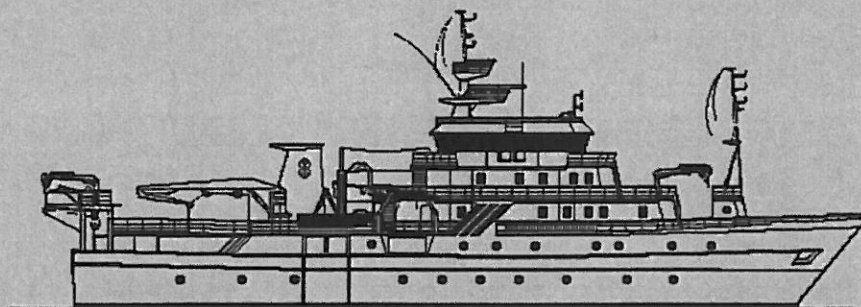


NORAD - FAO/UNDP PROJECT GLO 92/013

CRUISE REPORTS "DR. FRIDTJOF NANSEN"



SURVEYS OF THE FISH RESOURCES OF NAMIBIA

Cruise Report No 2/96

**Surveys of the hake stocks
7 September - 14 October 1996**

**Ministry of Fisheries & Marine Resources
Swakopmund
Republic of Namibia**

**Institute of Marine Research
Bergen
Norway**

The Norwegian Agency for Development Cooperation (NORAD), the Food and Agriculture Organization of the United Nations (FAO), and the United Nations Development Programme (UNDP) sponsor the DR FRIDTJOF NANSEN RESEARCH PROGRAMME. The programme in Namibia is organized and planned under agreements between NORAD, Namibian authorities and the Institute of Marine Research, Norway. Its execution is the responsibility of the Institute of Marine Research, Bergen in cooperation with the Ministry of Fisheries & Marine Resources of Namibia.

The programme has comprised the following surveys:

| | | |
|--------|------|---------------------------------|
| Survey | 1/90 | 25 January to 19 March 1990 |
| " | 2/90 | 27 May to 20 June 1990 |
| " | 3/90 | 11 September to 6 October 1990 |
| " | 1/91 | 25 January to 23 March 1991 |
| " | 2/91 | 23 October to 16 December 1991 |
| " | 1/92 | 23 April to 21 June 1992 |
| " | 2/92 | 20 October to 16 December 1992 |
| " | 1/93 | 20 January to 19 March 1993 |
| " | 2/93 | 21 April to 25 May 1993 |
| " | 1/94 | 19 January to 21 February 1994* |
| " | 2/94 | 26 April to 24 June 1994 |
| " | 3/94 | 19 October to 24 November 1994 |
| " | 1/95 | 16 January to 19 February 1995 |
| " | 2/95 | 22 April to 21 June 1995 |
| " | 3/95 | 27 September to 7 October 1995 |
| " | 1/96 | 12 January to 19 February 1996 |
| " | 2/96 | 7 September to 14 October 1996 |

* First survey with the new R/V 'Dr. Fridtjof Nansen'.

CRUISE REPORTS 'DR. FRIDTJOF NANSEN'

SURVEYS OF THE HAKE STOCKS

Cruise Report No 2/96

**Surveys of the hake stocks
7 September - 13 October 1996**

by

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**Institute of Marine Research
Bergen, 1996**

TABLE OF CONTENTS

| | | |
|-----------|---|----|
| CHAPTER 1 | INTRODUCTION | 1 |
| 1.1 | General objectives | 1 |
| 1.2 | Objectives of survey 2/1996 | 1 |
| 1.3 | Participation | 2 |
| 1.4 | Narrative | 2 |
| CHAPTER 2 | HYDROGRAPHY | 7 |
| CHAPTER 3 | RESULTS OF THE ACOUSTIC AND TRAWL SURVEY | 21 |
| 3.1 | Discussion of methods | 21 |
| 3.2 | Southern region, Orange River to St. Francis Bay | 22 |
| 3.3 | Central region, St. Francis Bay to Ambrose Bay | 28 |
| 3.4 | Northern region, Ambrose Bay to Cunene River | 33 |
| CHAPTER 4 | CONSIDERATIONS ON THE SURVEY RESULTS | 39 |
| Annex I | Size composition of main stocks | |
| Annex II | The size composition of hake stocks split into length cohorts through optimizing techniques | |
| Annex III | Records of fishing stations | |
| Annex IV | Instruments and fishing gear used | |

CHAPTER 1 INTRODUCTION

1.1 GENERAL OBJECTIVES

Following an offer from NORAD extended through FAO and UNDP, an agreement was reached in Windhoek in January 1990 between the UNDP Resident Representative and Namibian authorities for the execution of a programme of surveys of the fish resources of the Namibian shelf with the RV 'Dr. Fridtjof Nansen'.

The main objectives were agreed as follows:

To describe the distribution, composition and abundance of the most important fish resources. Small pelagic fish, including horse mackerel, pilchard and anchovy would be investigated by the acoustic integration method combined with sampling with mid-water and bottom trawls. A swept area trawl survey programme would be used for the demersal stocks. All catches would be sampled by species, weight and numbers, including biological sampling of the commercially important stocks.

To carry out environmental studies including recording of surface temperature on a continuous basis and hydrographic sampling on a series of fixed profiles.

1.2 OBJECTIVES OF SURVEY 2/1996

The main objectives were to continue to monitor the abundance, geographic distribution and size composition of the hake stocks within the Namibian EEZ and to describe the trends in development of the hake stocks within the programme perspective of support to rebuilding of the hake stocks since Independence. These objectives are in line with the national priorities set in the Government White paper of 1990. As secondary objectives, the lesser abundant, but commercial important species as monk, sole and kingklip would be studied in detail as these species form a natural by-catch of a hake survey in Namibia. As part of the hake research, environment parameters were continuously recorded to improve knowledge on the influence of the environment on the distribution and natural mortality of the hake stocks.

The acoustic system was used to observe possible mid-water occurrences of the hakes. The survey design for the swept-area trawl programme was based on a semi-random distribution of hauls along regular transects perpendicular to the coast. The transect distance was normally between 20 and 30 NM. On the slope the stations were laid out to cover the depth ranges of the two hake species. The on-shelf stations were laid out 10 to 15 NM apart until the zero line of hake distribution was found. Information from the acoustic system was also used in this process. Biomass estimates of hakes were based on post stratification by depth and density aggregations.

1.3 PARTICIPATION

The scientific staff consisted of:

From NatMIRC, Namibia:

Hilma ASINO (28/9-14/10), Heidrun PLARRE (28/9-14/10), Filimon DAUSAB (28/9-14/10), Michael EVENSON (28/9-14/10), Johnny GAMATHAN (28/9-14/10), Hashali HAMUKUAYA (28/9-14/10), Antonette HEITA (7-27/9), Theopillus KAIRUA (7-27/9), Heinrich LESCH (7-27/9), Lima MAARTENS (7-27/9), Abraham NANGOLO (7-27/9), Justina SHIFIDI (7-27/9), Malakia SHIMANDA (7-27/9).

From State University of New York, Stony Brook, NY, USA:

Peter WOODHEAD (7/9-14/10).

From IMR, Norway:

Oddgeir ALVHEIM, Guillermo BURGOS, Magnar MJANGER, Tore STRØMME (28/9-14/10).

1.4 NARRATIVE

The course tracks with the positions of the fishing and hydrographic stations are shown in Figures 1 a-c.

The vessel left Walvis Bay in the evening of 9 September, steaming in an open zig-zag track between 50 and 100 m southwards to Orange River. Two CTD profiles were worked near

Conception Bay. The trawl survey commenced off Orange River in the morning of 11 September. Trawling inshore of 300 m was mainly carried out during daylight hours, but the deeper stations on the slope were sometimes carried out during dark. CTD-stations were taken on every trawl station in order to map the environment conditions in relation to fish distribution. On 27 September the ship called at Walvis Bay for change of scientists, having covered the area south of Walvis Bay.

The vessel left for the last leg of the survey on 28 September, and the work continued northwards following the standard grid pattern. The northern border was reached 11 October and on the way south extra sampling was conducted in shallow areas where high aggregations of young hake had been observed, in order to map the inner limit of these distributions more accurately. Arrival in Walvis Bay was on 14 October.

The weather conditions were in periods rough between Orange River and Cape Cross. On the northern leg the weather conditions were mostly favourable.

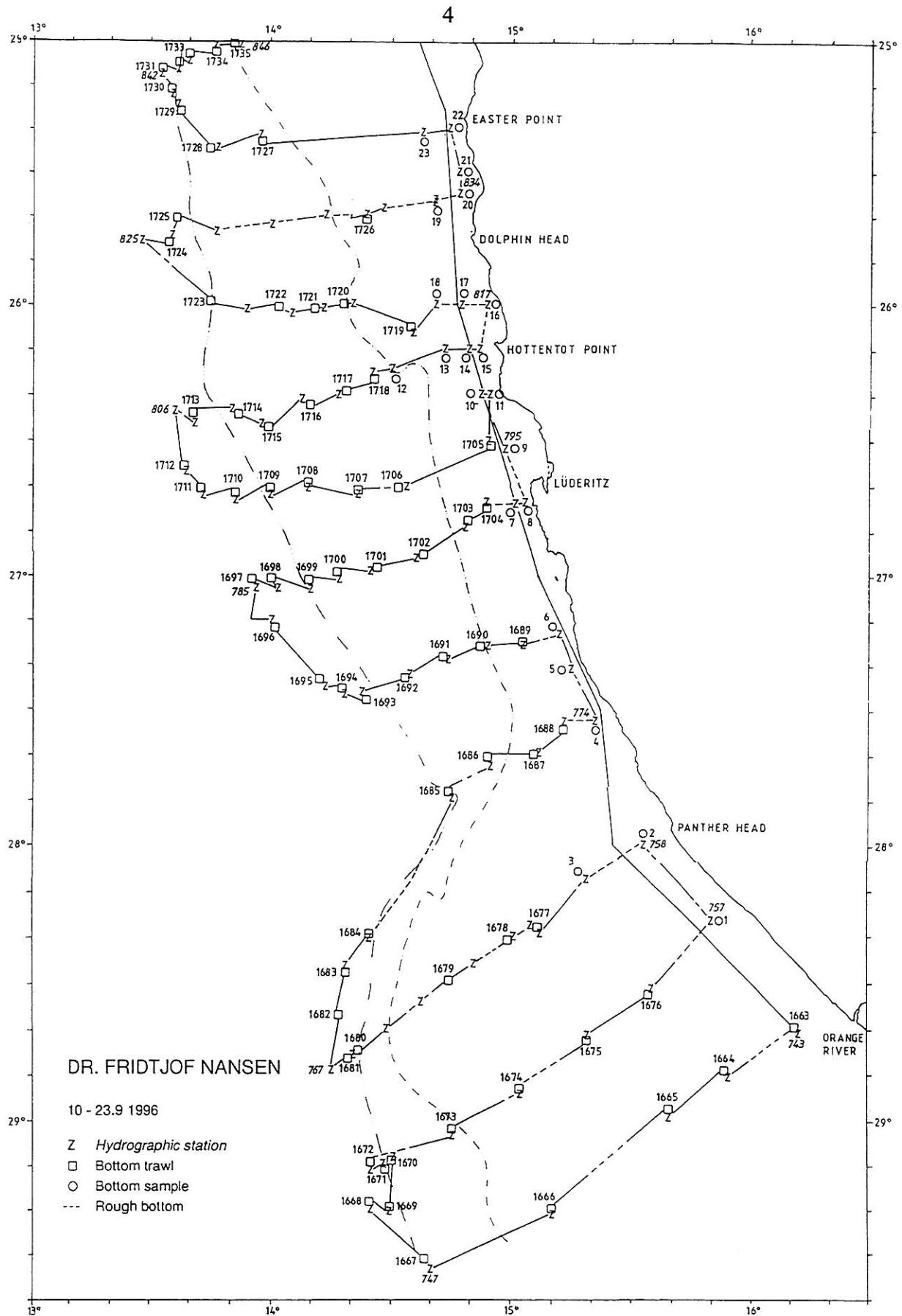


Figure 1a Southern region (Orange River to St. Francis Bay). Course tracks, fishing stations and hydrographic stations.

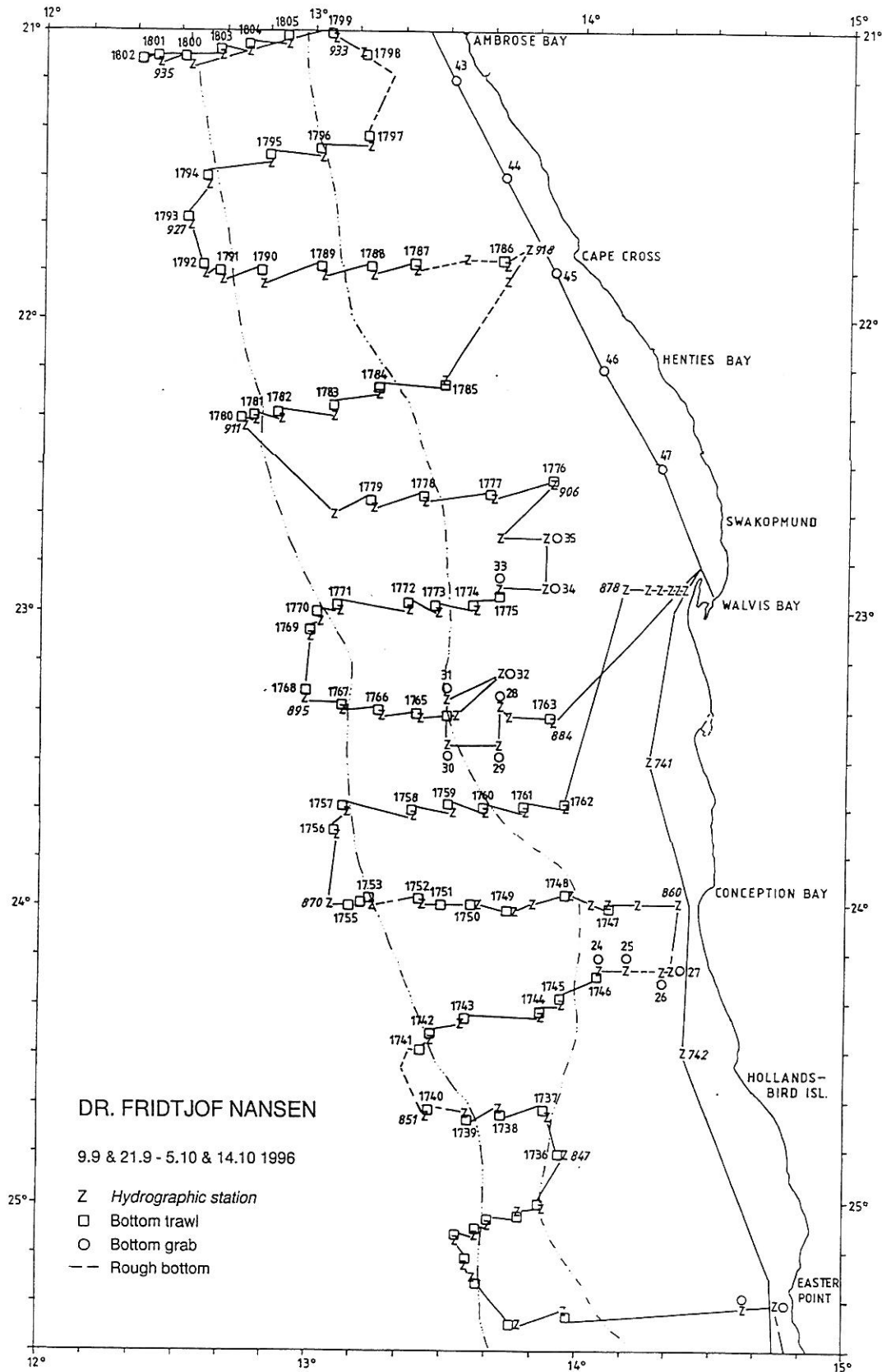


Figure 1b Central region (St. Francis Bay to Ambrose Bay). Course tracks, fishing stations and hydrographic stations.

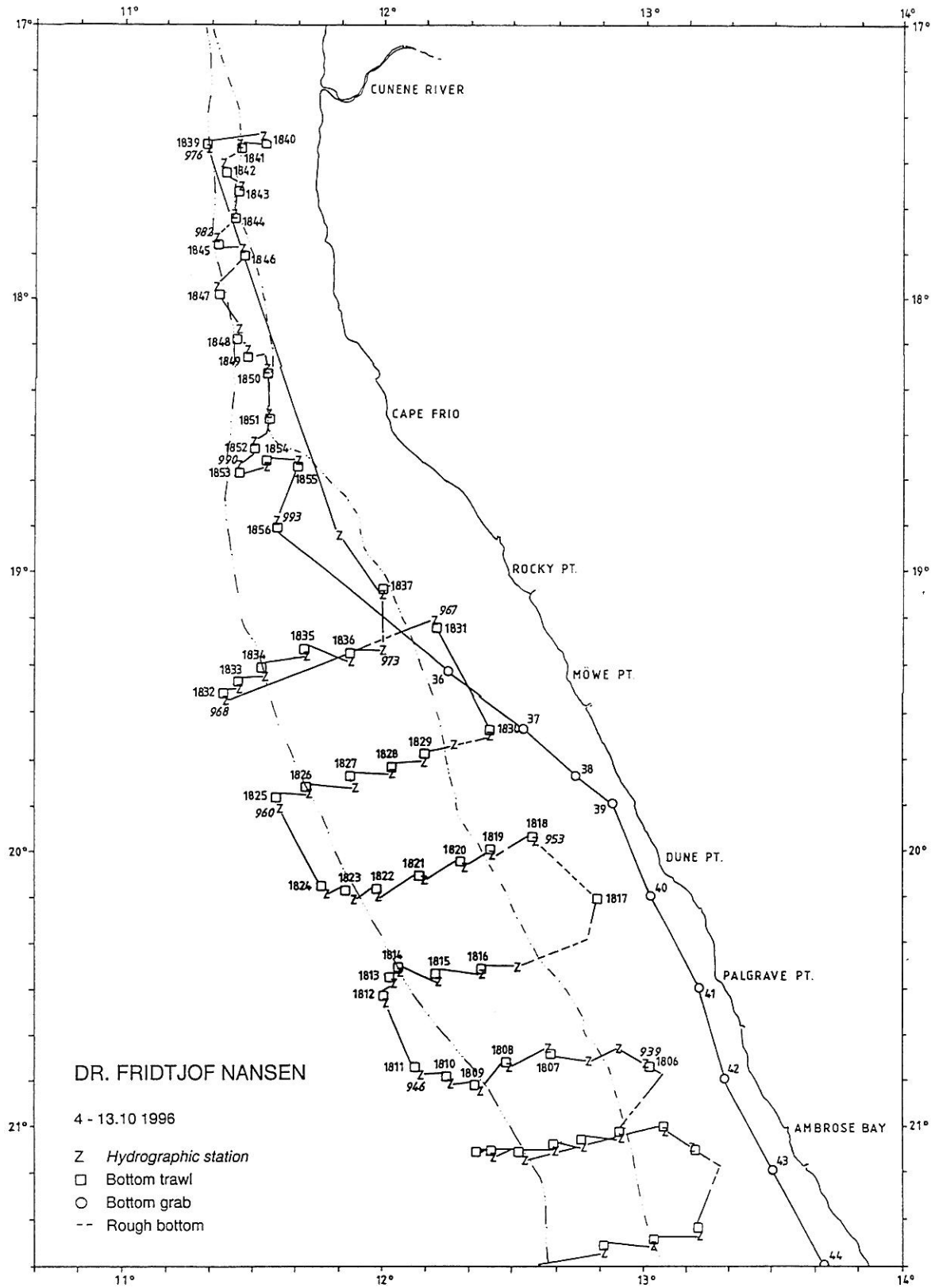


Figure 1c Northern region (Ambrose Bay to Cunene River). Course tracks, fishing stations and hydrographic stations.

