted: 23 Kg Total catch: 156.60 CATCH/HOUR: 313.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Nematocarcinus africanus	127.20	15990	40.61	
Centrophorus granulosus	37.60	8	12.01	
Merluccius polli	34.80	60	11.11	
STOMIIDAE	32.40	528	10.34	
GONOSTOMATIDAE	20.40	1574	6.51	
Trichiurus lepturus	16.80	60	5.36	
Small squids unident.	13.20	168	4.21	
Brosmiculus imberbis *	8.40	264	2.68	
OPHIDIIDAE	7.20	168	2.30	
POLYCHAELIDAE	3.60	348	1.15	
ALEPOCEPHALIDAE	2.72	204	0.87	
Malacocephalus laevis	2.40	12	0.77	
Aristeus variidens, female	2.00	108	0.64	
Hoplostethus sp.	1.86	924	0.59	
UNIDENTIFIED FISH	0.72	24	0.23	
Aristeus variidens, male	0.68	84	0.22	
MURAENESOCIDAE	0.64	48	0.20	
NETTASTOMATIDAE	0.20	12	0.06	
Shrimps, small, non comm.	0.18	36	0.06	
Coelorinchus coelorzincus	0.14	48	0.04	
NEMICHTHYIDAE	0.00	12		
Total	313.14		99.96	

PROJECT STATION: 589
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 830 Long W 1250
 start stop duration
 TIME :05:51:00 06:21:00 30 (min) Purpose code: 3
 LOG :5017.00 5018.00 1.50 Area code : 1
 FDEPTH: 453 447 GearCond.code:
 BDEPTH: 453 447 Validity code:
 Towing dir: 170 Wire out:1250 m Speed:300 kn*10
 Sorted: 57 Kg Total catch: 512.10 CATCH/HOUR: 1024.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	567.00	1386	55.36	213
Nematocarcinus africanus	383.40	115020	37.43	
Merluccius polli, male	32.40	90	3.16	212
Hoplostethus cadenati	9.00	270	0.88	
Emmopterus pusillus	5.40	54	0.53	
MELANOSTOMATIDAE	5.40	54	0.53	
Hymenoccephalus italicus	5.40	342	0.53	
Brosmiculus imberbis *	3.60	18	0.35	
GONOSTOMATIDAE	3.60	252	0.35	
Benthodesmus tenuis	1.80	18	0.18	
Laemonema laureysi	1.80	18	0.18	
Coelorinchus sp.	1.80	18	0.18	
MACROURIDAE	1.80	90	0.18	
Chaunax pictus	1.80	18	0.18	
Xenodermichthys socialis	0.00	18		
Total	1024.20		100.02	

PROJECT STATION: 590
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 832 Long W 1255
 start stop duration
 TIME :07:40:00 08:10:00 30 (min) Purpose code: 3
 LOG :5027.00 5028.00 1.50 Area code : 1
 FDEPTH: 334 321 GearCond.code:
 BDEPTH: 334 321 Validity code:
 Towing dir: 345 Wire out:1050 m Speed:300 kn*10
 Sorted: 31 Kg Total catch: 310.00 CATCH/HOUR: 620.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	288.00	740	46.45	215
Merluccius polli, male	172.00	800	27.74	214
Nematocarcinus africanus	72.00	13140	11.61	
Chlorophthalmus atlanticus	16.00	420	2.58	
Laemonema laureysi	14.00	140	2.26	
Pterothrissus belloci	12.00	40	1.94	
Malacocephalus occidentalis	10.00	1320	1.61	
Malacocephalus laevis	10.00	40	1.61	
Todaropsis eblanae	8.00	80	1.29	
Synagrops microlepis	8.00	300	1.29	
Diaphus dumerilli	4.00	1040	0.65	
Brosmiculus imberbis *	2.00	20	0.32	
Coelorinchus sp.	2.00	40	0.32	
Erythrocles monodi	2.00	20	0.32	
Solenocera africana	0.00	20		
Parapenaeus longirostris	0.00	40		
Total	620.00		99.99	

PROJECT STATION: 591
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 831 Long W 1257
 start stop duration
 TIME :09:12:00 09:42:00 30 (min) Purpose code: 3
 LOG :5035.00 5036.00 1.50 Area code : 1
 FDEPTH: 232 233 GearCond.code:
 BDEPTH: 232 233 Validity code:
 Towing dir: 345 Wire out: 850 m Speed:300 kn*10
 Sorted: 37 Kg Total catch: 732.00 CATCH/HOUR: 1464.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Diaphus dumerilli	1200.00	12856	81.97	
Miracorvina angolensis	68.00	40	4.64	
Synagrops microlepis	64.00	4360	4.37	
Trichiurus lepturus	40.00	160	2.73	
Brotula barbata	32.00	40	2.19	
Merluccius polli	28.00	80	1.91	
Pterothrissus belloci	24.00	120	1.64	
Parapenaeus longirostris	4.00	520	0.27	
Chlorophthalmus agassizi	4.00	40	0.27	
Total	1464.00		99.99	

PROJECT STATION: 592
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 831 Long W 1259
 start stop duration
 TIME :10:44:00 11:14:00 30 (min) Purpose code: 3
 LOG :5043.00 5045.00 1.60 Area code : 1
 FDEPTH: 157 164 GearCond.code:
 BDEPTH: 157 164 Validity code:
 Towing dir: 334 Wire out: 700 m Speed:310 kn*10
 Sorted: 23 Kg Total catch: 187.40 CATCH/HOUR: 374.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	104.00	5778	27.75	
Trachurus trecae	78.00	118	20.81	216
Dentex angolensis	47.00	132	12.54	217
Brotula barbata	31.20	22	8.32	
Pterothrissus belloci	25.60	120	6.83	
Trichiurus lepturus	21.60	48	5.76	
Dentex macrophthalmus	21.10	50	5.63	218
Merluccius polli	17.60	80	4.70	
Branchiostegus semifasciatus	9.20	12	2.45	
Illex coindetii	6.40	176	1.71	
Todaropsis eblanae	4.00	56	1.07	
Zeus faber	2.40	10	0.64	
Spicara alta	2.00	10	0.53	
Miracorvina angolensis	1.80	2	0.48	
Trigla lyra	1.60	8	0.43	
Zenopsis conchifer	0.80	8	0.21	
Syacium micrurum	0.40	8	0.11	
Total	374.70		99.97	

PROJECT STATION: 593
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 830 Long W 1311
 start stop duration
 TIME :14:39:00 15:09:00 30 (min) Purpose code: 3
 LOG :5067.00 5068.00 1.60 Area code : 1
 FDEPTH: 65 64 GearCond.code:
 BDEPTH: 65 64 Validity code:
 Towing dir: 350 Wire out: 300 m Speed:310 kn*10
 Sorted: 29 Kg Total catch: 81.82 CATCH/HOUR: 163.64

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichiurus lepturus	105.20	264	64.29	
Trachurus trecae	39.20	80	23.96	219
Pterothrissus belloci	7.20	72	4.40	
Dentex barnardi	5.20	8	3.18	
Merluccius polli	3.20	784	1.96	220
Sepia officinalis hierredda	1.80	2	1.10	
Pagellus bellottii	1.00	4	0.61	
Todaropsis eblanae	0.60	16	0.37	
Synagrops microlepis	0.16	24	0.10	
Trachurus, Juveniles	0.08	84	0.05	
GOBIIDAE	0.00	8		
Total	163.64		100.02	

PROJECT STATION: 594
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 830 Long W 1315
 start stop duration
 TIME :16:03:00 16:33:00 30 (min) Purpose code: 3
 LOG :5075.00 5076.00 1.50 Area code : 1
 FDEPTH: 47 47 GearCond.code:
 BDEPTH: 47 47 Validity code:
 Towing dir: 355 Wire out: 250 m Speed:290 kn*10
 Sorted: 14 Kg Total catch: 14.30 CATCH/HOUR: 28.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	7.60	34	26.57	221
Pterothrissus belloci	6.60	96	23.08	
Trachurus trecae	6.20	264	21.68	222
Trichiurus lepturus	5.00	198	17.48	
Merluccius polli	1.00	230	3.50	223
Sepia officinalis hierredda	0.90	4	3.15	
Dentex barnardi	0.90	4	3.15	
Pteroscion peli	0.28	2	0.98	
Scorpaena angolensis	0.02	2	0.07	
Total	28.50		99.66	

PROJECT STATION: 595
 DATE:18/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 830 Long W 1319
 start stop duration Purpose code: 3
 TIME :17:30:00 18:00:00 30 (min) Area code : 1
 LOG :5084.00 5085.00 1.50 GearCond.code:
 FDEPTH: 20 22 Validity code:
 BDEPTH: 20 22
 Towing dir: 360 Wire out: 150 m Speed:290 kn*10

Sorted: Kg Total catch: CATCH/HOUR:

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
N O C A T C H	weight	numbers	
Total	0.00		

PROJECT STATION: 596
 DATE:18/ 8/92 GEAR TYPE: PT No: POSITION:Lat N 836 Long W 1319
 start stop duration Purpose code: 1
 TIME :21:56:00 22:26:00 30 (min) Area code : 1
 LOG :5122.00 5124.00 1.70 GearCond.code:
 FDEPTH: 0 0 Validity code:
 BDEPTH: 24 32
 Towing dir: 236 Wire out: 100 m Speed:340 kn*10

Sorted: 6 Kg Total catch: 6.00 CATCH/HOUR: 12.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Trichiurus lepturus	5.60	8	46.67
Brachydeuterus auritus	3.00	16	25.00
Pomadasys peroteti	1.60	2	13.33
Stromateus fiatola	1.40	2	11.67
NOMEIDAE	0.40	2	3.33
Total	12.00		100.00

PROJECT STATION: 597
 DATE:19/ 8/92 GEAR TYPE: PT No: POSITION:Lat N 843 Long W 1311
 start stop duration Purpose code: 1
 TIME :00:58:00 01:28:00 30 (min) Area code : 1
 LOG :5146.00 5147.00 1.70 GearCond.code:
 FDEPTH: 0 0 Validity code:
 BDEPTH: 70 64
 Towing dir: 120 Wire out: 100 m Speed:320 kn*10

Sorted: 26 Kg Total catch: 25.50 CATCH/HOUR: 51.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Trichiurus lepturus	41.00	94	80.39
Mystriophis rosellatus	3.80	2	7.45
Stromateus fiatola	3.00	4	5.88
Sepia officinalis hierredda	2.60	24	5.10
JUVENILE FISHES	0.50	2076	0.98
Total	50.90		99.80

PROJECT STATION: 598
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 843 Long W 1252
 start stop duration Purpose code: 3
 TIME :06:46:00 07:16:00 30 (min) Area code : 1
 LOG :5195.00 5197.00 1.50 GearCond.code:
 FDEPTH: 443 436 Validity code:
 BDEPTH: 443 436
 Towing dir: 15 Wire out:1300 m Speed:290 kn*10

Sorted: 29 Kg Total catch: 294.00 CATCH/HOUR: 588.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Nematocarcinus africanus	278.00	5400	45.92
Merluccius polli	164.00	400	27.89
Harriotta raleighana	30.00	40	5.10
Synagrops microlepis	26.00	1500	4.42
Laemonema laureysi	18.00	180	3.06
Hoplostethus cadenati	14.00	340	2.38
Trichiurus lepturus	12.00	40	2.04
GONOSTOMATIDAE	10.00	780	1.70
OPHICHTHIDAE	8.00	100	1.36
HELANOSTOMATIDAE	8.00	60	1.36
Illex coindetii	6.00	60	1.02
Aristeus varidens	4.00	260	0.68
Brosmiculus imberbis *	4.00	120	0.68
Malacocephalus sp.	4.00	300	0.68
Etmopterus pusillus	2.00	20	0.34
Nemichthys scolopacea	2.00	60	0.34
Halosaurus sp.	2.00	40	0.34
Chaunax pictus	2.00	20	0.34
Lophius sp.	1.00	20	0.17
Stereomastis sculpta	1.00	20	0.17
Merluccius polli, female	0.00	6	226
Merluccius polli, male	0.00	6	225
Xenodermichthys socialis	0.00	40	
Total	588.00		99.99

PROJECT STATION: 599
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 846 Long W 1258
 start stop duration Purpose code: 3
 TIME :08:53:00 09:23:00 30 (min) Area code : 1
 LOG :5208.00 5210.00 1.50 GearCond.code:
 FDEPTH: 222 219 Validity code:
 BDEPTH: 222 219
 Towing dir: 10 Wire out: 850 m Speed:300 kn*10

Sorted: 37 Kg Total catch: 797.80 CATCH/HOUR: 1595.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Diaphus dumerilli	700.00	266000	43.87
Merluccius polli, male	460.00	1680	28.83
Synagrops microlepis	140.00	11400	8.77
Chlorophthalmus atlanticus	72.00	1080	4.51
Dentex angolensis	58.40	158	3.66
Trichiurus sp.	52.00	400	3.26
Brotula barbata	40.00	30	2.51
Pterothrissus bellocci	36.00	160	2.26
Dentex macrophthalmus	20.00	38	1.25
Zenopsis conchifer	4.00	40	0.25
Parapenaeus longirostris	4.00	400	0.25
Bembros heterurus	4.00	40	0.25
Coelorinchus coelorhincus	4.00	40	0.25
Spicara alta	1.20	6	0.08
Total	1595.60		100.00

PROJECT STATION: 600
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 844 Long W 1302
 start stop duration Purpose code: 3
 TIME :10:22:00 10:52:00 30 (min) Area code : 1
 LOG :5216.00 5218.00 1.50 GearCond.code:
 FDEPTH: 139 128 Validity code:
 BDEPTH: 139 128
 Towing dir: 25 Wire out: 650 m Speed:290 kn*10

Sorted: 163 Kg Total catch: 656.50 CATCH/HOUR: 1313.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Trachurus trecae	820.00	1170	62.45
Dentex macrophthalmus	160.00	504	12.19
Trichiurus lepturus	144.00	2008	10.97
Dentex angolensis	44.00	128	3.35
Umbrina canariensis	30.40	64	2.32
Synagrops microlepis	20.00	462	1.52
Pterothrissus bellocci	19.20	88	1.46
Todaropsis eblanae	14.40	256	1.10
Zeus faber	11.20	56	0.85
Brotula barbata	11.20	8	0.85
Illex coindetii	8.00	224	0.61
Raja micalleus	8.00	8	0.61
Atractoscion aequidens	7.00	24	0.43
Pentheroscion mbizi	5.60	24	0.43
Spicara alta	2.80	16	0.21
Uranoscopus polli	1.60	8	0.12
Merluccius polli	1.60	72	0.12
Citharus linguatula	1.60	8	0.12
Boops boops	0.80	8	0.06
Chlorophthalmus atlanticus	0.80	104	0.06
Syacium micrurum	0.80	16	0.06
Total	1313.00		99.99

PROJECT STATION: 601
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 847 Long W 1306
 start stop duration Purpose code: 3
 TIME :11:53:00 12:23:00 30 (min) Area code : 1
 LOG :5225.00 5227.00 1.70 GearCond.code:
 FDEPTH: 95 95 Validity code:
 BDEPTH: 95 95
 Towing dir: 10 Wire out: 450 m Speed:310 kn*10

Sorted: 4 Kg Total catch: 58.60 CATCH/HOUR: 117.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Trachurus trecae	33.40	52	28.50
Atractoscion aequidens	19.20	4	16.38
Trachurus, Juveniles	16.20	324	13.82
Branchiostegus semifasciatus	15.60	16	13.31
Todaropsis eblanae	9.00	522	7.68
Merluccius polli	8.10	846	6.91
Pterothrissus bellocci	5.80	42	4.95
Trichiurus lepturus	3.60	30	3.07
Torpedo torpedo	2.40	6	2.05
Dentex macrophthalmus	1.40	4	1.19
Umbrina canariensis	1.40	2	1.19
Chaetodon hoefleri	0.70	4	0.60
Pagellus bellottii	0.40	2	0.34
Total	117.20		99.99

PROJECT STATION: 602
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 847 Long W 1312
 start stop duration Purpose code: 3
 TIME :13:22:00 13:52:00 30 (min) Area code : 1
 LOG :5234.00 5236.00 1.60 GearCond.code:
 FDEPTH: 63 67 Validity code:
 BDEPTH: 63 67
 Towing dir: 210 Wire out: 300 m Speed:310 kn*10

Sorted: 1 Kg Total catch: 1.40 CATCH/HOUR: 2.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Trichiurus lepturus	1.40	2	50.00
Chatrabus melanurus	1.40	6	50.00
GOBIIDAE	0.00	2	
Total	2.80		100.00

PROJECT STATION: 603
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 850 Long W 1307
 start stop duration Purpose code: 3
 TIME :14:50:00 15:20:00 30 (min) Area code : 1
 LOG :5243.00 5245.00 1.50 GearCond.code:
 FDEPTH: 92 91 Validity code:
 BDEPTH: 92 91
 Towing dir: 20 Wire out: 450 m Speed:310 kn*10

Sorted: 34 Kg Total catch: 34.07 CATCH/HOUR: 68.14

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight	numbers	
Pterothrissus bellocci	51.80	380	76.02
Merluccius sp.	4.70	538	6.90
Trichiurus lepturus	4.20	26	6.16
Sepia officinalis hierredda	1.60	8	2.35
Todaropsis eblanae	1.30	156	1.91
Penaeus notialis	1.20	66	1.76
Trachurus trecae	1.10	2	1.61
Dentex barnardi	1.00	6	1.47
Torpedo torpedo	0.60	2	0.88
Brotula barbata	0.60	2	0.88
Zeus faber	0.40	8	0.86
GOBIIDAE	0.00	8	
Total	68.14		100.00

PROJECT STATION: 604
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 850 Long W 1301
 start stop duration
 TIME :16:28:00 16:58:00 30 (min) Purpose code: 3
 LOG :5254.00 5255.00 1.60 Area code : 1
 FDEPTH: 166 168 GearCond.code:
 BDEPTH: 166 168 Validity code:
 Towing dir: 355 Wire out: 650 m Speed:297 kn*10

PROJECT STATION: 608
 DATE:20/ 8/92 GEAR TYPE: BT No: POSITION:Lat N 905 Long W 1258
 start stop duration
 TIME :05:35:00 06:05:00 30 (min) Purpose code: 1
 LOG :5349.00 5351.00 1.50 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 20 21 Validity code:
 Towing dir: 1 Wire out: 100 m Speed:280 kn*10

Sorted: 42 Kg Total catch: 462.90 CATCH/HOUR: 925.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brotula barbata	256.00	16	27.65	
Synagrops microlepis	200.00	10666	21.60	
Diaphus dumerilli	136.00	65960	14.69	
Merluccius polli	132.80	7650	14.34	236
Dentex angolensis	54.40	144	5.88	
Chelidonichthys gabonensis	40.00	224	4.32	
Trichurus lepturus	24.00	48	2.59	
Miracorvina angolensis	24.00	64	2.59	
Torpedo torpedo	16.00	16	1.73	
Dentex macropthalmus	11.20	80	1.21	
Pterothrissus bellocci	9.60	48	1.04	
Pentheroscion mbizi	8.00	16	0.86	
Parapenaeus longirostris, fem.	4.80	1136	0.52	238
Parapenaeus longirostris, male	3.20	1056	0.35	237
Umbrina canariensis	3.20	16	0.35	
Syacium micrurum	1.00	26	0.11	
Chloropthalmus atlanticus	0.80	32	0.09	
Saurida brasiliensis	0.40	128	0.04	
Illex coindetii	0.40	16	0.04	
Sepia officinalis hierredda	0.00	16		
Todaropsis eblanae	0.00	16		
Total	925.80		100.00	

Sorted: 64 Kg Total catch: 640.00 CATCH/HOUR: 1280.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1080.00	16584	84.38	
Sardinella aurita	70.00	560	5.47	246
Sardinella maderensis	50.00	300	3.91	247
Sphyraena guachancho	28.00	40	2.19	
Trachurus trecae	20.00	320	1.56	
Atractoscion aequidens	14.00	20	1.09	
Stromateus fiabola	10.00	20	0.78	
Selene dorsalis	4.00	40	0.31	
Chloroscombrus chrysurus	4.00	40	0.31	
Total	1280.00		100.00	

PROJECT STATION: 605
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 850 Long W 1258
 start stop duration
 TIME :17:47:00 18:17:00 30 (min) Purpose code: 3
 LOG :5261.00 5262.00 1.60 Area code : 1
 FDEPTH: 218 216 GearCond.code:
 BDEPTH: 218 216 Validity code:
 Towing dir: 10 Wire out: 750 m Speed:300 kn*10

PROJECT STATION: 609
 DATE:20/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 910 Long W 1300
 start stop duration
 TIME :07:55:00 08:25:00 30 (min) Purpose code: 3
 LOG :5367.00 5369.00 1.80 Area code : 1
 FDEPTH: 13 11 GearCond.code:
 BDEPTH: 13 11 Validity code:
 Towing dir: 330 Wire out: 100 m Speed:340 kn*10

Sorted: 36 Kg Total catch: 232.90 CATCH/HOUR: 465.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Centrophorus uyato	144.00	32	30.91	
Merluccius polli, male	99.00	592	21.25	239
Synagrops microlepis	40.40	2126	8.67	
Parapenaeus longirostris	38.60	6688	8.29	
Merluccius polli, female	36.00	54	7.73	240
Chloropthalmus atlanticus	31.40	630	6.74	
Diaphus dumerilli	16.20	5022	3.48	
Zenopsis conchifer	13.60	26	2.92	
Dentex angolensis	11.60	26	2.49	
Syacium micrurum	10.80	44	2.32	
Bembrops heterurus	9.00	72	1.93	
Miracorvina angolensis	6.40	2	1.37	
Pontinus kuhlii	4.40	44	0.94	
Pterothrissus bellocci	3.60	18	0.77	
Microchirus wittei	0.80	8	0.17	
Parapenaeus longirostris, fem.	0.00			242
Parapenaeus longirostris, male	0.00			241
Total	465.80		99.98	

Sorted: 56 Kg Total catch: 563.00 CATCH/HOUR: 1126.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	463.00	12384	40.85	
Trichurus lepturus	330.00	860	29.31	
Sphyraena guachancho	160.00	260	14.21	
Sardinella maderensis	60.00	620	5.33	249
Pseudotolithus typus	30.00	20	2.66	
Galeoides decadactylus	24.00	40	2.13	
Sardinella aurita	20.00	160	1.78	248
Trachurus trecae	18.00	480	1.60	
Pteroscion peli	14.00	240	1.24	
Pomadasys jubelini	10.00	20	0.89	
Total	1126.00		100.00	

PROJECT STATION: 606
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 851 Long W 1247
 start stop duration
 TIME :20:13:00 21:13:00 60 (min) Purpose code: 3
 LOG :5279.00 5282.00 3.00 Area code : 1
 FDEPTH: 639 643 GearCond.code:
 BDEPTH: 639 643 Validity code:
 Towing dir: 5 Wire out:1650 m Speed:300 kn*10

PROJECT STATION: 610
 DATE:20/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 910 Long W 1257
 start stop duration
 TIME :09:19:00 09:49:00 30 (min) Purpose code: 3
 LOG :5375.00 5376.00 1.70 Area code : 1
 FDEPTH: 15 13 GearCond.code:
 BDEPTH: 15 13 Validity code:
 Towing dir: 330 Wire out: 100 m Speed:330 kn*10

Sorted: 27 Kg Total catch: 160.71 CATCH/HOUR: 160.71

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Nematocarcinus africanus	87.00	13398	54.13	
Merluccius polli	15.60	36	9.71	
Hoplostethus cadenati	11.40	66	7.09	
Nezumia sp.	10.80	174	6.72	
Talismania oregonia	9.00	48	5.60	
Seromastis aculpta	7.20	618	4.48	
Trichurus lepturus	3.60	42	2.24	
OPHIIDAE	3.60	30	2.24	
GONOSTOMATIDAE	3.00	108	1.87	
Halosaurus ovenii	2.40	30	1.49	
MELANOSTOMIATIDAE	1.80	18	1.12	
Aristeus varidens, female	1.60	68	1.00	244
Brosme maculata	1.20	12	0.75	
Chloropthalmus atlanticus	1.20	24	0.75	
OPHICHTHIDAE	0.60	6	0.37	
Dibranchius atlanticus	0.60	18	0.37	
Parapenaeus longirostris	0.60	18	0.04	
Aristeus varidens, male	0.05	7	0.03	243
Total	160.71		100.00	

Sorted: 26 Kg Total catch: 25.80 CATCH/HOUR: 51.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichurus lepturus	16.00	70	31.01	
Sphyraena guachancho	12.00	14	23.26	
Galeoides decadactylus	6.40	12	12.40	
Pteroscion peli	3.40	90	6.59	
Pagellus bellottii	3.20	8	6.20	
Pomadasys jubelini	2.80	4	5.43	
Carcharias sp.	2.60	2	5.04	
Pseudotolithus typus	1.60	2	3.10	
Brachydeuterus auritus	1.20	26	2.33	
MUGILIDAE	0.80	2	1.55	
Engraulis encrasicolus	0.60	90	1.16	
Trachurus trecae	0.60	60	1.16	
Chloroscombrus chrysurus	0.40	2	0.78	
Total	51.60		100.01	

PROJECT STATION: 607
 DATE:19/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 852 Long W 1245
 start stop duration
 TIME :22:40:00 23:40:00 60 (min) Purpose code: 3
 LOG :5290.00 5293.00 2.70 Area code : 1
 FDEPTH: 742 745 GearCond.code:
 BDEPTH: 742 745 Validity code:
 Towing dir: 360 Wire out:1900 m Speed:270 kn*10

PROJECT STATION: 611
 DATE:20/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 910 Long W 1256
 start stop duration
 TIME :10:39:00 11:09:00 30 (min) Purpose code: 3
 LOG :5381.00 5382.00 1.80 Area code : 1
 FDEPTH: 17 25 GearCond.code:
 BDEPTH: 17 25 Validity code:
 Towing dir: 330 Wire out: 105 m Speed:340 kn*10

Sorted: 27 Kg Total catch: 108.70 CATCH/HOUR: 108.70

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli	40.00	84	36.80	245
POLYCHAETIDAE	21.20	901	19.50	
Malacocephalus occidentalis	11.60	144	10.67	
Nezumia aequalis	10.40	204	9.57	
Hoplostethus cadenati	6.00	36	5.52	
ALEPOCEPHALIDAE	4.80	28	4.42	
MURAENOSCIDAE	4.00	20	3.68	
GONOSTOMATIDAE	2.00	24	1.84	
SEARSIDAE	1.60	44	1.47	
Holcomycteronus sp.	1.60	24	1.47	
Synaphobranchius kaupii	1.20	12	1.10	
Dibranchius atlanticus	1.02	40	0.94	
Plesiopeneus edwardsianus, m.	0.88	40	0.81	
Trichurus lepturus	0.80	8	0.74	
Aristeus varidens, female	0.47	44	0.43	
Plesiopeneus edwardsianus, f.	0.42	12	0.39	
Deepwater fish mixture	0.32	8	0.29	
Halosaurus sp.	0.32	4	0.29	
Aristeus varidens, male	0.08	12	0.07	
Total	108.71		100.00	

Sorted: 4 Kg Total catch: 60.10 CATCH/HOUR: 120.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Lithognathus mormyrus	40.00	82	33.28	250
Sphyraena guachancho	25.00	43	20.80	
Pagellus bellottii	21.00	48	17.47	251
Engraulis encrasicolus	14.40	2844	11.98	252
Galeoides decadactylus	6.80	10	5.66	
Carcharias sp.	6.00	2	4.99	
Trichurus lepturus	2.60	106	2.16	
Trachurus, juveniles	2.00	680	1.66	
Caranx senegalensis	2.00	2	1.66	
Selene dorsalis	0.40	4	0.33	
Sardinella maderensis	0.00	6		
Total	120.20		99.99	

PROJECT STATION: 612
 DATE: 20/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 910 Long W 1251
 start stop duration
 TIME :12:09:00 12:39:00 30 (min) Purpose code: 3
 LOG :5389.00 5390.00 1.60 Area code : 1
 FDEPTH: 72 78 GearCond.code: 1
 BDEPTH: 72 78 Validity code: 1
 Towing dir: 340 Wire out: 350 m Speed: 310 kn*10

Sorted: 93 Kg Total catch: 409.80 CATCH/HOUR: 819.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trereae	604.00	1014	73.69
Selene dorsalis	62.40	190	7.61
Trichurus lepturus	36.40	34	4.44
Dentex angolensis	27.74	208	3.38
Zeus faber	20.80	44	2.54
Octopus sp.	13.00	8	1.59
Atractoscion anguidens	10.20	4	1.24
Alloceuthis africana	8.66	7220	1.06
Branchiostegus semifasciatus	7.80	18	0.95
Dentex congolensis	6.94	78	0.85
Pagellus bellottii	5.20	18	0.63
Dentex macrophthalmus	5.20	34	0.63
Umbryna canariensis	4.34	26	0.53
Dentex barnardi	3.46	8	0.42
Sardinella aurita	3.46	8	0.42
Todaropsis eblanae	0.00	18	
Total	819.60	99.98	

PROJECT STATION: 613
 DATE: 20/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 909 Long W 1245
 start stop duration
 TIME :13:41:00 14:11:00 30 (min) Purpose code: 3
 LOG :5397.00 5398.00 1.50 Area code : 1
 FDEPTH: 218 221 GearCond.code: 1
 BDEPTH: 218 221 Validity code: 1
 Towing dir: 10 Wire out: 800 m Speed: 280 kn*10

Sorted: 61 Kg Total catch: 319.70 CATCH/HOUR: 639.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Parapenaeus longirostris, fem.	99.52	11146	15.56
Brotula barbata	96.60	74	15.11
Centrophorus granulosus	82.00	16	12.82
Gephyroberyx darwini	69.00	74	10.79
Dentex angolensis	68.00	170	10.63
Parapenaeus longirostris, male	67.68	9356	10.58
Merluccius polli	62.20	128	9.73
Pterothrissus belloci	29.80	128	4.66
Microrhina angolensis	21.00	12	3.28
Bembrops heterurus	13.50	148	2.11
Chlorophthalmus atlanticus	9.60	216	1.50
Malacocephalus occidentalis	5.10	34	0.80
Synagrops microlepis	4.80	256	0.75
Trichurus lepturus	3.60	6	0.56
Umbryna canariensis	3.60	6	0.47
Uranoscopus cadenati	1.28	16	0.20
Diaphus dumerili	0.80	432	0.13
Coelorrhinchus coelorrhinchus	0.80	32	0.13
OPHIIDIAE	0.40	16	0.06
Monolele microstoma	0.40	24	0.06
Alloceuthis africana	0.32	96	0.05
Hymenocephalus italicus	0.06	104	0.01
Total	639.46	99.99	

PROJECT STATION: 614
 DATE: 20/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 908 Long W 1235
 start stop duration
 TIME :16:06:00 17:06:00 60 (min) Purpose code: 3
 LOG :5412.00 5415.00 2.70 Area code : 1
 FDEPTH: 679 640 GearCond.code: 1
 BDEPTH: 679 640 Validity code: 1
 Towing dir: 24 Wire out: 1700 m Speed: 270 kn*10

Sorted: 25 Kg Total catch: 125.22 CATCH/HOUR: 125.22

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Nezumia sp.	52.50	700	41.93
Merluccius polli	14.00	30	11.18
Talismania oregonia	10.00	60	7.99
Nematocarcinus africanus	7.50	1200	5.99
Stereomastis sculpata	6.50	515	5.19
OPHICHTHIDAE	5.00	60	3.99
OPHIIDIAE	5.00	140	3.99
LOPHIIDAE	5.00	5	3.99
Raja sp.	4.00	15	3.19
Dibranchius atlanticus	4.00	130	3.19
Hoplostethus cadenati	2.50	15	2.00
GONOSTOMATIDAE	2.50	115	2.00
Aristeus varidens, female	1.70	76	1.36
Bromisculus inberbis *	1.00	10	0.80
Halosaurus sp.	1.00	30	0.80
Chlorophthalmus atlanticus	1.00	20	0.80
Xenodermichthys socialis	1.00	40	0.80
Etmopterus pusillus	0.50	5	0.40
Diaphus dumerili	0.50	185	0.40
Aristeus varidens, male	0.02	3	0.02
Total	125.22	100.01	

PROJECT STATION: 615
 DATE: 20/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 908 Long W 1233
 start stop duration
 TIME :18:40:00 19:40:00 60 (min) Purpose code: 3
 LOG :5423.00 5426.00 2.60 Area code : 1
 FDEPTH: 756 756 GearCond.code: 1
 BDEPTH: 756 756 Validity code: 1
 Towing dir: 45 Wire out: 1850 m Speed: 260 kn*10

Sorted: 23 Kg Total catch: 114.62 CATCH/HOUR: 114.62

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Nezumia sp.	53.00	880	47.98
Stereomastis sculpata	17.50	583	15.27
Talismania oregonia	14.00	70	12.21
Gephyroberyx darwini	7.00	5	6.11
CONGRIDAE	5.00	35	4.36
Merluccius polli	4.50	5	3.93
Hoplostethus cadenati	3.50	15	3.05
Dibranchius atlanticus	3.50	90	3.05
Halosaurus sp.	1.50	20	1.31
GONOSTOMATIDAE	1.00	15	0.87
Aristeus varidens, female	0.80	36	0.70
Shrimp, small, non comm.	0.60	25	0.52
MACRORHAMPHOSIDAE	0.50	5	0.44
Diceratias pileatus	0.20	5	0.17
Aristeus varidens, male	0.02	3	0.02
Nemichthys scolopacea	0.00	5	
CHLOROPHTHALMIDAE	0.00	10	
Total	114.62	99.99	

PROJECT STATION: 616
 DATE: 21/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 931 Long W 1308
 start stop duration
 TIME :07:39:00 08:09:00 30 (min) Purpose code: 3
 LOG :5528.00 5529.00 1.70 Area code : 1
 FDEPTH: 15 15 GearCond.code: 1
 BDEPTH: 15 15 Validity code: 1
 Towing dir: 335 Wire out: 100 m Speed: 340 kn*10

Sorted: 116 Kg Total catch: 116.00 CATCH/HOUR: 232.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Dentex canariensis	67.00	132	28.88
Dentex canariensis	35.00	628	15.09
Plectrochinchus mediterraneus	34.00	22	14.66
Pagellus bellottii	19.00	74	8.19
Sparus caeruleostictus	16.00	64	6.90
Caranx crysos	11.00	8	4.74
Epinephelus aeneus	10.60	2	4.57
Fistularia petimba	7.00	8	3.02
Epinephelus sp.	6.00	2	2.59
Bodianus speciosus	6.00	2	2.59
Dasyatis margarita	4.40	4	1.90
Zeus faber	2.60	6	1.12
Alutera sp.	2.60	2	1.12
Epinephelus goreensis	2.40	4	1.03
Pseudupeneus prayensis	1.80	12	0.78
Acanthurus monroviae	1.80	2	0.78
Sepia officinalis hierredda	1.40	4	0.60
Decapterus rhonchus	1.40	14	0.60
Chaetodon hoefleri	1.00	16	0.43
Scorpaena stephanica	0.80	4	0.34
Syacium micrurum	0.20	2	0.09
Total	232.00	100.02	

PROJECT STATION: 617
 DATE: 21/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 931 Long W 1306
 start stop duration
 TIME :08:47:00 09:22:00 35 (min) Purpose code: 3
 LOG :5533.00 5535.00 2.00 Area code : 1
 FDEPTH: 21 22 GearCond.code: 1
 BDEPTH: 21 22 Validity code: 1
 Towing dir: 335 Wire out: 100 m Speed: 350 kn*10

Sorted: 35 Kg Total catch: 35.40 CATCH/HOUR: 60.69

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Pagellus bellottii	40.29	223	66.39
Epinephelus aeneus	7.37	2	12.14
Fistularia petimba	4.46	5	7.35
Rhinobatos sp.	3.26	2	5.37
Dentex canariensis	1.89	19	3.11
Epinephelus goreensis	1.20	2	1.98
Dasyatis marmorata	0.86	3	1.42
Trachinus araneus	0.69	2	1.14
Plectrochinchus mediterraneus	0.69	2	1.14
Total	60.71	100.04	

PROJECT STATION: 618
 DATE: 21/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 932 Long W 1306
 start stop duration
 TIME :10:17:00 10:47:00 30 (min) Purpose code: 3
 LOG :5543.00 5544.00 1.70 Area code : 1
 FDEPTH: 22 22 GearCond.code: 1
 BDEPTH: 22 22 Validity code: 1
 Towing dir: 335 Wire out: 150 m Speed: 330 kn*10

Sorted: 151 Kg Total catch: 150.70 CATCH/HOUR: 301.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Epinephelus alexandrinus	96.80	122	32.12
Sparus caeruleostictus	46.00	112	15.26
Dentex canariensis	37.00	104	12.28
Plectrochinchus mediterraneus	37.00	110	12.28
Pagellus bellottii	33.00	140	10.95
Epinephelus aeneus	22.00	10	7.30
Dasyatis marmorata	3.80	8	1.26
Alutera sp.	3.00	4	1.00
Bodianus speciosus	3.00	2	1.00
Fistularia petimba	3.00	6	1.00
Conger conger	3.00	2	1.00
Rypticus saponaceus *	2.40	36	0.80
Zeus faber	2.20	2	0.73
Raja miraletus	2.00	2	0.66
Pseudupeneus prayensis	2.00	10	0.66
Chaetodon hoefleri	1.80	18	0.60
Sparus auriga	1.60	2	0.53
Balistes capricus	1.60	4	0.53
Scorpaena stephanica	0.20	2	0.07
Total	301.40	100.03	

PROJECT STATION: 619
 DATE: 21/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 933 Long W 1303
 start stop duration
 TIME :11:38:00 12:08:00 30 (min) Purpose code: 3
 LOG :5551.00 5552.00 1.70 Area code : 1
 FDEPTH: 41 40 GearCond.code: 1
 BDEPTH: 41 40 Validity code: 1
 Towing dir: 335 Wire out: 250 m Speed: 324 kn*10

Sorted: 56 Kg Total catch: 55.60 CATCH/HOUR: 111.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Pagellus bellottii	69.00	3192	62.05
Alloceuthis africana	12.00	3466	10.79
Epinephelus aeneus	8.00	2	7.19
Zeus faber	5.00	16	4.50
Fistularia petimba	4.40	20	3.96
Chaetodon hoefleri	2.80	18	2.52
Dentex barnardi	2.40	14	2.16
Pomadasys jubelini	2.20	2	1.98
Plectrochinchus mediterraneus	1.60	2	1.44
Raja miraletus	1.40	2	1.26
Octopus sp.	1.20	2	1.08
Syacium micrurum	0.80	2	0.72
Chelidonichthys gabonensis	0.30	2	0.27
Pseudupeneus prayensis	0.14	2	0.13
Trachurus, Juveniles	0.04	20	0.04
Total	111.28	100.09	

PROJECT STATION: 620
 DATE:21/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 931
 start stop duration Long W 1256
 TIME :13:09:00 13:39:00 30 (min) Purpose code: 3
 LOG :5561.00 5563.00 1.60 Area code : 1
 FDEPTH: 82 78 GearCond.code:
 BDEPTH: 82 78 Validity code:
 Towing dir: 360 Wire out: 400 m Speed:310 kn*10

Sorted: 169 Kg Total catch: 169.14 CATCH/HOUR: 338.28

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	96.20	718	28.44	276
Branchiostegus semifasciatus	51.80	42	15.31	
Dentex barnardi	32.40	112	9.58	274
Alloceuthis africana	25.20	5836	7.45	
Trichiurus lepturus	22.20	22	6.56	
Epinephelus aeneus	22.00	4	6.50	
Dentex angolensis	21.60	104	6.39	275
Zeus faber	17.40	38	5.14	
Dentex macrophthalmus	9.80	28	2.90	
Raja miraletus	8.00	12	2.36	
Atracoscion aequidens	6.40	2	1.89	
Scorpaena angolensis	5.40	8	1.60	
Sarda sarda	3.40	2	1.01	
Fistularia petimba	3.00	6	0.89	
Octopus sp.	2.40	2	0.71	
Torpedo torpedo	2.40	6	0.71	
Umbriina canariensis	2.20	6	0.65	
Chaetodon hoefleri	1.60	1	0.47	
Uranoscopus cadenati	1.20	4	0.35	
Brotula barbata	1.20	2	0.35	
Dentex gibbosus	1.00	2	0.30	
Pagellus bellottii	0.80	8	0.24	
Brachydeuterus auritus	0.60	2	0.18	
Boops boops	0.08	2	0.02	
Total	338.28		100.00	

PROJECT STATION: 621
 DATE:21/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 931
 start stop duration Long W 1253
 TIME :14:26:00 14:56:00 30 (min) Purpose code: 3
 LOG :5568.00 5570.00 1.60 Area code : 1
 FDEPTH: 99 96 GearCond.code:
 BDEPTH: 99 96 Validity code:
 Towing dir: 345 Wire out: 500 m Speed:320 kn*10

Sorted: 56 Kg Total catch: 815.50 CATCH/HOUR: 1631.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichiurus lepturus	1093.50	872	67.04	
Trachurus trecae	313.20	394	19.20	277
Epinephelus caninus	80.20	2	4.92	
Brotula barbata	56.70	26	3.48	
Raja straeleni	32.40	26	1.99	
Torpedo torpedo	27.00	26	1.66	
Dentex macrophthalmus	13.20	38	0.81	
Dentex gibbosus	8.60	2	0.53	
Dentex angolensis	6.20	14	0.38	
Total	1631.00		100.01	

PROJECT STATION: 622
 DATE:21/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 930
 start stop duration Long W 1246
 TIME :16:08:00 16:38:00 30 (min) Purpose code: 3
 LOG :5580.00 5581.00 1.40 Area code : 1
 FDEPTH: 154 149 GearCond.code:
 BDEPTH: 154 149 Validity code:
 Towing dir: 355 Wire out: 650 m Speed:290 kn*10

Sorted: 70 Kg Total catch: 788.90 CATCH/HOUR: 1577.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	1082.40	73062	68.60	
Trichiurus lepturus	211.20	506	13.29	
Illex coindetii	70.40	352	4.46	
Merluccius polli	52.80	528	3.35	
Squatina oculata	36.40	4	2.31	
Pterothrissus belloci	33.00	176	2.09	
Dentex macrophthalmus	22.00	44	1.39	
Branchiostegus semifasciatus	19.80	22	1.25	
Todaropsis eblanae	17.60	550	1.12	
Dentex angolensis	17.60	44	1.12	
Zenopsis conchifer	11.00	44	0.70	
Chlorophthalmus atlanticus	2.42	264	0.15	
Syacium micrurus	1.10	44	0.07	
Parapenaeus longirostris	0.00	44		
Total	1577.72		100.00	

PROJECT STATION: 623
 DATE:21/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 930
 start stop duration Long W 1243
 TIME :17:31:00 18:01:00 30 (min) Purpose code: 3
 LOG :5587.00 5589.00 1.50 Area code : 1
 FDEPTH: 226 229 GearCond.code:
 BDEPTH: 226 229 Validity code:
 Towing dir: 350 Wire out: 850 m Speed:280 kn*10

Sorted: 35 Kg Total catch: 391.30 CATCH/HOUR: 782.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	341.00	17050	43.57	
Trichiurus lepturus	138.60	286	17.71	
Diaphus dumerilii	125.40	27588	16.02	
Parapenaeus longirostris	61.60	8052	7.87	
Merluccius polli	28.60	88	3.65	
Chlorophthalmus atlanticus	28.60	22	3.65	
Dentex macrophthalmus	17.60	44	2.25	
Dentex angolensis	11.00	22	1.41	
Hyperoglyphe meselii	10.40	2	1.33	
Bembrops heterurus	6.60	44	0.84	
Uranoscopus polli	4.40	22	0.56	
Coelorrhinchus coelorhynchus	4.40	44	0.56	
Monolene microstoma	4.40	66	0.56	
Parapenaeus longirostris, fem.	0.00			279
Parapenaeus longirostris, male	0.00			278
Total	782.60		99.98	

PROJECT STATION: 624
 DATE:21/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 930
 start stop duration Long W 1238
 TIME :19:56:00 20:26:00 30 (min) Purpose code: 3
 LOG :5603.00 5604.00 1.50 Area code : 1
 FDEPTH: 533 504 GearCond.code:
 BDEPTH: 533 504 Validity code:
 Towing dir: 170 Wire out:1350 m Speed:280 kn*10

Sorted: 28 Kg Total catch: 103.90 CATCH/HOUR: 207.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	121.00	280	58.23	281
Nezumia sp.	13.20	314	6.35	
Merluccius polli, male	11.80	28	5.68	280
GONOSTOMATIDAE	9.00	482	4.33	
SQUALIDAE	8.00	2	3.85	
Stereomastis sculpta	7.00	538	3.37	
Laemonea laureysi	5.60	56	2.69	
Chlorophthalmus atlanticus	5.60	124	2.69	
Benthodesmus tenuis	3.40	48	1.64	
Etmopterus pusillus	3.40	42	1.64	
MELANOSTOMATIDAE	3.40	34	1.64	
Aristeus varidens, female	3.00	144	1.44	283
CONGRIDAE	2.80	28	1.35	
Plesiopenaeus edwardsianus	2.00	14	0.96	
Hoplostethus cadenati	1.40	28	0.67	
S H R I M P S	1.40	266	0.67	
Dibranchius atlanticus	1.40	36	0.67	
NETASTOMATIDAE	1.40	14	0.67	
Xenodermichthys socialis	1.40	48	0.67	
Aristeus varidens, male	0.80	98	0.38	282
LOPHIIDAE	0.80	8	0.38	
Total	207.80		99.97	

PROJECT STATION: 625
 DATE:22/ 8/92 GEAR TYPE: PT No: POSITION:Lat N 944
 start stop duration Long W 1309
 TIME :02:28:00 02:48:00 20 (min) Purpose code: 1
 LOG :5661.00 5662.00 1.00 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 28 32 Validity code:
 Towing dir: 295 Wire out: 100 m Speed:320 kn*10

Sorted: 30 Kg Total catch: 395.85 CATCH/HOUR: 1187.55

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1131.00	8163	95.24	286
Trachurus trecae	52.65	624	4.43	284
Engraulis encrasicolus	3.90	702	0.33	285
Total	1187.55		100.00	

PROJECT STATION: 626
 DATE:22/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 952
 start stop duration Long W 1316
 TIME :06:32:00 07:02:00 30 (min) Purpose code: 3
 LOG :5685.00 5686.00 1.70 Area code : 1
 FDEPTH: 14 14 GearCond.code:
 BDEPTH: 14 14 Validity code:
 Towing dir: 330 Wire out: 150 m Speed:330 kn*10

Sorted: 23 Kg Total catch: 628.50 CATCH/HOUR: 1257.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1040.00	43198	82.74	
Trachurus trecae	98.80	3692	7.86	287
Trichiurus lepturus	20.80	832	1.65	
Leptocharias smithii	19.60	16	1.56	
Pteroscion pelli	15.60	156	1.24	
Engraulis encrasicolus	15.60	1560	1.24	
Schedophilus pamarco	10.40	52	0.83	
Selene dorsalis	10.40	52	0.83	
Sphyraena quachancho	8.80	14	0.70	
Chloroscombus chrysurus	5.20	52	0.41	
Pomadasys peroteti	4.80	4	0.38	
Pagellus bellottii	3.00	6	0.24	
Stromateus fiatola	2.40	2	0.19	
Galeoides decadactylus	1.60	2	0.13	
Total	1257.00		100.00	

PROJECT STATION: 627
 DATE:22/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 949
 start stop duration Long W 1311
 TIME :07:48:00 08:18:00 30 (min) Purpose code: 3
 LOG :5692.00 5694.00 1.80 Area code : 1
 FDEPTH: 28 26 GearCond.code:
 BDEPTH: 28 26 Validity code:
 Towing dir: 160 Wire out: 200 m Speed:350 kn*10

Sorted: 32 Kg Total catch: 4997.20 CATCH/HOUR: 9994.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	9349.60	162058	93.55	
Trachurus trecae	274.00	8542	2.74	288
Zeus faber	257.80	482	2.58	
Pagellus bellottii	112.80	644	1.13	
Total	9994.20		100.00	

PROJECT STATION: 628
 DATE:22/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 951
 start stop duration Long W 1307
 TIME :09:05:00 09:35:00 30 (min) Purpose code: 3
 LOG :5699.00 5701.00 1.60 Area code : 1
 FDEPTH: 58 56 GearCond.code:
 BDEPTH: 58 56 Validity code:
 Towing dir: 160 Wire out: 300 m Speed:320 kn*10

Sorted: 41 Kg Total catch: 158.00 CATCH/HOUR: 316.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	144.00	360	45.57	289
Pagellus bellottii	102.00	1092	32.28	290
Dentex canariensis	44.00	276	13.92	291
Atracoscion aequidens	10.00	4	3.16	
Zeus faber	7.60	24	2.41	
Todaropsis eblanae	4.80	1240	1.52	
Pseudupeneus prayensis	1.60	8	0.51	
Chaetodon hoefleri	1.20	8	0.38	
Citharus linguatula	0.80	8	0.25	
Monolene microstoma	0.04	4	0.01	
Total	316.04		100.01	

PROJECT STATION: 629
 DATE: 22/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 951 Long W 1257
 start stop duration
 TIME :11:09:00 11:39:00 30 (min) Purpose code: 3
 LOG :5715.00 5716.00 1.70 Area code : 1
 FDEPTH: 105 106 GearCond.code:
 BDEPTH: 105 106 Validity code:
 Towing dir: 338 Wire out: 500 m Speed:310 kn*10

Sorted: 124 Kg Total catch: 582.40 CATCH/HOUR: 1164.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	664.54	3302	57.05	292
Trichurus lepturus	88.66	756	7.61	
Squatina oculata	83.06	28	7.13	
Dentex congoensis	70.94	634	6.09	294
Dentex angolensis	64.40	170	5.53	
Dentex macropthalmus	55.06	130	4.73	293
Zeus faber	35.46	46	3.04	
Spicara alta	34.54	1382	2.97	
Todaropsis eblanae	21.88	1118	1.88	
Raja miraletus	14.00	28	1.20	
Illex coindetii	10.78	1568	0.93	
Boops boops	8.40	294	0.72	
Sarda sarda	6.70	6	0.58	
Branchiostegus semifasciatus	4.20	10	0.36	
Dentex gibbosus	1.86	10	0.16	
Merluccius polli	0.38	10	0.03	
Total	1164.86		100.01	

PROJECT STATION: 633
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1011 Long W 1319
 start stop duration
 TIME :09:19:00 09:49:00 30 (min) Purpose code: 3
 LOG :5785.00 5786.00 1.60 Area code : 1
 FDEPTH: 41 42 GearCond.code:
 BDEPTH: 41 42 Validity code:
 Towing dir: 325 Wire out: 250 m Speed:320 kn*10

Sorted: 34 Kg Total catch: 68.40 CATCH/HOUR: 136.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	31.20	1026	22.81	
Trichurus lepturus	30.80	924	22.51	
Dentex canariensis	22.00	340	16.08	
Trachurus, Juveniles	15.60	4992	11.40	
Trachurus trecae	6.80	84	4.97	
Torpedo sp.	6.00	20	4.39	
Trachurus trecae	6.00	20	4.39	
Sepia sp.	5.20	20	3.80	
Chaetodon hoefleri	4.80	44	3.51	
Selene dorsalis	4.80	12	3.51	
Pagellus bellottii	1.60	8	1.17	
Merluccius polli	1.20	56	0.88	
Chelidonichthys gabonensis	0.80	4	0.58	
Boops boops	0.04	4	0.03	
Total	136.84		100.03	

PROJECT STATION: 630
 DATE: 22/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 950 Long W 1251
 start stop duration
 TIME :12:41:00 13:11:00 30 (min) Purpose code: 3
 LOG :5724.00 5725.00 1.60 Area code : 1
 FDEPTH: 201 197 GearCond.code:
 BDEPTH: 201 197 Validity code:
 Towing dir: 355 Wire out: 750 m Speed:305 kn*10

Sorted: 67 Kg Total catch: 234.71 CATCH/HOUR: 469.42

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	212.80	13072	45.33	
Zeus faber	54.60	256	11.63	
Merluccius polli	51.80	196	11.03	295
Dentex angolensis	46.90	112	9.99	
Trichurus lepturus	18.20	28	3.88	
Chlorophthalmus atlanticus	14.70	756	3.13	
Dentex macropthalmus	13.30	36	2.83	
Brocilia barbata	11.90	8	2.54	
Todaropsis eblanae	9.80	190	2.09	
Pterothrissus belloci	8.40	42	1.79	
Parapenaeus longirostris, fem.	7.70	868	1.64	297
Uranoscopus cadenati	5.60	28	1.19	
Illex coindetii	4.56	50	0.97	
Parapenaeus longirostris, male	4.20	602	0.89	296
Coelorhynchus coelorhynchus	4.20	64	0.89	
Hymenocephalus italicus	0.42	22	0.09	
Honolene microstoma	0.34	36	0.07	
Total	469.42		99.98	

PROJECT STATION: 634
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1011 Long W 1311
 start stop duration
 TIME :10:55:00 11:25:00 30 (min) Purpose code: 3
 LOG :5796.00 5797.00 1.50 Area code : 1
 FDEPTH: 79 79 GearCond.code:
 BDEPTH: 79 79 Validity code:
 Towing dir: 330 Wire out: 400 m Speed:300 kn*10

Sorted: 36 Kg Total catch: 330.90 CATCH/HOUR: 661.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	378.00	70560	57.12	
Trachurus trecae	187.20	2996	28.29	300
Trichurus lepturus	63.00	1332	9.52	
Pagellus bellottii	9.00	90	1.36	
Branchiostegus semifasciatus	7.20	18	1.09	
Sarda sarda	6.60	4	1.00	
Dentex congoensis	3.60	36	0.54	
Dentex angolensis	3.60	18	0.54	
Pterothrissus belloci	3.60	18	0.54	
Boops boops	0.00	18		
Total	661.80		100.00	

PROJECT STATION: 635
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1012 Long W 1308
 start stop duration
 TIME :12:11:00 12:41:00 30 (min) Purpose code: 3
 LOG :5802.00 5804.00 1.60 Area code : 1
 FDEPTH: 90 90 GearCond.code:
 BDEPTH: 90 90 Validity code:
 Towing dir: 330 Wire out: 450 m Speed:310 kn*10

Sorted: 73 Kg Total catch: 72.57 CATCH/HOUR: 145.14

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Illex coindetii	50.68	15542	34.92	
Dentex macropthalmus	41.40	18	28.52	301
Trachurus trecae	12.60	296	8.68	302
Pagellus bellottii	9.00	44	6.20	303
Zeus faber	8.80	10	6.06	
Dentex gibbosus	4.40	2	3.03	
MURAENIDAE	4.04	4	2.78	
Sparus caeruleostictus	3.40	6	2.34	
Dentex angolensis	2.40	26	1.65	
Branchiostegus semifasciatus	2.40	4	1.65	
Trichurus lepturus	1.70	40	1.17	
Boops boops	1.40	52	0.96	
Chelidonichthys gabonensis	1.20	8	0.83	
Raja miraletus	1.20	2	0.83	
Todaropsis eblanae	0.52	104	0.36	
Trachurus, Juveniles	0.00	14		
Total	145.14		99.98	

PROJECT STATION: 631
 DATE: 22/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1000 Long W 1258
 start stop duration
 TIME :15:13:00 15:43:00 30 (min) Purpose code: 3
 LOG :5743.00 5744.00 1.60 Area code : 1
 FDEPTH: 105 104 GearCond.code:
 BDEPTH: 105 104 Validity code:
 Towing dir: 350 Wire out: 500 m Speed:310 kn*10