CHAPTER 2 HYDROGRAPHY

Strong southern winds prevailed in the area particularly from Orange River to Ambrose Bay. The wind conditions along the survey track are shown in Figure 2.

Sea temperature at 5 m depth was recorded continuously along the cruise track and is shown in Figures 3a-c. Six hydrographic sections were collected at the standard locations and are shown in Figures 4a-c. Cool upwelled waters were recorded along the whole coastal region.

Bottom oxygen level was recorded at all fishing stations (Figures 5a-c), to monitor its effect on the hake distribution. The oxygen levels were higher than those found during 1994 and 1995 surveys. From Orange River to Walvis Bay, the O₂ levels were greater than 1.0 ml per litre. As expected values along the slopes were even higher than the shelf. During the preceding 13 surveys a seasonal pattern has been observed in the build up and flush out of oxygen deficient waters on the Namibian shelf with maximum buildup after the summer growth season and usually flush out during April-May. In the May 1994 survey there was not a normal flush out due to unfavourable oceanographic conditions and the oxygen depleted waters could accumulate over more than two years. In the summer in May 1995 it was found that the 0.5 oxycline again had moved shorewards, indicating a previous flush out. During the recent survey the oxygen levels along the whole shelf were higher than 1 ml per litre, except a small area close to Walvis Bay.

As during previous surveys, the oxygen maps are overlaid with the distribution maps of the Cape hake, Figures 6a-c.

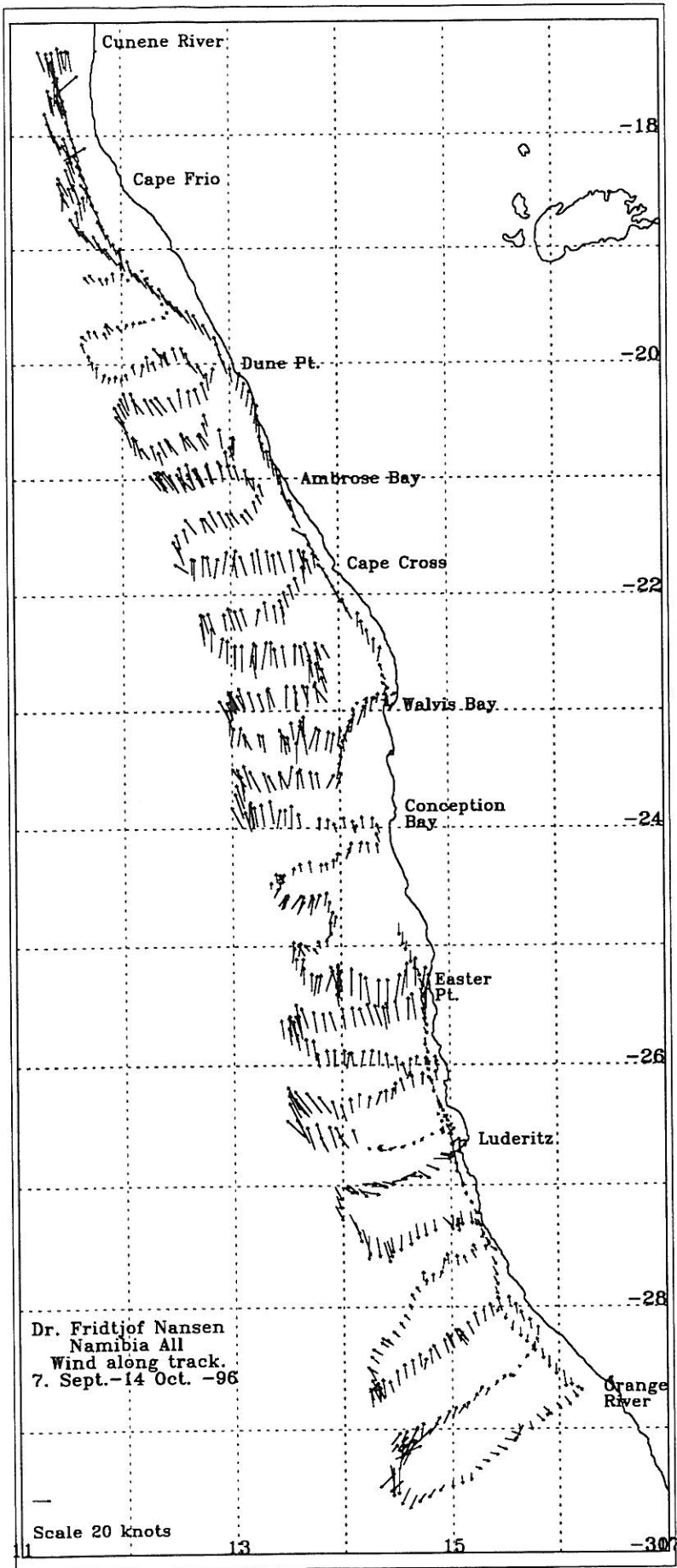


Figure 2 Wind conditions along the survey track.

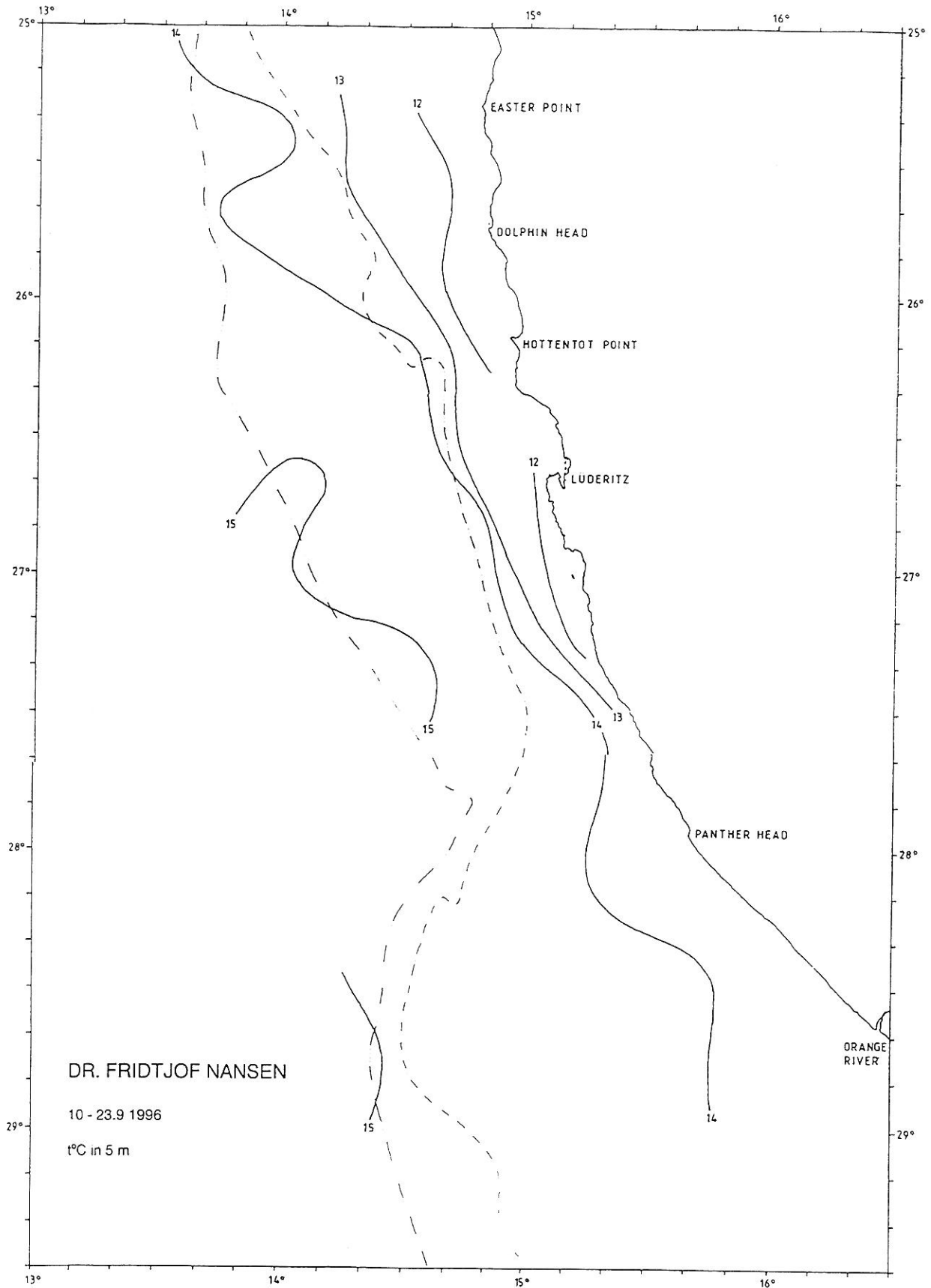


Figure 3a Orange River to St. Francis Bay. Distribution of sea temperature at 5 m depth.

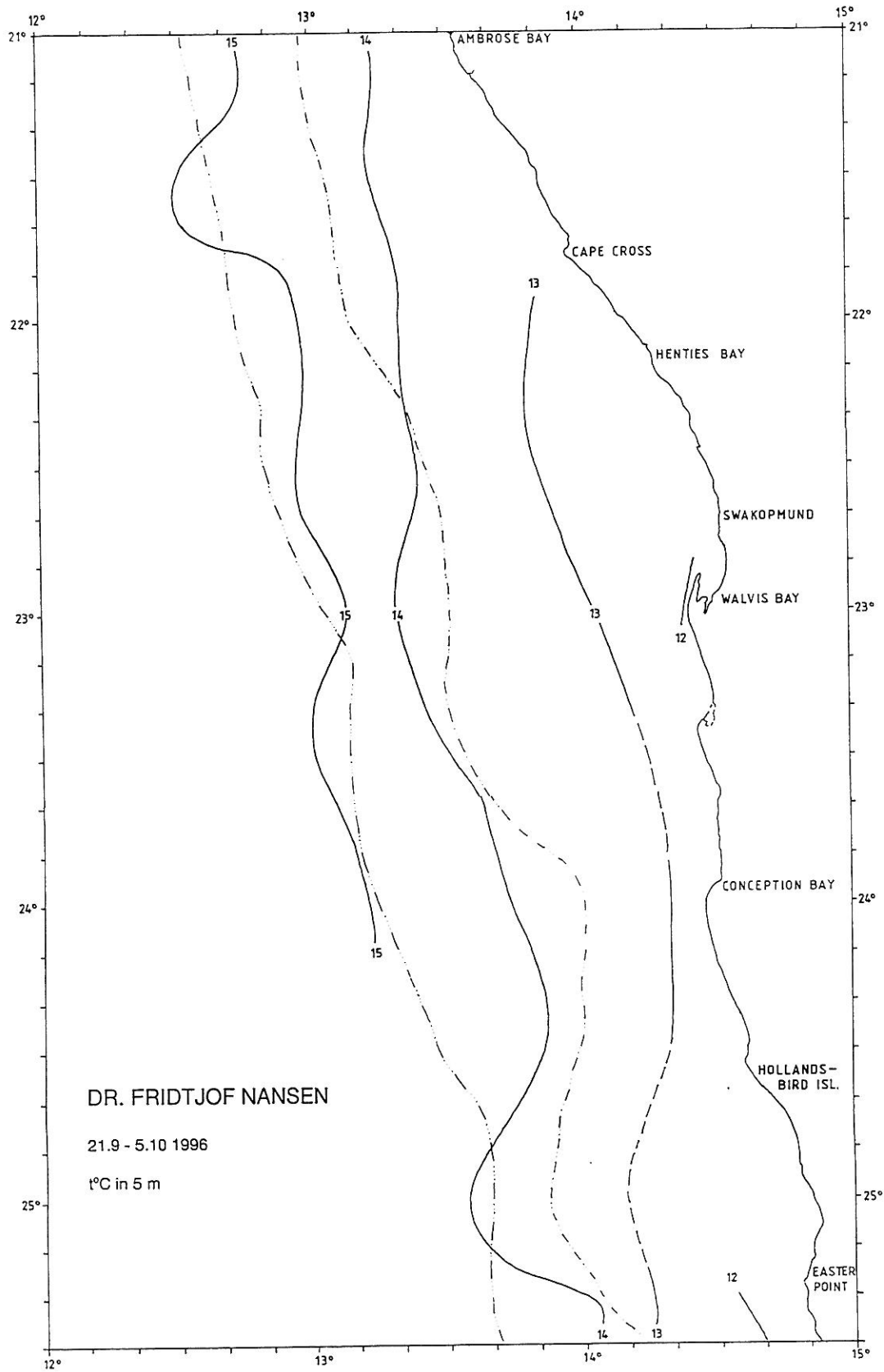


Figure 3b St. Francis Bay to Ambrose Bay. Distribution of sea temperature at 5 m depth.

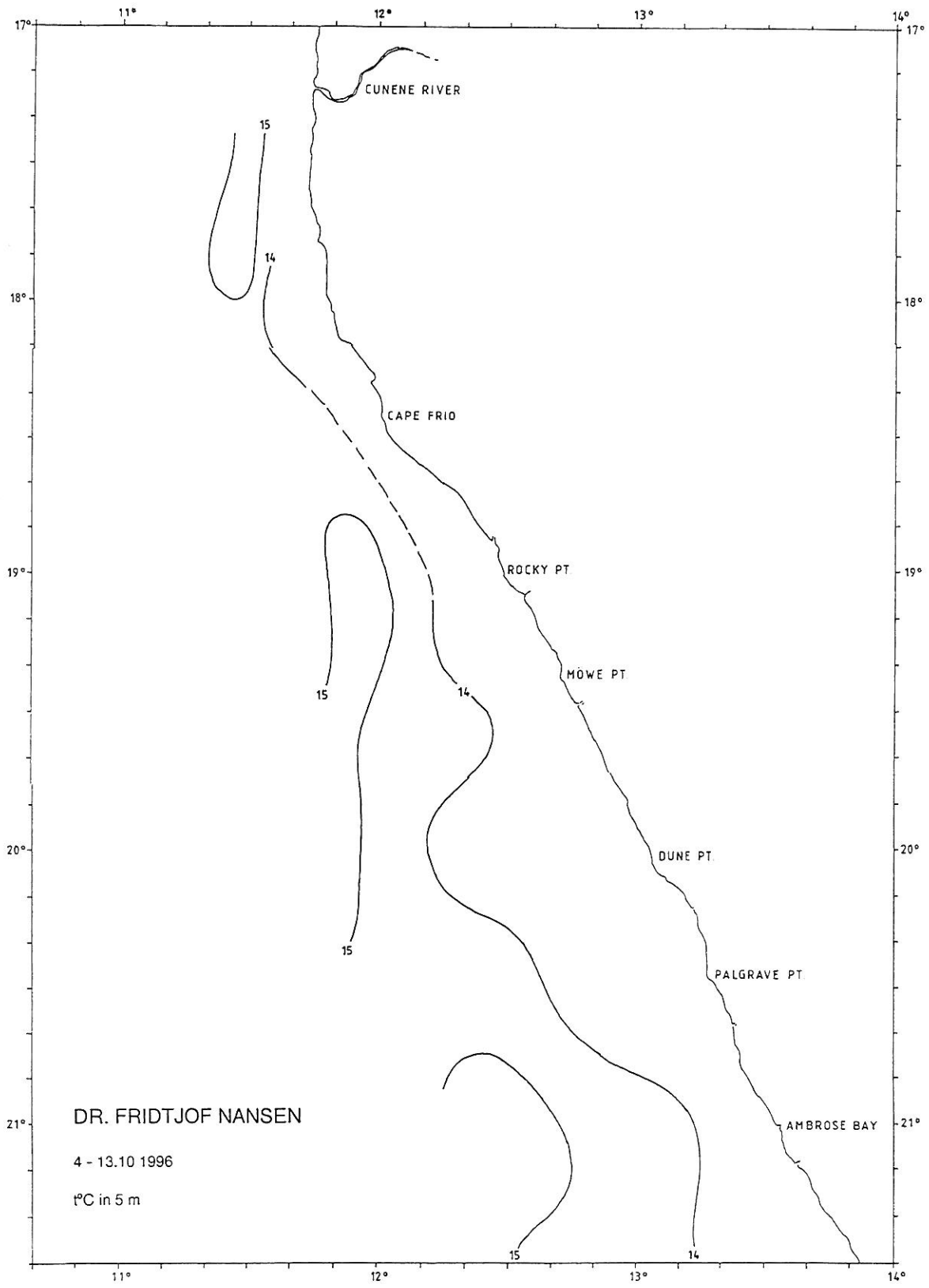
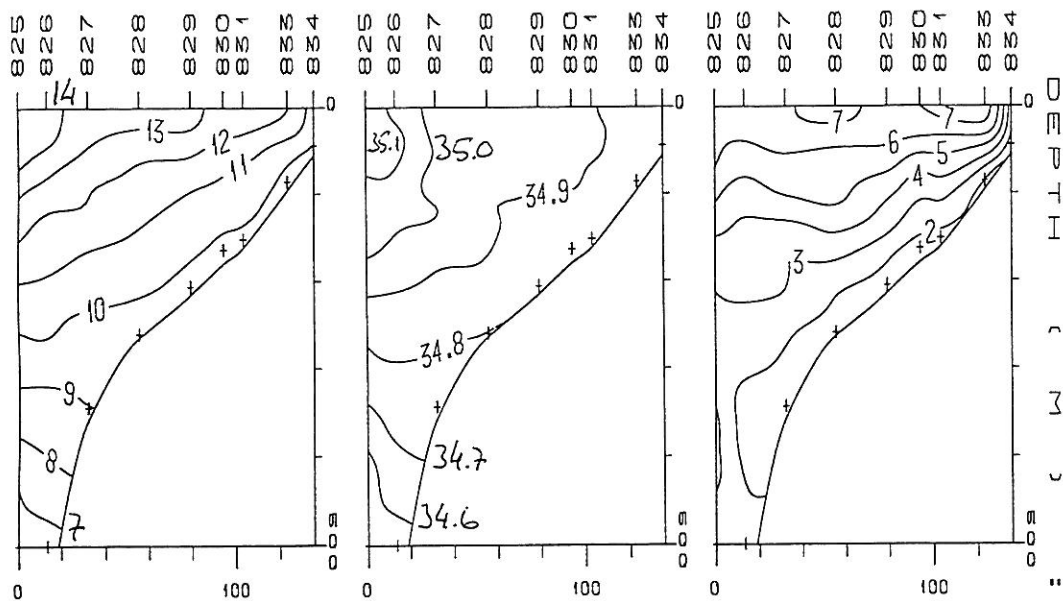
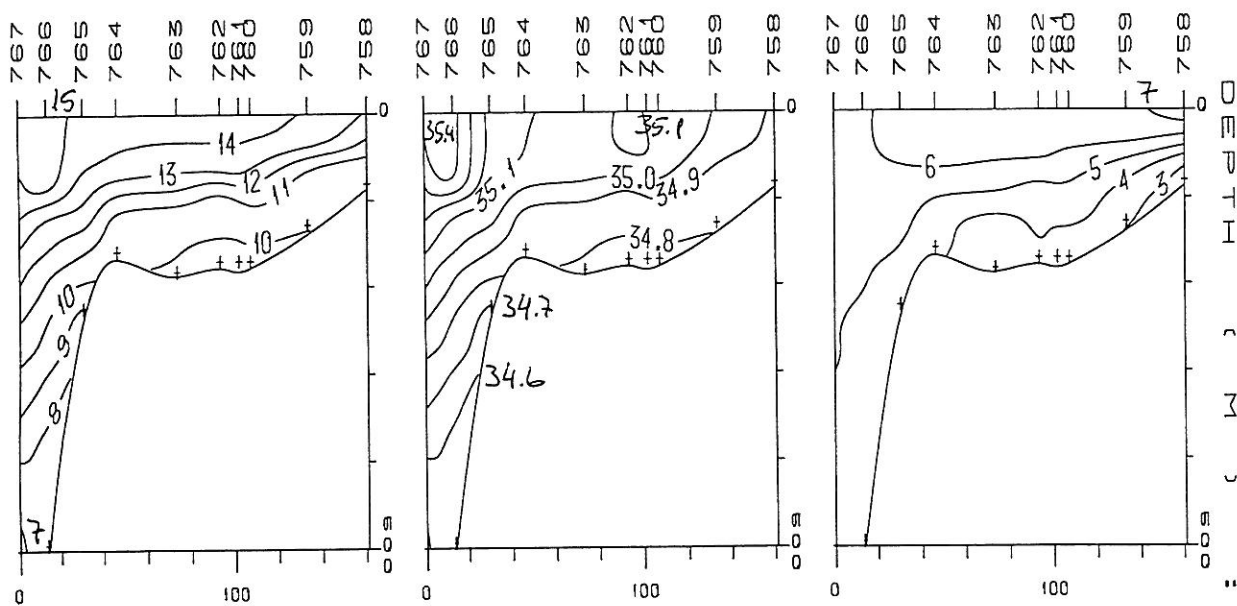