Sorted: 24 Kg Total catch: 145.40 CATCH/HOUR: 290.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	105.60	3696	36.31	298
Trichurus lepturus	36.00	1092	12.38	
Dentex macropthalmus	28.80	132	9.90	
Todaropsis eblanae	26.64	2170	9.16	
Dentex congoensis	24.00	216	8.25	
Zeus faber	21.60	60	7.43	
Illex coindetii	17.76	1578	6.11	
Zenopsis conchifer	8.40	36	2.89	
Umbrina canariensis	6.00	12	2.06	
Squatina oculata	5.80	8	1.99	
Dentex angolensis	4.80	24	1.65	
Torpedo torpedo	2.52	12	0.87	
Boops boops	2.28	120	0.78	
Spicara alta	0.60	36	0.21	
Merluccius polli	0.00	12		
Total	290.80		99.99	

PROJECT STATION: 636
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1010 Long W 1301
 start stop duration
 TIME :13:40:00 14:10:00 30 (min) Purpose code: 3
 LOG :5812.00 5813.00 1.60 Area code : 1
 FDEPTH: 103 102 GearCond.code:
 BDEPTH: 103 102 Validity code:
 Towing dir: 350 Wire out: 500 m Speed:300 kn*10

Sorted: 33 Kg Total catch: 101.20 CATCH/HOUR: 202.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	56.40	1974	27.87	304
Todaropsis eblanae	28.54	1336	14.10	
Spicara alta	24.00	880	11.86	
Zeus faber	21.00	102	10.38	
Boops boops	14.40	756	7.11	
Illex coindetii	11.66	1166	5.76	
Dentex congoensis	9.60	90	4.74	
Dentex macropthalmus	9.00	78	4.45	
Torpedo torpedo	9.00	18	4.45	
Raja miraletus	7.80	18	3.85	
Sparus pagrus pagrus	7.00	2	3.46	
Pagellus bellottii	1.32	30	0.65	
Sparus caeruleostictus	1.20	6	0.59	
Dentex angolensis	1.20	6	0.59	
Chelidonichthys gabonensis	0.22	6	0.11	
Saurida brasiliensis	0.00	12		
Merluccius polli	0.00	6		
Total	202.34		99.97	

PROJECT STATION: 632
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1011 Long W 1323
 start stop duration
 TIME :07:59:00 08:29:00 30 (min) Purpose code: 3
 LOG :5777.00 5778.00 1.70 Area code : 1
 FDEPTH: 22 21 GearCond.code:
 BDEPTH: 22 21 Validity code:
 Towing dir: 330 Wire out: 150 m Speed:340 kn*10

Sorted: 31 Kg Total catch: 312.20 CATCH/HOUR: 624.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	480.00	6544	76.87	
Trachurus trecae	70.00	2904	11.21	299
Trichurus lepturus	44.00	1180	7.05	
Atractoscion aeguidens	5.40	4	0.86	
Alectis alexandrinus	5.00	2	0.80	
Pagellus bellottii	4.00	20	0.64	
Scomberomorus tritor	4.00	2	0.64	
Schedophilus pamarco	4.00	40	0.64	
Selene dorsalis	4.00	20	0.64	
Chloroscombrus chrysurus	4.00	20	0.64	
Total	624.40		99.99	

PROJECT STATION: 637
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1020 Long W 1305
 start stop duration
 TIME :15:49:00 16:19:00 30 (min) Purpose code: 3
 LOG :5827.00 5829.00 1.60 Area code : 1
 FDEPTH: 113 112 GearCond.code:
 BDEPTH: 113 112 Validity code:
 Towing dir: 310 Wire out: 500 m Speed:310 kn*10
 Sorted: 62 Kg Total catch: 278.40 CATCH/HOUR: 556.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Dentex macrophthalmus	205.20	1008	36.85	306
Umbrina canariensis	122.40	288	21.98	307
Spicara alta	73.80	1692	13.25	
Dentex angolensis	51.30	108	9.21	
Boops boops	22.06	576	3.96	
Trachurus trecae	22.06	712	3.96	305
Zeus faber	17.10	28	3.07	
Todaropsis eblanae	14.40	198	2.59	
Sparus caeruleostictus	10.80	18	1.94	
Anthias anthias	9.00	100	1.62	
Torpedo torpedo	7.20	10	1.29	
Illex coindetii	1.44	64	0.26	
Total	556.76		99.98	

PROJECT STATION: 638
 DATE: 23/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1023 Long W 1303
 start stop duration
 TIME :17:08:00 17:38:00 30 (min) Purpose code: 3
 LOG :5834.00 5836.00 1.60 Area code : 1
 FDEPTH: 191 190 GearCond.code:
 BDEPTH: 191 190 Validity code:
 Towing dir: 330 Wire out: 750 m Speed:291 kn*10
 Sorted: 38 Kg Total catch: 1042.40 CATCH/HOUR: 2084.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Synagrops microlepis	1782.00	79596	85.48	
Zenopsis conchifer	70.20	270	3.37	
Todaropsis eblanae	54.00	702	2.59	
Merluccius polli	48.60	273	2.33	
Dentex angolensis	45.00	102	2.16	308
Illex coindetii	37.80	216	1.81	
Pterothrissus belloci	37.80	108	1.81	
Chlorophthalmus atlanticus	5.40	162	0.26	
Dentex macrophthalmus	4.00	14	0.19	
Parapenaeus longirostris	0.00	162		
Total	2084.80		100.00	

PROJECT STATION: 639
 DATE: 23/ 8/92 GEAR TYPE: PT No:3 POSITION: Lat N 1021 Long W 1316
 start stop duration
 TIME :19:43:00 20:13:00 30 (min) Purpose code: 1
 LOG :5853.00 5855.00 2.30 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 80 80 Validity code:
 Towing dir: 350 Wire out: 100 m Speed:440 kn*10
 Sorted: 63 Kg Total catch: 504.80 CATCH/HOUR: 1009.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Chloroscombrus chrysurus	440.00	2372	43.58	311
Brachydeuterus auritus	267.20	1736	26.47	
Selene dorsalis	89.60	528	8.87	
Trachurus trecae	80.00	608	7.92	312
Sardinella maderensis	40.00	128	3.96	310
Trachinotus ovatus	40.00	80	3.96	
Sardinella aurita	32.00	80	3.17	309
Trichiurus lepturus	20.80	48	2.06	
Total	1009.60		99.99	

PROJECT STATION: 640
 DATE: 23/ 8/92 GEAR TYPE: PT No: POSITION: Lat N 1021 Long W 1329
 start stop duration
 TIME :22:19:00 22:49:00 30 (min) Purpose code: 1
 LOG :5872.00 5874.00 1.70 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 21 20 Validity code:
 Towing dir: 350 Wire out: 100 m Speed:330 kn*10
 Sorted: 31 Kg Total catch: 312.00 CATCH/HOUR: 624.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Brachydeuterus auritus	600.00	18000	96.15	
Trichiurus lepturus	18.00	20	2.88	
Trachurus trecae	6.00	120	0.96	
Total	624.00		99.99	

PROJECT STATION: 641
 DATE: 24/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1036 Long W 1309
 start stop duration
 TIME :04:34:00 05:04:00 30 (min) Purpose code: 3
 LOG :5930.00 5931.00 1.50 Area code : 1
 FDEPTH: 348 351 GearCond.code:
 BDEPTH: 348 351 Validity code:
 Towing dir: 320 Wire out:1100 m Speed:310 kn*10
 Sorted: 35 Kg Total catch: 195.90 CATCH/HOUR: 391.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Merluccius polli	178.00	860	45.43	313
Diaphus dumerilii	68.00	7254	17.36	
Centrophorus granulosus	42.20	10	10.77	
Laemonema laureysi	31.00	480	7.91	
Pterothrissus belloci	24.00	100	6.13	
Etmopterus spinax	9.00	170	2.30	
Dibranchius atlanticus	9.00	440	2.30	
Chaunax pictus	9.00	110	2.30	
Trichiurus lepturus	8.00	210	2.04	
Chlorophthalmus atlanticus	6.00	80	1.53	
Epigonus telescopus	2.90	20	0.74	
Malacocephalus occidentalis	2.00	20	0.51	
Parasudis sp.	1.00	20	0.26	
Brosimiculus imberbis *	0.60	20	0.15	
Coelorrhinchus coelorrhinchus	0.60	20	0.15	
Parapenaeus longirostris	0.30	20	0.08	
Hymenoccephalus italicus	0.20	10	0.05	
Total	391.80		100.01	

PROJECT STATION: 642
 DATE: 24/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1036 Long W 1306
 start stop duration
 TIME :06:01:00 06:31:00 30 (min) Purpose code: 3
 LOG :5936.00 5938.00 1.50 Area code : 1
 FDEPTH: 553 554 GearCond.code:
 BDEPTH: 553 554 Validity code:
 Towing dir: 330 Wire out:1500 m Speed:300 kn*10
 Sorted: 20 Kg Total catch: 43.70 CATCH/HOUR: 87.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Merluccius polli, female	21.40	38	24.49	314
Benthodesmus tenuis	11.00	54	12.59	
Nematocarcinus africanus	9.20	620	10.53	
MELANOSTOMIATIDAE	8.40	150	9.61	
MORIDAE	6.20	12	7.09	
GONOSTOMATIDAE	5.60	120	6.41	
Aristeus varidens, female	5.08	248	5.81	316
Hoplostethus cadenati	4.40	104	5.03	
Dibranchius atlanticus	3.80	248	4.35	
Brosimiculus imberbis *	3.20	38	3.66	
Laemonema laureysi	2.00	10	2.29	
Etmopterus pusillus	1.80	12	2.06	
Stereomastix sculpta	1.80	134	2.06	
Shrimps, small, non comm.	1.40	114	1.60	
MACROURIDAE	1.20	6	1.37	
Aristeus varidens, male	0.52	92	0.59	315
Illex coindetii	0.40	4	0.46	
Total	87.40		100.00	

PROJECT STATION: 643
 DATE: 24/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1036 Long W 1314
 start stop duration
 TIME :08:08:00 08:38:00 30 (min) Purpose code: 3
 LOG :5949.00 5950.00 1.50 Area code : 1
 FDEPTH: 147 141 GearCond.code:
 BDEPTH: 147 141 Validity code:
 Towing dir: 330 Wire out: 650 m Speed:290 kn*10
 Sorted: 71 Kg Total catch: 534.00 CATCH/HOUR: 1068.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Synagrops microlepis	789.00	41704	73.88	
Dentex macrophthalmus	177.00	690	16.57	317
Todaropsis eblanae	31.40	420	2.94	
Dentex angolensis	22.40	60	2.10	
Zenopsis conchifer	19.40	74	1.82	
Spicara alta	12.00	44	1.12	
Illex coindetii	9.00	46	0.84	
Merluccius polli	4.40	30	0.41	
Pterothrissus belloci	3.00	16	0.28	
Total	1067.60		99.96	

PROJECT STATION: 644
 DATE: 24/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1035 Long W 1316
 start stop duration
 TIME :09:40:00 10:10:00 30 (min) Purpose code: 3
 LOG :5957.00 5958.00 1.50 Area code : 1
 FDEPTH: 119 118 GearCond.code:
 BDEPTH: 119 118 Validity code:
 Towing dir: 325 Wire out: 550 m Speed:290 kn*10
 Sorted: 98 Kg Total catch: 980.00 CATCH/HOUR: 1960.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Dentex macrophthalmus	1266.00	6064	64.99	319
Trachurus trecae	560.00	8176	28.57	318
Dentex angolensis	30.00	80	1.53	
Torpedo torpedo	24.00	20	1.22	
Illex coindetii	20.00	320	1.02	
Umbrina canariensis	18.00	20	0.92	
Pterothrissus belloci	16.00	80	0.82	
Zeus faber	14.00	40	0.71	
Pagellus bellottii	12.00	100	0.61	
Total	1960.00		99.99	

PROJECT STATION: 645
 DATE: 24/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1034 Long W 1324
 start stop duration
 TIME :11:30:00 12:00:00 30 (min) Purpose code: 3
 LOG :5969.00 5970.00 1.60 Area code : 1
 FDEPTH: 86 85 GearCond.code:
 BDEPTH: 86 85 Validity code:
 Towing dir: 325 Wire out: 400 m Speed:311 kn*10
 Sorted: 39 Kg Total catch: 157.30 CATCH/HOUR: 314.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP. NO.
	weight	numbers		
Trachurus trecae	180.00	4764	57.22	320
Illex coindetii	36.88	5718	11.72	
Dentex macrophthalmus	35.20	152	11.19	
Dentex angolensis	16.00	80	5.09	
Todaropsis eblanae	10.40	248	3.31	
Zeus faber	8.80	32	2.80	
Raja miraletus	8.00	8	2.54	
Pterothrissus belloci	6.40	48	2.03	
Alloteuthis africana	5.52	552	1.75	
Torpedo torpedo	4.80	8	1.53	
Pagellus bellottii	1.28	8	0.41	
Chelidonichthys gabonensis	1.04	8	0.33	
Trichiurus lepturus	0.32	24	0.10	
Total	314.64		100.02	

PROJECT STATION: 646
 DATE:24/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1032
 start stop duration
 TIME :12:51:00 13:21:00 30 (min) Purpose code: 3
 LOG :5977.00 5978.00 1.50 Area code : 1
 FDEPTH: 54 52 GearCond.code:
 BDEPTH: 54 52 Validity code:
 Towing dir: 340 Wire out: 300 m Speed:300 kn*10
 Sorted: 120 Kg Total catch: 120.40 CATCH/HOUR: 240.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Epinephelus alexandrinus	154.20	120	64.04
Dentex barnardi	69.20	578	28.74
Anthias anthias	6.80	222	2.82
Illex coindetii	2.60	698	1.08
Pagellus bellottii	2.00	12	0.83
Raja miraletus	2.00	2	0.83
Pomadasys incisus	1.60	6	0.66
Zenopsis conchifer	1.40	2	0.58
Chaetodon hoefleri	0.80	2	0.33
Todaropsis eblanae	0.24	10	0.10
Total	240.84	100.01	

PROJECT STATION: 651
 DATE:24/ 8/92 GEAR TYPE: PT No:3 POSITION:Lat N 1036
 start stop duration
 TIME :19:01:30 19:31:00 30 (min) Purpose code: 1
 LOG :6009.00 6011.00 1.90 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 41 51 Validity code:
 Towing dir: 225 Wire out: 100 m Speed:380 kn*10
 Sorted: 70 Kg Total catch: 280.80 CATCH/HOUR: 561.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Brachydeuterus auritus	221.60	990	39.46
Chloroscombrus chrysurus	144.00	912	25.64
Sardinella maderensis	92.80	296	16.52
Trachurus trecae	44.00	680	7.83
Trichiurus lepturus	13.60	16	2.42
Sarda sarda	12.80	8	2.28
Small squids	12.00		2.14
Engraulis encrasicolus	12.00		2.14
Sardinella aurita	8.80	24	1.57
Total	561.60	100.00	

PROJECT STATION: 647
 DATE:24/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1030
 start stop duration
 TIME :14:16:00 14:46:00 30 (min) Purpose code: 3
 LOG :5985.00 5986.00 1.60 Area code : 1
 FDEPTH: 29 27 GearCond.code:
 BDEPTH: 29 27 Validity code:
 Towing dir: 330 Wire out: 200 m Speed:320 kn*10
 Sorted: 66 Kg Total catch: 131.60 CATCH/HOUR: 263.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trecae	160.00	5794	60.79
Trichiurus lepturus	44.00	44	16.72
Stromateus fiatola	15.60	20	5.93
Brachydeuterus auritus	15.60	364	5.93
Illex coindetii	8.00	2500	3.04
Dentex barnardi	6.40	32	2.43
Zeus faber	4.00	4	1.52
Balistes punctatus	3.60	4	1.33
Pagellus bellottii	3.20	12	1.22
Chloroscombrus chrysurus	2.00	4	0.76
Todaropsis eblanae	0.88	256	0.33
Total	263.28	100.04	

PROJECT STATION: 652
 DATE:24/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1052
 start stop duration
 TIME :22:18:00 22:48:00 30 (min) Purpose code: 3
 LOG :6035.00 6036.00 1.40 Area code : 1
 FDEPTH: 420 428 GearCond.code:
 BDEPTH: 420 428 Validity code:
 Towing dir: 310 Wire out:1200 m Speed:270 kn*10
 Sorted: 34 Kg Total catch: 239.70 CATCH/HOUR: 479.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Merluccius polli, female	210.00	392	43.80
Laemonema laureysi	91.00	1668	18.98
Merluccius polli, male	33.60	70	7.01
Deepwater fish mixture	32.20		6.72
Dibranchus atlanticus	25.20	1470	5.26
Hymenocephalus italicus	23.80	1960	4.96
Hoplostethus cadenati	12.60	378	2.63
Etmopterus pusillus	8.40		1.75
Benthodesmus tenuis	7.00	70	1.46
Brosmiculus imberbis *	7.00	168	1.46
Malacocephalus occidentalis	7.00	70	1.46
Kalosaurus sp.	7.00	280	1.46
SCYLIORHINIDAE	5.60	14	1.17
Chlorophthalmus atlanticus	4.20	28	0.88
Coelorhinus coelorhincus	2.80	56	0.58
LOPHIDAE	1.40	14	0.29
Aristeus varidens	0.60	266	0.13
Total	479.40	100.00	

PROJECT STATION: 648
 DATE:24/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1029
 start stop duration
 TIME :15:25:00 15:55:00 30 (min) Purpose code: 3
 LOG :5991.00 5993.00 1.40 Area code : 1
 FDEPTH: 16 16 GearCond.code:
 BDEPTH: 16 16 Validity code:
 Towing dir: 130 Wire out: 150 m Speed:291 kn*10
 Sorted: 31 Kg Total catch: 306.80 CATCH/HOUR: 613.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Brachydeuterus auritus	492.00	19474	80.18
Sphyræna guachancho	66.00	110	10.76
Engraulis encrasicolus	16.00	1420	2.61
Galeoides decadactylus	12.00	60	1.96
Arius parkii	8.00	20	1.30
Trichiurus lepturus	6.00	60	0.98
Chloroscombrus chrysurus	4.40	20	0.72
Pagellus bellottii	3.20	20	0.52
Ubrina canariensis	1.80	40	0.29
Pterocion pelli	1.60	120	0.26
Dicologlossa cuneata	1.20	40	0.20
Sepiella ornata	0.80	20	0.13
Selene dorsalis	0.60	20	0.10
Trachurus, juveniles	0.00	80	
Total	613.60	100.01	

PROJECT STATION: 653
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1054
 start stop duration
 TIME :00:09:00 01:09:00 60 (min) Purpose code: 3
 LOG :6044.00 6047.00 2.90 Area code : 1
 FDEPTH: 626 636 GearCond.code:
 BDEPTH: 626 636 Validity code:
 Towing dir: 340 Wire out:1650 m Speed:290 kn*10
 Sorted: 28 Kg Total catch: 174.34 CATCH/HOUR: 174.34

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Hoplostethus cadenati	60.00	1425	34.42
Nematocarcinus africanus	41.40	8418	23.75
Merluccius polli	19.80	18	11.36
GONOSTOMATIDAE	12.00	1059	6.88
Dibranchus atlanticus	9.80	372	5.62
OPHIDIIDAE	4.80	102	2.75
Aristeus varidens, female	4.20	216	2.41
MURAENOSCIDAE	3.60	108	2.06
POLYCHAELIDAE	3.00	180	1.72
Nezumia aequalis	2.40	60	1.38
Trichiurus lepturus	1.80	60	1.03
Aristeus varidens, male	1.80	186	1.03
Etmopterus spinax	1.80	18	1.03
Deepwater fish mixture	1.50	18	0.86
Brosmiculus imberbis *	1.38	36	0.79
Malacocephalus occidentalis	1.34	24	0.77
Holocentrus sp.	0.66	168	0.38
HALOSAURIDAE	0.66	12	0.38
Small squids	0.42	12	0.24
MELANOSTOMIATIDAE	0.36	6	0.21
ALEPOCEPHALIDAE	0.36	30	0.21
Plesioneneus edwardsianus	0.30	30	0.17
Chlorophthalmus atlanticus	0.30	12	0.17
Shrimps, small, non comm.	0.18	84	0.10
Hymenocephalus italicus	0.18	24	0.10
ANTENNARIIDAE	0.18	6	0.10
MYCTOPHIDAE	0.12	78	0.07
Total	174.34	99.99	

PROJECT STATION: 649
 DATE:24/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1034
 start stop duration
 TIME :16:42:00 17:12:00 30 (min) Purpose code: 3
 LOG :5999.00 6000.00 1.50 Area code : 1
 FDEPTH: 16 15 GearCond.code:
 BDEPTH: 16 15 Validity code:
 Towing dir: 150 Wire out: 150 m Speed:300 kn*10
 Sorted: 65 Kg Total catch: 869.30 CATCH/HOUR: 1738.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Engraulis encrasicolus	741.00	358312	42.62
Brachydeuterus auritus	725.40	41968	41.72
Pomadasys jubelini	124.80	156	7.18
Argyrosomus hololepidotus	55.80	2	3.21
Trachurus trecae	44.20	2002	2.54
Pomadasys jubelini	36.40	156	2.09
Pagellus bellottii	10.40	52	0.60
Sardinella aurita	0.60	26	0.03
Total	1738.60	99.99	

PROJECT STATION: 654
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1059
 start stop duration
 TIME :03:03:00 03:33:00 30 (min) Purpose code: 3
 LOG :6061.00 6063.00 1.50 Area code : 1
 FDEPTH: 550 549 GearCond.code:
 BDEPTH: 550 549 Validity code:
 Towing dir: 340 Wire out:1500 m Speed:300 kn*10
 Sorted: 23 Kg Total catch: 112.45 CATCH/HOUR: 224.90

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Nematocarcinus africanus	165.00	44550	73.37
Hoplostethus cadenati	10.00	270	4.45
OPHIDIIDAE	8.00	70	3.56
MELANOSTOMIATIDAE	7.00	100	3.11
GONOSTOMATIDAE	7.00	760	3.11
Trachipterus trachipterus	5.00	10	2.22
Small squids	5.00	100	2.22
Deepwater fish mixture	5.00	100	2.22
Merluccius polli	4.00	50	1.78
Chlorophthalmus atlanticus	2.30	70	1.02
Dibranchus atlanticus	1.80	140	0.80
POLYCHAELIDAE	1.60	310	0.71
Trichiurus lepturus	1.00	80	0.44
Laemonema laureysi	0.90	10	0.40
Aristeus varidens	0.40	60	0.18
Brosmiculus imberbis *	0.40	20	0.18
ALEPOCEPHALIDAE	0.30	20	0.13
HALOSAURIDAE	0.20	20	0.09
Total	224.90	99.99	

PROJECT STATION: 650
 DATE:24/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1036
 start stop duration
 TIME :17:47:00 18:17:00 30 (min) Purpose code: 3
 LOG :6005.00 6006.00 1.60 Area code : 1
 FDEPTH: 31 29 GearCond.code:
 BDEPTH: 31 29 Validity code:
 Towing dir: 330 Wire out: 200 m Speed:320 kn*10
 Sorted: 30 Kg Total catch: 95.70 CATCH/HOUR: 191.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Brachydeuterus auritus	67.20	756	35.11
Trichiurus lepturus	56.40	54	29.47
Trachurus trecae	15.60	438	8.15
Pomadasys jubelini	15.00	18	7.84
Rhinobatoc sp.	8.40	6	4.39
Trachurus, juveniles	7.20	2280	3.76
Pagellus bellottii	5.40	12	2.82
Raja miraletus	5.40	6	2.82
Allteuthis sp.	4.80	3360	2.51
Pomadasys incisus	3.00	6	1.57
Sphyræna sphyraena	1.80	6	0.94
Dentex canariensis	1.20	12	0.63
Total	191.40	100.01	

PROJECT STATION: 655
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1059
 start stop duration Long W 1329
 TIME :04:47:00 05:17:00 30 (min) Purpose code: 3
 LOG :6070.00 6071.00 1.40 Area code : 1
 FDEPTH: 347 348 GearCond.code:
 BDEPTH: 347 348 Validity code:
 Towing dir: 330 Wire out:1050 m Speed:280 kn*10
 Sorted: 36 Kg Total catch: 216.60 CATCH/HOUR: 433.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	168.00	384	38.78	340
Laemonema laureysi	80.40	932	18.56	
Merluccius polli, male	42.00	144	9.70	339
Hoplostethus cadanati	38.40	1248	8.86	
Etmopterus pusillus	24.00	756	5.54	
Diaphus dumerilii	12.00	4358	2.77	
Nematocarcinus africanus	9.60	2400	2.22	
Chlorophthalmus atlanticus	8.40	168	1.94	
Benthodesmus tenuis	6.00	300	1.39	
Illex coindetii	6.00	60	1.39	
Dibranchius atlanticus	6.00	180	1.39	
MELANOSTOMIATIDAE	6.00	60	1.39	
Hymenocephalus italicus	6.00	636	1.39	
LOPHIIDAE	6.00	24	1.39	
Halicampus sp.	4.80	60	1.11	
CONGOSTOMATIDAE	4.80	144	1.11	
Epigonus telescopus	4.80	24	1.11	
Total	433.20		100.04	

PROJECT STATION: 656
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1058
 start stop duration Long W 1330
 TIME :06:05:00 06:35:00 30 (min) Purpose code: 3
 LOG :6075.00 6076.00 1.60 Area code : 1
 FDEPTH: 283 268 GearCond.code:
 BDEPTH: 283 268 Validity code:
 Towing dir: 330 Wire out: 900 m Speed:300 kn*10
 Sorted: 38 Kg Total catch: 304.20 CATCH/HOUR: 608.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chlorophthalmus atlanticus	235.20	650	38.66	
Merluccius polli, male	171.20	848	28.14	341
Pterothrissus bellioi	73.60	304	12.10	
Diaphus dumerilii	20.80	6136	3.42	
Laemonema laureysi	16.00	320	2.63	
Synagrops microlepis	14.40	560	2.37	
Illex coindetii	11.20	112	1.84	342
Trichurus lepturus	9.60	16	1.58	
Gephyroberyx darwini	9.60	16	1.58	
Todaropsis eblanae	9.60	32	1.58	
Pontinus kuhlii	9.60	128	1.58	
Coelorrhinus sp.	9.60	128	1.58	
Solenocera africana	4.80	192	0.79	
Peristediion cataphractum	4.80	112	0.79	
Munida sp.	4.80	272	0.79	
Sepia sp.	1.60	32	0.26	
Dibranchius atlanticus	1.60	32	0.26	
Parapenaeus longirostris	0.40	128	0.07	
Total	608.40		100.02	

PROJECT STATION: 657
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1100
 start stop duration Long W 1334
 TIME :07:45:00 08:15:00 30 (min) Purpose code: 3
 LOG :6084.00 6086.00 1.50 Area code : 1
 FDEPTH: 144 151 GearCond.code:
 BDEPTH: 144 151 Validity code:
 Towing dir: 330 Wire out: 650 m Speed:300 kn*10
 Sorted: 166 Kg Total catch: 927.90 CATCH/HOUR: 1855.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	784.00	1568	42.25	343
Dentex macropthalmus	408.80	1442	22.03	345
Synagrops microlepis	240.80	9952	12.98	
Merluccius polli	145.60	5264	7.85	346
Pterothrissus bellioi	134.40	672	7.24	344
Zenopsis conchifer	24.60	234	1.33	
Brotula barbata	22.40	34	1.21	
Trichurus lepturus	21.20	100	1.14	
Dentex angolensis	16.80	280	0.91	
Illex coindetii	13.40	268	0.72	347
Sparus pagrus africanus	10.00	12	0.54	
Todaropsis eblanae	6.60	6	0.36	
Boops boops	5.60	34	0.30	
Spicara alta	4.40	10	0.24	
Monolele microstoma	4.40	44	0.24	
Uranoscopus polli	3.40	10	0.18	
Pontinus kuhlii	3.40	22	0.18	
Bembrops heterurus	3.40	10	0.18	
Citharus linguatula	2.20	10	0.12	
Parapenaeus longirostris	0.40	112	0.02	
Total	1855.80		100.02	