Figure 3c Ambrose Bay to Cunene River. Distribution of sea temperature at 5 m depth.

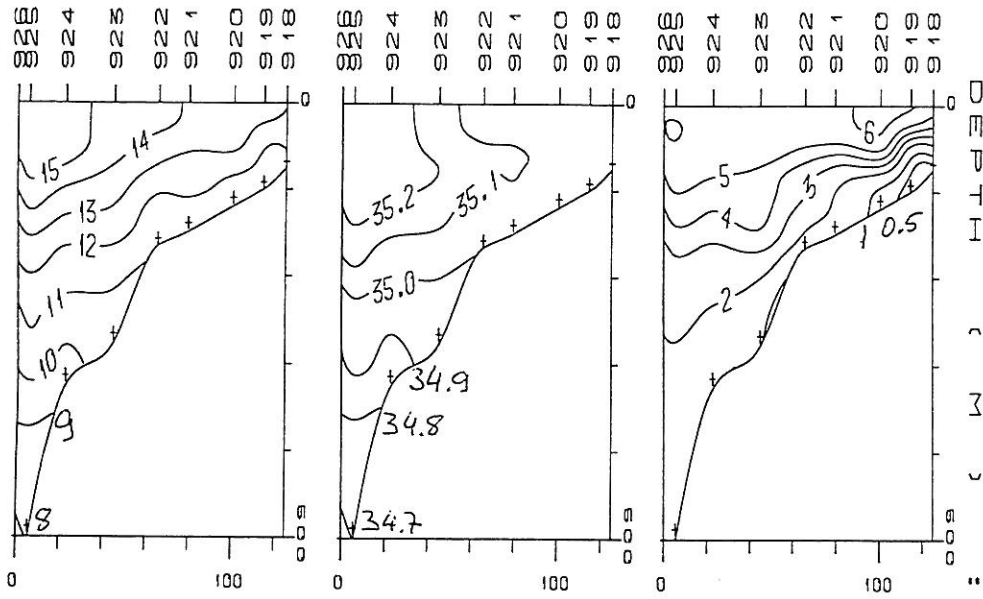


DOLPHIN HEAD 21.9 1996

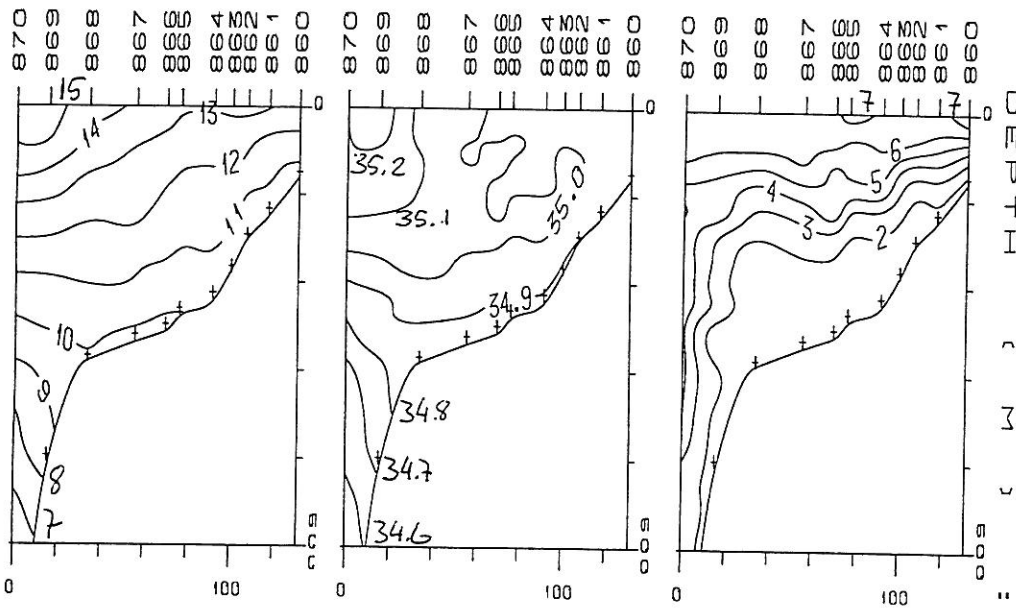


PANTHER HEAD 14.9 1996

Figure 4a Temperature, salinity and oxygen in the standard profiles worked.

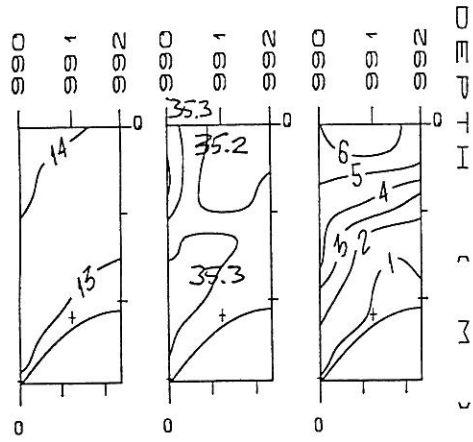


CAPE CROSS 3.10 1996

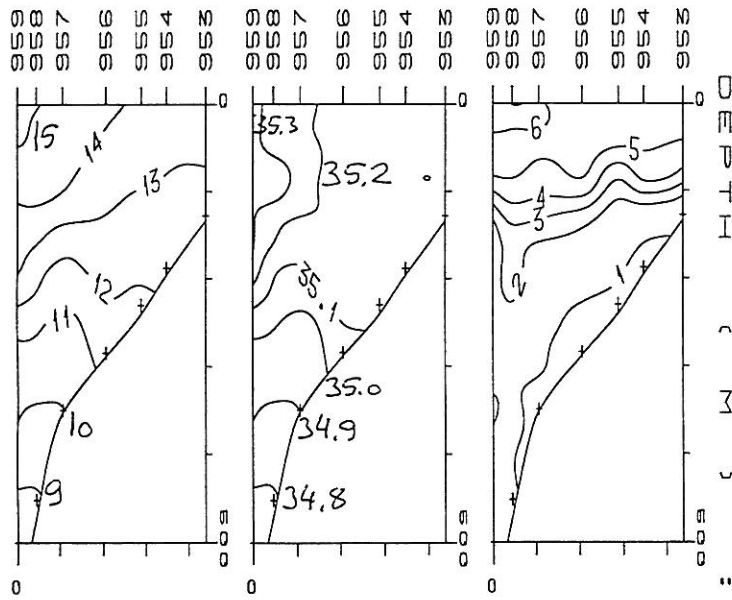


CONCEPTION BAY 25.9 1996

Figure 4b Temperature, salinity and oxygen in the standard profiles worked.



CAPE FRIO 12.10 1996



DUNE POINT 8.10 1996

Figure 4c Temperature, salinity and oxygen in the standard profiles worked.

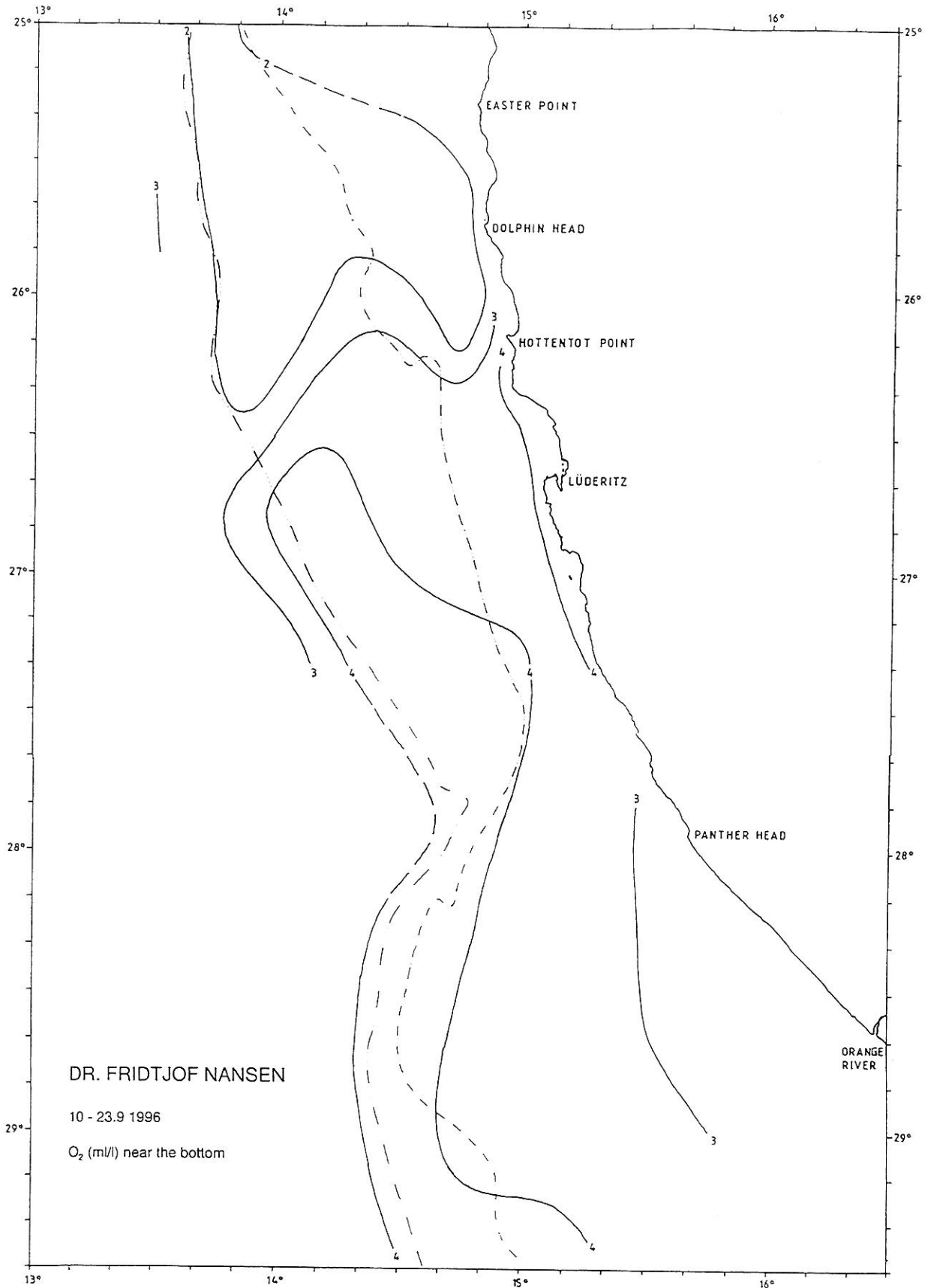


Figure 5a Orange River to St. Francis Bay. Distribution of oxygen (ml/l) near the bottom.

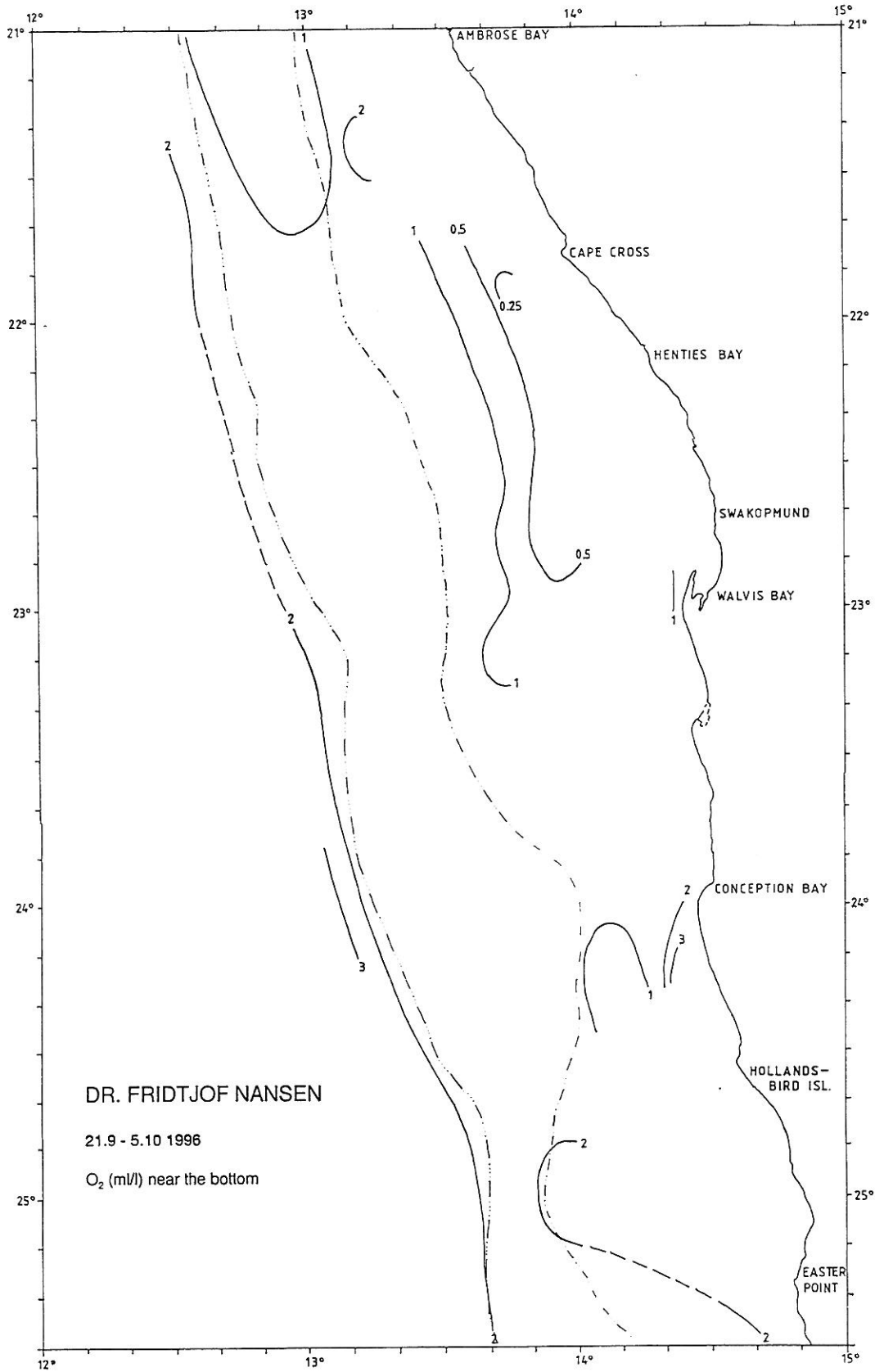


Figure 5b St. Francis Bay to Ambrose Bay. Distribution of oxygen (ml/l) near the bottom

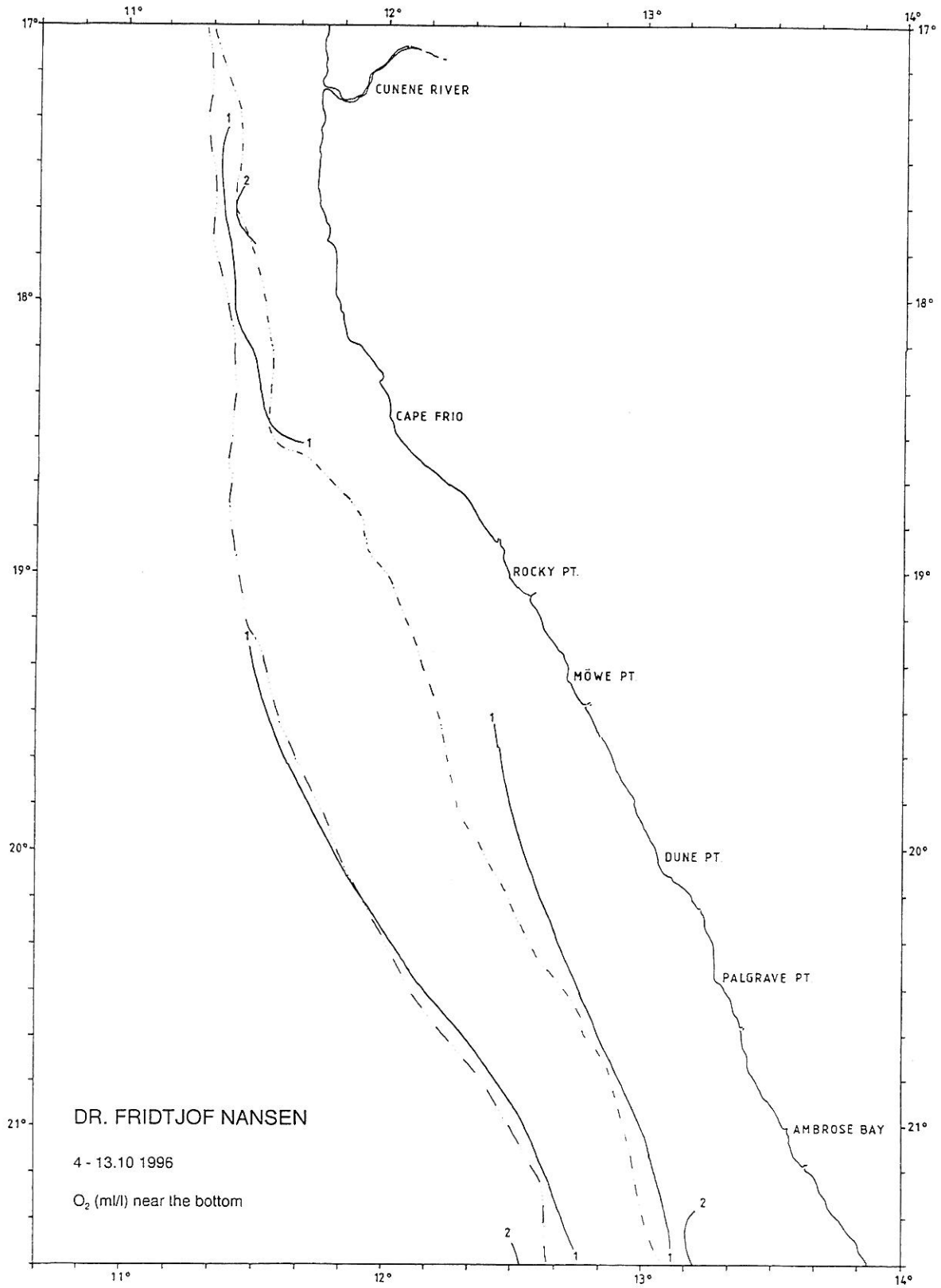


Figure 5c Ambrose Bay to Cunene River. Distribution of oxygen (ml/l) near the bottom.

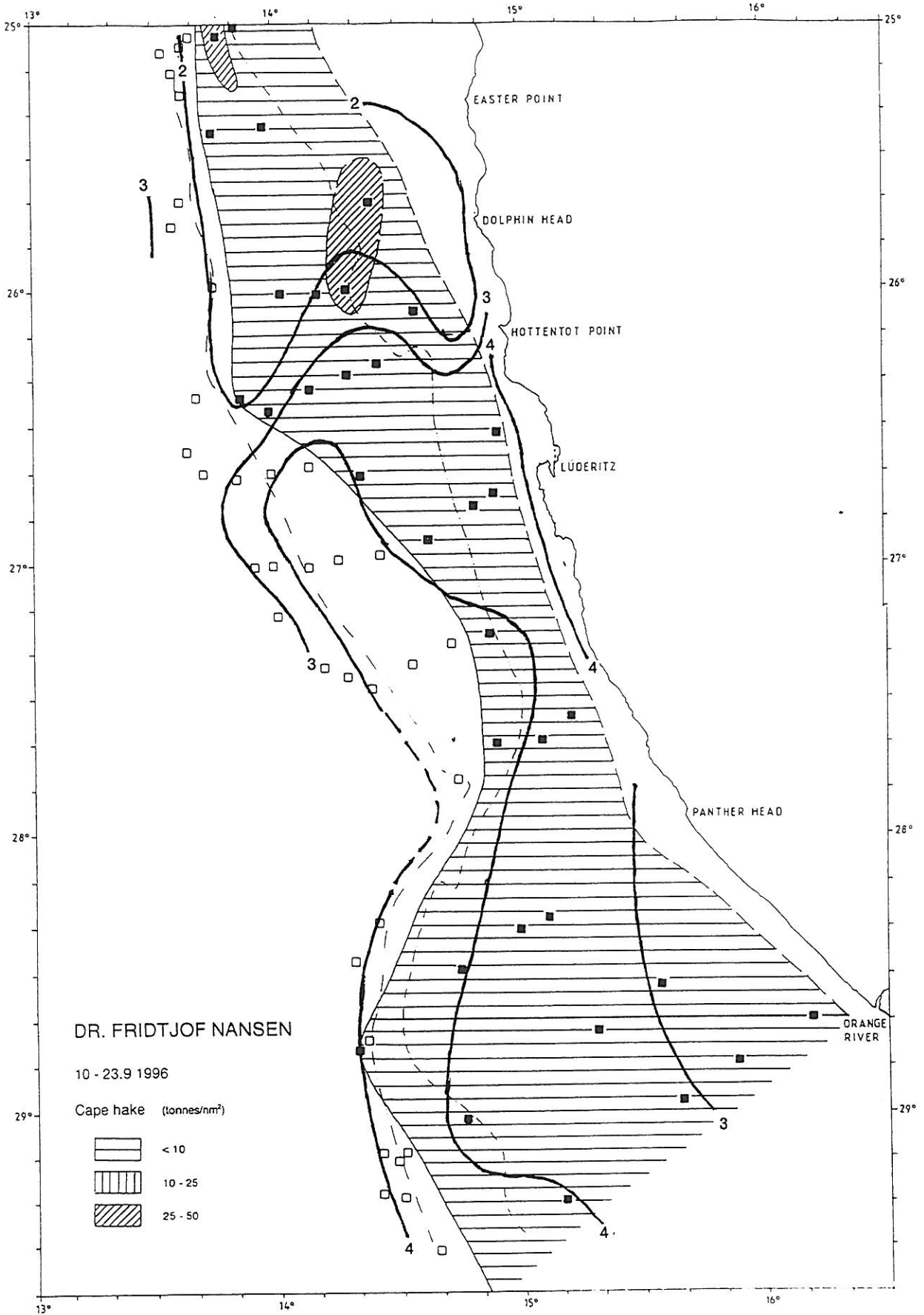


Figure 6a Orange River to St. Francis Bay. Distribution of Cape hake and oxygen (ml/l) near the bottom.

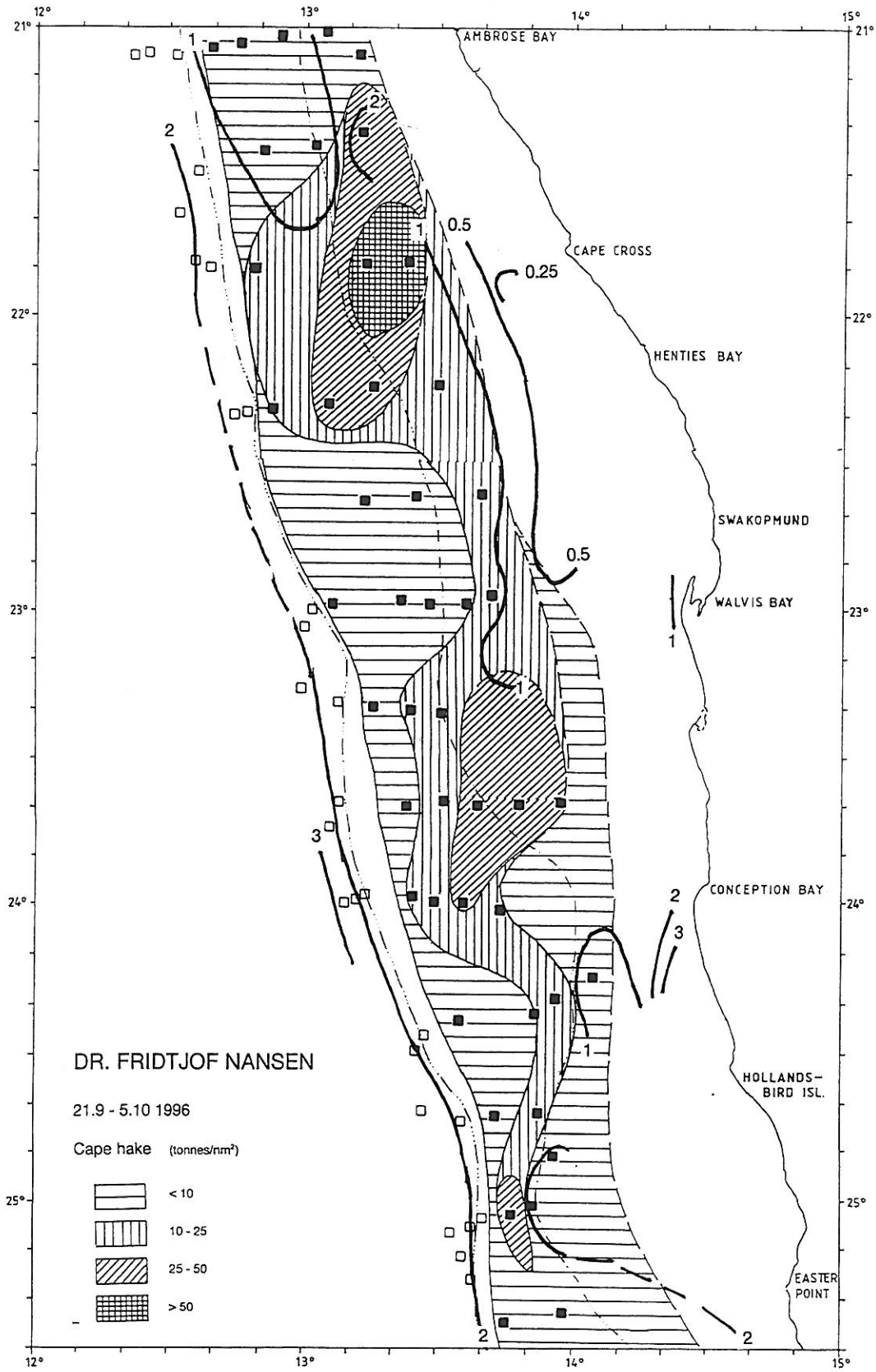


Figure 6b St. Francis Bay to Ambrose Bay. Distribution of Cape hake and oxygen (ml/l) near the bottom.

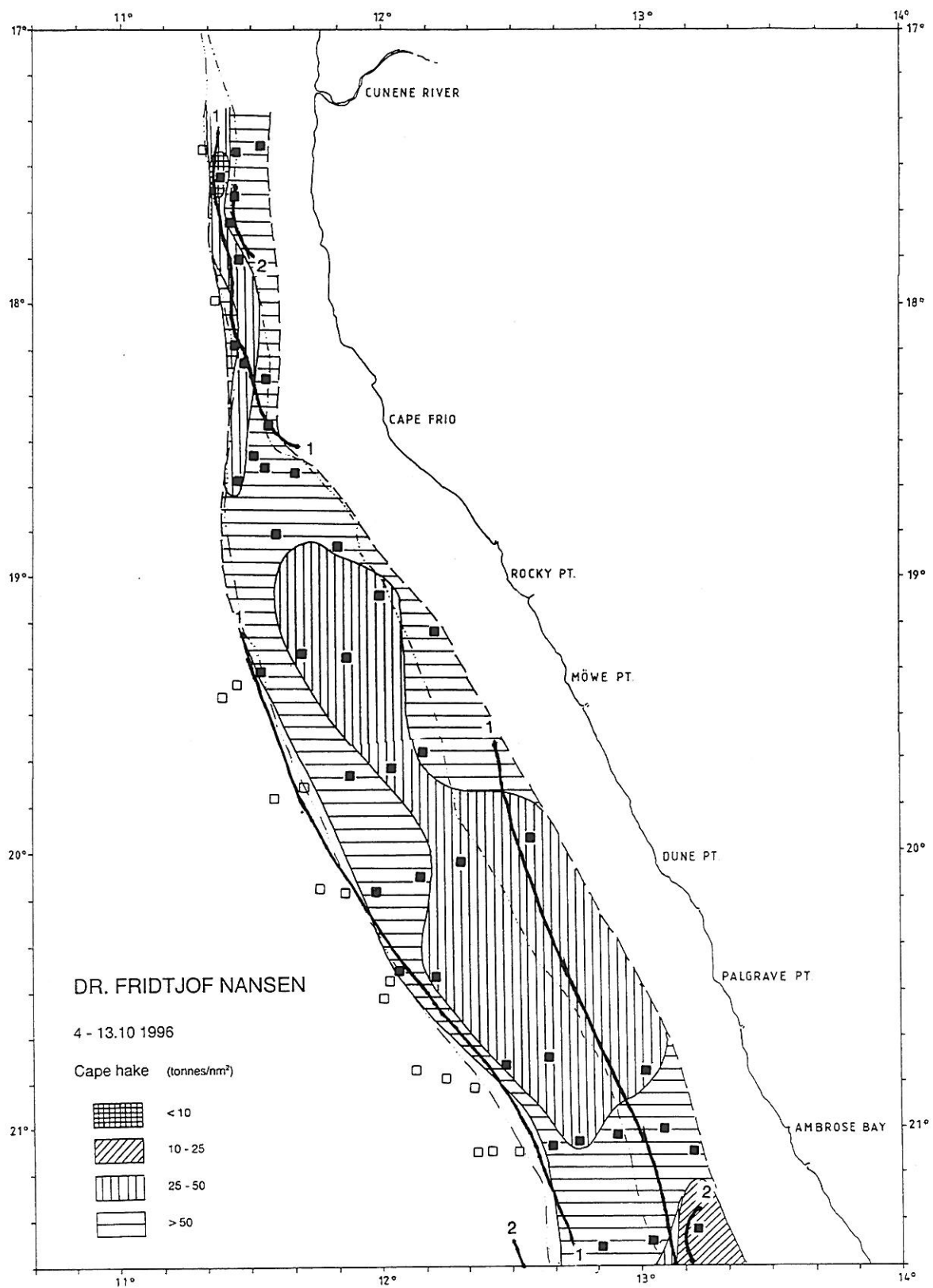


Figure 6c Ambrose Bay to Cunene River. Distribution of Cape hake and oxygen (ml/l) near the bottom.

CHAPTER 3 RESULTS OF THE ACOUSTIC AND TRAWL SURVEY

3.1 DISCUSSION OF METHODS

In the trawl survey programme all catches were sampled for composition in weight and numbers by species. The bottom trawl has a headline of 31 m (float line), a footrope of 47 m, headline height of 5-6 m and a distance between the wings during towing of about 21 m. All trawl hauls were monitored by SCANMAR trawl sensors (trawl depth, headline height and distance between the doors). This technology allows to determine with improved accuracy the actual time the trawl is on the bottom. A constraining rope is attached between the warps, 150 m in front of the doors. This constraining rope keeps the distance between the doors constant irrespective of trawl depth. For conversion of catch rates to fish densities the area between the wings is assumed to be equal to the effective fishing area and the retention factor q is equal to 1. With the new vessel, starting from January 1994, a new trawl gear was introduced with smaller bobbins. This gear is expected to give better bottom contact and

higher catch rates for bottom dwelling species like monk and sole. For the hake species the new gear is assumed to have no difference in performance. The trawl doors are Thyborøen 7.9 m², but the net, warp and wire dimensions are as with the former vessel (see Annex IV). The length

| Table 1 Hakes. Frequency of observations of hake in mid-water during trawling. No. of trawl stations with swept area densities and no. of stations with observations of hake above 5 m from bottom with acoustic density estimate (tonnes/NM ²). | | |
|--|------|-------|
| | DAY | NIGHT |
| ORANGE RIVER - ST. FRANCIS BAY | | |
| Trawl | | |
| No. stations | 48 | 21 |
| Mean density | 18.7 | 6.2 |
| Acoustic obs. | | |
| No. stations | 13 | 11 |
| Mean density | 3.8 | 4.6 |
| Average acou. corr. | 6 % | 39 % |
| ST. FRANCIS BAY - AMBROSE BAY | | |
| Trawl | | |
| No. stations | 46 | 18 |
| Mean density | 18.8 | 12.7 |
| Acoustic obs. | | |
| No. stations | 12 | 8 |
| Mean density | 3.6 | 7.6 |
| Average acou. corr. | 5 % | 27 % |
| AMBROSE BAY - CUNENE RIVER | | |
| Trawl | | |
| No. stations | 34 | 14 |
| Mean density | 11.1 | 9.6 |
| Acoustic obs. | | |
| No. stations | 23 | 14 |
| Mean density | 3.7 | 4.6 |
| Average acou. corr. | 23 % | 48 % |

of a haul over bottom, recorded as distance trawled, was measured by log pulses from the GPS, and checked against the lengths of the traces of the hauls on the GPS plotter system.

The problem of mid-water occurrence of hake and its effect on the swept area assessments has been discussed in earlier cruise reports. As in previous investigations, off-bottom hake in mid-water during daytime hauls is only a minor problem in the south and in the central area. In the north it made up an average 23% addition to the demersal biomass in the day hauls. In the night hauls the average correction were 39%, 27% and 48% for southern, central and northern region respectively (Table 1).

Fish abundance (in weight and number) by length groups or by cohorts are found by combining the total abundance obtained from catch records with the length distributions of the species. Length distributions in fish aggregations are obtained by pooling the length frequencies from trawl stations using the catch rates as weighting factor, and regional length based estimates are obtained through pooling the length frequencies from these areas with the biomass of the aggregations as weighting factor.

3.2 SOUTHERN REGION, ORANGE RIVER TO ST. FRANCIS BAY

The complete record of the fishing stations is shown in Annex III. Table 2 shows the catch rates of the main commercial species standardized to kg/hour for the shelf and the slope separately. For the hakes the mean catch rates on the shelf are close to those of January 1996 survey, while on the slope there is a decrease of about 46% which can be explained by seasonal migration. Compared to January 1996 survey, the catch rates of monk have reduced by 45% and 54% on the shelf and the slope respectively. Kingklip has been reduced by even larger margins during the same period.

The depth distribution of the two hake species based on the catch rates converted to densities is shown in Table 3. A comparison with January survey shows that the catch rate for the Cape hake has reduced significantly from 1 210 to 170 kg/hr in the 250-350 m depth zone. The fish in this zone was in January mainly small size with a mean size around 30 cm. The reduction during the year is seen as a combined effect of fishing on these aggregation and that the fish has moved into deeper water as it grows. For the deepwater Cape hake the reduction has occurred in the 350-450 m zone (from 960 to 650 kg/hr) and in the 450-550 m zone (from 610 to 160 kg/hr). The catch rates of deep water hake have increased however in shallower water (<250 m depth) from 30 to 90 kg/hr, and in the 250-350 m zone from 310 to 590 kg/hr.