PROJECT STATION: 658
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1059
 start stop duration Long W 1340
 TIME :09:26:00 09:56:00 30 (min) Purpose code: 3
 LOG :6095.00 6096.00 1.60 Area code : 1
 FDEPTH: 85 87 GearCond.code:
 BDEPTH: 85 87 Validity code:
 Towing dir: 330 Wire out: 400 m Speed:320 kn*10
 Sorted: 74 Kg Total catch: 1105.50 CATCH/HOUR: 2211.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	1170.00	2988	52.92	348
Trichurus lepturus	555.00	20812	25.10	
Synagrops microlepis	390.00	692250	17.64	
Dentex macropthalmus	45.00	90	2.04	
Branchiostegus semifasciatus	27.00	30	1.22	
Small squids	15.00	990	0.68	
Merluccius polli	9.00	120	0.41	
Total	2211.00		100.01	

PROJECT STATION: 659
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1058
 start stop duration Long W 1342
 TIME :10:43:00 11:13:00 30 (min) Purpose code: 3
 LOG :6102.00 6103.00 1.60 Area code : 1
 FDEPTH: 65 68 GearCond.code:
 BDEPTH: 65 68 Validity code:
 Towing dir: 330 Wire out: 300 m Speed:310 kn*10
 Sorted: 77 Kg Total catch: 769.00 CATCH/HOUR: 1538.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	760.00	4440	49.41	349
Synagrops microlepis	680.00	115600	44.21	
Branchiostegus semifasciatus	26.00	20	1.69	
Pterothrissus bellioi	26.00	340	1.69	
Trachurus, Juveniles	24.00	6400	1.56	
Dentex canariensis	14.00	20	0.91	
Brachydeuterus auritus	8.00	20	0.52	
Total	1538.00		99.99	

PROJECT STATION: 660
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1058
 start stop duration Long W 1346
 TIME :12:09:00 12:39:00 30 (min) Purpose code: 3
 LOG :6110.00 6112.00 1.60 Area code : 1
 FDEPTH: 45 45 GearCond.code:
 BDEPTH: 45 45 Validity code:
 Towing dir: 335 Wire out: 250 m Speed:320 kn*10
 Sorted: 70 Kg Total catch: 1680.20 CATCH/HOUR: 3360.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	1708.80	8544	50.85	350
Trachurus, Juveniles	921.60	62668	27.43	351
Trachurus trecae	720.00	1920	21.43	352
Pagellus bellottii	7.20	48	0.21	
Dentex barnardi	1.44	48	0.04	
Merluccius polli	1.44	48	0.04	
Total	3360.48		100.00	

PROJECT STATION: 661
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1057
 start stop duration Long W 1350
 TIME :13:26:00 13:56:00 30 (min) Purpose code: 3
 LOG :6118.00 6119.00 1.60 Area code : 1
 FDEPTH: 17 22 GearCond.code:
 BDEPTH: 17 22 Validity code:
 Towing dir: 160 Wire out: 150 m Speed:310 kn*10
 Sorted: 69 Kg Total catch: 2313.20 CATCH/HOUR: 4626.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	4247.80	104972	91.82	353
Trachurus trecae	368.50	10786	7.97	354
Trachurus, Juveniles	10.06	4354	0.22	355
Total	4626.36		100.01	

PROJECT STATION: 662
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1108
 start stop duration Long W 1349
 TIME :15:09:00 15:35:00 26 (min) Purpose code: 3
 LOG :6130.00 6131.00 1.30 Area code : 1
 FDEPTH: 22 26 GearCond.code:
 BDEPTH: 22 26 Validity code:
 Towing dir: 30 Wire out: 200 m Speed:300 kn*10
 Sorted: 50 Kg Total catch: 396.70 CATCH/HOUR: 915.46

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	655.38	4588	71.59	356
Trichurus lepturus	99.69	111	10.89	
Trachurus trecae	92.31	1366	10.08	357
Stromateus fiatola	14.77	18	1.61	
Sphyræna guachancho	14.77	18	1.61	
Dentex barnardi	12.92	37	1.41	
Pagellus bellottii	11.08	37	1.21	
Torpedo torpedo	7.38	18	0.81	
Trachurus, Juveniles	5.54	2308	0.61	358
Sepia officinalis hierredda	1.62	2	0.18	
Total	915.46		100.00	

PROJECT STATION: 663
 DATE:25/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1107
 start stop duration Long W 1344
 TIME :16:27:00 16:57:00 30 (min) Purpose code: 3
 LOG :6138.00 6140.00 1.70 Area code : 1
 FDEPTH: 64 62 GearCond.code:
 BDEPTH: 64 62 Validity code:
 Towing dir: 5 Wire out: 350 m Speed:316 kn*10
 Sorted: 54 Kg Total catch: 310.60 CATCH/HOUR: 621.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichurus lepturus	347.60	718	55.96	
Synagrops microlepis	124.30	22046	20.01	
Pterothrissus bellioi	63.80	580	10.27	
Dentex macropthalmus	23.60	56	3.80	359
Trachurus trecae	19.80	98	3.19	
Merluccius polli	11.00	1418	1.77	360
Stromateus fiatola	8.80	10	1.42	
Umbra canariensis	8.80	22	1.42	
Dentex barnardi	6.60	20	1.06	
Pagellus bellottii	2.60	6	0.42	
Brachydeuterus auritus	2.20	10	0.35	
Chaetodon marcellae	1.66	10	0.27	
GOBIIDAE	0.44	274	0.07	
Total	621.20		100.01	

PROJECT STATION: 664
 DATE: 25/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 11.0 Long W 1339
 start stop duration
 TIME :17:51:00 18:21:00 30 (min) Purpose code: 3
 LOG :6147.00 6148.00 1.50 Area code : 1
 FDEPTH: 101 99 GearCond.code:
 BDEPTH: 101 99 Validity code:
 Towing dir: 180 Wire out: 500 m Speed:300 kn*10
 Sorted: 87 Kg Total catch: 436.00 CATCH/HOUR: 872.00

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Trichurus lepturus	220.00	720	25.23
Brotula barbata	140.00	120	16.06
Pterothrissus belloci	140.00	840	16.06
Branchiostegus semifasciatus	102.00	80	11.70
Synagrops microlepis	94.00	1690	10.78
Dentex macrophthalmus	90.00	250	10.32
Merluccius polli	28.00	4700	3.21
Atractoscion aequidens	19.00	10	2.18
Trachurus trecae	14.00	30	1.61
Parapenaeus longirostris, fem.	9.00	3660	1.03
Parapenaeus longirostris, male	6.00	2370	0.69
Umbrina canariensis	5.00	30	0.57
Pentheroscion mbizi	5.00	10	0.57
Total	872.00		100.01

PROJECT STATION: 668
 DATE: 26/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 11.40 Long W 1320
 start stop duration
 TIME :07:10:00 07:40:00 30 (min) Purpose code: 3
 LOG :6251.00 6252.00 1.40 Area code : 1
 FDEPTH: 459 445 GearCond.code:
 BDEPTH: 459 445 Validity code:
 Towing dir: 170 Wire out: 1200 m Speed:290 kn*10
 Sorted: 32 Kg Total catch: 160.05 CATCH/HOUR: 320.10

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Merluccius polli, female	142.00	310	44.36
Hoplostethus cadenati	58.00	1634	18.12
Etmopterus pusillus	34.00	150	10.62
Shrimps, small, non comm.	25.00		7.81
Merluccius polli, male	18.00	80	5.62
Trichurus lepturus	5.00	20	1.56
Bromisculus imberbis *	5.00	180	1.56
MELANOSTOMIATIDAE	5.00	50	1.56
Malacocephalus sp.	5.00	20	1.56
OPHIDIIDAE	4.00	120	1.25
Laemonema laureysi	3.00	10	0.94
Chlorophthalmus atlanticus	3.00	40	0.94
Xenodermichthys socialis	3.00	160	0.94
Synagrops microlepis	3.00	100	0.94
LOPHIIDAE	2.00	30	0.62
Aristeus varidens, female	1.40	104	0.44
Halosaurus sp.	1.00	20	0.31
GONOSTOMATIDAE	1.00	40	0.31
Chaunax pictus	1.00	10	0.31
Aristeus varidens, male	0.70	84	0.22
Total	320.10		99.99

PROJECT STATION: 665
 DATE: 25/ 8/92 GEAR TYPE: PT No: POSITION: Lat N 11.18 Long W 1341
 start stop duration
 TIME :20:13:00 20:43:00 30 (min) Purpose code: 1
 LOG :6164.00 6166.00 1.40 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 21 19 Validity code:
 Towing dir: 60 Wire out: 100 m Speed:290 kn*10
 Sorted: 57 Kg Total catch: 153.00 CATCH/HOUR: 306.00

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Brachydeuterus auritus	152.00	1748	49.67
Sardinella maderensis	103.40	272	33.79
Selene dorsalis	22.00	40	7.19
Sepia sp.	12.00	56	3.92
Trichurus lepturus	4.00	8	1.31
Pagellus bellottii	4.00	8	1.31
Pomatomus saltatrix	3.00	2	0.98
Sardinella aurita	2.80	6	0.92
Trachurus trecae	1.60	16	0.52
Engraulis encrasicolus	1.20	96	0.39
Total	306.00		100.00

PROJECT STATION: 669
 DATE: 26/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 11.42 Long W 1329
 start stop duration
 TIME :09:02:00 09:32:00 30 (min) Purpose code: 3
 LOG :6262.00 6263.00 1.60 Area code : 1
 FDEPTH: 151 154 GearCond.code:
 BDEPTH: 151 154 Validity code:
 Towing dir: 160 Wire out: 650 m Speed:320 kn*10
 Sorted: 106 Kg Total catch: 738.85 CATCH/HOUR: 1477.70

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Dentex macrophthalmus	700.00	3294	47.37
Synagrops microlepis	420.00	52660	28.42
Pterothrissus belloci	106.40	714	7.20
Merluccius polli	68.60	658	4.64
Todaropsis eblanæ	46.20	644	3.13
Sparus pagrus africanus	29.40	14	1.99
Brotula barbata	29.40	28	1.99
Dentex angolensis	23.80	70	1.61
Trachurus trecae	21.00	266	1.42
Zeus faber	14.00	14	0.95
Illex coindetii	9.80	182	0.66
Scorpaena sp.	2.80	14	0.19
Chlorophthalmus atlanticus	2.80	126	0.19
Monolene microstoma	2.10	28	0.14
Zenopsis conchifer	1.40	14	0.09
Total	1477.70		99.99

PROJECT STATION: 666
 DATE: 25/ 8/92 GEAR TYPE: PT No:3 POSITION: Lat N 11.24 Long W 1329
 start stop duration
 TIME :22:58:00 23:28:00 30 (min) Purpose code: 1
 LOG :6184.00 6186.00 2.00 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 80 82 Validity code:
 Towing dir: 280 Wire out: 100 m Speed:400 kn*10
 Sorted: 106 Kg Total catch: 3000.00 CATCH/HOUR: 6000.00

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Trachurus trecae	520.00	13050	87.00
Sarda sarda	374.00	112	6.23
Trichurus lepturus	154.00	852	2.57
Trachinotus ovatus	130.00	340	2.17
Scomber japonicus	80.00	170	1.33
Sphyræna sphyraena	24.00	56	0.40
Sardinella maderensis	18.00	56	0.30
Total	6000.00		100.00

PROJECT STATION: 670
 DATE: 26/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 11.45 Long W 1335
 start stop duration
 TIME :10:36:00 11:06:00 30 (min) Purpose code: 3
 LOG :6271.00 6272.00 1.40 Area code : 1
 FDEPTH: 88 88 GearCond.code:
 BDEPTH: 88 88 Validity code:
 Towing dir: 335 Wire out: 400 m Speed:290 kn*10
 Sorted: 102 Kg Total catch: 478.05 CATCH/HOUR: 956.10

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Trachurus trecae	405.00	2484	42.36
Dentex macrophthalmus	235.00	790	24.58
Pagellus bellottii	195.00	1030	20.40
Brotula barbata	30.00	10	3.14
Dentex canariensis	19.00	50	1.99
Branchiostegus semifasciatus	13.00	10	1.36
Raja miraletus	12.00	20	1.26
Torpedo torpedo	9.00	20	0.94
Epinephelus alexandrinus	8.00	2	0.84
Scorpaena stephanica	8.00	10	0.84
Sepia sp.	5.00	10	0.52
Octopus sp.	5.00	10	0.52
Chaetodon hoefleri	4.00	20	0.42
Styaciium micrurum	4.00	10	0.42
Anthias anthias	3.00	20	0.31
Chelidonichthys capensis	1.00	10	0.10
Zenopsis conchifer	0.10	10	0.01
Total	956.10		100.01

PROJECT STATION: 667
 DATE: 26/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 11.33 Long W 1319
 start stop duration
 TIME :05:19:00 05:49:00 30 (min) Purpose code: 3
 LOG :6241.00 6242.00 1.40 Area code : 1
 FDEPTH: 552 553 GearCond.code:
 BDEPTH: 552 553 Validity code:
 Towing dir: 10 Wire out: 1500 m Speed:280 kn*10
 Sorted: 30 Kg Total catch: 238.76 CATCH/HOUR: 477.52

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Nematocarcinus africanus	352.00	73332	73.71
Hoplostethus cadenati	56.00	712	11.73
Merluccius polli	16.00	16	3.35
GONOSTOMATIDAE	12.80	224	2.68
OPHIDIIDAE	8.00	224	1.68
OPHICHTHIDAE	6.40	128	1.34
MELANOSTOMIATIDAE	6.40	64	1.34
Aristeus varidens, female	5.40	366	1.13
Chlorophthalmus atlanticus	4.80	48	1.01
Xenodermichthys socialis	4.80	304	1.01
Laemonema laureysi	3.20	16	0.67
MACROURIDAE	1.60	48	0.34
Aristeus varidens, male	0.12	14	0.03
Total	477.52		100.02

PROJECT STATION: 671
 DATE: 26/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 11.46 Long W 1341
 start stop duration
 TIME :12:05:00 12:35:00 30 (min) Purpose code: 3
 LOG :6281.00 6282.00 1.70 Area code : 1
 FDEPTH: 60 60 GearCond.code:
 BDEPTH: 60 60 Validity code:
 Towing dir: 340 Wire out: 300 m Speed:320 kn*10
 Sorted: 4 Kg Total catch: 4.34 CATCH/HOUR: 8.68

SPECIES	CATCH/HOUR weight	% OF TOT. C numbers	SAMP.NO.
Atractoscion aequidens	3.60	2	41.47
Raja miraletus	2.60	4	25.95
Dentex macrophthalmus	1.20	4	13.82
Octopus sp.	1.00	2	11.52
Cephalopholis taenlops	0.28	2	3.23
Total	8.68		99.99

DATE:26/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 672
 start stop duration POSITION:Lat N 1145
 TIME :13:17:00 13:37:00 20 (min) Purpose code: 3 Long W 1343
 LOG :6287.00 6288.00 1.00 Area code : 1
 FDEPTH: 35 35 GearCond.code:
 BDEPTH: 35 35 Validity code:
 Towing dir: 5 Wire out: 250 m Speed:300 kn*10
 Sorted: 4 Kg Total catch: 3.52 CATCH/HOUR: 10.56

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Atractoscion aequidens	7.50	3	71.02	
Trichiurus lepturus	2.10	3	19.89	
Raja miraletus	0.90	3	8.52	
Todaropsis eblanæ	0.03	69	0.28	
Trachurus, Juveniles	0.03	30	0.28	
Total	10.56		99.99	

DATE:26/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 673
 start stop duration POSITION:Lat N 1145
 TIME :14:11:00 14:41:00 30 (min) Purpose code: 3 Long W 1346
 LOG :6292.00 6293.00 1.50 Area code : 1
 FDEPTH: 20 20 GearCond.code:
 BDEPTH: 20 20 Validity code:
 Towing dir: 180 Wire out: 150 m Speed:300 kn*10
 Sorted: 30 Kg Total catch: 423.90 CATCH/HOUR: 847.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	378.00	16852	44.59	382
Lithognathus mormyrus	155.20	308	18.31	384
Trachurus trecae	106.20	1890	12.53	383
Pomadasy incisus	54.00	270	6.37	
Argyrosomus hololepidotus	48.60	16	5.73	
Sepia officinalis hierredda	37.40	16	4.41	
Pseudotolithus senegalensis	22.00	16	2.59	
Stromateus fiatola	20.60	20	2.43	
Pomadasy jubelini	14.00	30	1.65	
Atractoscion aequidens	7.80	6	0.92	
Galeoides decadactylus	2.70	18	0.32	
Torpedo torpedo	0.90	18	0.11	
Dicologlossa cuneata	0.36	18	0.04	
Total	847.76		100.00	

DATE:26/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 674
 start stop duration POSITION:Lat N 1149
 TIME :15:11:00 15:41:00 30 (min) Purpose code: 3 Long W 1346
 LOG :6297.00 6298.00 1.60 Area code : 1
 FDEPTH: 22 23 GearCond.code:
 BDEPTH: 22 23 Validity code:
 Towing dir: 185 Wire out: 150 m Speed:310 kn*10
 Sorted: 30 Kg Total catch: 252.09 CATCH/HOUR: 504.18

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	364.00	96460	72.20	385
Argyrosomus hololepidotus	47.80	10	9.48	
Trachurus trecae	28.00	1106	5.55	386
Sepia officinalis hierredda	16.40	4	3.25	
Ilisha africana	14.00	112	2.78	
Galeoides decadactylus	9.80	28	1.94	
Pagellus bellottii	9.20	18	1.82	
Pseudotolithus senegalensis	4.40	2	0.87	
Dentex barnardi	4.00	8	0.79	
Lithognathus mormyrus	3.00	6	0.60	
Pteroscion pelli	1.26	98	0.25	
Pomadasy jubelini	1.20	2	0.24	
Trichiurus lepturus	1.12	126	0.22	
Total	504.18		99.99	

DATE:27/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 675
 start stop duration POSITION:Lat N 1227
 TIME :00:41:00 01:41:00 60 (min) Purpose code: 3 Long W 1312
 LOG :6360.00 6363.00 2.70 Area code : 1
 FDEPTH: 753 750 GearCond.code:
 BDEPTH: 753 750 Validity code:
 Towing dir: 20 Wire out:1800 m Speed:265 kn*10
 Sorted: 23 Kg Total catch: 70.20 CATCH/HOUR: 70.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
ALEPOCEPHALIDAE	12.60	99	17.95	
Aristeus varidens, female	7.20	432	10.26	388
Hoplostethus cadenati	6.60	150	9.40	
Nezumia aequalis	6.60	90	9.40	
POLYCHAELIDAE	5.40	303	7.69	
Plesionaeus edwardsianus, m.	3.90	147	5.56	389
GONOSTOMATIDAE	3.90	102	5.56	
Aristeus varidens, male	3.60	432	5.13	387
Malacocephalus occidentalis	3.60	60	5.13	
Merluccius polli	3.30	6	4.70	
Geryon maritae	2.70	6	3.85	
Small squids unident.	2.10	12	2.99	
RAJIDAE	1.80	3	2.56	
Trichiurus lepturus	1.20	3	1.71	
Holcomycteronus sp.	1.20	27	1.71	
Dibranchius atlanticus	0.90	33	1.28	
OPHIDIIDAE	0.75	12	1.07	
Centroscymnus crepidater	0.51	3	0.73	
Etmopterus spinax	0.48	6	0.68	
MELANOSTOMIATIDAE	0.48	30	0.68	
MURAENESOCIDAE	0.41	9	0.58	
HALOSAUROIDAE	0.33	15	0.47	
Plesionaeus edwardsianus, f.	0.27	6	0.38	390
Deepwater fish mixture	0.18	33	0.26	
Bromiculus imberbis *	0.12	3	0.17	
MYCTOPHIDAE	0.06	99	0.09	
Total	70.19		99.99	

DATE:27/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 676
 start stop duration POSITION:Lat N 1229
 TIME :03:01:00 04:01:00 60 (min) Purpose code: 3 Long W 1314
 LOG :6370.00 6373.00 2.90 Area code : 1
 FDEPTH: 662 661 GearCond.code:
 BDEPTH: 662 661 Validity code:
 Towing dir: 10 Wire out:1700 m Speed:290 kn*10
 Sorted: 30 Kg Total catch: 181.40 CATCH/HOUR: 181.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Hoplostethus cadenati	73.80	2398	40.68	
Merluccius polli	33.60	54	18.52	
ALEPOCEPHALIDAE	10.80	66	5.95	
GONOSTOMATIDAE	9.00	144	4.96	
OPHIDIIDAE	8.40	36	4.63	
POLYCHAELIDAE	8.40	414	4.63	
Nezumia aequalis	7.20	216	3.97	
Small squids unident.	5.40	24	2.98	
Aristeus varidens, female	4.80	330	2.65	392
Aristeus varidens, male	4.20	504	2.32	391
Etmopterus spinax	3.60	42	1.98	
HALOSAUROIDAE	3.00	30	1.65	
MURAENESOCIDAE	1.80	30	0.99	
MELANOSTOMIATIDAE	1.80	24	0.99	
Deepwater fish mixture	1.68	90	0.93	
Dibranchius atlanticus	0.78	78	0.43	
Plesionaeus edwardsianus	0.60	60	0.33	
Shrimps, small, non comm.	0.60	156	0.33	
ANTENNARIIDAE	0.54	6	0.30	
Bromiculus imberbis *	0.42	12	0.23	
Trichiurus lepturus	0.36	12	0.20	
RAJIDAE	0.30	6	0.17	
Chlorophthalmus atlanticus	0.30	12	0.17	
Total	181.38		99.99	

DATE:27/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 677
 start stop duration POSITION:Lat N 1229
 TIME :05:15:00 05:45:00 30 (min) Purpose code: 3 Long W 1316
 LOG :6379.00 6381.00 1.50 Area code : 1
 FDEPTH: 452 457 GearCond.code:
 BDEPTH: 452 457 Validity code:
 Towing dir: 150 Wire out:1250 m Speed:270 kn*10
 Sorted: 28 Kg Total catch: 198.70 CATCH/HOUR: 397.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	233.80	558	58.83	394
Hoplostethus cadenati	63.00	2226	15.85	
Merluccius polli, male	25.20	98	6.34	393
Laemonema laureysi	14.00	140	3.52	
OPHIDIIDAE	9.80	224	2.47	
Chlorophthalmus atlanticus	9.80	364	2.47	
SCYLIORHINIDAE	8.40	224	2.11	
RHINOCHEIMERIDAE	5.60	54	1.41	
Geryon maritae	5.60	14	1.41	
Halosaurus sp.	5.40	56	1.36	
Dibranchius atlanticus	2.80	98	0.70	
Nezumia sp.	2.80	56	0.70	
Malacocephalus sp.	2.80	14	0.70	
RACOURIDAE	2.80	70	0.70	
Stereostias sculptria	2.80	252	0.70	
GONOSTOMATIDAE	2.80	406	0.70	
Total	397.40		99.97	

DATE:27/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 678
 start stop duration POSITION:Lat N 1230
 TIME :06:44:00 07:14:00 30 (min) Purpose code: 3 Long W 1316
 LOG :6386.00 6387.00 1.30 Area code : 1
 FDEPTH: 362 364 GearCond.code:
 BDEPTH: 362 364 Validity code:
 Towing dir: 30 Wire out:1050 m Speed:290 kn*10
 Sorted: 28 Kg Total catch: 421.50 CATCH/HOUR: 843.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Centrophorus uyato	429.00	110	50.89	
Merluccius polli, female	208.60	616	24.74	396
Merluccius polli, male	133.00	504	15.78	395
RHINOCHEIMERIDAE	25.20	6	2.99	
Hoplostethus cadenati	16.80	742	1.99	
Laemonema laureysi	9.80	210	1.16	
Todaropsis eblanæ	5.60	112	0.66	
Chlorophthalmus atlanticus	5.40	210	0.64	
Synagrops microlepis	5.40	448	0.64	
Ilex coindetii	1.40	14	0.17	
scylorhinus sp.	1.40	14	0.17	
Epigonus telescopus	1.40	14	0.17	
Chaunax pictus	0.14	14	0.02	
Total	843.14		100.02	

DATE:27/ 8/92 GEAR TYPE: BT No:1 PROJECT STATION: 679
 start stop duration POSITION:Lat N 1232
 TIME :08:22:00 08:41:00 19 (min) Purpose code: 3 Long W 1320
 LOG :6395.00 6395.00 1.00 Area code : 1
 FDEPTH: 62 62 GearCond.code:
 BDEPTH: 62 62 Validity code:
 Towing dir: 240 Wire out: 300 m Speed:320 kn*10
 Sorted: 60 Kg Total catch: 416.60 CATCH/HOUR: 1321.89

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex macrophthalmus	486.32	2277	36.79	397
Trichiurus lepturus	442.11	818	33.45	
Synagrops microlepis	143.68	26438	10.87	
Umbrina canariensis	128.21	199	9.70	
Trachurus trecae	28.74	309	2.17	
Dentex canariensis	19.89	44	1.50	
Chaetodon hoefleri	17.68	66	1.34	
BATRACHOIDIDAE	17.68	44	1.34	
Pomadasy incisus	13.26	66	1.00	
Pagellus bellottii	8.84	22	0.67	
Torpedo torpedo	8.84	22	0.67	
Boops boops	4.42	22	0.33	
Chelidonichthys capensis	2.21	22	0.17	
Total	1321.89		100.00	

PROJECT STATION: 680
 DATE: 27/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1234 Long W 1322
 start stop duration Purpose code: 3
 TIME :09:47:00 10:17:00 30 (min) Area code : 1
 LOG :6400.00 6402.00 1.60 GearCond.code: 1
 FDEPTH: 20 18 Validity code:
 BDEPTH: 20 18
 Towing dir: 235 Wire out: 150 m Speed:300 kn*10

Sorted: 33 Kg Total catch: 1332.00 CATCH/HOUR: 2664.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trecae	1160.00	27342	43.54
Lithognathus mormyrus	744.00	3600	27.93
Dentex canariensis	160.00	2400	6.01
Balistes capricus	160.00	640	6.01
Pomadasy incisus	144.00	1200	5.41
Brachydeuterus auritus	96.00	880	3.60
Spondyllosoma cantharus	56.00	80	2.10
Diplodus sargus capensis	40.00	80	1.50
Pagellus bellottii	32.00	80	1.20
Trichurus lepturus	24.00	160	0.90
Boops boops	24.00	240	0.90
Chaetodon hoefleri	24.00	80	0.90
Total	2664.00	100.00	

PROJECT STATION: 681
 DATE: 27/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1233 Long W 1323
 start stop duration Purpose code: 3
 TIME :11:18:00 11:48:00 30 (min) Area code : 1
 LOG :6407.00 6408.00 1.50 GearCond.code: 1
 FDEPTH: 25 30 Validity code:
 BDEPTH: 25 30
 Towing dir: 43 Wire out: 200 m Speed:300 kn*10

Sorted: 61 Kg Total catch: 1754.20 CATCH/HOUR: 3508.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trecae	2604.20	24246	74.23
Lithognathus mormyrus	353.80	986	10.08
Pomadasy incisus	179.80	1450	5.12
Brachydeuterus auritus	133.40	870	3.80
Dentex barnardi	120.20	870	3.14
Pagellus bellottii	90.48	696	2.58
Chaetodon hoefleri	15.66	116	0.45
Pseudomus prayensis	12.76	58	0.36
Scorpaena angoliensis	8.12	58	0.23
Total	3508.42	99.99	

PROJECT STATION: 682
 DATE: 27/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1229 Long W 1328
 start stop duration Purpose code: 3
 TIME :13:15:00 13:45:00 30 (min) Area code : 1
 LOG :6415.00 6417.00 1.50 GearCond.code: 1
 FDEPTH: 18 17 Validity code:
 BDEPTH: 18 17
 Towing dir: 220 Wire out: 100 m Speed:300 kn*10