Table 2 Southern region. Catch rates in kg/hour by main groups by swept area bottom trawl for the shelf and the slope.

SHELF 100-259 m

| ST.NO. | DEP. | Hakes | Monk | Kingklip | Soles | Squid | Other |
|--------|------|--------|------|----------|-------|-------|--------|
| 1663 | 103 | 109.5 | | 0.6 | 6.6 | 5.0 | 457.3 |
| 1664 | 156 | 690.8 | 1.9 | 0.3 | 0.1 | 20.4 | 278.2 |
| 1665 | 182 | 256.6 | 6.2 | | | 42.1 | 42.7 |
| 1666 | 169 | 127.6 | 6.1 | | | 3.6 | 338.8 |
| 1673 | 215 | 105.6 | 15.7 | 4.3 | | 25.0 | 237.8 |
| 1675 | 171 | 91.6 | 1.7 | | | 0.7 | 252.6 |
| 1676 | 164 | 169.3 | | | | 4.1 | 87.7 |
| 1677 | 178 | 243.9 | 1.7 | 0.8 | | 1.7 | 210.0 |
| 1678 | 180 | 155.6 | | | 1.9 | 0.4 | 137.3 |
| 1679 | 203 | 93.2 | 10.2 | | | 0.9 | 143.1 |
| 1687 | 163 | 182.2 | | 0.8 | 1.0 | | 324.2 |
| 1688 | 130 | 362.4 | | 33.7 | | | 80.7 |
| 1690 | 235 | 571.6 | 1.9 | 1.9 | 1.2 | 2.5 | 222.6 |
| 1702 | 258 | 413.1 | 8.9 | 2.0 | | 30.3 | 184.2 |
| 1703 | 181 | 754.6 | 1.3 | 2.6 | 1.6 | 12.2 | 121.4 |
| 1704 | 151 | 830.4 | | | 5.1 | 7.0 | 513.4 |
| 1705 | 115 | 192.4 | | | | 0.8 | 131.2 |
| 1718 | 217 | 77.2 | 5.4 | 0.5 | 0.8 | | 312.7 |
| 1719 | 185 | 315.7 | 1.3 | | 2.4 | 1.2 | 79.0 |
| 1720 | 210 | 1868.3 | 3.3 | | 2.6 | 13.8 | 437.5 |
| 1726 | 177 | 1185.1 | 1.0 | | 3.9 | | 279.9 |
| 1727 | 235 | 308.4 | 3.3 | | | 12.0 | 207.2 |
| 1735 | 211 | 76.9 | | | | | 5978.9 |
| MEAN | | 399.2 | 3.0 | 2.1 | 1.2 | 8.0 | 480.8 |

SLOPE 260-650 m

| ST.NO. | DEP. | Hakes | Monk | Kingklip | Soles | Squid | Other |
|--------|------|--------|-------|----------|-------|-------|--------|
| 1667 | 384 | 78.8 | | 2.7 | | 1.6 | 40.0 |
| 1668 | 623 | 7.3 | | | | 0.2 | 11.9 |
| 1669 | 486 | 171.2 | 1.34 | 2.6 | | 4.5 | 70.2 |
| 1670 | 335 | 92.7 | 6.26 | 2.5 | | 0.3 | 40.3 |
| 1671 | 413 | 22.7 | | | | | 17.5 |
| 1672 | 527 | 38.2 | 1.56 | | | | 33.0 |
| 1680 | 461 | 43.3 | | 1.6 | | 0.5 | 5.0 |
| 1681 | 558 | 17.3 | | 1.8 | | 0.9 | 53.7 |
| 1683 | 612 | 25.3 | | | | 1.0 | 164.9 |
| 1684 | 499 | 107.0 | | | | 2.7 | 126.5 |
| 1685 | 433 | 2371.5 | | 8.2 | | 10.2 | 107.2 |
| 1686 | 275 | 538.5 | 10.1 | 9.4 | | 4.7 | 92.3 |
| 1691 | 303 | 493.2 | 1.3 | 7.9 | | 0.6 | 122.9 |
| 1692 | 358 | 2909.3 | 19.4 | | | | 254.3 |
| 1693 | 439 | 358.9 | 13.2 | 4.8 | | 10.0 | 146.2 |
| 1694 | 491 | 83.1 | | | | 2.5 | 24.5 |
| 1695 | 598 | 82.5 | 23.5 | | | | 94.5 |
| 1696 | 650 | 57.3 | | | | 2.0 | 238.4 |
| 1697 | 542 | 162.0 | | | | 0.9 | 125.1 |
| 1698 | 447 | 83.9 | 6.8 | | | 2.2 | 41.0 |
| 1699 | 404 | 398.8 | 60.9 | 22.2 | | 16.0 | 307.1 |
| 1700 | 374 | 1201.0 | 36.6 | 4.9 | | 20.0 | 547.0 |
| 1701 | 330 | 412.7 | 14.2 | 0.8 | | 16.8 | 243.5 |
| 1707 | 336 | 598.9 | | 5.3 | | 20.6 | 150.8 |
| 1708 | 370 | 648.0 | 3.0 | 11.4 | | 17.7 | 269.9 |
| 1709 | 409 | 623.2 | | 20.9 | | 37.3 | 106.6 |
| 1710 | 427 | 166.3 | 6.4 | 8.9 | | 3.8 | 145.4 |
| 1711 | 481 | 98.1 | 12.3 | | | 4.3 | 67.4 |
| 1712 | 552 | 379.5 | 43.3 | 15.1 | | 8.9 | 356.3 |
| 1713 | 441 | 920.7 | | | | 4.4 | 211.5 |
| 1714 | 399 | 311.1 | 4.9 | 14.4 | | 2.6 | 156.7 |
| 1715 | 391 | 527.3 | 32.7 | 7.2 | | 6.0 | 230.9 |
| 1716 | 339 | 1754.1 | 7.7 | | | 23.9 | 346.3 |
| 1717 | 285 | 1776.1 | | | | 1.0 | 115.8 |
| 1721 | 261 | 902.3 | 116.7 | | 12.0 | 16.7 | 548.5 |
| 1722 | 307 | 748.3 | 149.3 | 8.1 | | | 1335.6 |
| 1723 | 403 | 318.0 | 19.2 | 88.5 | | | 129.9 |
| 1724 | 616 | 316.1 | | | | 7.3 | 597.3 |
| 1725 | 497 | 253.6 | | | | 7.6 | 271.1 |
| 1728 | 336 | 172.2 | 33.6 | | | | 443.8 |
| 1729 | 352 | 329.3 | 5.2 | | | 10.7 | 262.1 |
| 1730 | 551 | 582.5 | 27.8 | | | 6.8 | 328.7 |
| 1731 | 641 | 107.0 | | | | 24.3 | 513.4 |
| 1732 | 500 | 444.1 | 7.0 | | | | 249.7 |
| 1733 | 398 | 182.2 | 10.2 | | | | 104.9 |
| 1734 | 264 | 1316.8 | 3.4 | | | | 113.0 |
| MEAN | | 505.1 | 14.7 | 5.4 | 0.3 | 6.6 | 216.6 |

| | 100-250m | 250-350m | 350-450m | 450-550m | 550-650m |
|--------------|----------|----------|----------|----------|----------|
| Cape hake | | | | | |
| Density | 9.3 | 5.7 | 0.02 | | |
| Catch rate | 280 | 170 | 1 | | |
| Deep w. hake | | | | | |
| Density | 3.0 | 19.6 | 21.8 | 5.3 | 5.9 |
| Catch rate | 90 | 590 | 650 | 160 | 180 |
| No. of hauls | 22 | 12 | 17 | 9 | 9 |

The distribution of the two hake species based on plots of densities by fishing stations is shown in Figures 8 and 9. These include the acoustic estimates of fish present above the 5 m bottom channel during trawling as explained above. Cape hake was found in higher density only in a small area near Dolphin Head. The main concentrations of deepwater Cape hake was in Lüderitz area.

Biomass estimates based on a post-stratification of the densities as shown in Figures 8 and 9, give 89 000 tonnes for the Cape hake and 167 000 tonnes for the deepwater Cape hake (Table 4), a decrease of 47% for the Cape hake and 17% for deep water hake since the previous survey. The 95% confidence limits give a range of $\pm 38\%$ on the estimate of the Cape hake and $\pm 19\%$ of the deepwater Cape hake.

| Year/Survey | Cape hake | Deepwater Cape hake |
|-------------|-----------|---------------------|
| 90/1 | 130 | 22 |
| 90/3 | 130 | 25 |
| 91/1 | 113 | 31 |
| 91/2 | 80 | 82 |
| 92/1 | 200 | 145 |
| 92/2 | 160 | 125 |
| 93/1 | 210 | 150 |
| 93/2 | 180 | 115 |
| 94/1 | 200 | 160 |
| 94/2 | 240 | 215 |
| 94/4 | 150 | 121 |
| 95/2 | 145 | 140 |
| 96/1 | 169 | 202 |
| 96/2 | 89 | 167 |

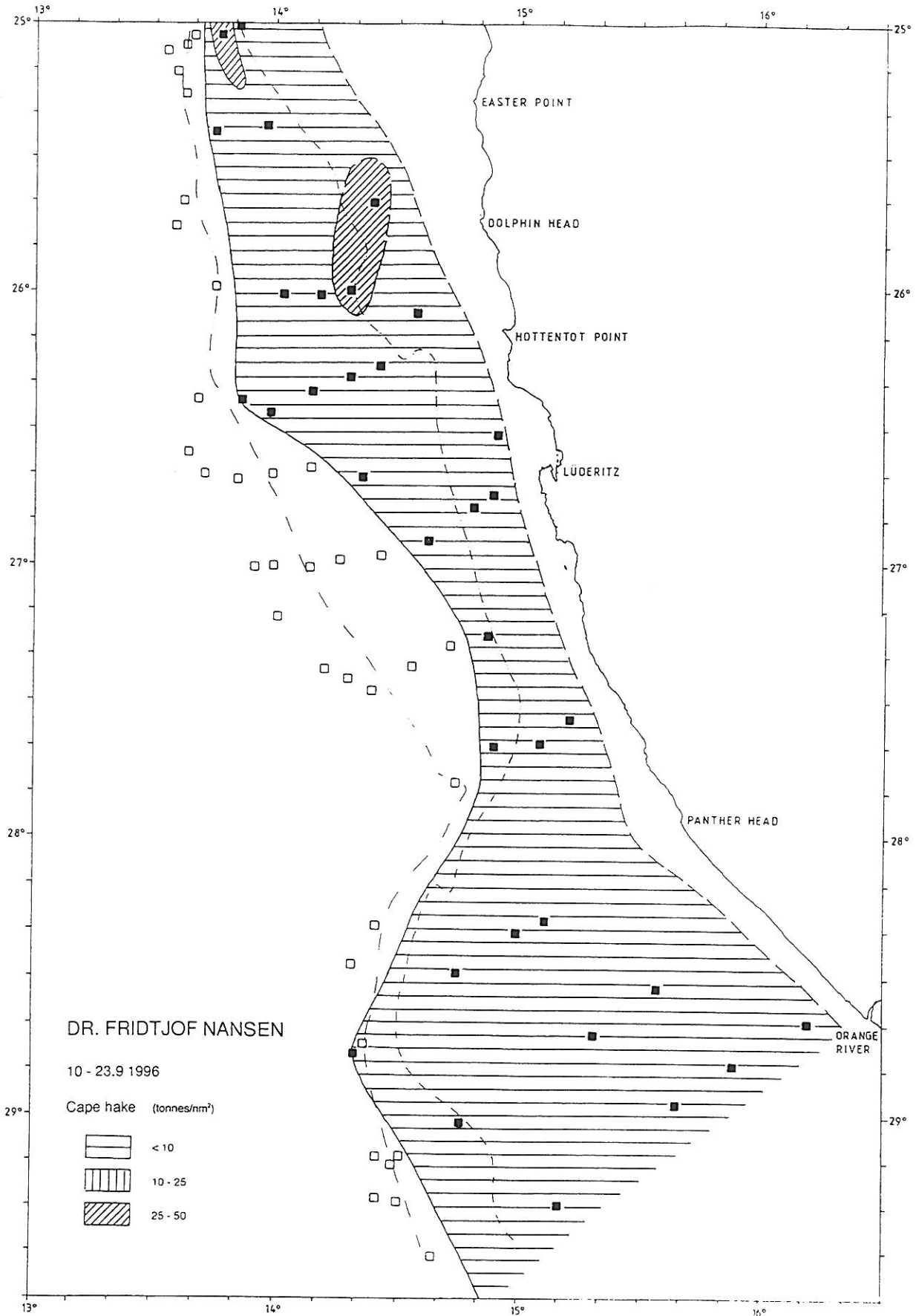


Figure 8 Orange River to Francis Bay. Distribution of Cape hake. Empty squares indicate stations where Cape hake was not caught.

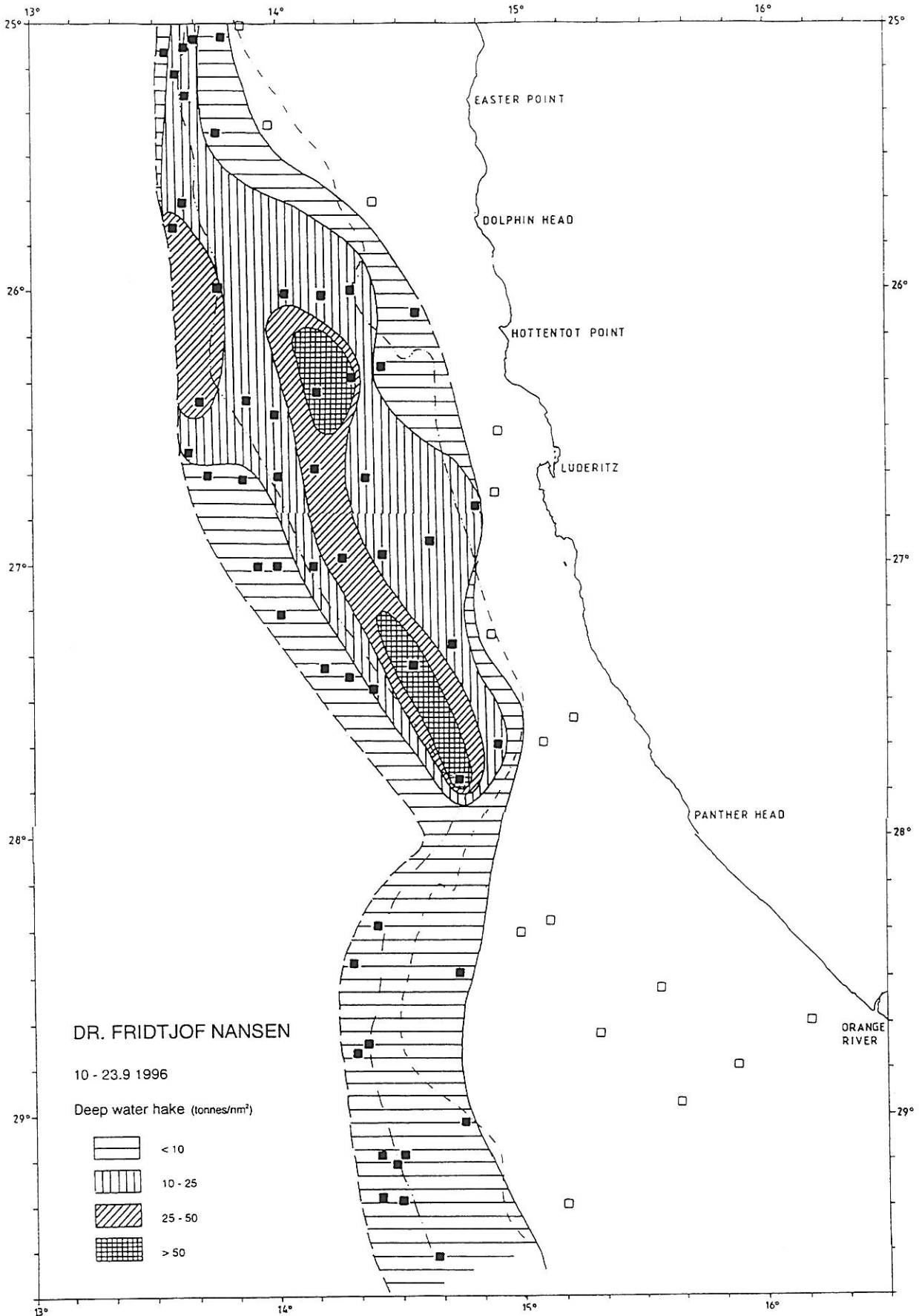


Figure 9 Orange River to St. Francis Bay. Distribution of deepwater Cape hake. Empty squares indicate stations where deepwater Cape hake was not caught.

The size compositions of the Cape hake from pooled samples weighted by catch rates are shown for each region by depth ranges in Annex I. There is, as usual, an increase of size with depth. A length frequency analysis to identify cohorts in the stock, was done in the same way as during the four previous surveys. The results are shown in Table 5.

| Year class | Mean length | Sigma | Fraction of all fish | Population million N | Biomass 1 000 t |
|------------|-------------|-------|----------------------|----------------------|-----------------|
| 1995 | 15.9 | 1.2 | 0.42 | 429 | 11 |
| 1994 | 23.0 | 2.5 | 0.48 | 672 | 63 |
| older | | | 0.10 | 18 | 13 |

The main part of the biomass is made up of the 1994 year-class, which will start to recruit to the fisheries towards the end of 1997. The data on 1995 year-class are not representative as the fish is still mostly in a pelagic state, and has been included here only for the completeness of the total biomass estimate. The fishable biomass in the region is estimated to 14 000 tonnes and 18 million fish. This is a significant reduction from 51 000 tonnes in January 1996 and is the lowest figure recorded since the series of surveys started in 1990.

Results from a length frequency analysis on the deepwater Cape hake is shown in Table 6. The fishable part of the stock in the region is estimated to about 66 000 tonnes and 122 million fish. This is a substantial decrease in biomass from 113 000 tonnes in January 1996.

| Year class | Mean length | Sigma | Fraction of all fish | Population million N | Biomass 1 000 t |
|------------|-------------|-------|----------------------|----------------------|-----------------|
| 1994 | 19.5 | 2.0 | 0.34 | 398 | 19 |
| 1994 | 25.3 | 2.3 | 0.48 | 573 | 62 |
| 1993 | 34.4 | 3.7 | 0.10 | 125 | 32 |
| older | | | 0.08 | 95 | 51 |

3.3 CENTRAL REGION, ST. FRANCIS BAY TO AMBROSE BAY

Table 7 shows the catch composition for the shelf and the slope by main groups. The mean catch rates for both hakes combined remained at the same level as in January on the shelf but reduced by 30% (from 535 to 372 kg/hr) on the slope since the last survey. The on-shelf catches are mainly represented by young fish, so called 'non-fishable' biomass while the fish on the slope are targeted by the fishing fleet. For monk, the catch rates in the more shallow depth range remained the same at 6.8 kg/hr, while beyond 250 m bottom depth the mean rates have decreased from 23 to 13 kg/hr.

Table 7 Central region. Catch rates by main groups in swept area bottom trawl hauls, kg/hr.

SHELF 100-259 m

| ST.NO. | DEP. | Hakes | Monk | Kingklip | Soles | Squid | Other |
|--------|------|--------|------|----------|-------|-------|---------|
| 1736 | 180 | 126.4 | 0.2 | | | | 9116.4 |
| 1737 | 237 | 393.2 | 26.2 | | 4.3 | 1.9 | 35.9 |
| 1745 | 238 | 434.4 | 21.3 | | 0.9 | | 67.4 |
| 1746 | 156 | 190.4 | 1.1 | | 1.3 | 2.7 | 16.3 |
| 1759 | 238 | 362.5 | 5.6 | | | 7.5 | 138.9 |
| 1760 | 213 | 2748.8 | | | | | 20.4 |
| 1761 | 186 | 1096.7 | | | | 0.3 | 68.6 |
| 1762 | 170 | 795.2 | | | | | 89.7 |
| 1764 | 211 | 711.2 | 10.2 | | | 8.6 | 86.4 |
| 1774 | 150 | 230.0 | 2.0 | | 2.9 | 21.1 | 1565.5 |
| 1775 | 143 | 613.7 | 6.9 | | 1.6 | 22.6 | 273.5 |
| 1777 | 134 | 679.6 | 1.8 | | 1.6 | | 388.1 |
| 1778 | 245 | 112.4 | 9.1 | | | 13.7 | 107.6 |
| 1783 | 255 | 1166.0 | 11.7 | | | | 816.1 |
| 1784 | 224 | 753.0 | 5.0 | | | 0.5 | 113.3 |
| 1785 | 151 | 865.0 | | | 3.0 | | 256.8 |
| 1787 | 150 | 3720.5 | 32.9 | | | 23.1 | 1196.8 |
| 1788 | 165 | 2029.4 | 8.8 | | 14.1 | | 13218.6 |
| 1796 | 221 | 156.5 | 2.2 | | | 10.8 | 674.7 |
| 1797 | 133 | 834.4 | 2.4 | | 7.0 | 1.0 | 1105.7 |
| 1798 | 128 | 214.8 | 0.4 | | 0.5 | 0.5 | 164.0 |
| 1799 | 132 | 273.0 | 8.0 | | 5.0 | | 11521.3 |
| 1805 | 259 | 166.0 | 0.2 | | 0.5 | 5.1 | 19.2 |
| MEAN | | 811.9 | 6.8 | | 1.9 | 5.2 | 1785.3 |

SLOPE 260-700 m

| ST.NO. | DEP. | Hakes | Monk | Kingklip | Soles | Squid | Other |
|--------|------|--------|------|----------|-------|-------|--------|
| 1738 | 374 | 115.6 | 3.2 | | | | 149.4 |
| 1739 | 422 | 154.0 | 6.2 | 4.0 | | 2.5 | 213.8 |
| 1740 | 590 | 94.7 | 21.9 | | | 6.8 | 262.6 |
| 1741 | 473 | 63.5 | | | | 5.0 | 418.1 |
| 1742 | 382 | 1681.4 | 59.8 | 18.1 | | 6.3 | 341.7 |
| 1743 | 341 | 476.0 | 12.8 | 10.4 | | 45.3 | 964.8 |
| 1744 | 279 | 288.1 | 23.6 | | | 7.6 | 242.8 |
| 1749 | 261 | 298.1 | 13.9 | | | 50.5 | 102.0 |
| 1750 | 272 | 1064.0 | 39.5 | | | 50.1 | 341.7 |
| 1751 | 281 | 568.8 | 8.4 | | | | 1096.8 |
| 1752 | 290 | 486.3 | 12.5 | | | 16.5 | 725.9 |
| 1753 | 407 | 432.2 | 28.8 | 19.5 | | 2.5 | 335.0 |
| 1754 | 506 | 114.9 | 2.5 | | | 4.7 | 256.0 |
| 1755 | 600 | 90.4 | | | | 16.9 | 187.9 |
| 1756 | 557 | 180.5 | 4.9 | | | 20.3 | 201.6 |
| 1757 | 456 | 311.4 | 21.1 | 6.2 | | 12.2 | 774.5 |
| 1758 | 271 | 174.2 | 7.4 | | | 8.8 | 261.3 |
| 1765 | 285 | 359.3 | 35.5 | | | 19.1 | 515.7 |
| 1766 | 361 | 199.2 | 16.4 | | | 13.5 | 102.7 |
| 1767 | 430 | 707.7 | 23.7 | | | 13.0 | 520.6 |
| 1768 | 651 | 94.7 | 3.4 | | | 14.4 | 859.5 |
| 1769 | 542 | 345.0 | 4.4 | | | 27.3 | 536.4 |
| 1770 | 463 | 240.2 | 2.9 | | | 6.5 | 204.3 |
| 1771 | 308 | 297.1 | | 2.1 | | 30.1 | 2234.7 |
| 1772 | 340 | 112.6 | | 4.4 | | 7.5 | 34.2 |
| 1773 | 260 | 63.3 | | | | | 82.7 |
| 1779 | 292 | 285.9 | 5.2 | | | 8.4 | 47.9 |
| 1780 | 552 | 457.8 | | | | | 776.5 |
| 1781 | 435 | 578.2 | 3.8 | | | | 350.1 |
| 1782 | 357 | 303.7 | 2.3 | | | 9.8 | 154.7 |
| 1790 | 323 | 450.2 | 28.4 | | | 7.1 | 99.1 |
| 1791 | 505 | 296.9 | 17.0 | | | 11.2 | 551.1 |
| 1792 | 607 | 1037.5 | | | | | 588.7 |
| 1793 | 671 | 177.5 | 18.7 | | | 10.2 | 279.8 |
| 1794 | 434 | 328.4 | 20.8 | | | | 1138.9 |
| 1795 | 310 | 236.5 | 17.6 | | | 13.6 | 112.1 |
| 1800 | 450 | 460.5 | 14.6 | | | | 439.9 |
| 1801 | 566 | 403.2 | 23.6 | | | | 805.2 |
| 1802 | 633 | 700.4 | 6.8 | | | 5.5 | 377.4 |
| 1803 | 374 | 125.0 | 18.2 | 3.4 | | 12.8 | 126.4 |
| 1804 | 337 | 408.2 | 12.3 | | | 20.0 | 68.8 |
| MEAN | | 372.3 | 13.2 | 1.7 | | 11.9 | 436.2 |

The catch rates indices by depth ranges of the two hake species is shown in Table 8. The catch rate for the Cape hake has been constant (at 800 kg/hr) throughout 1996 in the shelf, and in 250-350 m, the main habitat for the adult Cape hake in the central region, the catch rates declined (from 430 to 360 kg/hr). Catch rates of Cape hake 350-450 m zone improved from 20 kg/hr in January to 35 kg/hr during this survey. The high catch rates obtained in the shallow areas during the year confirm a new potential cohort that is entering the fishery.

The catch rates of deepwater Cape hake in its main depth zone (350-450 m) in the central region has dropped from 610 kg/hr to 410 kg/hr from January-October 1996. A similar drop was also

observed within the 250-350 m depth range and in 450-550 m depth range. However, in the deep (550-650 m), the catch rates almost doubled from 190 kg/hr to 360 kg/hr.

| | 100-250m | 250-350m | 350-450m | 450-550m | 550-700m |
|---------------------------|----------|----------|----------|----------|----------|
| Cape hake Density | 26.3 | 11.9 | 1.2 | | |
| Catch rate | 790 | 360 | 35 | | |
| Deepw. C. hake Density | | 1.3 | 13.8 | 7.4 | 12.0 |
| Catch rate | | 40 | 410 | 220 | 360 |
| No. of hauls | 21 | 17 | 11 | 6 | 9 |

Figure 10 shows the distribution of Cape hake over this region. The picture is similar to the January survey where some promising high density clusters of young hake are observed on the shelf. The deep water hake (Figure 11) continues to increase northwards in its preferred depth range and are now forming bands of moderately high to high densities across the whole regional map.

The biomass estimate of Cape hake for the central region based on post stratification is 182 000 tonnes from 145 000 tonnes since the 96/1 survey (Table 9). As seen in the Table, the indices of Cape hake abundance have increased since mid 1995.

However, the real increase in the population is doubtful as the increase may indicate seasonal movement of hakes from south to central during this time of the year. The estimate on the deepwater Cape hake is 58 000 tonnes, lower than the January survey but lies still within the survey variability. Thus the general trend for the deepwater hake since 1990 has been persistently upwards (Table 9). The 95% confidence limits on the estimates are $\pm 22\%$ on the Cape hake and $\pm 21\%$ on the deepwater Cape hake.

| Year/Survey | Cape hake | Deepwater Cape hake |
|-------------|-----------|---------------------|
| 90/1 | 180 | 4 |
| 90/3 | 219 | 6 |
| 91/1 | 150 | 6 |
| 91/2 | 302 | 13 |
| 92/1 | 261 | 15 |
| 92/2 | 542 | 15 |
| 93/1 | 280 | 12 |
| 93/2 | 280 | 20 |
| 94/1 | 225 | 30 |
| 94/2 | 160 | 30 |
| 94/4 | 112 | 16 |
| 95/1 | 105 | 40 |
| 96/1 | 145 | 73 |
| 96/2 | 182 | 58 |

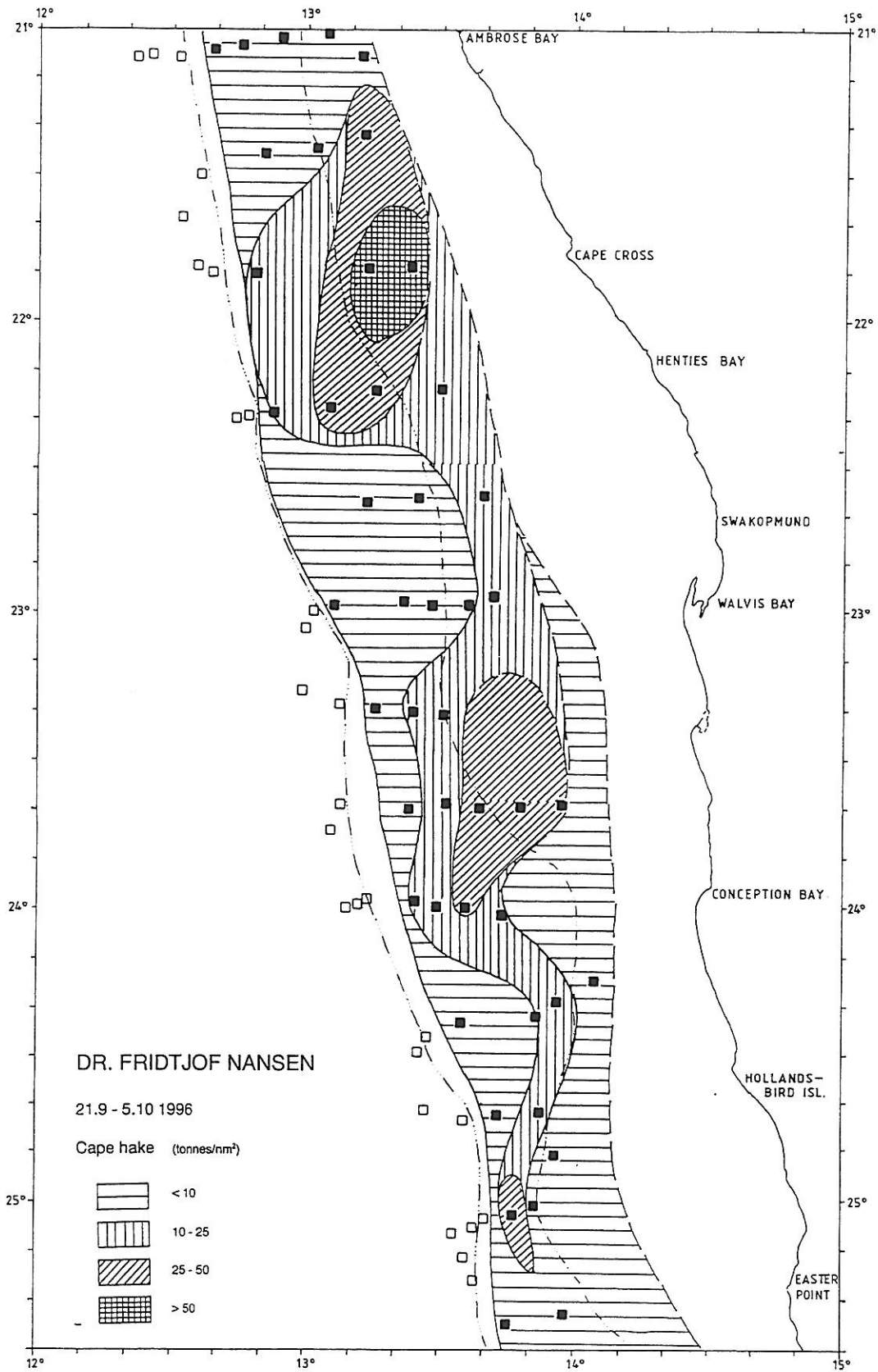


Figure 10 St. Francis Bay to Ambrose Bay. Distribution of Cape hake. Empty squares indicate stations where Cape hake was not caught.

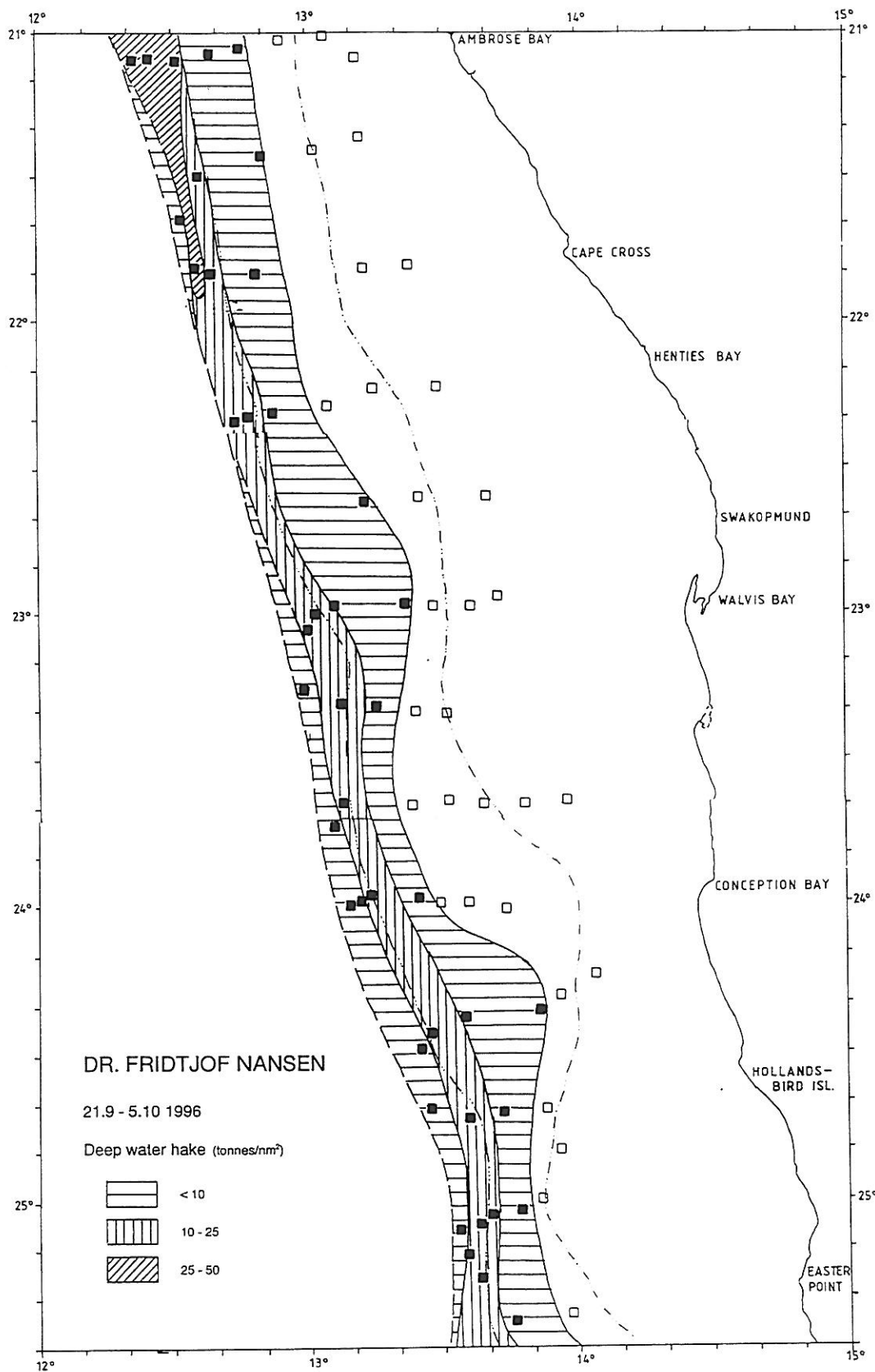


Figure 11 St. Francis Bay to Ambrose Bay. Distribution of deepwater Cape hake. Empty squares indicate stations where deepwater Cape hake was not caught.

The results from a cohort analysis on the length distribution are shown in Table 10.

| Table 10 Central region. Cape hake. Estimated age-cohorts from optimized length distributions. | | | | | |
|--|-------------|-------|----------------------|----------------------|-----------------|
| Year class | Mean length | Sigma | Fraction of all fish | Population million N | Biomass 1 000 t |
| 1994 | 22 | 2.0 | 0.65 | 991 | 71 |
| 1994 | 26 | 2.2 | 0.21 | 322 | 39 |
| 1993 | 32 | 2.5 | 0.09 | 135 | 29 |
| older | | | 0.04 | 64 | 42 |

The 1994 year-class dominate the fish population with 86% of the number and 61% of the biomass. The fishable part of the population is 46 000 tonnes and 71 mill fish. This represents minor increase in the fishable biomass by 5 000 tonnes since the last survey, a difference within the survey variability. On the other hand the recruits or the non-fishable biomass has increased from 51 000 in June 1995, reaching 104 000 in January 1996 and is now at 136 000 tonnes in the recent survey.