Sorted: 62 Kg Total catch: 280.22 CATCH/HOUR: 560.44

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trecae	227.70	808	40.63
Brachydeuterus auritus	168.30	1182	30.03
Trachurus juveniles	88.20	2988	15.74
Lithognathus mormyrus	41.40	152	7.39
Trichurus lepturus	9.90	306	1.77
Pomadasy jubelini	7.20	8	1.28
Torpedo torpedo	5.40	8	0.96
Pomadasy incisus	5.40	26	0.96
Pagellus bellottii	2.70	18	0.48
Boops boops	2.70	36	0.48
Dicologlossa cuneata	0.90	36	0.16
Dentex barnardi	0.46	8	0.08
Sepia sp.	0.18	198	0.03
Total	560.44	99.99	

PROJECT STATION: 683
 DATE: 27/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1228 Long W 1325
 start stop duration Purpose code: 3
 TIME :14:28:00 14:58:00 30 (min) Area code : 1
 LOG :6422.00 6424.00 1.50 GearCond.code: 1
 FDEPTH: 54 54 Validity code:
 BDEPTH: 54 54
 Towing dir: 30 Wire out: 300 m Speed:290 kn*10

Sorted: 69 Kg Total catch: 694.60 CATCH/HOUR: 1389.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Synagrops microlepis	842.00	303120	60.61
Trachurus trecae	362.00	1020	26.06
Dentex macrophthalmus	102.00	480	7.34
Trichurus lepturus	52.00	140	3.74
Dentex barnardi	18.00	40	1.30
Zeus faber	6.00	20	0.43
Lithognathus mormyrus	2.80	20	0.20
Pterothrissus belloci	2.20	20	0.16
Brachydeuterus auritus	2.00	20	0.14
Merluccius polli	0.20	20	0.01
Total	1389.20	99.99	

PROJECT STATION: 684
 DATE: 27/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1225 Long W 1322
 start stop duration Purpose code: 3
 TIME :15:48:00 16:18:00 30 (min) Area code : 1
 LOG :6430.00 6431.00 1.50 GearCond.code: 1
 FDEPTH: 100 99 Validity code:
 BDEPTH: 100 99
 Towing dir: 30 Wire out: 450 m Speed:290 kn*10

Sorted: 89 Kg Total catch: 744.42 CATCH/HOUR: 1488.84

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Dentex macrophthalmus	940.00	5086	63.14
Trachurus trecae	400.00	1566	26.87
Dentex macrophthalmus	53.34	1550	3.58
Pterothrissus belloci	21.66	150	1.45
Boops boops	14.16	134	0.95
Zeus faber	13.34	16	0.90
Dentex angoliensis	13.34	34	0.90
Monolepis microstoma	10.00	166	0.67
Chelidonichthys gabonensis	6.66	50	0.45
Uranoscopus cadenati	5.00	16	0.34
Tillex coindecti	4.16	400	0.28
Batrachoides liberiensis	3.84	16	0.26
Neomemistina folgori	3.34	50	0.22
Total	1488.84	100.01	

PROJECT STATION: 685
 DATE: 27/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1224 Long W 1321
 start stop duration Purpose code: 3
 TIME :17:04:00 17:34:00 30 (min) Area code : 1
 LOG :6437.00 6438.00 1.60 GearCond.code: 1
 FDEPTH: 219 231 Validity code:
 BDEPTH: 219 231
 Towing dir: 10 Wire out: 800 m Speed:320 kn*10

Sorted: 89 Kg Total catch: 943.40 CATCH/HOUR: 1886.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Centrophorus granulosus	512.00	128	27.14
Epigonus telescopus	410.20	12788	21.74
Gephyroberyx darwini	298.20	560	15.80
Dentex macrophthalmus	147.00	364	7.79
Miracorvina angoliensis	96.00	38	5.09
MYCTOPHIDAE	75.60		4.01
Merluccius polli, male	70.00	350	3.71
Scorpaena angoliensis	47.60	140	2.52
Epinephelus greenensis	34.20	2	1.81
Trigla lyra	33.60	196	1.78
Parapenaeus longirostris	33.60	6370	1.78
Torpedo sp.	25.20	56	1.34
Trachurus trecae	21.50	84	1.11
Merluccius polli, female	19.60	70	1.04
Brotula barbata	14.00	28	0.74
Chlorophthalmus atlanticus	12.60	322	0.67
Zenopsis conchifer	9.80	28	0.52
Todaropsis eblanae	8.40	42	0.45
Umbra canariensis	7.00	14	0.37
Pterothrissus belloci	7.00	28	0.37
Trichurus lepturus	2.80	14	0.15
Peristedion cataphractum	1.40	14	0.07
Total	1886.80	100.00	

PROJECT STATION: 686
 DATE: 27/ 8/92 GEAR TYPE: PT No:3 POSITION: Lat N 1222 Long W 1324
 start stop duration Purpose code: 1
 TIME :18:30:00 19:00:00 30 (min) Area code : 1
 LOG :6443.00 6445.00 2.20 GearCond.code: 1
 FDEPTH: 0 0 Validity code:
 BDEPTH: 93 103
 Towing dir: 270 Wire out: 100 m Speed:420 kn*10

Sorted: 98 Kg Total catch: 97.50 CATCH/HOUR: 195.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trecae	108.00	494	55.38
Sardinella maderensis	54.00	120	27.69
Trichurus lepturus	17.00	24	8.72
Sarda sarda	14.00	10	7.18
Sardinella aurita	2.00	4	1.03
Total	195.00	100.00	

PROJECT STATION: 687
 DATE: 27/ 8/92 GEAR TYPE: PT No:3 POSITION: Lat N 1216 Long W 1323
 start stop duration Purpose code: 1
 TIME :21:26:00 21:56:00 30 (min) Area code : 1
 LOG :6465.00 6467.00 2.00 GearCond.code: 1
 FDEPTH: 10 10 Validity code:
 BDEPTH: 318 101
 Towing dir: 125 Wire out: 100 m Speed:400 kn*10

Sorted: 82 Kg Total catch: 82.10 CATCH/HOUR: 164.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Trachurus trecae	100.00	248	60.90
MYCTOPHIDAE	32.00		19.49
Prionace glauca	20.00	2	12.18
Trichurus lepturus	5.20	12	3.17
Sardinella maderensis	4.60	14	2.80
Sarda sarda	2.40	2	1.46
Total	164.20	100.00	

PROJECT STATION: 688
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1207 Long W 1324
 start stop duration Purpose code: 3
 TIME :03:40:00 04:10:00 30 (min) Area code : 1
 LOG :6503.00 6504.00 1.50 GearCond.code: 1
 FDEPTH: 517 512 Validity code:
 BDEPTH: 517 512
 Towing dir: 10 Wire out: 1450 m Speed:270 kn*10

Sorted: 21 Kg Total catch: 83.84 CATCH/HOUR: 167.68

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP. NO.
weight	numbers		
Merluccius polli	52.00	96	31.01
Deepwater fish mixture	25.44		15.17
Hoplostethus cadenati	20.00	800	11.93
GONOSTOMATIDAE	12.80	688	7.63
Galeus polli	10.40	152	6.20
OPHIDIIDAE	10.40	368	6.20
Laemonema laureysi	7.20	104	4.29
Halosaurus sp.	4.80	96	2.39
Small squids unident.	4.00	32	2.39
Plesiopeneus edwardsianus, m.	4.00	532	2.39
MELANOSTOMIATIDAE	4.00	56	2.39
Gephyroberyx darwini	3.20	8	1.91
Trichurus lepturus	2.40	32	1.43
Plesiopeneus edwardsianus, f.	2.40	352	1.43
Etmopterus spinax	1.60	48	0.95
Malacocephalus occidentalis	0.88	8	0.52
POLYCHAELIDAE	0.72	80	0.43
Peristedion cataphractum	0.56	8	0.33
Parapenaeus longirostris	0.40	8	0.24
Nezumia aequalis	0.32	32	0.19
MURAENOSOCIDAE	0.16	32	0.10
Total	167.68	99.99	

PROJECT STATION: 689
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1206 Long W 1322
 start stop duration
 TIME : 05:23:00 06:23:00 60 (min) Purpose code: 3
 LOG : 6511.00 6513.00 2.80 Area code : 1
 FDEPTH: 651 649 GearCond.code:
 BDEPTH: 651 649 Validity code:
 Towing dir: 360 Wire out:1650 m Speed:270 kn*10

Sorted: 30 Kg Total catch: 118.80 CATCH/HOUR: 118.80

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Hoplostethus cadenati	52.00	2080	43.77	
Aristeus varidens, female	13.80	990	11.62	423
Deepwater fish mixture	12.00		10.10	
GONOSTOMATIDAE	11.20	388	9.43	
Aristeus varidens, male	4.60	688	3.87	422
MACROURIDAE	4.00	84	3.37	
OPHICHTHIDAE	3.60	80	3.03	
OPHIDIIDAE	3.20	68	2.69	
Trichiurus lepturus	2.80	28	2.36	
Stereomastix sculpta	2.40	180	2.02	
Merluccius polli	2.00	4	1.68	
Talismania oregonia	2.00	44	1.68	
Etmopterus pusillus	1.60	20	1.35	
MELANOSTOMIATIDAE	1.20	24	1.01	
Halosaurus ovenii	1.20	16	1.01	
Brosmiculus imberbis *	0.80	12	0.67	
Chlorophthalmus atlanticus	0.40	8	0.34	
Total	118.80		100.00	

PROJECT STATION: 693
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1155 Long W 1327
 start stop duration
 TIME : 14:09:00 14:39:00 30 (min) Purpose code: 3
 LOG : 6551.00 6552.00 1.50 Area code : 1
 FDEPTH: 323 326 GearCond.code:
 BDEPTH: 323 326 Validity code:
 Towing dir: 340 Wire out:1000 m Speed:300 kn*10

Sorted: 63 Kg Total catch: 380.70 CATCH/HOUR: 761.40

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Chlorophthalmus atlanticus	290.00	5800	38.09	
Merluccius polli, female	180.00	1000	23.64	429
Centrophorus granulosus	135.00	30	17.73	
Merluccius polli, male	54.00	260	7.09	428
Shrimps, small, non comm.	48.00	30600	6.30	
Laemonema laureysi	11.60	240	1.52	
Todaropsis eblanæ	8.00	90	1.05	
Pterothrissus belloci	8.00	30	1.05	
Etmopterus spinax	6.00	340	0.79	
Hymenoccephalus italicus	5.00	860	0.66	
Epigonus telescopus	3.60	60	0.47	
Illex coindetii	3.00	40	0.39	
Dibranchius atlanticus	2.40	150	0.32	
Malacocephalus occidentalis	2.30	30	0.30	
Synagrops microlepis	1.30	140	0.17	
MURAENESOCIDAE	1.10	20	0.14	
Parapenaeus longirostris	0.90	110	0.12	
Brosmiculus imberbis *	0.90	70	0.12	
Neomerinthe folgori	0.20	20	0.03	
Solenocera africana	0.10	20	0.01	
HALOSAURIDAE	0.00	10		
Total	761.40		99.99	

PROJECT STATION: 690
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1154 Long W 1318
 start stop duration
 TIME : 08:14:00 09:14:00 60 (min) Purpose code: 3
 LOG : 6527.00 6529.00 2.80 Area code : 1
 FDEPTH: 733 742 GearCond.code:
 BDEPTH: 733 742 Validity code:
 Towing dir: 170 Wire out:1800 m Speed:280 kn*10

Sorted: 35 Kg Total catch: 138.60 CATCH/HOUR: 138.60

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
MACROURIDAE	36.80	552	26.55	
Aristeus varidens, female	24.96	328	18.01	425
Deepwater fish mixture	18.40		13.28	
Stereomastix sculpta	10.80	810	7.79	
Dibranchius atlanticus	10.40	408	7.50	
Merluccius polli	10.00	12	7.22	
MELANOSTOMIATIDAE	6.40	108	4.62	
OPHICHTHIDAE	5.00	72	3.61	
Etmopterus sp.	2.80	20	2.02	
Talismania oregonia	2.80	48	2.02	
GONOSTOMATIDAE	2.40	200	1.73	
Hoplostethus cadenati	2.00	12	1.44	
Laemonema sp.	1.60	16	1.15	
Trichiurus lepturus	1.20	4	0.87	
Halosaurus sp.	1.20	40	0.87	
Aristeus varidens, male	1.04	40	0.75	424
Ariomma sp.	0.80	8	0.58	
Total	138.60		100.01	

PROJECT STATION: 694
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1155 Long W 1330
 start stop duration
 TIME : 15:42:00 16:12:00 30 (min) Purpose code: 3
 LOG : 6559.00 6560.00 1.50 Area code : 1
 FDEPTH: 246 248 GearCond.code:
 BDEPTH: 246 248 Validity code:
 Towing dir: 350 Wire out: 850 m Speed:300 kn*10

Sorted: 62 Kg Total catch: 382.52 CATCH/HOUR: 765.04

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Merluccius polli, female	271.20	864	35.45	431
Chlorophthalmus atlanticus	201.60	4032	26.35	
Diaphus dumerilii	80.40	50920	10.51	
Synagrops microlepis	51.60	3418	6.74	
Merluccius polli, male	39.60	288	5.18	430
Dentex macrophthalms	27.60	72	3.61	
Pterothrissus belloci	25.20	120	3.29	
Centrophorus granulosus	16.00	2	2.09	
Parapenaeus longirostris, fem.	13.20	1320	1.73	433
Trachurus trerax	10.80	36	1.41	
Parapenaeus longirostris, male	8.40	780	1.10	432
Trichiurus lepturus	7.20	24	0.94	
Todaropsis eblanæ	7.20	96	0.94	
Laemonema laureysi	3.60	48	0.47	
Illex coindetii	0.48	36	0.06	
Sepia sp.	0.36	12	0.05	
Parasudis sp.	0.36	24	0.05	
Zenion sp.	0.12	12	0.02	
Monoleone microstoma	0.12	12	0.02	
Total	765.04		100.01	

PROJECT STATION: 691
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1154 Long W 1321
 start stop duration
 TIME : 11:00:00 11:30:00 30 (min) Purpose code: 3
 LOG : 6537.00 6538.00 1.50 Area code : 1
 FDEPTH: 564 574 GearCond.code:
 BDEPTH: 564 574 Validity code:
 Towing dir: 165 Wire out:1450 m Speed:290 kn*10

Sorted: 32 Kg Total catch: 126.20 CATCH/HOUR: 252.40

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Hoplostethus cadenati	175.20	7008	69.41	
OPHICHTHIDAE	32.80	408	13.00	
Merluccius polli	12.80	32	5.07	
MELANOSTOMIATIDAE	8.80	152	3.49	
Trichiurus lepturus	4.80	16	1.90	
Dibranchius atlanticus	4.80	232	1.90	
C E P H A L O P O D A	4.00	64	1.58	
GONOSTOMATIDAE	2.40	232	0.95	
Deepwater fish mixture	1.60		0.63	
Aristeus varidens	1.12	216	0.44	
POLYCHAELIDAE	0.96	152	0.38	
Shrimps, small, non comm.	0.88	520	0.35	
ALEPOCEPHALIDAE	0.64	72	0.25	
MURAENESOCIDAE	0.56	8	0.22	
Etmopterus spinax	0.48	24	0.19	
Halosaurus sp.	0.40	16	0.16	
Chlorophthalmus atlanticus	0.16	8	0.06	
NEMICHTHYIDAE	0.00	8		
Total	252.40		99.98	

PROJECT STATION: 695
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1133 Long W 1321
 start stop duration
 TIME : 20:32:00 21:02:00 30 (min) Purpose code: 3
 LOG : 6601.00 6602.00 1.40 Area code : 1
 FDEPTH: 331 329 GearCond.code:
 BDEPTH: 331 329 Validity code:
 Towing dir: 5 Wire out:1000 m Speed:260 kn*10

Sorted: 33 Kg Total catch: 328.10 CATCH/HOUR: 656.20

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Merluccius polli, female	480.00	1020	73.15	435
Etmopterus pusillus	56.00	1500	8.53	
Centrophorus sp.	30.00	20	4.57	
Chlorophthalmus atlanticus	24.00	600	3.66	
Laemonema sp.	20.00	380	3.05	
Merluccius polli, male	20.00	60	3.05	434
Malacocephalus occidentalis	10.00	30	1.52	
Benthodesmus tenuis	6.00	160	0.91	
Todaropsis eblanæ	6.00	40	0.91	
Coelorrinchus sp.	2.00	20	0.30	
Scorpaena sp.	1.00	20	0.15	
Dibranchius atlanticus	0.20	20	0.03	
Total	656.20		99.83	

PROJECT STATION: 692
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1155 Long W 1329
 start stop duration
 TIME : 12:36:00 13:06:00 30 (min) Purpose code: 3
 LOG : 6543.00 6545.00 1.50 Area code : 1
 FDEPTH: 422 423 GearCond.code:
 BDEPTH: 422 423 Validity code:
 Towing dir: 110 Wire out:1200 m Speed:300 kn*10

Sorted: 69 Kg Total catch: 246.67 CATCH/HOUR: 493.34

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Merluccius polli, female	150.60	366	30.53	427
CHIMAERIDAE	89.40	48	18.12	
Centrophorus granulosus	80.00	20	16.22	
Laemonema laureysi	38.40	768	7.78	
Shrimps, small, non comm.	29.40		5.96	
Etmopterus spinax	28.80	972	5.84	
Hoplostethus cadenati	18.60	672	3.77	
Merluccius polli, male	15.60	60	3.16	426
Lophius vaillanti	10.20	6	2.07	
Synagrops microlepis	4.80	192	0.85	
Hymenoccephalus italicus	4.20	402	0.85	
Trichiurus lepturus	3.60	24	0.73	
Dibranchius atlanticus	3.00	156	0.61	
Malacocephalus occidentalis	2.70	18	0.55	
Brosmiculus imberbis *	2.40	114	0.49	
Galeus polli	1.98	36	0.40	
HALOSAURIDAE	1.80	114	0.36	
Small squids unident.	1.62	36	0.33	
Aristeus varidens	1.50	240	0.30	
CONGRIDAE	1.50	6	0.30	
MURAENESOCIDAE	1.08	24	0.22	
Epigonus telescopus	0.96	18	0.19	
Chlorophthalmus atlanticus	0.54	24	0.11	
Deepwater fish mixture	0.18	12	0.04	
Nezumia aequalis	0.18	18	0.04	
GONOSTOMATIDAE	0.18	12	0.04	
POLYCHAELIDAE	0.12	6	0.02	
Total	493.34		100.00	

PROJECT STATION: 696
 DATE: 28/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1133 Long W 1322
 start stop duration
 TIME : 22:02:00 22:32:00 30 (min) Purpose code: 3
 LOG : 6608.00 6610.00 1.40 Area code : 1
 FDEPTH: 238 230 GearCond.code:
 BDEPTH: 238 230 Validity code:
 Towing dir: 30 Wire out: 850 m Speed:280 kn*10

Sorted: 50 Kg Total catch: 338.15 CATCH/HOUR: 676.30

SPECIES	weight	CATCH/HOUR numbers	% OF TOT. C	SAMP.NO.
Zenopsis conchifer	86.00	20	26.62	
Epinephelus gorensis	176.00	8	26.02	
Pterothrissus belloci	120.00	636	17.74	
Brotula barbata	40.00	30	5.91	
Merluccius polli	33.00	110	4.88	
Gephyroberyx darwini	32.00	70	4.73	
Dentex macrophthalms	26.00	90	3.84	
Parapenaeus longirostris, fem.	21.60	3168	3.19	437
Parapenaeus longirostris, male	14.40	2664	2.13	436
Scorpaena sp.	12.00	90	1.77	
Torpedo torpedo	9.00	10	1.33	
Epigonus telescopus	6.00	50	0.89	
Torpedo sp.	4.00	10	0.59	
Synagrops microlepis	2.00	40	0.30	
Plesionika martia	0.10	160	0.01	
Peristedion cataphractum	0.10	20	0.01	
Monoleone microstoma	0.10	40	0.01	
Solenocera africana	0.00	10		
Total	676.30		99.97	

PROJECT STATION: 697
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1117 Long W 1333
 start stop duration
 TIME :01:39:00 02:09:00 30 (min) Purpose code: 3
 LOG :6632.00 6633.00 1.30 Area code : 1
 FDEPTH: 253 253 GearCond.code:
 BDEPTH: 253 253 Validity code:
 Towing dir: 15 Wire out: 850 m Speed:260 kn*10

Sorted: 55 Kg Total catch: 110.72 CATCH/HOUR: 221.44

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Merluccius polli, female	79.20	216	35.77
Brotula barbata	49.60	12	22.40
Merluccius polli, male	24.40	100	11.02
Pterothrissus belloci	18.80	84	8.49
Scorpaena stephanica	13.00	116	5.87
Parapenaeus longirostris, fem.	8.80	880	3.97
Coelorinchus coelorrhincus	7.20	300	3.25
Diaphus dumerili	3.40	2040	1.54
OPHIDIIDAE	3.20	112	1.45
Parapenaeus longirostris, male	2.80	332	1.26
Laemonema laureysi	2.80	28	1.26
Dentex angolensis	2.00	4	0.90
Bembrops heterurus	2.00	28	0.90
Sardinella aurita	1.80	4	0.81
Gephyroberyx darwini	0.68	4	0.31
Todaropsis eblanae	0.48	8	0.22
Trichiurus lepturus	0.24	4	0.11
Shrimps, small, non comm.	0.24	156	0.11
Chlorophthalmus atlanticus	0.20	8	0.09
Synagrops microlepis	0.16	8	0.07
Peristodion cataphractum	0.08	12	0.04
Brosmiculus imberbis *	0.08	4	0.04
Malacocephalus occidentalis	0.08	4	0.04
Homonene microstoma	0.08	8	0.04
Epigonus telescopus	0.08	8	0.04
Sepia sp.	0.04	4	0.02
Total	221.44	100.02	

PROJECT STATION: 700
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1115 Long W 1324
 start stop duration
 TIME :07:10:00 08:10:00 60 (min) Purpose code: 3
 LOG :6658.00 6660.00 2.70 Area code : 1
 FDEPTH: 740 710 GearCond.code:
 BDEPTH: 740 710 Validity code:
 Towing dir: 195 Wire out:1800 m Speed:270 kn*10

Sorted: 32 Kg Total catch: 162.00 CATCH/HOUR: 162.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Hoplostethus cadenati	31.50	819	19.44
MACROURIDAE	30.50	381	18.83
GONOSTOMATIDAE	26.50	3445	16.36
Nematocarcinus africanus	16.00		9.88
OPHICHTHIDAE	15.50	361	9.57
Stereomastis sculpta	9.00	2520	5.56
OPHIDIIDAE	8.00	160	4.94
Merluccius polli	7.00	10	4.32
Ariomma sp.	4.00	55	2.47
Aristeus varidens, female	2.75	138	1.70
Aristeus varidens, male	2.75	302	1.70
Glyphus marsupialis	2.00	110	1.23
MELANOSTOMIATIDAE	2.00	80	1.23
Etmopterus pusillus	1.50	20	0.93
Halosaurus sp.	1.50	25	0.93
Talismania oregonia	1.50	35	0.93
Total	162.00	100.02	

PROJECT STATION: 701
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1044 Long W 1318
 start stop duration
 TIME :12:55:00 13:25:00 30 (min) Purpose code: 3
 LOG :6704.00 6706.00 1.60 Area code : 1
 FDEPTH: 225 223 GearCond.code:
 BDEPTH: 225 223 Validity code:
 Towing dir: 330 Wire out: 800 m Speed:310 kn*10

Sorted: 72 Kg Total catch: 2178.00 CATCH/HOUR: 4356.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Chlorophthalmus atlanticus	2598.00	71444	59.64
Synagrops microlepis	1596.00	98420	36.64
Zenopsis conchifer	90.00	300	2.07
Merluccius polli	48.00	600	1.10
Parapenaeus longirostris	18.00	2460	0.41
Todaropsis eblanae	6.00	120	0.14
Total	4356.00	100.00	

PROJECT STATION: 698
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1117 Long W 1330
 start stop duration
 TIME :03:09:00 03:39:00 30 (min) Purpose code: 3
 LOG :6639.00 6641.00 1.50 Area code : 1
 FDEPTH: 379 370 GearCond.code:
 BDEPTH: 379 370 Validity code:
 Towing dir: 5 Wire out:1100 m Speed:290 kn*10

Sorted: 47 Kg Total catch: 94.56 CATCH/HOUR: 189.12

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Merluccius polli, female	123.60	302	65.36
Laemonema laureysi	16.00	146	8.46
Merluccius polli, male	15.20	80	8.04
Chlorophthalmus atlanticus	14.00	336	7.40
Deepwater fish mixture	10.00		5.29
Small squids	2.00	24	1.06
MELANOSTOMIATIDAE	2.00	28	1.06
Hoplostethus cadenati	1.80	64	0.95
Etmopterus spinax	1.20	44	0.63
Todaropsis eblanae	1.00	16	0.53
Malacocephalus occidentalis	0.40	4	0.21
Epigonus telescopus	0.40	4	0.21
Trichiurus lepturus	0.36	8	0.19
Hymenocephalus italicus	0.28	48	0.15
Coelorinchus coelorrhincus	0.24	8	0.13
HALOSAURIDAE	0.24	8	0.13
Chounax pictus	0.20	16	0.11
CHIMAERIDAE	0.12	4	0.06
Dibranchus atlanticus	0.08	4	0.04
Total	189.12	100.01	

PROJECT STATION: 702
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1043 Long W 1314
 start stop duration
 TIME :14:20:00 14:50:00 30 (min) Purpose code: 3
 LOG :6711.00 6712.00 1.50 Area code : 1
 FDEPTH: 348 350 GearCond.code:
 BDEPTH: 348 350 Validity code:
 Towing dir: 330 Wire out:1050 m Speed:292 kn*10

Sorted: 65 Kg Total catch: 616.40 CATCH/HOUR: 1232.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Chlorophthalmus atlanticus	946.20	14508	76.75
Merluccius polli, female	138.70	722	11.25
Merluccius polli, male	53.20	360	4.32
Laemonema laureysi	16.16	418	1.31
Hymenocephalus italicus	16.16	1292	1.31
Malacocephalus occidentalis	13.30	114	1.08
Tillex coincedii	9.50	114	0.77
Parapenaeus longirostris, fem.	5.70	532	0.46
Nematocarcinus africanus	5.70	2138	0.46
Shrimps, small, non comm.	5.70	11400	0.46
Trichiurus lepturus	4.76	114	0.39
Isistius brasiliensis	4.18	18	0.34
Todaropsis eblanae	4.00	38	0.32
Parapenaeus longirostris, male	2.86	228	0.23
Diaphus dumerili	2.66	1596	0.22
Brosmiculus imberbis *	1.14	18	0.09
Solenocera africana	0.96	114	0.08
Etmopterus spinax	0.96	56	0.08
Aristeus varidens, male	0.58	18	0.05
Trachipterus trachipterus	0.50	2	0.04
Total	1232.92	100.01	

PROJECT STATION: 699
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1117 Long W 1325
 start stop duration
 TIME :05:12:00 06:12:00 60 (min) Purpose code: 3
 LOG :6652.00 6654.00 2.90 Area code : 1
 FDEPTH: 638 617 GearCond.code:
 BDEPTH: 638 617 Validity code:
 Towing dir: 20 Wire out:1650 m Speed:290 kn*10

Sorted: 28 Kg Total catch: 143.00 CATCH/HOUR: 143.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Hoplostethus cadenati	62.50	3125	43.71
GONOSTOMATIDAE	26.50	2782	18.53
Shrimps, small, non comm.	12.50		8.74
OPHIDIIDAE	9.00	45	6.29
Merluccius polli	6.50	10	4.55
MELANOSTOMIATIDAE	4.50	120	3.15
Aristeus varidens, female	3.75	216	2.62
Aristeus varidens, male	3.75	497	2.62
LOPHIIDAE	2.00	10	1.40
OPHICHTHIDAE	1.50	85	1.05
Laemonema laureysi	1.50	10	1.05
Brosmiculus imberbis *	1.50	45	1.05
Stereomastis sculpta	1.50	245	1.05
Ariomma sp.	1.50	10	1.05
Etmopterus pusillus	1.00	40	0.70
Nemichthys scolopacea	1.00	20	0.70
MACROURIDAE	1.00	55	0.70
Halosaurus sp.	0.50	5	0.35
Chlorophthalmus atlanticus	0.50	35	0.35
Xenodermichthys socialis	0.50	110	0.35
Diceratias pileatus	0.05	5	0.03
Total	143.05	100.04	