Table 11 shows the results from the length frequency analysis for the deepwater Cape hake. In this population the fishable biomass is 46 000 tonnes, and is lower than 56 000 tonnes obtained during the 96/1 survey.

| Table 11 Central region. Deepwater Cape hake. Estimated age-cohorts from optimized length distributions. | | | | | |
|--|-------------|-------|----------------------|----------------------|-----------------|
| Year class | Mean length | Sigma | Fraction of all fish | Population million N | Biomass 1 000 t |
| 1994 | 26.3 | 2.5 | 0.09 | 12 | 1.5 |
| 1993 | 35.5 | 3.0 | 0.63 | 96 | 28 |
| 1992 | 45.0 | 3.0 | 0.23 | 34 | 20 |
| older | | | 0.05 | 6 | 6 |

3.4 NORTHERN REGION, AMBROSE BAY TO CUNENE RIVER

Table 12 shows the catch rates by main groups for the shelf and slope separately. The mean rate for hakes shows a decrease in the both shallower (from 407 to 169 kg/hr) and in the deeper (from 461 to 335 kg/hr) zones compared to last survey. The average catch rate for monk in the shelf

remained very low but similar to the 94/1 survey, while in the slope, it remained around 15 kg/hr. A prominent species in this region, large-eye dentex has the mean catch rate reduced heavily both in the shelf and in the slope compared to January 1996. The reduction may be of seasonal type.

Table 12. Northern region. Catch rates by main groups in swept area bottom trawl hauls, kg/hr.

SHELF 100-259 M

| ST.NO. | DEP. | Hakes | Monk | Dentex | Horse mck | Squid | Other |
|--------|------|-------|------|--------|-----------|-------|--------|
| 1806 | 141 | 384.7 | 3.3 | | 750.0 | | 67.3 |
| 1817 | 121 | | | | | | 31.2 |
| 1818 | 134 | 610.0 | | | 3522.2 | | 76.0 |
| 1819 | 196 | 48.3 | | | 36.7 | | 16.8 |
| 1820 | 240 | 360.7 | 2.1 | 1.9 | 159.3 | 2.8 | 24.5 |
| 1829 | 254 | 187.7 | 2.7 | 5.5 | 153.5 | 5.7 | 19.5 |
| 1830 | 139 | 57.0 | | | 22208.2 | | 9.6 |
| 1831 | 160 | 38.5 | | | 1167.5 | 21.0 | |
| 1837 | 230 | 447.0 | | 2.7 | 938.5 | 14.5 | 49.7 |
| 1838 | 244 | 62.3 | 3.8 | 3.10 | 21.2 | 4.0 | 210.9 |
| 1840 | 144 | 42.7 | | 328.8 | 674.4 | 28.3 | 337.5 |
| 1841 | 195 | 140.6 | | 1433.6 | 118.7 | 39.2 | 1416.2 |
| 1843 | 213 | 44.1 | | 13.0 | 8.0 | 0.9 | 706.0 |
| 1844 | 236 | 77.6 | | 17.7 | 5.7 | | 809.7 |
| 1846 | 214 | 624.2 | 0.4 | 670.8 | | | 4333.6 |
| 1850 | 219 | 48.0 | | 2.4 | 29.1 | 3.6 | 699.5 |
| 1851 | 209 | 50.4 | | | 339.1 | 27.7 | 428.0 |
| 1852 | 248 | 88.0 | | 0.4 | 83.5 | 1.4 | 119.4 |
| 1854 | 230 | 42.1 | 0.4 | 0.4 | 102.0 | 2.0 | 409.7 |
| 1855 | 219 | 25.7 | 1.0 | 44.2 | 244.8 | | 93.7 |
| MEAN | | 169.0 | 0.7 | 126.2 | 1528.1 | 7.5 | 492.9 |

Slope 260-700 m

| ST.NO. | DEP. | Hakes | Monk | Dentex | Horse mck | Squid | Other |
|--------|------|--------|------|--------|-----------|-------|--------|
| 1807 | 320 | 472.6 | 19.7 | 1.7 | | 8.6 | 38.7 |
| 1808 | 337 | 748.7 | | | | | 193.7 |
| 1809 | 468 | 693.1 | 15.4 | | | 13.2 | 2533.3 |
| 1810 | 559 | 506.4 | 3.4 | | | 8.4 | 913.4 |
| 1811 | 662 | 340.3 | 11.5 | | | | 826.5 |
| 1812 | 601 | 333.3 | 1.1 | | | 6.3 | 661.3 |
| 1813 | 512 | 247.5 | 24.5 | | | | 1208.8 |
| 1814 | 409 | 167.8 | 7.3 | | | 2.7 | 287.9 |
| 1815 | 313 | 204.7 | 1.2 | 66.5 | 7.9 | 3.8 | 155.5 |
| 1816 | 296 | 10.1 | | | 5.8 | 0.5 | 2.0 |
| 1821 | 293 | 174.6 | 7.7 | 74.6 | 14.2 | 2.8 | 103.4 |
| 1822 | 362 | 217.3 | 35.4 | | 39.7 | 14.4 | 297.1 |
| 1823 | 468 | 376.6 | 2.1 | | | 16.9 | 867.8 |
| 1824 | 575 | 412.1 | 22.3 | | | 26.9 | 839.1 |
| 1825 | 529 | 464.4 | 21.4 | | | 30.9 | 709.6 |
| 1826 | 417 | 356.1 | 29.9 | | | 22.9 | 1005.3 |
| 1827 | 354 | 222.4 | 7.6 | 5.7 | 4.7 | 6.8 | 250.4 |
| 1828 | 308 | 214.1 | | 206.0 | 19.7 | 10.2 | 92.2 |
| 1832 | 653 | 418.4 | 23.3 | | | 8.1 | 478.6 |
| 1833 | 552 | 234.8 | 10.0 | | | 21.9 | 371.0 |
| 1834 | 452 | 129.1 | 17.5 | | 0.8 | 7.0 | 305.1 |
| 1835 | 341 | 202.3 | 1.5 | 13.6 | 4.9 | 2.2 | 157.1 |
| 1836 | 306 | 576.2 | | 92.4 | 11.9 | 2.2 | 118.4 |
| 1839 | 445 | 128.9 | 68.2 | 12.4 | 7.8 | | 1621.4 |
| 1842 | 262 | 1224.8 | 5.4 | 50.9 | 7.2 | | 1089.5 |
| 1845 | 376 | 480.1 | 4.2 | | | | 1544.0 |
| 1847 | 499 | 108.7 | 11.7 | | 33.7 | | 862.9 |
| 1848 | 445 | 188.7 | 39.9 | | | 14.0 | 890.1 |
| 1849 | 348 | 269.0 | 6.3 | 12.8 | | 3.6 | 916.1 |
| 1853 | 293 | 149.7 | 1.7 | 20.4 | 17.5 | | 298.0 |
| 1856 | 268 | 114.4 | | 116.0 | 46.4 | 9.8 | 218.4 |
| MEAN | | 335.0 | 12.9 | 21.7 | 7.1 | 7.8 | 640.5 |

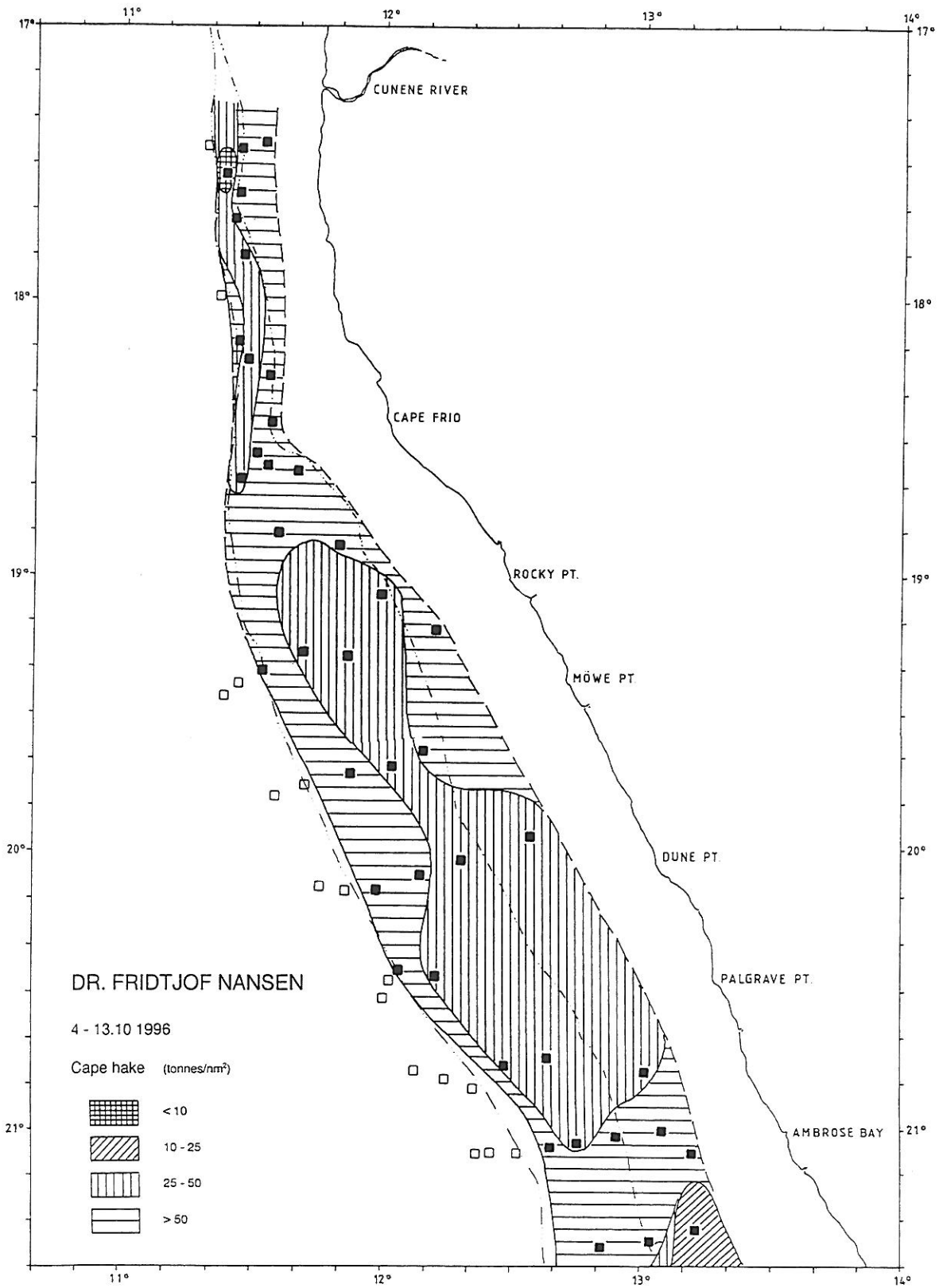


Figure 12 Ambrose Bay to Cunene River. Distribution of Cape hake. Empty squares indicate stations where Cape hake was not caught.

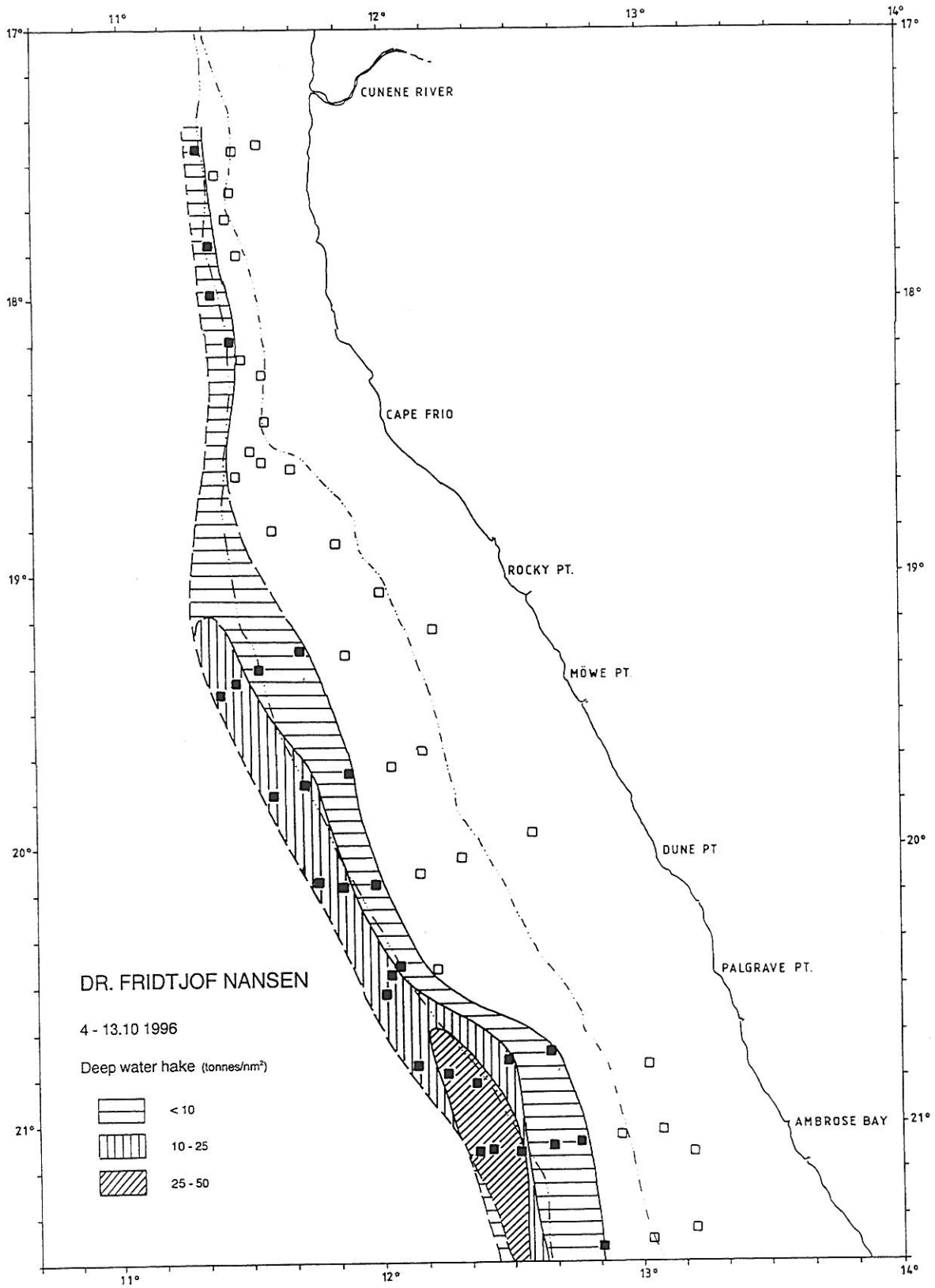


Figure 13 Ambrose Bay to Cunene River. Distribution of deepwater Cape hake. Empty squares indicate stations where deepwater Cape hake was not caught.

Figure 12 shows the distribution of Cape hake in the northern region by levels of density calculated from the catch rates and with correction for fish in mid-water. Extensive high-density aggregations beyond 50 tonnes/NM² found between the Cunene and Rocky Point during the previous survey have been reduced and only a low density aggregations of 10-25 tonnes/NM² were found between Ambrose Bay and Rocky Point. Aggregations of deep water hake found in this area during the previous survey are now reduced (Figure 13).

The depth distribution of the two hake species based on mean catch rates is shown in Table 13. For Cape hake there was a decrease in the 100-250 m depth zone by 60% from 440 to 180 kg/hr since the previous survey. In 250-350 m zone the decrease in catch rates was 30% from 520 to 360 kg/hr during the same period. These decreases, have been slightly compensated by an increase in the more narrow 350-450 m zone from 40 to 130 kg/hr.

| Table 13 Northern region. Depth distribution of the two hake species. Mean densities in tonnes/NM ² and mean catch rates kg/hr. | | | | | |
|--|----------|----------|----------|----------|----------|
| | 100-250m | 250-350m | 350-450m | 450-550m | 550-650m |
| Cape hake | | | | | |
| Density | 5.9 | 11.9 | 4.3 | 0.1 | |
| Catch rate | 180 | 360 | 130 | 5 | |
| Deepw. C. hake | | | | | |
| Density | | 0.8 | 4.5 | 10.7 | 12.2 |
| Catch rate | | 25 | 135 | 320 | 360 |
| No. of hauls | 15 | 12 | 7 | 6 | 6 |

The densities of deepwater Cape hake decreased 52% in its main distributional zone (the 350-450 m zone) from 280 to 135 kg/hr and about 44% between 450 and 550m from 570 to 320 kg/hr.

Biomass estimates give a total of 94 000 tonnes of Cape hake and 31 000 tonnes of deepwater Cape hake (Table 14). For the Cape hake this represents a decrease of 38 000 tonnes or 29% since the last survey. The decrease is associated with the reduction in fishable stock by 45%

since January possibly due to fishing (see below). The estimated total biomass of deep water hake remained at 31 000 tonnes. The 95% confidence limits on the estimates are $\pm 23\%$ on the Cape hake and $14\pm\%$ on the deepwater Cape hake.

The size compositions of the two hake species are shown in Annex I. A cohort analysis was done on the two hake species and the results are shown in Tables 15 and 16. The so called 'fishable biomass' in the northern region, representing fish of 36 cm and larger, is 48 000 tonnes.

| Year/Survey | Cape hake | Deepwater Cape hake |
|-------------|-----------|---------------------|
| 90/1 | 180 | |
| 90/3 | 105 | |
| 91/1 | 200 * | |
| 91/2 | 140 | 2 |
| 92/1 | 185 | 4 |
| 92/2 | 190 | 8 |
| 93/1 | 150 | 4 |
| 93/2 | 110 | 6 |
| 94/1 | 90 | 20 |
| 94/2 | 130 | 14 |
| 94/4 | 87 | 9 |
| 95/2 | 117 | 24 |
| 96/1 | 132 | 31 |
| 96/2 | 94 | 31 |

* + hake in the mid-water

| Year class | Mean length | Sigma | Fraction of all fish | Population million N | Biomass 1 000 t |
|------------|-------------|-------|----------------------|----------------------|-----------------|
| 1996 | 9.1 | 1.4 | 0.17 | 101 | 0.56 |
| 1994 | 24.5 | 2.3 | 0.59 | 342 | 33 |
| 1993 | 35.0 | 3.0 | 0.14 | 86 | 24 |
| older | | | 0.09 | 53 | 35 |

A similar analysis on the older deepwater Cape hake in the region is shown in Table 16. The estimated fishable biomass of deepwater Cape hake is 28 000 tonnes, or 68 million fish, and remained at the same level as in January 1996.

| Year class | Mean length | Sigma | Fraction of all fish | Population million N | Biomass 1 000 t |
|------------|-------------|-------|----------------------|----------------------|-----------------|
| 1993 | 35.8 | 3.2 | 0.52 | 36 | 11 |
| 1992 | 44.5 | 3.0 | 0.45 | 32 | 18 |
| 1991+ | | | 0.02 | | |

CHAPTER 4 CONSIDERATIONS ON THE SURVEY RESULTS

Survey effort

The present survey is the 14th in a series started in early 1990, covering the distribution of the hake stocks over the whole Namibian shelf. Figure 14 shows the effort spent in these investigations. This survey was done in 40 days.