PROJECT STATION: 703
 DATE: 29/ 8/92 GEAR TYPE: BT No:1 POSITION: Lat N 1043 Long W 1312
 start stop duration
 TIME :15:45:00 16:15:00 30 (min) Purpose code: 3
 LOG :6717.00 6718.00 1.50 Area code : 1
 FDEPTH: 475 476 GearCond.code:
 BDEPTH: 475 476 Validity code:
 Towing dir: 345 Wire out:1300 m Speed:290 kn*10

Sorted: 51 Kg Total catch: 228.60 CATCH/HOUR: 457.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Nematocarcinus africanus	299.70	70430	65.55
Merluccius polli, female	114.30	180	25.00
OPHIDIIDAE	10.80	62	2.36
Brosmiculus imberbis *	9.00	108	1.97
Hoplostethus cadenati	8.10	360	1.77
GONOSTOMATIDAE	2.42	278	0.53
Aristeus varidens, male	2.26	224	0.49
Laemonema laureysi	1.88	108	0.41
Coelorinchus coelorrhincus	1.88	432	0.41
Trichiurus lepturus	1.34	26	0.29
Aristeus varidens, female	1.34	90	0.29
Malacocephalus occidentalis	1.08	8	0.24
Nezumia aequalis	0.80	18	0.17
Chlorophthalmus atlanticus	0.80	8	0.17
MELANOSTOMIATIDAE	0.54	8	0.12
ALEPOCEPHALIDAE	0.44	18	0.10
ANTENNARIIDAE	0.26	26	0.06
Plesionaeus edwardsianus	0.16	8	0.03
Total	457.10	99.96	

PROJECT STATION: 704
 DATE:29/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1043
 start stop duration Long W 1310
 TIME :17:16:00 17:46:00 30 (min) Purpose code: 3
 LOG :6723.00 6724.00 1.40 Area code : 1
 FDEPTH: 553 551 GearCond.code:
 BDEPTH: 553 551 Validity code:
 Towing dir: 340 Wire out:1500 m Speed:280 kn*10
 Sorted: 24 Kg Total catch: 178.80 CATCH/HOUR: 357.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Nematocarcinus africanus	294.00	98000	82.21	
Merluccius polli	15.40	28	4.31	
Aristeus varidens, female	14.00	746	3.91	456
Hoplostethus cadenati	12.60	490	3.52	
Aristeus varidens, male	11.20	1462	3.13	455
Brosmiculus imberbis *	2.80	70	0.78	
MACROURIDAE	2.80	126	0.78	
GONOSTOMATIDAE	2.80	308	0.78	
Sternomastis sculpta	1.40	98	0.39	
Xenodermichthys socialis	0.60	14	0.17	
Total	357.60		99.98	

PROJECT STATION: 705
 DATE:29/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1044
 start stop duration Long W 1309
 TIME :18:42:00 19:42:00 60 (min) Purpose code: 3
 LOG :6728.00 6731.00 2.80 Area code : 1
 FDEPTH: 670 656 GearCond.code:
 BDEPTH: 670 656 Validity code:
 Towing dir: 140 Wire out:1700 m Speed:270 kn*10
 Sorted: 32 Kg Total catch: 632.30 CATCH/HOUR: 632.30

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Hoplostethus cadenati	298.00	10633	45.86	
Nematocarcinus africanus	290.00	82650	45.86	
Aristeus varidens, female	29.10	1360	4.60	458
Aristeus varidens, male	6.00	793	0.95	457
OPHIDIIDAE	5.00	60	0.79	
MACROURIDAE	4.00	60	0.63	
Sternomastis sculpta	4.00	100	0.63	
MELANOSTOMIATIDAE	2.00	20	0.32	
Xenodermichthys socialis	2.00	60	0.32	
Dibranchius atlanticus	0.20	20	0.03	
OPHICHTHIDAE	0.00	20		
GONOSTOMATIDAE	0.00	20		
Total	632.30		99.99	

PROJECT STATION: 706
 DATE:29/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1023
 start stop duration Long W 1300
 TIME :22:45:00 23:15:00 30 (min) Purpose code: 3
 LOG :6758.00 6760.00 1.70 Area code : 1
 FDEPTH: 381 371 GearCond.code:
 BDEPTH: 381 371 Validity code:
 Towing dir: 150 Wire out:1100 m Speed:320 kn*10
 Sorted: 29 Kg Total catch: 102.20 CATCH/HOUR: 204.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	80.50	210	39.38	460
Laemonema laureysi	24.50	224	11.99	
Deepwater fish mixture	24.50		11.99	
Merluccius polli, male	24.50	104	11.99	459
Dibranchius atlanticus	11.90	770	5.82	
Benthodesmus tenuis	7.00	202	3.42	
Chaunax pictus	5.60	56	2.74	
Aristeus varidens, female	4.90	210	2.40	462
Malacocephalus occidentalis	4.90	328	2.40	
Etmopterus pusillus	4.20	84	2.05	
Pterothrissus belloci	3.50	14	1.71	
Todaropsis eblanae	2.10	6	1.03	
Brosmiculus imberbis *	2.10	42	1.03	
Aristeus varidens, male	1.40	230	0.68	461
OPHICHTHIDAE	1.40	20	0.68	
Chlorophthalmus atlanticus	1.40	14	0.68	
Total	204.40		99.99	

PROJECT STATION: 707
 DATE:30/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1024
 start stop duration Long W 1259
 TIME :00:00:00 00:30:00 30 (min) Purpose code: 3
 LOG :6763.00 6764.00 1.50 Area code : 1
 FDEPTH: 424 423 GearCond.code:
 BDEPTH: 424 423 Validity code:
 Towing dir: 330 Wire out:1200 m Speed:293 kn*10
 Sorted: 52 Kg Total catch: 129.65 CATCH/HOUR: 259.30

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, male	148.50	344	57.27	465
Merluccius polli, female	37.00	94	14.27	466
Dibranchius atlanticus	29.00	1702	11.18	
Nematocarcinus africanus	7.50	2726	2.89	
Etmopterus spinax	6.50	134	2.51	
Chaunax pictus	4.74	74	1.83	
Aristeus varidens, female	4.24	160	1.64	464
Aristeus varidens, male	3.74	20	1.44	
Malacocephalus occidentalis	3.74	20	1.44	
Diaphus dumerilii	3.50	1944	1.35	
Trichiurus lepturus	3.24	84	1.25	
GONOSTOMATIDAE	3.00	260	1.16	
Aristeus varidens, male	2.24	204	0.86	463
Synagrops microlepis	1.74	84	0.67	
Hymenocephalus italicus	1.50	84	0.58	
C E P H A L O P O D A	1.00	10	0.39	
HALOSAURIDAE	0.74	14	0.29	
Illex coindetii	0.60	4	0.23	
Geryon maritae	0.24	4	0.09	
MELANOSTOMIATIDAE	0.20	4	0.08	
Total	259.22		99.98	

PROJECT STATION: 708
 DATE:30/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1023
 start stop duration Long W 1255
 TIME :01:27:00 01:57:00 30 (min) Purpose code: 3
 LOG :6769.00 6770.00 1.50 Area code : 1
 FDEPTH: 525 530 GearCond.code:
 BDEPTH: 525 530 Validity code:
 Towing dir: 335 Wire out:1450 m Speed:290 kn*10
 Sorted: 34 Kg Total catch: 113.34 CATCH/HOUR: 226.68

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Merluccius polli, female	60.00	104	26.47	467
Nematocarcinus africanus	47.20	17306	20.82	
Hoplostethus cadenati	40.80	320	18.00	
MELANOSTOMIATIDAE	20.00	352	8.82	
GONOSTOMATIDAE	16.00	1454	7.06	
Centrophorus granulosus	15.80	4	6.97	
Dibranchius atlanticus	8.00	544	3.53	
Trichiurus lepturus	4.00	96	1.76	
Aristeus varidens, female	2.60	132	1.15	469
POLYCHAEALIDAE	2.00	248	0.88	
Trachipterus trachipterus	1.68	8	0.74	
Laemonema laureysi	1.60	24	0.71	
Etmopterus spinax	1.28	24	0.56	
Diaphus dumerilii	1.20	624	0.53	
OPHIDIIDAE	0.96	144	0.42	
ALEPOCEPHALIDAE	0.80	96	0.35	
C E P H A L O P O D A	0.72	24	0.32	
Brosmiculus imberbis *	0.72	24	0.32	
Aristeus varidens, male	0.60	100	0.26	468
Coelorrhinus coelorrhinus	0.32	24	0.14	
HALOSAURIDAE	0.24	8	0.11	
Hymenocephalus italicus	0.16	16	0.07	
Total	226.68		99.99	

PROJECT STATION: 709
 DATE:30/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1012
 start stop duration Long W 1252
 TIME :03:31:00 04:01:00 30 (min) Purpose code: 3
 LOG :6780.00 6782.00 1.50 Area code : 1
 FDEPTH: 572 584 GearCond.code:
 BDEPTH: 572 584 Validity code:
 Towing dir: 350 Wire out:1500 m Speed:295 kn*10
 Sorted: 52 Kg Total catch: 154.80 CATCH/HOUR: 309.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Nematocarcinus africanus	181.20	46206	58.53	
Merluccius polli, female	42.60	66	13.76	
Hoplostethus cadenati	28.80	168	9.30	
MELANOSTOMIATIDAE	17.40	252	5.62	
GONOSTOMATIDAE	9.00	944	2.91	
Dibranchius atlanticus	5.64	36	1.82	
Deepwater fish mixture	4.80		1.55	
Aristeus varidens, female	3.66	126	1.18	471
Trichiurus lepturus	2.40	42	0.78	
C E P H A L O P O D A	2.40	12	0.78	
Merluccius polli, male	2.40	12	0.78	
ALEPOCEPHALIDAE	1.44	126	0.47	
Etmopterus spinax	1.32	18	0.43	
Brosmiculus imberbis *	1.32	42	0.43	
Deania calcea	0.90	6	3.29	
OPHIDIIDAE	0.90	42	0.29	
Malacocephalus occidentalis	0.90	6	0.28	
Chlorophthalmus atlanticus	0.72	18	0.23	
Aristeus varidens, male	0.48	66	0.16	470
POLYCHAEALIDAE	0.48	90	0.16	
Synagrops microlepis	0.36	24	0.12	
Diaphus dumerilii	0.30	180	0.10	
CARISTIIDAE	0.18	6	0.06	
Total	309.60		100.04	

PROJECT STATION: 710
 DATE:30/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1011
 start stop duration Long W 1253
 TIME :04:58:00 05:28:00 30 (min) Purpose code: 3
 LOG :6786.00 6787.00 1.50 Area code : 1
 FDEPTH: 471 475 GearCond.code:
 BDEPTH: 471 475 Validity code:
 Towing dir: 110 Wire out:1300 m Speed:298 kn*10
 Sorted: 27 Kg Total catch: 268.00 CATCH/HOUR: 536.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Nematocarcinus africanus	340.00	86132	63.43	
Merluccius polli	92.00	120	17.16	
Hoplostethus cadenati	66.00	240	12.31	
OPHIDIIDAE	10.00	160	1.87	
MELANOSTOMIATIDAE	6.00	60	1.12	
Malacocephalus sp.	4.00	20	0.75	
Hemiramphus balac	4.00	20	0.75	
GONOSTOMATIDAE	4.00	240	0.75	
Benthodesmus tenuis	2.00	20	0.37	
Aristeus varidens	2.00	80	0.37	
Brosmiculus imberbis *	2.00	20	0.37	
Chaunax pictus	2.00	20	0.37	
Chlorophthalmus atlanticus	2.00	20	0.37	
Total	536.00		99.99	

PROJECT STATION: 711
 DATE:30/ 8/92 GEAR TYPE: BT No:1 POSITION:Lat N 1011
 start stop duration Long W 1255
 TIME :06:34:00 07:04:00 30 (min) Purpose code: 3
 LOG :6794.00 6795.00 1.50 Area code : 1
 FDEPTH: 329 338 GearCond.code:
 BDEPTH: 329 338 Validity code:
 Towing dir: 343 Wire out:1000 m Speed:310 kn*10
 Sorted: 31 Kg Total catch: 209.50 CATCH/HOUR: 419.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Centrophorus sp.	171.00	38	40.81	
Nematocarcinus africanus	106.40	27664	25.39	
Merluccius polli, female	56.00	128	13.37	473
Merluccius polli, male	24.00	112	5.73	472
Pterothrissus belloci	18.40	96	4.39	
Synagrops microlepis	8.00	440	1.91	
Laemonema laureysi	7.20	128	1.72	
Chlorophthalmus atlanticus	5.60	120	1.34	
Brosmiculus imberbis *	4.00	272	0.95	
MACROURIDAE	3.20	24	0.76	
Todaropsis eblanae	2.40	24	0.57	
Etmopterus pusillus	2.40	72	0.57	
OPHICHTHIDAE	2.40	16	0.57	
MELANOSTOMIATIDAE	2.40	16	0.57	
Aristeus varidens	1.60	96	0.38	
Malacocephalus sp.	1.60	64	0.38	
Chaunax pictus	1.60	16	0.38	
Benthodesmus tenuis	0.80	8	0.19	
Total	419.00		99.98	

PROJECT STATION: 712
 DATE: 3/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 724 Long W 1225
 start stop duration
 TIME :11:49:00 12:19:00 30 (min) Purpose code: 1
 LOG :7022.00 7024.00 2.20 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 87 84 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:440 kn*10

Sorted: 10 Kg Total catch: 10.00 CATCH/HOUR: 20.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sardinella maderensis	12.00	44	60.00	474
Trachinotus ovatus	4.40	10	22.00	475
Echeneis naucrates	3.60	6	18.00	
Total	20.00		100.00	

PROJECT STATION: 718
 DATE: 5/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 757 Long W 1222
 start stop duration
 TIME :03:12:00 03:42:00 30 (min) Purpose code: 1
 LOG :7341.00 7343.00 2.10 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 1342 1337 Validity code:
 Towing dir: 170 Wire out: 100 m Speed:420 kn*10

Sorted: 45 Kg Total catch: 45.40 CATCH/HOUR: 90.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Masturus lanceolatus	50.00	2	55.07	
MYCTOPHIDAE	36.00	32040	39.65	
Brama brama	4.00	24	4.41	
Epigonus sp.	0.60	18	0.66	
Selene dorsalis	0.20	10	0.22	
Total	90.80		100.01	

PROJECT STATION: 713
 DATE: 3/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 724 Long W 1220
 start stop duration
 TIME :17:18:00 17:48:00 30 (min) Purpose code: 1
 LOG :7065.00 7067.00 1.90 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 257 294 Validity code:
 Towing dir: 90 Wire out: 100 m Speed:380 kn*10

Sorted: 1 Kg Total catch: 1.45 CATCH/HOUR: 2.90

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachinotus ovatus	2.40	6	82.76	
Sardinella maderensis	0.50	2	17.24	
Total	2.90		100.00	

PROJECT STATION: 719
 DATE: 5/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 814 Long W 1309
 start stop duration
 TIME :12:02:00 12:32:00 30 (min) Purpose code: 1
 LOG :7420.00 7422.00 2.00 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 54 50 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:400 kn*10

Sorted: 63 Kg Total catch: 130.30 CATCH/HOUR: 260.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachinotus ovatus	137.20	368	52.65	484
Stromateus fiatola	97.60	96	37.45	
Sarda sarda	13.60	12	5.22	
Sardinella maderensis	6.40	20	2.46	485
Sepia officinalis hierredda	2.80	80	1.07	
Auxis thazard	2.40	4	0.92	
Sardinella aurita	0.60	2	0.23	
Total	260.60		100.00	

PROJECT STATION: 714
 DATE: 4/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 752 Long W 1300
 start stop duration
 TIME :14:42:00 15:42:00 60 (min) Purpose code: 1
 LOG :7252.00 7256.00 4.20 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 47 55 Validity code:
 Towing dir: 180 Wire out: 100 m Speed:420 kn*10

Sorted: 30 Kg Total catch: 219.90 CATCH/HOUR: 219.90

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sardinella maderensis	109.20	364	49.66	478
Selene dorsalis	77.70	455	35.33	476
Sardinella aurita	18.90	59	8.59	477
Euthynnus alletteratus	9.30	5	4.23	
Sarda sarda	4.10	3	1.86	
Sepia officinalis hierredda	0.70	35	0.32	
Total	219.90		99.99	

PROJECT STATION: 720
 DATE: 5/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 824 Long W 1316
 start stop duration
 TIME :20:42:00 21:12:00 30 (min) Purpose code: 1
 LOG :7497.00 7499.00 2.10 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 33 42 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:420 kn*10

Sorted: 99 Kg Total catch: 1890.70 CATCH/HOUR: 3781.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	2408.40	13644	63.69	
Trachurus trecae	792.00	6120	20.94	486
Euthynnus alletteratus	226.80	60	6.00	
Atractoscion aeguidens	140.40	32	3.71	
Sardinella maderensis	136.80	576	3.62	487
Pagellus bellottii	72.00	180	1.90	
Sarda sarda	5.00	2	0.13	
Total	3781.40		99.99	

PROJECT STATION: 715
 DATE: 4/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 757 Long W 1307
 start stop duration
 TIME :19:38:00 20:08:00 30 (min) Purpose code: 1
 LOG :7291.00 7292.00 1.80 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 22 23 Validity code:
 Towing dir: 328 Wire out: 100 m Speed:340 kn*10

Sorted: 90 Kg Total catch: 90.40 CATCH/HOUR: 180.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	131.40	1970	72.68	
Sardinella maderensis	43.00	366	23.78	479
Arius parkii	2.00	2	1.11	
Sepia officinalis hierredda	1.40	24	0.77	
Pomadasys peroteti	1.40	2	0.77	
Trachurus trecae	1.00	28	0.55	480
Ocnopus sp.	0.40	2	0.22	
Pteroscion peli	0.20	2	0.11	
Total	180.80		99.99	

PROJECT STATION: 721
 DATE: 6/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 834 Long W 1316
 start stop duration
 TIME :00:27:00 00:57:00 30 (min) Purpose code: 1
 LOG :7529.00 7532.00 2.10 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 44 44 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:420 kn*10

Sorted: 56 Kg Total catch: 217.90 CATCH/HOUR: 435.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichiurus lepturus	148.80	612	34.14	489
Trachurus trecae	100.40	378	23.04	488
Sarda sarda	98.40	78	22.58	
Euthynnus alletteratus	32.40	12	7.43	
Trachinotus ovatus	21.60	42	4.96	
Sepia officinalis hierredda	18.00	144	4.13	
Auxis thazard	9.00	18	2.07	
Brachydeuterus auritus	7.20	30	1.65	
Total	435.80		100.00	

PROJECT STATION: 716
 DATE: 4/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 753 Long W 1248
 start stop duration
 TIME :22:25:00 22:55:00 30 (min) Purpose code: 1
 LOG :7310.00 7312.00 2.40 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 103 108 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:430 kn*10

Sorted: 93 Kg Total catch: 1304.80 CATCH/HOUR: 2609.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	2282.00	4822	87.45	482
Scomber japonicus	126.00	224	4.83	
Sardinella maderensis	78.40	252	3.00	481
Trichiurus lepturus	75.60	196	2.90	
Euthynnus alletteratus	39.20	28	1.50	
Sepia officinalis hierredda	5.60	112	0.21	
Illex coindetii	2.80	28	0.11	
Total	2609.60		100.00	

PROJECT STATION: 722
 DATE: 6/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 834 Long W 1302
 start stop duration
 TIME :02:52:00 03:22:00 30 (min) Purpose code: 1
 LOG :7546.00 7549.00 2.10 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 124 123 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:420 kn*10

Sorted: 29 Kg Total catch: 263.20 CATCH/HOUR: 526.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trichiurus lepturus	514.80	828	97.80	
Trachurus trecae	11.60	14	2.20	
Total	526.40		100.00	

PROJECT STATION: 717
 DATE: 5/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 754 Long W 1232
 start stop duration
 TIME :00:45:00 01:15:00 30 (min) Purpose code: 1
 LOG :7324.00 7326.00 1.90 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 913 870 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:380 kn*10

Sorted: 37 Kg Total catch: 127.80 CATCH/HOUR: 255.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
MYCTOPHIDAE	140.00	94424	54.77	
Trichiurus lepturus	112.00	878	43.82	483
Trachurus trecae	3.60	8	1.41	
Total	255.60		100.00	

PROJECT STATION: 723
 DATE: 6/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 857 Long W 1256
 start stop duration
 TIME :13:20:00 13:50:00 30 (min) Purpose code: 1
 LOG :7647.00 7649.00 2.10 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 225 220 Validity code:
 Towing dir: 122 Wire out: 100 m Speed:420 kn*10

Sorted: 12 Kg Total catch: 11.90 CATCH/HOUR: 23.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sardinella maderensis	9.80	28	41.18	490
Trichiurus lepturus	8.00	16	33.61	
Trachinotus ovatus	2.60	8	10.92	
Echeneis naucrates	1.60	2	6.72	
Trachurus trecae	1.60	2	6.72	
Sepia officinalis hierredda	0.20	4	0.84	
Total	23.80		99.99	

PROJECT STATION: 724
 DATE: 6/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 859 Long W 1252
 start stop duration Purpose code: 1
 TIME :15:36:00 16:06:00 30 (min) Area code : 1
 LOG :7663.00 7665.00 2.30 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 248 225
 Towing dir: 90 Wire out: 100 m Speed:460 kn*10

Sorted: 70 Kg Total catch: 1670.40 CATCH/HOUR: 3340.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Selene dorsalis	2491.20	7392	74.57	491
Sardinella maderensis	504.00	1440	15.09	492
Stromateus fiatola	105.60	96	3.16	
Trachinotus ovatus	91.20	96	2.73	
Trachurus trecae	72.00	96	2.16	
Sarda sarda	62.40	48	1.87	
Chloroscombrus chrysurus	9.60	96	0.29	
Sepia officinalis hierredda	4.80	96	0.14	
Total	3340.80		100.01	

PROJECT STATION: 730
 DATE: 7/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 956 Long W 1306
 start stop duration Purpose code: 1
 TIME :14:03:00 14:33:00 30 (min) Area code : 1
 LOG :7846.00 7848.00 2.20 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 68 75
 Towing dir: 290 Wire out: 100 m Speed:440 kn*10

Sorted: 67 Kg Total catch: 403.80 CATCH/HOUR: 807.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chloroscombrus chrysurus	409.20	1872	50.67	
Trachinotus ovatus	252.00	576	31.20	505
Sardinella maderensis	108.00	336	13.37	506
Sarda sarda	38.40	24	4.75	
Total	807.60		99.99	

PROJECT STATION: 731
 DATE: 7/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1032 Long W 1312
 start stop duration Purpose code: 1
 TIME :16:43:00 17:13:00 30 (min) Area code : 1
 LOG :7867.00 7869.00 2.20 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 41 57
 Towing dir: 249 Wire out: 100 m Speed:420 kn*10

Sorted: 71 Kg Total catch: 352.50 CATCH/HOUR: 705.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Chloroscombrus chrysurus	486.00	3030	68.94	
Sardinella maderensis	102.00	390	14.47	508
Sarda sarda	44.00	30	6.24	
Trachinotus ovatus	36.00	40	5.11	507
Stromateus fiatola	17.00	20	2.41	
Selene dorsalis	12.00	60	1.70	
Sepia officinalis hierredda	6.00	90	0.85	
Fistularia petimba	2.00	10	0.28	
Total	705.00		100.00	

PROJECT STATION: 732
 DATE: 7/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1017 Long W 1318
 start stop duration Purpose code: 1
 TIME :21:30:00 22:00:00 30 (min) Area code : 1
 LOG :7909.00 7911.00 1.90 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 66 60
 Towing dir: 110 Wire out: 100 m Speed:400 kn*10

Sorted: 94 Kg Total catch: 4976.70 CATCH/HOUR: 9953.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Brachydeuterus auritus	7865.20	51728	79.02	
Trachurus trecae	1558.20	7844	15.65	509
Sardinella maderensis	233.20	848	2.34	511
Sardinella aurita	190.80	424	1.92	510
Trichurus lepturus	42.40	106	0.43	
Sepia officinalis hierredda	31.80	424	0.32	
Trachyrhinus scabrus	31.80	212	0.32	
Total	9953.40		100.00	

PROJECT STATION: 733
 DATE: 8/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1037 Long W 1324
 start stop duration Purpose code: 1
 TIME :04:34:00 04:49:00 15 (min) Area code : 1
 LOG :7970.00 7971.00 1.10 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 98 98
 Towing dir: 290 Wire out: 100 m Speed:420 kn*10

Sorted: 58 Kg Total catch: 57.90 CATCH/HOUR: 231.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	66.40	1208	28.67	513
Trichurus lepturus	49.20	100	21.24	
Trachinotus ovatus	48.40	100	20.90	512
Thorogobius angolensis	32.40	1552	13.99	
Sarda sarda	31.20	20	13.47	
Illex coindetii	3.60	208	1.55	
Sepia officinalis hierredda	0.40	4	0.17	
Total	231.60		99.99	

PROJECT STATION: 734
 DATE: 8/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1108 Long W 1333
 start stop duration Purpose code: 1
 TIME :14:32:00 15:02:00 30 (min) Area code : 1
 LOG :8065.00 8068.00 2.20 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 212 206
 Towing dir: 90 Wire out: 100 m Speed:420 kn*10

Sorted: Kg Total catch: CATCH/HOUR:

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
N O C A T C H	0.00			
Total				

PROJECT STATION: 735
 DATE: 8/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1129 Long W 1335
 start stop duration Purpose code: 1
 TIME :19:30:00 19:45:00 15 (min) Area code : 1
 LOG :8109.00 8110.00 1.00 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 47 63
 Towing dir: 260 Wire out: 100 m Speed:420 kn*10

Sorted: 73 Kg Total catch: 72.70 CATCH/HOUR: 290.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Synagrops microlepis	108.00	8280	37.14	
Trichurus lepturus	100.00	148	34.39	
Trachurus trecae	28.80	84	9.90	515
Trachurus trecae	24.00	2560	8.25	516
Sarda sarda	10.40	8	3.58	
Pagellus bellottii	8.40	16	2.89	
Sardinella maderensis	6.00	12	2.66	514
Trachinotus ovatus	5.20	8	1.79	
Total	290.80		100.00	

PROJECT STATION: 726
 DATE: 6/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 915 Long W 1248
 start stop duration Purpose code: 1
 TIME :22:15:00 22:45:00 30 (min) Area code : 1
 LOG :7716.00 7718.00 2.00 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 102 122
 Towing dir: 270 Wire out: 100 m Speed:430 kn*10

Sorted: 92 Kg Total catch: 276.60 CATCH/HOUR: 553.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	447.00	984	80.80	497
Trachipterus trachipterus	43.80	78	7.92	
Trichurus lepturus	25.80	54	4.66	
Sardinella maderensis	21.00	48	3.80	498
Sepia officinalis hierredda	10.20	222	1.84	
Scomber japonicus	5.40	6	0.98	
Total	553.20		100.00	

PROJECT STATION: 727
 DATE: 7/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 922 Long W 1252
 start stop duration Purpose code: 1
 TIME :01:02:00 01:32:00 30 (min) Area code : 1
 LOG :7736.00 7739.00 2.10 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 81 89
 Towing dir: 120 Wire out: 100 m Speed:420 kn*10

Sorted: 61 Kg Total catch: 484.00 CATCH/HOUR: 968.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	510.40	1040	52.73	500
Selene dorsalis	393.60	848	40.66	499
Trichurus lepturus	36.80	480	3.80	
Sardinella maderensis	27.20	64	2.81	
Total	968.00		100.00	

PROJECT STATION: 729
 DATE: 7/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 944 Long W 1301
 start stop duration Purpose code: 1
 TIME :09:43:00 10:13:00 30 (min) Area code : 1
 LOG :7810.00 7812.00 2.20 GearCond.code:
 FDEPTH: 5 5 Validity code:
 BDEPTH: 85 73
 Towing dir: 73 Wire out: 100 m Speed:400 kn*10

Sorted: 2 Kg Total catch: 2.10 CATCH/HOUR: 4.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sarda sarda	4.20	2	100.00	
Total	4.20		100.00	

PROJECT STATION: 736
 DATE: 9/ 9/92 GEAR TYPE: PT No:3 POSITION: Lat N 1210 Long W 1331
 start stop duration Purpose code: 1
 TIME :04:40:00 05:10:00 30 (min) Area code : 1
 LOG :8197.00 8199.00 2.00 GearCond.code: 1
 FDEPTH: 5 5 Validity code:
 BDEPTH: 83 80
 Towing dir: 360 Wire out: 100 m Speed:400 kn*10
 Sorted: 67 Kg Total catch: 201.40 CATCH/HOUR: 402.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Sardinella maderensis	332.40 708	82.52	517
Trachurus trecae	39.00 102	9.68	518
Sarda sarda	21.00 12	5.21	
Sardinella aurita	8.40 12	2.09	
Sepia officinalis hierredda	1.80 30	0.45	
Saurida brasiliensis	0.06 6	0.01	
Illex coindetii	0.06 6	0.01	
Total	402.72	99.97	

PROJECT STATION: 737
 DATE: 9/ 9/92 GEAR TYPE: PT No:3 POSITION: Lat N 1301 Long W 1250
 start stop duration Purpose code: 1
 TIME :20:54:00 21:14:00 20 (min) Area code : 1
 LOG :8332.00 8333.00 1.50 GearCond.code: 1
 FDEPTH: 5 5 Validity code:
 BDEPTH: 93 97
 Towing dir: 242 Wire out: 100 m Speed:440 kn*10
 Sorted: 4 Kg Total catch: 3.50 CATCH/HOUR: 10.50

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	8.10 48	77.14	519
Trichiurus lepturus	2.40 3	22.86	
Synagrops microlepis	0.00 21		
Total	10.50	100.00	

PROJECT STATION: 738
 DATE: 10/ 9/92 GEAR TYPE: PT No:3 POSITION: Lat N 1312 Long W 1236
 start stop duration Purpose code: 1
 TIME :01:02:00 01:32:00 30 (min) Area code : 1
 LOG :8367.00 8369.00 2.30 GearCond.code: 1
 FDEPTH: 5 5 Validity code:
 BDEPTH: 667 834
 Towing dir: 270 Wire out: 100 m Speed:440 kn*10
 Sorted: 31 Kg Total catch: 30.70 CATCH/HOUR: 61.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
MYCTOPHIDAE	41.20 25778	67.10	
S H R I M P S	11.80 21418	19.22	
Gempylus serpens	8.40 34	13.68	
Total	61.40	100.00	

PROJECT STATION: 739
 DATE: 10/ 9/92 GEAR TYPE: PT No:3 POSITION: Lat N 1332 Long W 1224
 start stop duration Purpose code: 1
 TIME :05:44:00 06:14:00 30 (min) Area code : 1
 LOG :8407.00 8409.00 2.50 GearCond.code: 1
 FDEPTH: 5 5 Validity code:
 BDEPTH: 1627 1800
 Towing dir: 250 Wire out: 100 m Speed:480 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
N O C A T C H	0.00		
Total			

PROJECT STATION: 740
 DATE: 10/ 9/92 GEAR TYPE: BT No:1 POSITION: Lat N 1354 Long W 1219
 start stop duration Purpose code: 3
 TIME :11:20:00 11:45:00 25 (min) Area code : 1
 LOG :8456.00 8457.00 1.30 GearCond.code: 1
 FDEPTH: 135 202 Validity code:
 BDEPTH: 135 202
 Towing dir: 70 Wire out: 600 m Speed:300 kn*10
 Sorted: 21 Kg Total catch: 21.10 CATCH/HOUR: 50.64

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Sparus pagrus pagrus	11.76 14	23.22	
Todaropsis eblanae	9.84 146	19.43	521
Dentex angolensis	7.44 24	14.69	520
Dentex barnardi	6.48 5	12.80	
Dentex gibbosus	5.52 7	10.90	
Trachurus trecae	4.32 19	8.53	522
Illex coindetii	1.92 2	3.79	
Branchiostegus semifasciatus	1.44 10	2.84	
Dentex macrophthalmus			
Total	50.64	99.99	

PROJECT STATION: 741
 DATE: 10/ 9/92 GEAR TYPE: BT No:1 POSITION: Lat N 1421 Long W 1218
 start stop duration Purpose code: 3
 TIME :16:47:00 17:17:00 30 (min) Area code : 1
 LOG :8505.00 8507.00 1.70 GearCond.code: 1
 FDEPTH: 76 70 Validity code:
 BDEPTH: 76 70
 Towing dir: 360 Wire out: 400 m Speed:330 kn*10
 Sorted: 64 Kg Total catch: 322.00 CATCH/HOUR: 644.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex macrophthalmus	347.00 1120	53.88	524
Trachurus trecae	135.00 1380	20.96	523
Atractoscion aequidens	119.00 200	18.48	
Pagellus bellottii	17.00 40	2.64	
Zeus faber	13.00 20	2.02	
Boops boops	9.00 40	1.40	
Trichiurus lepturus	2.00 10	0.31	
Todaropsis eblanae	2.00 20	0.31	
Total	644.00	100.00	

PROJECT STATION: 742
 DATE: 11/ 9/92 GEAR TYPE: BT No:1 POSITION: Lat N 1516 Long W 1207
 start stop duration Purpose code: 3
 TIME :06:27:00 06:37:00 10 (min) Area code : 1
 LOG :8632.00 8632.00 0.50 GearCond.code: 1
 FDEPTH: 80 80 Validity code:
 BDEPTH: 80 80
 Towing dir: 25 Wire out: 300 m Speed:290 kn*10
 Sorted: 32 Kg Total catch: 64.80 CATCH/HOUR: 388.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex macrophthalmus	93.60 420	24.07	526
Spondyliosoma cantharus	45.60 72	11.73	
Dentex barnardi	43.20 132	11.11	
Trachurus trecae	43.20 144	11.11	525
Umrina canariensis	37.20 168	9.57	
Squalus megalops	30.00 12	7.72	
Pagellus bellottii	26.40 96	6.79	
Dentex angolensis	20.40 60	5.25	
Raja miraletus	18.00 12	4.63	
Pomatotus saltatrix	18.00 12	4.63	
Trichiurus lepturus	6.00 12	1.54	
Chelidonichthys capensis	3.60 12	0.93	
Trachurus capensis	3.60 12	0.93	
Total	388.80	100.01	

PROJECT STATION: 743
 DATE: 11/ 9/92 GEAR TYPE: PT No:1 POSITION: Lat N 1521 Long W 1153
 start stop duration Purpose code: 1
 TIME :08:30:00 08:50:00 20 (min) Area code : 1
 LOG :8645.00 8646.00 1.00 GearCond.code: 1
 FDEPTH: 120 150 Validity code:
 BDEPTH: 334 232
 Towing dir: 53 Wire out: 400 m Speed:330 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
N O C A T C H	0.00		
Total			

PROJECT STATION: 744
 DATE: 11/ 9/92 GEAR TYPE: BT No:1 POSITION: Lat N 1527 Long W 1156
 start stop duration Purpose code: 3
 TIME :10:04:00 10:34:00 30 (min) Area code : 1
 LOG :8656.00 8657.00 1.50 GearCond.code: 1
 FDEPTH: 102 85 Validity code:
 BDEPTH: 102 85
 Towing dir: 143 Wire out: 500 m Speed:290 kn*10
 Sorted: 144 Kg Total catch: 948.90 CATCH/HOUR: 1897.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus capensis	515.00 2388	27.14	530
Trachurus trecae	506.80 3130	26.70	529
Dentex macrophthalmus	502.60 1194	26.48	528
Dentex angolensis	125.60 350	6.62	532
Atractoscion aequidens	119.60 44	6.30	531
Pagellus bellottii	28.80 104	1.52	527
Squalus sp.	28.00 14	1.48	
Dentex gibbosus	24.80 20	1.31	
Dentex barnardi	22.60 20	1.19	
Musculus musculus	22.00 2	1.16	
Anthias anthias	2.00 20	0.11	
Total	1897.80	100.01	

PROJECT STATION: 745
 DATE: 11/ 9/92 GEAR TYPE: BT No:1 POSITION: Lat N 1530 Long W 1159
 start stop duration Purpose code: 3
 TIME :11:10:00 11:32:00 22 (min) Area code : 1
 LOG :8660.00 8661.00 1.10 GearCond.code: 1
 FDEPTH: 60 56 Validity code:
 BDEPTH: 60 56
 Towing dir: 180 Wire out: 300 m Speed:300 kn*10
 Sorted: 126 Kg Total catch: 125.60 CATCH/HOUR: 342.55

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Atractoscion aequidens	146.73 256	42.83	
Dentex barnardi	82.09 297	23.96	534
Spondyliosoma cantharus	28.36 63	8.26	
Dentex macrophthalmus	22.36 112	6.52	533
Squatina sp.	16.91 5	4.94	
Pagellus bellottii	14.45 57	4.22	535
Lithognathus mormyrus	12.82 33	3.74	
Trachurus trecae	6.27 30	1.83	536
Zeus faber	5.45 8	1.59	
Trachurus capensis	3.27 16	0.95	537
Illex coindetii	1.91 5	0.56	
Pomadasyss incisus	1.91 3	0.56	
Total	342.53	99.99	

PROJECT STATION: 746
 DATE: 11/ 9/92 GEAR TYPE: BT No:1 POSITION: Lat N 1533 Long W 1154
 start stop duration Purpose code: 3
 TIME :12:26:00 12:53:00 27 (min) Area code : 1
 LOG :8668.00 8669.00 1.50 GearCond.code: 1
 FDEPTH: 105 140 Validity code:
 BDEPTH: 105 140
 Towing dir: 6 Wire out: 500 m Speed:320 kn*10
 Sorted: 91 Kg Total catch: 570.80 CATCH/HOUR: 1268.44

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex macrophthalmus	726.67 4187	57.29	541
Dentex angolensis	205.78 1527	16.22	538
Trachurus capensis	159.56 824	12.58	540
Trachurus trecae	75.56 391	5.96	539
Dentex gibbosus	29.33 29	2.31	
Atractoscion aequidens	28.00 13	2.21	
Sparus pagrus africanus	14.00 13	1.10	
Pagellus bellottii	14.00 29	1.10	
Dentex barnardi	11.11 13	0.88	
Synagrops microlepis	4.22 742	0.33	
Total	1268.23	99.98	

PROJECT STATION: 747
 DATE:11/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1538 Long W 1155
 start stop duration
 TIME :14:00:00 14:30:00 30 (min) Purpose code: 3
 LOG :8677.00 8678.00 1.60 Area code : 1
 FDEPTH: 86 85 GearCond.code:
 BDEPTH: 86 85 Validity code:
 Towing dir: 26 Wire out: 450 m Speed:320 kn*10
 Sorted: 101 Kg Total catch: 2114.70 CATCH/HOUR: 4229.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex macrophtalmus	2427.60	14448	57.40	543
Trachurus trecae	1167.60	8568	27.61	542
Atractoscion aequidens	189.00	252	4.47	
Dentex gibbosus	176.40	126	4.17	
Dentex barnardi	100.80	210	2.38	
Pagellus bellottii	79.80	252	1.89	
Trachurus capensis	75.60	210	1.79	
Trigla lyra	12.60	42	0.30	
Total	4229.40		100.01	

PROJECT STATION: 752
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1600 Long W 1140
 start stop duration
 TIME :09:54:00 10:24:00 30 (min) Purpose code: 3
 LOG :8836.00 8838.00 1.50 Area code : 1
 FDEPTH: 89 114 GearCond.code:
 BDEPTH: 89 114 Validity code:
 Towing dir: 265 Wire out: 400 m Speed:300 kn*10
 Sorted: 11 Kg Total catch: 1422.20 CATCH/HOUR: 2844.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus capensis	2444.00	17108	85.92	553
Dentex macrophtalmus	275.60	10116	9.69	554
Loligo vulgaris	72.80	52	2.56	
Umbrina canariensis	52.00	52	1.83	
Total	2844.40		100.00	

PROJECT STATION: 753
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1605 Long W 1137
 start stop duration
 TIME :11:58:00 12:28:00 30 (min) Purpose code: 3
 LOG :8649.00 8651.00 1.50 Area code : 1
 FDEPTH: 62 50 GearCond.code:
 BDEPTH: 62 50 Validity code:
 Towing dir: 97 Wire out: 350 m Speed:308 kn*10
 Sorted: 60 Kg Total catch: 632.10 CATCH/HOUR: 1264.20

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus capensis	934.60	12244	73.93	556
Trachurus trecae	237.40	1974	18.78	555
Spicara alta	56.80	2498	4.49	
Merluccius polli	27.20	84	2.15	
Illex coindetii	8.40	190	0.66	
Total	1264.40		100.01	

PROJECT STATION: 754
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1605 Long W 1143
 start stop duration
 TIME :13:11:00 13:41:00 30 (min) Purpose code: 3
 LOG :8855.00 8857.00 1.50 Area code : 1
 FDEPTH: 44 46 GearCond.code:
 BDEPTH: 44 46 Validity code:
 Towing dir: 270 Wire out: 200 m Speed:300 kn*10
 Sorted: 28 Kg Total catch: 592.20 CATCH/HOUR: 1184.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	1050.00	73250	88.65	557
Illex coindetii	58.80	1848	4.96	
Spicara alta	42.00	1848	2.55	
Pagellus bellottii	29.40	126	2.48	
Todaropsis eblanae	4.20	42	0.35	
Total	1184.40		99.99	

PROJECT STATION: 755
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1608 Long W 1146
 start stop duration
 TIME :14:50:00 15:20:00 30 (min) Purpose code: 3
 LOG :8867.00 8868.00 1.60 Area code : 1
 FDEPTH: 31 31 GearCond.code:
 BDEPTH: 31 31 Validity code:
 Towing dir: 360 Wire out: 150 m Speed:310 kn*10
 Sorted: 90 Kg Total catch: 89.80 CATCH/HOUR: 179.60

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	152.00	1492	84.63	558
Sepia officinalis hierredda	8.60	4	4.79	
Merluccius polli	6.80	22	3.78	
Illex coindetii	3.00	106	1.67	
Trichiurus lepturus	2.40	16	1.34	
Dentex barnardi	1.60	14	0.89	
Balistes capriscus	1.60	2	0.89	
Umbrina canariensis	1.40	8	0.78	
Atractoscion aequidens	1.20	6	0.67	
Todarodes sagittatus	0.60	4	0.33	
Sepia orbignyana	0.40	2	0.22	
Total	179.60		100.00	

PROJECT STATION: 756
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1609 Long W 1139
 start stop duration
 TIME :16:34:00 17:04:00 30 (min) Purpose code: 3
 LOG :8878.00 8880.00 1.60 Area code : 1
 FDEPTH: 52 50 GearCond.code:
 BDEPTH: 52 50 Validity code:
 Towing dir: 90 Wire out: 250 m Speed:310 kn*10
 Sorted: 113 Kg Total catch: 846.90 CATCH/HOUR: 1693.80

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Spicara alta	825.00	1004	48.71	
Trachurus trecae	777.00	2490	45.87	559
Illex coindetii	69.00	1064	4.07	
Sepia officinalis hierredda	7.60	14	0.45	
Merluccius polli	7.60	14	0.45	
Trigla lyra	4.60	14	0.27	
Trachinotus ovatus	3.00	14	0.18	
Total	1693.80		100.00	

PROJECT STATION: 748
 DATE:11/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1541 Long W 1153
 start stop duration
 TIME :16:43:00 17:13:00 30 (min) Purpose code: 3
 LOG :8690.00 8691.00 1.50 Area code : 1
 FDEPTH: 78 86 GearCond.code:
 BDEPTH: 78 86 Validity code:
 Towing dir: 15 Wire out: 350 m Speed:310 kn*10
 Sorted: 98 Kg Total catch: 3347.70 CATCH/HOUR: 6695.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Dentex macrophtalmus	5241.00	27440	78.28	544
Atractoscion aequidens	487.00	686	7.27	
Trachurus trecae	356.80	2126	5.33	545
Trachurus capensis	178.40	754	2.66	546
Umbrina canariensis	144.00	618	2.15	
Pagellus bellottii	130.40	344	1.95	
Dentex barnardi	61.80	68	0.92	
Pterothrissus belloci	54.80	138	0.82	
Spondyliosoma cantharus	27.40	68	0.41	
Dentex angolensis	13.80	68	0.21	
Total	6695.40		100.00	

PROJECT STATION: 749
 DATE:11/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1527 Long W 1157
 start stop duration
 TIME :21:08:00 21:38:00 30 (min) Purpose code: 1
 LOG :8727.00 8729.00 2.20 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 83 49 Validity code:
 Towing dir: 94 Wire out: 100 m Speed:430 kn*10
 Sorted: 58 Kg Total catch: 349.20 CATCH/HOUR: 698.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	576.00	2844	82.47	547
Trachurus capensis	120.00	540	17.18	548
Boops boops	2.40	12	0.34	
Total	698.40		99.99	

PROJECT STATION: 750
 DATE:11/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1524 Long W 1148
 start stop duration
 TIME :23:35:00 00:05:00 30 (min) Purpose code: 1
 LOG :8742.00 8745.00 2.40 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 507 724 Validity code:
 Towing dir: 103 Wire out: 100 m Speed:440 kn*10
 Sorted: 62 Kg Total catch: 639.00 CATCH/HOUR: 1278.00

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Trachurus trecae	959.80	3028	75.10	550
Trachurus capensis	318.20	1628	24.90	549
Total	1278.00		100.00	

PROJECT STATION: 751
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1559 Long W 1143
 start stop duration
 TIME :08:36:00 09:06:00 30 (min) Purpose code: 3
 LOG :8829.00 8830.00 1.50 Area code : 1
 FDEPTH: 24 20 GearCond.code:
 BDEPTH: 24 20 Validity code:
 Towing dir: 123 Wire out: 150 m Speed:300 kn*10
 Sorted: 10 Kg Total catch: 95.70 CATCH/HOUR: 191.40

SPECIES	CATCH/HOUR		% OF TOT. C	SAMP.NO.
	weight	numbers		
Sepia officinalis hierredda	100.00	44	52.25	
Balistes capriscus	19.80	96	10.34	
Spondyliosoma cantharus	18.60	24	9.72	
Mustelus mustelus	16.00	0	8.36	
Trachurus trecae	9.00	300	4.70	551
Dentex macrophtalmus	9.00	24	4.08	552
Gymnura altavela	6.40	4	3.34	
Umbrina canariensis	4.80	6	2.51	
Sarda sarda	4.00	4	2.09	
Pomatomus saltatrix	3.60	2	1.88	
Dentex barnardi	1.00	6	0.52	
Loligo vulgaris	0.40	2	0.21	
Total	191.40		100.00	

PROJECT STATION: 757
 DATE:12/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1609 Long W 1136
 start stop duration
 TIME :17:58:00 18:28:00 30 (min) Purpose code: 3
 LOG :8887.00 8888.00 1.60 Area code : 1
 FDEPTH: 68 54 GearCond.code:
 BDEPTH: 68 54 Validity code:
 Towing dir: 90 Wire out: 350 m Speed:300 kn*10
 Sorted: 17 Kg Total catch: 171.00 CATCH/HOUR: 342.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex macrophthalmus	158.00 7180	46.20	560
Trachurus capensis	84.00 1220	24.56	561
Merluccius capensis	44.00 160	12.87	
Chelidonichthys capensis	28.00 240	8.19	
Synagrops microlepis	20.00 1220	5.85	
Trachurus trecae	8.00 280	2.34	
Total	342.00	100.01	

PROJECT STATION: 763
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1614 Long W 1132
 start stop duration
 TIME :12:52:00 13:22:00 30 (min) Purpose code: 3
 LOG :9039.00 9040.00 1.50 Area code : 1
 FDEPTH: 100 103 GearCond.code:
 BDEPTH: 100 103 Validity code:
 Towing dir: 30 Wire out: 500 m Speed:310 kn*10
 Sorted: 62 Kg Total catch: 2305.10 CATCH/HOUR: 4610.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus capensis	3352.20 23976	72.71	570
Dentex macrophthalmus	858.40 5772	18.62	571
Mustelus mustelus	286.60 370	6.26	
Zeus faber	111.00 74	2.41	
Total	4610.20	100.00	

PROJECT STATION: 758
 DATE:13/ 9/92 GEAR TYPE: PT No: POSITION:Lat N 1606 Long W 1146
 start stop duration
 TIME :02:09:00 02:39:00 30 (min) Purpose code: 1
 LOG :8963.00 8964.00 1.50 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 33 25 Validity code:
 Towing dir: 360 Wire out: 100 m Speed:300 kn*10
 Sorted: 59 Kg Total catch: 59.00 CATCH/HOUR: 118.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	93.60 834	79.32	563
Sardinops ocellata	20.20 112	17.12	562
Balistes capriscola	1.80 6	1.53	
Stromateus fiatola	1.60 2	1.36	
Trachinus armatus	0.80 2	0.68	
Total	118.00	100.01	

PROJECT STATION: 764
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1620 Long W 1131
 start stop duration
 TIME :14:47:00 15:17:00 30 (min) Purpose code: 3
 LOG :9051.00 9053.00 1.50 Area code : 1
 FDEPTH: 81 80 GearCond.code:
 BDEPTH: 81 80 Validity code:
 Towing dir: 90 Wire out: 400 m Speed:290 kn*10
 Sorted: 62 Kg Total catch: 280.80 CATCH/HOUR: 561.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex macrophthalmus	172.80 406	30.77	572
Mustelus mustelus	110.80 118	19.73	
Dentex barnardi	55.80 216	9.94	
Arius parkii	45.80 162	8.16	
Dentex gibbosus	38.80 18	6.91	
Atractoscion aequidens	27.80 18	4.95	
Pagellus bellottii	22.60 72	4.02	
Spondylisoma cantharus	20.80 28	3.70	
Trachurus capensis	16.20 64	2.88	
Zeus faber	15.40 18	2.74	
Lepidotrigla carolae	11.80 54	2.10	
Loligo vulgaris	9.80 18	1.75	
Sparus pagrus africanus	8.20 18	1.46	
Trachurus trecae	5.40 18	0.96	
Total	562.00	100.07	

PROJECT STATION: 759
 DATE:13/ 9/92 GEAR TYPE: PT No:1 POSITION:Lat N 1612 Long W 1135
 start stop duration
 TIME :07:07:00 07:30:00 23 (min) Purpose code: 1
 LOG :9005.00 9007.00 1.70 Area code : 1
 FDEPTH: 44 50 GearCond.code:
 BDEPTH: 77 74 Validity code:
 Towing dir: 180 Wire out: 250 m Speed:420 kn*10
 Sorted: 9 Kg Total catch: 9.40 CATCH/HOUR: 24.52

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus capensis	21.39 154	87.23	564
Sarda sarda	2.09 3	8.52	
Loligo vulgaris	1.04 3	4.24	
Total	24.52	99.99	

PROJECT STATION: 765
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1619 Long W 1134
 start stop duration
 TIME :15:46:00 16:16:00 30 (min) Purpose code: 3
 LOG :9055.00 9057.00 1.60 Area code : 1
 FDEPTH: 79 77 GearCond.code:
 BDEPTH: 79 77 Validity code:
 Towing dir: 40 Wire out: 400 m Speed:316 kn*10
 Sorted: 57 Kg Total catch: 1024.40 CATCH/HOUR: 2048.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Dentex macrophthalmus	864.00 12060	42.17	573
Trachurus capensis	540.00 3420	26.36	574
Merluccius capensis	280.80 1260	13.71	575
Mustelus mustelus	226.80 324	11.07	
Trigla capensis	82.80 180	4.04	
Sepia officinalis hierredda	18.00 36	0.88	
Pagellus bellottii	18.00 72	0.88	
Citharus linguatula	18.00 180	0.88	
Pegusa lascaris	0.40 36	0.02	
Total	2048.80	100.01	

PROJECT STATION: 760
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1613 Long W 1146
 start stop duration
 TIME :09:04:00 09:34:00 30 (min) Purpose code: 3
 LOG :9019.00 9021.00 1.50 Area code : 1
 FDEPTH: 29 24 GearCond.code:
 BDEPTH: 29 24 Validity code:
 Towing dir: 177 Wire out: 150 m Speed:300 kn*10
 Sorted: 32 Kg Total catch: 211.40 CATCH/HOUR: 422.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus trecae	366.00 5340	86.57	565
Mustelus mustelus	19.00 10	4.49	
Sepia officinalis hierredda	12.00 12	2.84	
Diplodus sargus capensis	10.80 24	2.55	
Arius parkii	9.60 12	2.27	
Loligo vulgaris	3.00 18	0.71	
Trachurus capensis	2.40 12	0.57	
Total	422.80	100.00	

PROJECT STATION: 766
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1620 Long W 1141
 start stop duration
 TIME :17:20:00 17:50:00 30 (min) Purpose code: 3
 LOG :9065.00 9067.00 1.60 Area code : 1
 FDEPTH: 56 67 GearCond.code:
 BDEPTH: 56 67 Validity code:
 Towing dir: 270 Wire out: 300 m Speed:314 kn*10
 Sorted: 70 Kg Total catch: 1260.00 CATCH/HOUR: 2520.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus capensis	2178.00 115092	86.43	576
Synagrops microlepis	144.00 9828	5.71	
Dentex macrophthalmus	129.60 4464	5.14	577
Merluccius capensis	43.20 360	1.71	
Loligo vulgaris	10.80 36	0.43	
Trichurus lepturus	3.60 36	0.14	
Sepia officinalis hierredda	3.60 36	0.14	
Illex coindetii	3.60 36	0.14	
GOBIIDAE	3.60 360	0.14	
Total	2520.00	99.98	

PROJECT STATION: 761
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1615 Long W 1141
 start stop duration
 TIME :10:12:00 10:42:00 30 (min) Purpose code: 3
 LOG :9026.00 9027.00 1.50 Area code : 1
 FDEPTH: 56 67 GearCond.code:
 BDEPTH: 52 56 Validity code:
 Towing dir: 270 Wire out: 350 m Speed:300 kn*10
 Sorted: 27 Kg Total catch: 1041.20 CATCH/HOUR: 2082.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Synagrops microlepis	912.00 114000	43.80	
Trachurus capensis	684.00 26524	32.85	566
Dentex macrophthalmus	342.00 9120	16.42	567
Merluccius capensis	98.80 380	4.74	
Dentex barnardi	38.00 152	1.82	
Loligo vulgaris	7.60 76	0.36	
Total	2082.40	99.99	

PROJECT STATION: 762
 DATE:13/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1615 Long W 1135
 start stop duration
 TIME :11:25:00 11:55:00 30 (min) Purpose code: 3
 LOG :9032.00 9033.00 1.60 Area code : 1
 FDEPTH: 74 75 GearCond.code:
 BDEPTH: 74 75 Validity code:
 Towing dir: 270 Wire out: 400 m Speed:340 kn*10
 Sorted: 60 Kg Total catch: 1234.10 CATCH/HOUR: 2468.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Trachurus capensis	1406.20 6930	56.97	568
Dentex macrophthalmus	803.60 9758	32.56	569
Merluccius capensis	237.80 984	9.63	
Loligo vulgaris	20.60 82	0.83	
Total	2468.20	99.99	

PROJECT STATION: 767
 DATE:13/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1619 Long W 1142
 start stop duration
 TIME :18:39:00 19:09:00 30 (min) Purpose code: 1
 LOG :9071.00 9073.00 1.70 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 51 58 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:350 kn*10
 Sorted: 30 Kg Total catch: 9999.00 CATCH/HOUR: 19998.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
	weight numbers		
Sardinops ocellata	19998.00 56100	100.00	578
Total	19998.00	100.00	

DATE:13/ 9/92 GEAR TYPE: PT No: PROJECT STATION: 768
 start stop duration POSITION:Lat N 1617
 TIME :22:01:00 22:31:00 30 (min) Purpose code: 1 Long W 1130
 LOG :9096.00 9097.00 1.60 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 269 841 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:340 kn*10

Sorted: 50 Kg Total catch: 50.00 CATCH/HOUR: 100.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Krill	80.00		80.00
Trachurus capensis	20.00	158	20.00 579
Total	100.00		100.00

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 774
 start stop duration POSITION:Lat N 1625
 TIME :12:00:00 12:30:00 30 (min) Purpose code: 3 Long W 1128
 LOG :9199.00 9200.00 1.60 Area code : 1
 FDEPTH: 107 122 GearCond.code:
 BDEPTH: 107 122 Validity code:
 Towing dir: 238 Wire out: 500 m Speed:320 kn*10

Sorted: 96 Kg Total catch: 1119.70 CATCH/HOUR: 2239.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	1338.40	11748	59.77 588
Dentex macropthalmus	327.60	2434	14.63 589
Zeus faber	215.20	280	9.61
Pontinus accraensis	156.80	818	7.00
Anthias anthias	138.00	1520	6.16
Dentex angolensis	44.40	46	1.98
Trigla lyra	18.80	46	0.84
Total	2239.20		99.99

DATE:14/ 9/92 GEAR TYPE: PT No:3 PROJECT STATION: 769
 start stop duration POSITION:Lat N 1617
 TIME :00:49:00 01:19:00 30 (min) Purpose code: 1 Long W 1109
 LOG :9116.00 9118.00 2.20 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 999 999 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:430 kn*10

Sorted: 31 Kg Total catch: 244.80 CATCH/HOUR: 489.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	476.80	2384	97.39 580
MICTOPHIDAE	9.60		1.96
Shrimps, small, non comm.	3.20		0.65
Total	489.60		100.00

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 775
 start stop duration POSITION:Lat N 1630
 TIME :13:17:00 13:47:00 30 (min) Purpose code: 3 Long W 1126
 LOG :9205.00 9207.00 1.50 Area code : 1
 FDEPTH: 104 101 GearCond.code:
 BDEPTH: 104 101 Validity code:
 Towing dir: 90 Wire out: 500 m Speed:300 kn*10

Sorted: 58 Kg Total catch: 1632.70 CATCH/HOUR: 3265.40

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Dentex macropthalmus	1248.80	10528	38.24 590
Trachurus capensis	1148.00	7560	35.16 591
Pterothrissus belloci	778.40	6160	23.84
Zeus faber	56.00	56	1.71
Trigla lyra	33.60	112	1.03
Pegusa lascaris	0.56	56	0.02
Total	3265.36		100.00

DATE:14/ 9/92 GEAR TYPE: PT No:3 PROJECT STATION: 770
 start stop duration POSITION:Lat N 1618
 TIME :02:26:00 02:56:00 30 (min) Purpose code: 1 Long W 1100
 LOG :9125.00 9128.00 2.30 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 999 999 Validity code:
 Towing dir: 180 Wire out: 100 m Speed:460 kn*10

Sorted: 36 Kg Total catch: 35.40 CATCH/HOUR: 70.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	25.80	88	36.44 581
MICTOPHIDAE	21.60	1358	30.51
Gempylus serpens	14.60	32	20.62
Taractichthys steindachneri	4.80	4	6.78
Loligo vulgaris	2.00	2	2.82
Trachipterus sp.	1.00	36	1.41
Lestidipus sp.	1.00	36	1.41
Total	70.80		99.99

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 776
 start stop duration POSITION:Lat N 1630
 TIME :14:36:00 15:06:00 30 (min) Purpose code: 3 Long W 1134
 LOG :9212.00 9214.00 1.50 Area code : 1
 FDEPTH: 88 85 GearCond.code:
 BDEPTH: 88 85 Validity code:
 Towing dir: 90 Wire out: 450 m Speed:300 kn*10

Sorted: 88 Kg Total catch: 2028.60 CATCH/HOUR: 4057.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Dentex macropthalmus	2162.00	34086	53.29 592
Trachurus capensis	878.60	3220	21.66 594
Merluccius capensis	487.60	1886	12.02 593
Pagellus bellottii	184.00	828	4.54
Dentex barnardi	138.00	322	3.40
Atractoscion sp.	105.80	184	2.61
Mustelus mustelus	55.20	184	1.36
Sepia officinalis hierredda	18.40	46	0.45
Trigla lyra	13.80	46	0.34
Citharus linguatula	13.80	138	0.34
Total	4057.20		100.01

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 771
 start stop duration POSITION:Lat N 1625
 TIME :08:24:00 08:54:00 30 (min) Purpose code: 3 Long W 1147
 LOG :9180.00 9182.00 1.80 Area code : 1
 FDEPTH: 10 18 GearCond.code:
 BDEPTH: 10 18 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:340 kn*10

Sorted: 25 Kg Total catch: 166.60 CATCH/HOUR: 333.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus trecae	252.00	4104	75.63 582
Diplodus sargus capensis	39.60	144	11.88
Carcharhinus sp.	24.00	4	7.20
Sepia officinalis hierredda	14.00	6	4.20
Sardinops ocellata	2.40	12	0.72
Loligo vulgaris	1.20	108	0.36
Total	333.20		99.99

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 772
 start stop duration POSITION:Lat N 1625
 TIME :16:27:00 16:57:00 30 (min) Purpose code: 3 Long W 1143
 LOG :9221.00 9223.00 1.50 Area code : 1
 FDEPTH: 52 62 GearCond.code:
 BDEPTH: 52 62 Validity code:
 Towing dir: 270 Wire out: 250 m Speed:300 kn*10

Sorted: 66 Kg Total catch: 1218.30 CATCH/HOUR: 2436.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	1287.20	10490	52.83 595
Dentex macropthalmus	907.60	4426	37.25 596
Merluccius capensis	163.60	668	6.71
Synagrops microlepis	48.40	5132	1.99
Arius parkii	22.40	36	0.92
Pegusa lascaris	7.40	186	0.30
Total	2436.60		100.00

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 772
 start stop duration POSITION:Lat N 1625
 TIME :09:28:00 09:58:00 30 (min) Purpose code: 3 Long W 1142
 LOG :9185.00 9186.00 1.60 Area code : 1
 FDEPTH: 54 65 GearCond.code:
 BDEPTH: 54 65 Validity code:
 Towing dir: 270 Wire out: 300 m Speed:320 kn*10

Sorted: 30 Kg Total catch: 1800.00 CATCH/HOUR: 3600.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	2136.00	90960	59.33 583
Dentex macropthalmus	612.00	13320	17.00 585
Trachurus trecae	552.00	27840	15.33 584
Merluccius capensis	156.00	480	4.33
Synagrops microlepis	108.00	8160	3.00
Arius parkii	36.00	120	1.00
Total	3600.00		99.99

DATE:14/ 9/92 GEAR TYPE: PT No: PROJECT STATION: 778
 start stop duration POSITION:Lat N 1634
 TIME :22:45:00 23:15:00 30 (min) Purpose code: 1 Long W 1145
 LOG :9265.00 9266.00 1.60 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 18 12 Validity code:
 Towing dir: 79 Wire out: 100 m Speed:320 kn*10

Sorted: 9 Kg Total catch: 100.30 CATCH/HOUR: 200.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus trecae	193.80	6246	96.61 597
Sardinops ocellata	4.60	22	2.29
Engraulidae larvae	2.20	44	1.10
Total	200.60		100.00

DATE:14/ 9/92 GEAR TYPE: BT No:1 PROJECT STATION: 773
 start stop duration POSITION:Lat N 1625
 TIME :10:46:00 11:16:00 30 (min) Purpose code: 3 Long W 1135
 LOG :9192.00 9193.00 1.50 Area code : 1
 FDEPTH: 82 86 GearCond.code:
 BDEPTH: 82 86 Validity code:
 Towing dir: 270 Wire out: 400 m Speed:320 kn*10

Sorted: 86 Kg Total catch: 454.80 CATCH/HOUR: 909.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Dentex macropthalmus	648.80	10434	71.33 586
Merluccius capensis	180.20	678	19.81 587
Trachurus capensis	27.60	242	3.03
Umbina canariensis	15.80	22	1.74
Chelidonichthys capensis	12.80	22	1.41
Mustelus mustelus	10.60	22	1.17
Loligo vulgaris	9.60	42	1.06
Trigla lyra	3.20	10	0.35
Zeus faber	1.00	10	0.11
Total	909.60		100.01

DATE:15/ 9/92 GEAR TYPE: PT No:3 PROJECT STATION: 779
 start stop duration POSITION:Lat N 1628
 TIME :01:38:00 02:08:00 30 (min) Purpose code: 1 Long W 1139
 LOG :9285.00 9288.00 2.30 Area code : 1
 FDEPTH: 5 5 GearCond.code: 3
 BDEPTH: 73 81 Validity code:
 Towing dir: 270 Wire out: 100 m Speed:450 kn*10

Sorted: Kg Total catch: 300.00 CATCH/HOUR: 600.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
J E L L Y F I S H	600.00		100.00
Total	600.00		100.00

PROJECT STATION: 780
 DATE:15/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1636
 start stop duration Long W 1120
 TIME :08:53:00 09:13:00 20 (min) Purpose code: 3
 LOG :9352.00 9353.00 1.00 Area code : 1
 FDEPTH: 345 428 GearCond.code:
 BDEPTH: 345 428 Validity code:
 Towing dir: 50 Wire out:1050 m Speed:280 kn*10
 Sorted: 146 Kg Total catch: 1600.50 CATCH/HOUR: 4801.50

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Merluccius capensis	2227.50 5445	46.39	598
Scorpaena normani	1673.10 16731	34.85	599
Dentex macrophthalmus	462.00 1221	9.62	600
Chlorophthalmus agassizii	330.00 878	6.87	
Priacanthus arenatus	33.00 99	0.69	
Coelorhynchus coelorhynchus	23.10 297	0.48	
Laemonema laureysi	16.50 330	0.34	
Zeus faber	13.20 33	0.27	
Trachurus capensis	13.20 33	0.27	
Scyllorhinus sp.	6.60 33	0.14	
Parapenaeus longirostris	3.30 297	0.07	
Total	4801.50	99.99	

PROJECT STATION: 781
 DATE:15/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1639
 start stop duration Long W 1125
 TIME :10:20:00 10:32:00 12 (min) Purpose code: 3
 LOG :9360.00 9360.00 0.50 Area code : 1
 FDEPTH: 116 116 GearCond.code:
 BDEPTH: 116 116 Validity code:
 Towing dir: 45 Wire out: 500 m Speed:320 kn*10
 Sorted: 58 Kg Total catch: 699.60 CATCH/HOUR: 3498.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Trachurus capensis	2052.00 18540	58.66	601
Dentex macrophthalmus	558.00 4980	15.95	602
Merluccius capensis	480.00 840	13.72	
Pterothrissus belloci	192.00 1500	5.49	
Scyllorhinus sp.	126.00 360	3.60	
Lepidotrigla sp.	24.00 120	0.69	
Atractoscion aequidens	24.00 60	0.69	
Loligo vulgaris	18.00 60	0.51	
Zeus faber	12.00 60	0.34	
Todaropsis eblanae	12.00 60	0.34	
Total	3498.00	99.99	

PROJECT STATION: 782
 DATE:15/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1635
 start stop duration Long W 1130
 TIME :11:25:00 11:55:00 30 (min) Purpose code: 3
 LOG :9367.00 9368.00 1.40 Area code : 1
 FDEPTH: 101 97 GearCond.code:
 BDEPTH: 101 97 Validity code:
 Towing dir: 136 Wire out: 500 m Speed:290 kn*10
 Sorted: 54 Kg Total catch: 1134.00 CATCH/HOUR: 2268.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Dentex macrophthalmus	1432.20 16632	63.15	603
Trachurus capensis	327.60 2604	14.44	604
Merluccius capensis	226.80 756	10.00	605
Musculus musculus	147.00 294	6.48	
Chelidonichthys capensis	42.00 84	1.85	
Zeus faber	25.20 84	1.11	
Pagellus bellottii	25.20 126	1.11	
Atractoscion aequidens	21.00 42	0.93	
Pterothrissus belloci	21.00 168	0.93	
Total	2268.00	100.00	

PROJECT STATION: 783
 DATE:15/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1639
 start stop duration Long W 1135
 TIME :12:46:00 13:16:00 30 (min) Purpose code: 3
 LOG :9375.00 9376.00 1.60 Area code : 1
 FDEPTH: 87 85 GearCond.code:
 BDEPTH: 87 85 Validity code:
 Towing dir: 30 Wire out: 450 m Speed:320 kn*10
 Sorted: 62 Kg Total catch: 1599.00 CATCH/HOUR: 3198.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Trachurus capensis	2355.60 34164	73.66	607
Dentex macrophthalmus	691.60 10920	21.63	606
Synagrops microlepis	98.80 12584	3.09	
Merluccius capensis	31.20 312	0.98	
Pegusa lascaris	10.40 52	0.33	
Thorogobius angolensis	10.40 1404	0.33	
Total	3198.00	100.02	

PROJECT STATION: 784
 DATE:18/ 9/92 GEAR TYPE: PT No: POSITION:Lat N 1710
 start stop duration Long W 1138
 TIME :23:10:00 23:28:00 18 (min) Purpose code: 1
 LOG : 238.00 239.00 0.90 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 78 73 Validity code:
 Towing dir: 53 Wire out: 100 m Speed:330 kn*10
 Sorted: 2 Kg Total catch: 2.20 CATCH/HOUR: 7.33

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Engraulis encrasicolus	5.33 287	72.71	608
Sardinops ocellata	2.00 30	27.29	609
Total	7.33	100.00	

PROJECT STATION: 785
 DATE:19/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1708
 start stop duration Long W 1139
 TIME :00:00:00 00:30:00 30 (min) Purpose code: 1
 LOG : 240.00 242.00 2.30 Area code : 1
 FDEPTH: 5 5 GearCond.code:
 BDEPTH: 68 67 Validity code:
 Towing dir: 350 Wire out: 100 m Speed:470 kn*10
 Sorted: 31 Kg Total catch: 560.80 CATCH/HOUR: 1121.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Sardinops ocellata	553.60 43584	49.36	611
Engraulis encrasicolus	422.40 23008	37.66	610
GEMPYLIDAE	129.60 22	11.55	
Hyperoglyphe moselii	16.00 32	1.43	
Total	1121.60	100.00	

PROJECT STATION: 786
 DATE:19/ 9/92 GEAR TYPE: PT No:3 POSITION:Lat N 1653
 start stop duration Long W 1139
 TIME :03:24:00 03:54:00 30 (min) Purpose code: 1
 LOG : 267.00 269.00 2.20 Area code : 1
 FDEPTH: 5 5 GearCond.code: 8
 BDEPTH: 44 67 Validity code:
 Towing dir: 230 Wire out: 100 m Speed:440 kn*10
 Sorted: 32 Kg Total catch: 257.60 CATCH/HOUR: 515.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Sardinops ocellata	464.00 14192	90.06	613
Engraulis encrasicolus	51.20 5424	9.94	612
Total	515.20	100.00	

PROJECT STATION: 787
 DATE:19/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1647
 start stop duration Long W 1144
 TIME :06:45:00 07:07:00 22 (min) Purpose code: 3
 LOG : 290.00 291.00 1.00 Area code : 1
 FDEPTH: 13 14 GearCond.code:
 BDEPTH: 13 14 Validity code:
 Towing dir: 170 Wire out: 75 m Speed:310 kn*10
 Sorted: 60 Kg Total catch: 1120.00 CATCH/HOUR: 3054.55

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Sardinops ocellata	2573.18 20836	84.24	614
Diplodus sargus capensis	227.18 1865	7.44	615
Lithognathus mormyrus	100.91 1058	3.30	
Myliobatis aquila	40.36 49	1.32	
Arius parkii	40.36 101	1.32	
Trachurus trecae	35.18 554	1.15	616
Loligo vulgaris	25.36 101	0.83	
Trachinus sp.	12.00 3	0.39	
Total	3054.53	99.99	

PROJECT STATION: 788
 DATE:19/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1650
 start stop duration Long W 1137
 TIME :08:13:00 08:43:00 30 (min) Purpose code: 3
 LOG : 301.00 302.00 1.60 Area code : 1
 FDEPTH: 75 86 GearCond.code:
 BDEPTH: 75 86 Validity code:
 Towing dir: 240 Wire out: 400 m Speed:320 kn*10
 Sorted: 59 Kg Total catch: 641.80 CATCH/HOUR: 1283.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Dentex macrophthalmus	470.00 9220	36.62	617
Merluccius capensis	414.00 1940	32.25	618
Myliobatis aquila	100.80 84	7.85	
Trachurus capensis	82.00 2260	6.39	619
Arius parkii	50.00 160	3.90	
Chelidonichthys sp.	38.00 120	2.96	
Squalus megalops	30.00 20	2.34	
Pterothrissus belloci	20.00 180	1.56	
Musculus musculus	14.00 20	1.09	
Atractoscion aequidens	12.80 6	1.00	
Merluccius merluccius	12.00 880	0.93	
GOBIIDAE	10.00 2840	0.78	
Citharus linguatula	8.00 80	0.62	
Trigla lyra	4.00 20	0.31	
Loligo vulgaris	4.00 20	0.31	
Umbrina canariensis	4.00 20	0.31	
Synagrops microlepis	4.00 520	0.31	
Todaropsis eblanae	2.00 20	0.16	
Engraulis encrasicolus	2.00 40	0.16	
Sardinops ocellata	2.00 40	0.16	
Total	1283.60	100.01	

PROJECT STATION: 789
 DATE:19/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1654
 start stop duration Long W 1130
 TIME :09:45:00 10:15:00 30 (min) Purpose code: 3
 LOG : 310.00 312.00 1.60 Area code : 1
 FDEPTH: 107 106 GearCond.code:
 BDEPTH: 107 106 Validity code:
 Towing dir: 180 Wire out: 500 m Speed:310 kn*10
 Sorted: 118 Kg Total catch: 4704.00 CATCH/HOUR: 9408.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight numbers			
Trachurus capensis	4480.00 50480	47.62	620
Dentex macrophthalmus	4272.00 43440	45.41	622
Merluccius capensis	468.00 1920	4.68	621
Pterothrissus belloci	112.00 880	1.19	
Squalus megalops	40.00 80	0.43	
Arius parkii	40.00 80	0.43	
Brotula barbata	24.00 80	0.26	
Total	9408.00	100.02	

PROJECT STATION: 790
 DATE:19/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1650 Long W 1126
 start stop duration Purpose code: 3
 TIME :11:34:00 12:04:00 30 (min) Area code : 1
 LOG : 321.00 323.00 1.60 GearCond.code: 3
 FDEPTH: 119 118 Validity code:
 BDEPTH: 119 118
 Towing dir: 170 Wire out: 550 m Speed:300 kn*10
 Sorted: 61 Kg Total catch: 2257.00 CATCH/HOUR: 4514.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	3670.40	31376	81.31 624
Dentex macrocephalus	444.00	3552	9.84 623
Atractoscion aequidens	111.00	74	2.46
Merluccius capensis	103.60	370	2.30
Mustelus mustelus	74.00	148	1.64
Trigla lyra	37.00	148	0.82
Scorpaena normani	37.00	74	0.82
Pterothrissus belloci	37.00	74	0.82
Total	4514.00	100.01	

PROJECT STATION: 791
 DATE:19/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1645 Long W 1116
 start stop duration Purpose code: 3
 TIME :13:56:00 14:26:00 30 (min) Area code : 1
 LOG : 339.00 340.00 1.60 GearCond.code: 3
 FDEPTH: 529 527 Validity code:
 BDEPTH: 529 527
 Towing dir: 10 Wire out:1400 m Speed:310 kn*10
 Sorted: 54 Kg Total catch: 234.30 CATCH/HOUR: 468.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Merluccius capensis	237.60	392	50.70 627
Hoplostethus cadonati	36.00	1368	7.68
Aristeus varidens, female	34.40	1488	7.34 625
Coelorrhinus coelorhincus	32.00	176	6.83
Hyperoglyphe mosellii	28.00	40	5.98
Trigla lyra	19.20	72	4.10
Nezumia aequalis	16.80	352	3.59
Nematoscarinus africanus	14.40	1584	3.07
Monomitopus sp.	12.80	368	2.73
Brosmiculus imberbis *	9.60	184	2.05
GONOSTOMATIDAE	6.40	112	1.37
Epigonus sp.	5.60	80	1.20
Mustelus mustelus	4.80	16	1.02
Chlorophthalmus sp.	4.80	40	1.02
Aristeus varidens, male	4.60	154	0.98 626
Laemonema laureysi	1.60	8	0.34
Total	468.60	100.00	

PROJECT STATION: 792
 DATE:20/ 9/92 GEAR TYPE: PT No: POSITION:Lat N 1646 Long W 1141
 start stop duration Purpose code: 1
 TIME :03:32:00 04:02:00 30 (min) Area code : 1
 LOG : 452.00 454.00 1.80 GearCond.code: 3
 FDEPTH: 5 5 Validity code:
 BDEPTH: 26 38
 Towing dir: 330 Wire out: 100 m Speed:350 kn*10
 Sorted: 4 Kg Total catch: 3.90 CATCH/HOUR: 7.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Engraulis encrasicolus	5.80	560	74.36 628
Sepia orbignyana	1.60	2	20.51
Sardinops ocellata	0.20	4	2.56
Trachurus capensis	0.20	28	2.56
Total	7.80	99.99	

PROJECT STATION: 793
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1658 Long W 1141
 start stop duration Purpose code: 3
 TIME :07:32:00 07:52:00 20 (min) Area code : 1
 LOG : 479.00 480.00 1.00 GearCond.code: 3
 FDEPTH: 26 19 Validity code:
 BDEPTH: 26 19
 Towing dir: 120 Wire out: 100 m Speed:300 kn*10
 Sorted: 3 Kg Total catch: 2.60 CATCH/HOUR: 7.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Loligo vulgaris	3.60	216	46.15
Trachurus capensis	2.40	198	30.77 629
Diplodus sargus capensis	1.20	3	15.38
Engraulis encrasicolus	0.30	12	3.85
Sardinops ocellata	0.30	24	3.85
Total	7.80	100.00	

PROJECT STATION: 794
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1657 Long W 1138
 start stop duration Purpose code: 3
 TIME :08:58:00 09:28:00 30 (min) Area code : 1
 LOG : 485.00 486.00 1.70 GearCond.code: 3
 FDEPTH: 60 65 Validity code:
 BDEPTH: 60 65
 Towing dir: 340 Wire out: 250 m Speed:330 kn*10
 Sorted: 57 Kg Total catch: 400.40 CATCH/HOUR: 800.80

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	462.00	40810	57.69 631
Chelidonichthys capensis	126.00	364	15.73
Sardinops ocellata	72.80	1526	9.09 630
Trachurus trecae	44.80	1918	5.59 632
Merluccius capensis	22.40	84	2.80
Sepia officinalis hierredda	21.00	14	2.62
Loligo vulgaris	21.00	112	2.62
Mustelus mustelus	14.00	42	1.75
Raja miraletus	14.00	14	1.75
Diplodus sargus capensis	2.80	14	0.35
Total	800.80	99.99	

PROJECT STATION: 795
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1700 Long W 1132
 start stop duration Purpose code: 3
 TIME :10:47:00 11:17:00 30 (min) Area code : 1
 LOG : 496.00 497.00 1.60 GearCond.code: 3
 FDEPTH: 100 99 Validity code:
 BDEPTH: 100 99
 Towing dir: 5 Wire out: 450 m Speed:330 kn*10
 Sorted: 84 Kg Total catch: 3712.30 CATCH/HOUR: 7424.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	6645.00	68644	89.50 633
Dentex macrocephalus	620.20	7088	8.35 634
Merluccius capensis	124.00	620	1.67
Arius parkii	17.80	88	0.24
Pterothrissus belloci	17.80	178	0.24
Total	7424.80	100.00	

PROJECT STATION: 796
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1704 Long W 1138
 start stop duration Purpose code: 3
 TIME :13:06:00 13:36:00 30 (min) Area code : 1
 LOG : 507.00 508.00 1.50 GearCond.code: 3
 FDEPTH: 69 69 Validity code:
 BDEPTH: 69 69
 Towing dir: 360 Wire out: 350 m Speed:300 kn*10
 Sorted: 31 Kg Total catch: 244.00 CATCH/HOUR: 488.00

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	233.60	4512	47.87 635
Merluccius capensis	107.20	704	21.97 636
Chelidonichthys capensis	92.80	272	19.02
Arius parkii	41.60	176	8.52
Illex coindetii	4.80	48	0.98
Umbrina canariensis	4.80	48	0.98
Synagrops microlepis	3.20	272	0.66
Total	488.00	100.00	

PROJECT STATION: 797
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1710 Long W 1138
 start stop duration Purpose code: 3
 TIME :15:12:00 15:42:00 30 (min) Area code : 1
 LOG : 518.00 519.00 1.60 GearCond.code: 3
 FDEPTH: 77 78 Validity code:
 BDEPTH: 77 78
 Towing dir: 350 Wire out: 400 m Speed:320 kn*10
 Sorted: 63 Kg Total catch: 1812.80 CATCH/HOUR: 3625.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	3538.00	51446	97.58 637
Merluccius capensis	29.00	174	0.80
Arius parkii	23.20	58	0.64
Pterothrissus belloci	17.40	116	0.48
Illex coindetii	11.60	1508	0.32
Synagrops microlepis	5.80	1566	0.16
Thorogobius angolensis	0.60	116	0.02
Total	3625.60	100.00	

PROJECT STATION: 798
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1708 Long W 1133
 start stop duration Purpose code: 3
 TIME :16:48:00 17:03:00 15 (min) Area code : 1
 LOG : 525.00 525.00 0.70 GearCond.code: 3
 FDEPTH: 99 98 Validity code:
 BDEPTH: 99 98
 Towing dir: 360 Wire out: 500 m Speed:320 kn*10
 Sorted: 65 Kg Total catch: 4997.30 CATCH/HOUR: 19989.20

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Trachurus capensis	18634.00	285516	93.22 638
Dentex macrocephalus	677.60	7700	3.39 639
Merluccius capensis	277.20	1232	1.39
Arius parkii	277.20	616	1.39
Zenopsis conchifer	123.20	308	0.62
Total	19989.20	100.01	

PROJECT STATION: 799
 DATE:20/ 9/92 GEAR TYPE: BT No:1 POSITION:Lat N 1709 Long W 1123
 start stop duration Purpose code: 3
 TIME :19:20:00 19:50:00 30 (min) Area code : 1
 LOG : 537.00 539.00 1.30 GearCond.code: 3
 FDEPTH: 167 185 Validity code:
 BDEPTH: 167 185
 Towing dir: 180 Wire out: 600 m Speed:290 kn*10
 Sorted: 55 Kg Total catch: 387.80 CATCH/HOUR: 775.60

SPECIES	CATCH/HOUR	% OF TOT. C	SAMP.NO.
weight	numbers		
Merluccius capensis	238.00	812	30.69 640
Chlorophthalmus agassizi	224.00	9590	28.88
Trachurus capensis	131.60	826	16.97 641
Trigla lyra	74.20	420	9.57
Dentex macrocephalus	44.80	266	5.78
Scorpaena normani	22.40	280	2.89
Pterothrissus belloci	21.00	154	2.71
Synagrops microlepis	7.00	490	0.90
Todaropsis eblanae	4.20	28	0.54
Malacocephalus occidentalis	4.20	56	0.54
Citharus linguatula	4.20	14	0.54
Total	775.60	100.01	