Hakes may be partly inaccessible to the trawl-net due to vertical migrations. If not compensated for this would underestimate the abundances. However, the uses of acoustic assessment techniques and the Bergen Echo Integrator (BEI) post processing system enabled the biomass in the overlying water column to be included in the assessment. It is therefore not likely that major off-bottom aggregations of hakes have been missed. The occurrence of hakes in mid-water was more pronounced in the northern region. During the recent survey the average acoustic corrections during day time were 6%, 5% and 23% for

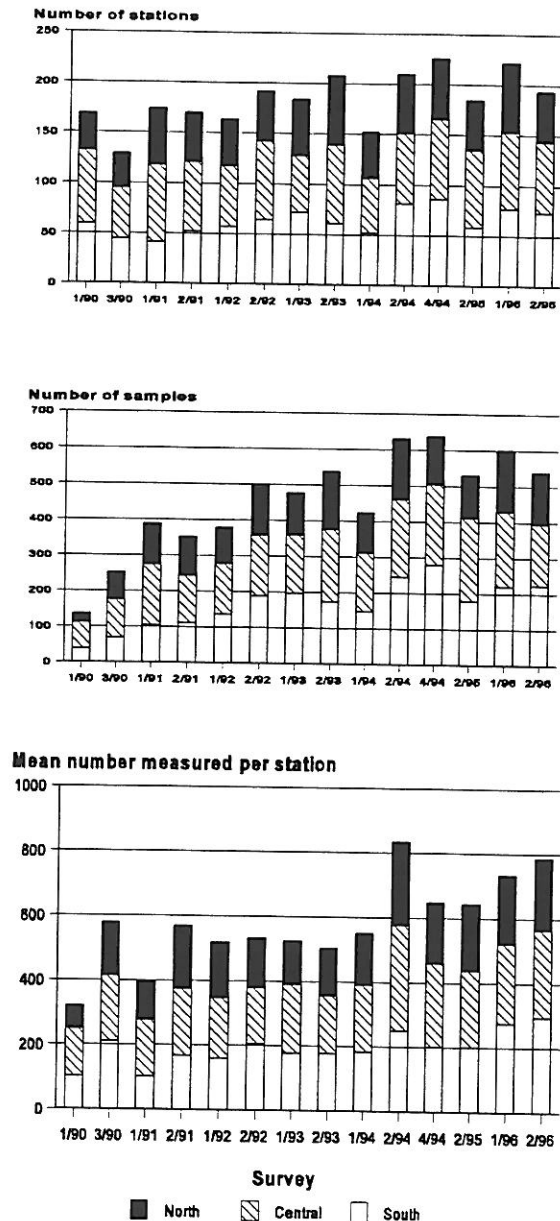


Figure 14 Hake survey effort 1990-96. a) Number of trawl stations by regions; b) Number of length frequency samples by regions; c) Mean number of fish in length sample.

the southern, central and northern regions respectively. The corresponding figures for the night hauls are 39%, 27% and 48%. Night hauls are usually carried out only on the peripheries of the fish distributions where the densities are low. Thus, the correction in absolute terms is small as well.

Catch per unit effort

A summary of the estimates of the mean density of the hakes by depth stratum is shown in Figure 15. The densities in the shallow ranges 100-250 m mainly reflect the strength of the young fish, 2-3 years of age, that inhabit this zone. The density of young Cape hakes in the northern region is the lowest since 1990. In the central region, the densities are at the same level as in the January 1996 survey, while in the southern region, there is a slight improvement compared with the previous two surveys. However, the densities in the recruiting biomass of Cape hakes are still below the normal of the preceding six years.

In the deeper waters (250-350 m depth range), densities of Cape hakes dropped in all regions. Figure 15 also show cyclic patterns in the densities ascribed to seasonal migrations. When the density is high in the south, it is often low in the central or vice versa. A fishing in excess of the present growth rate of the stock could probably explain the current simultaneous decline of densities in all regions. One may not assume that the stock has moved into deeper water (>350 m), as no increase in abundance was observed there.

The deep water hake shows a decreasing trend in all three regions in its main habitat, the 350-550 m depth range on the slope (Figure 15). It could be that, fishing finally is directed towards this species as well. We will better assess this situation in the coming surveys and from inspecting the commercial fleet catch data throughout 1996.

Observed catch rates in fisheries will only to a certain extent reflect the densities observed through surveys. As the fishing fleet work on the highest fish aggregations (the so called 'hot spots'), CPUE data overestimate the mean densities in a fish population. During the recent survey, for instance, the commercial fleet was operating on the densest spots detected by the research vessel. This clearly supports the 'hot spot' theory which further stress the fact that the CPUE of commercial vessels is not linearly related to stock biomass.

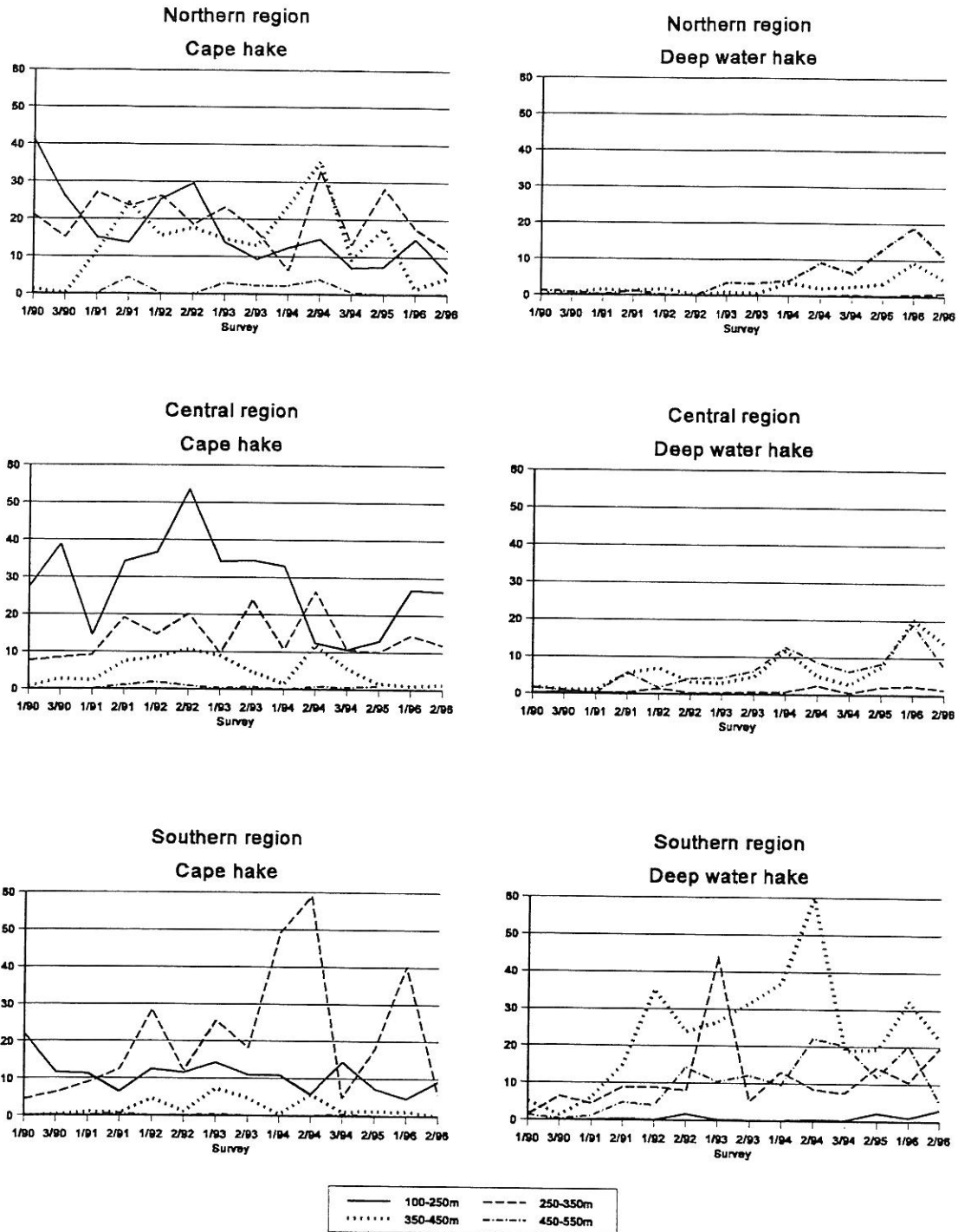


Figure 15 Estimated mean densities in depth strata by surveys. Mean densities in tonnes/NM².

Table 17 and Figure 16 give the up-to-date summaries of the biomass estimates for the two hake stocks by regions and surveys since the beginning of the survey programme in 1990. During the

first year of the programme a simple method for pooling the length samples was applied, and this has underrepresented the small and relative abundant small sized fish in the length based estimates. As a consequence the share of the fishable biomass in the total biomass was overestimated in the first two surveys. This has now been corrected and all the estimates are made by the same method.

| Table 17 Summary of total, fishable and non-fishable biomass estimates for the two hake species by surveys and areas. 1 000 tonnes. | | | | | | | | | | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|
| TOTAL BIOMASS | | | | | | | | | | | | | | |
| | Feb-Mar 1990 | Sep-Oct 1990 | Jan-Feb 1991 | Oct-Nov 1991 | Apr-May 1992 | Oct-Nov 1992 | Jan-Feb 1993 | Apr-May 1993 | Jan-Feb 1994 | Apr-May 1994 | Oct-Nov 1994 | Apr-June 1995 | Jan-Feb 1996 | Sep-Oct 1996 |
| SOUTHERN REGION | | | | | | | | | | | | | | |
| Cape hake | 118 | 142 | 128 | 84 | 203 | 163 | 222 | 179 | 200 | 240 | 150 | 145 | 169 | 89 |
| Deep water hake | 21 | 30 | 34 | 83 | 145 | 125 | 150 | 115 | 160 | 215 | 120 | 140 | 202 | 167 |
| CENTRAL REGION | | | | | | | | | | | | | | |
| Cape hake | 176 | 202 | 147 | 309 | 265 | 530 | 285 | 279 | 225 | 160 | 110 | 105 | 145 | 182 |
| Deep water hake | 4 | 5 | 6 | 15 | 15 | 17 | 16 | 19 | 30 | 30 | 15 | 40 | 73 | 58 |
| NORTHERN REGION | | | | | | | | | | | | | | |
| Cape hake | 203 | 116* | 195 | 140 | 190 | 199 | 147 | 110 | 92 | 130 | 90 | 120 | 132 | 94 |
| Deep water hake | | | | 2 | 4 | 8 | 4 | 6 | 20 | 15 | 10 | 25 | 31 | 31 |
| TOTAL NAMIBIA | | | | | | | | | | | | | | |
| Cape hake | 497 | 460* | 470 | 533 | 658 | 892 | 654 | 568 | 520 | 530 | 350 | 370 | 446 | 365 |
| Deep water hake | 25 | 35 | 40 | 100 | 164 | 150 | 170 | 140 | 210 | 260 | 145 | 205 | 306 | 256 |
| Both | 522 | 485* | 503 | 633 | 822 | 1042 | 824 | 708 | 737 | 790 | 495 | 575 | 752 | 621 |
| FISHABLE BIOMASS | | | | | | | | | | | | | | |
| SOUTHERN REGION | | | | | | | | | | | | | | |
| Cape hake | 20 | 44 | 54 | 50 | 145 | 69 | 92 | 99 | 112 | 130 | 35 | 62 | 51 | 14 |
| Deep water hake | 16 | 20 | 14 | 42 | 113 | 80 | 123 | 95 | 114 | 164 | 61 | 66 | 113 | 66 |
| CENTRAL REGION | | | | | | | | | | | | | | |
| Cape hake | 20 | 76 | 67 | 147 | 108 | 180 | 133 | 121 | 50 | 65 | 58 | 54 | 41 | 46 |
| Deep water hake | 4 | 5 | 6 | 6 | 13 | 12 | 13 | 19 | 26 | 22 | 10 | 34 | 56 | 46 |
| NORTHERN REGION | | | | | | | | | | | | | | |
| Cape hake | 66 | 62* | 170 | 134 | 145 | 133 | 106 | 89 | 74 | 102 | 63 | 93 | 88 | 48 |
| Deep water hake | - | - | - | 2 | 4 | 8 | 4 | 6 | 19 | 13 | 8 | 21 | 28 | 27 |
| Cape hake | 106 | 182* | 291 | 331 | 398 | 382 | 331 | 309 | 240 | 300 | 156 | 209 | 180 | 108 |
| Deep water hake | 20 | 25* | 20 | 50 | 130 | 100 | 140 | 120 | 160 | 200 | 79 | 121 | 197 | 139 |
| TOTAL FISHABLE | 126 | 207* | 311 | 381 | 528 | 482 | 471 | 429 | 400 | 500 | 235 | 330 | 377 | 247 |
| NON-FISHABLE BIOMASS | | | | | | | | | | | | | | |
| Cape hake | 391 | 278 | 179 | 202 | 250 | 510 | 260 | 259 | 280 | 230 | 193 | 161 | 266 | 257 |
| Deep water hake | 5 | 15 | 20 | 50 | 34 | 50 | 30 | 20 | 50 | 60 | 66 | 84 | 109 | 117 |
| TOTAL NON-FISHABLE | 396 | 293 | 199 | 252 | 284 | 560 | 290 | 279 | 330 | 290 | 259 | 245 | 375 | 374 |

* Unadjusted underestimate due to fish off the bottom

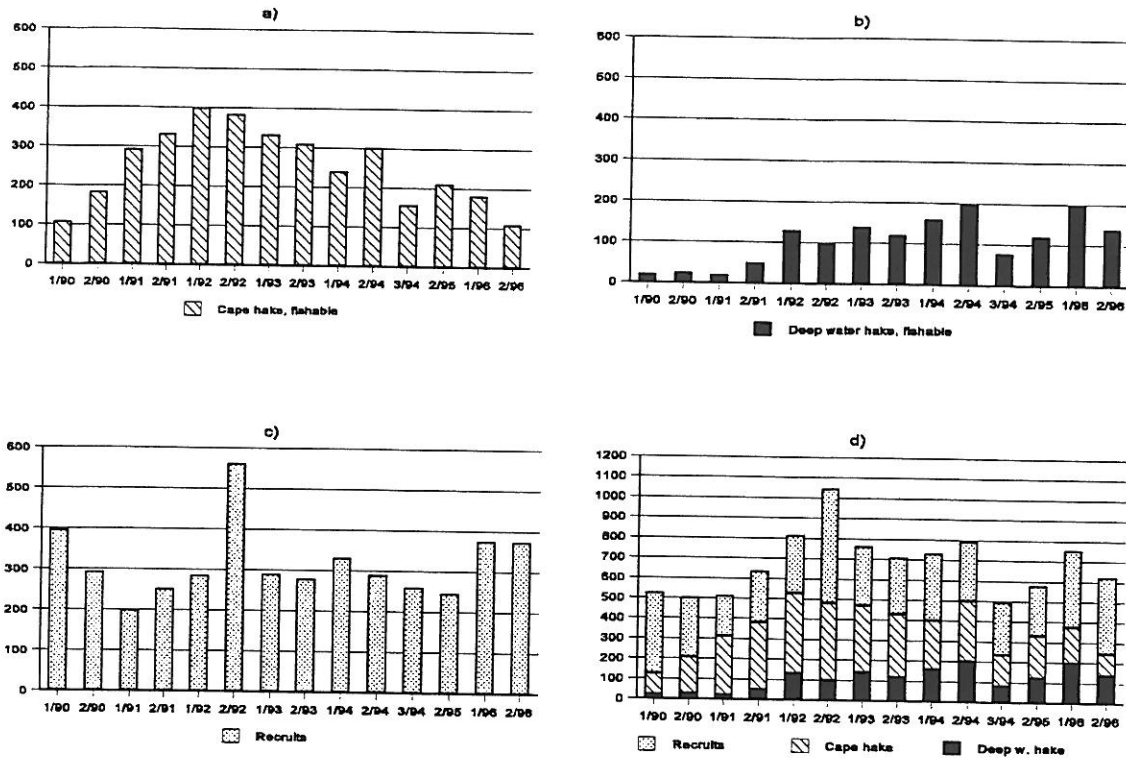


Figure 16 Trends in biomass estimates: a) Cape hake, 'fishable stock', b) deep water hake, 'fishable stock', c) recruits ('non-fishable' biomass) and d) total hake in Namibia. Thousand tonnes.

Figure 16a-d show the summaries of estimated fishable, nonfishable and total biomass of hake species since 1990. The fishable biomass of Cape hakes grew from about 106 000 tonnes in 1990, reaching a peak of 400 000 tonnes in 1992 and declined to the 1990 level in the recent survey (Figure 16a). The estimated fishable biomass of deepwater hakes has increased tenfold from 20 000 tonnes in 1990 to about 200 000 tonnes in early 1996 (Figure 16b). A reduction of fishable biomass of deepwater hakes was observed in the recent survey, nonetheless, the adult population of deepwater hakes is still higher than the Cape hake in abundance. The long-term increase of deepwater hakes is likely to be due to immigration from the south, while the recent decline could be interpreted as a positive sign that fishing has been directed towards deeper waters, the habitat of this species.

A moderate abundance of recruits (estimated at 374 000 tonnes) entering the parent stock has been observed during the two surveys of 1996 (Figure 16c). These are fish in 27 to 35 cm length ranges and will recruit to the fishable biomass next year. This suggests a relatively strong growth potential in the fishable biomass in short term. However, they may be subjected to fishing as many of them are within the legal fishing zone.

From the estimated total hake biomass, the hake resources grew steadily from 522 000 tonnes to a million tonnes between 1990 and late 1992 (Figure 16d). Since early 1993, the resources declined, reduced low to level of about half-million by October 1994. We observed a slight upward trend in mid 1995 and to early 1996, however, the results of the recent survey give little hope for optimism. The total estimate of hake stocks during the recent survey is 620 000 tonnes. This weight is below the mean (680 000 tonnes) of the last six years. As the adult Cape hake abundance declined over the last four years, that of deep water increased. The rate at which Cape hake declines however, is much faster than the rate of replenishment by deep water hake. This results in a stagnation phase or possibly negative growth of the whole hake resources.

Geographic shift in the fishable biomass

Figure 17 shows the development of the relative share of the fishable biomass of Cape hakes in the regions for the last six years. The northern region has been stable over the years, accounting for about 40% of the adult Cape hake population. The importance of the central region diminished from 1994 to but has gained in the recent survey probably at the expenses of the southern region. The gain of share may be the result of seasonal migrations of Cape hakes between the south and the central regions.

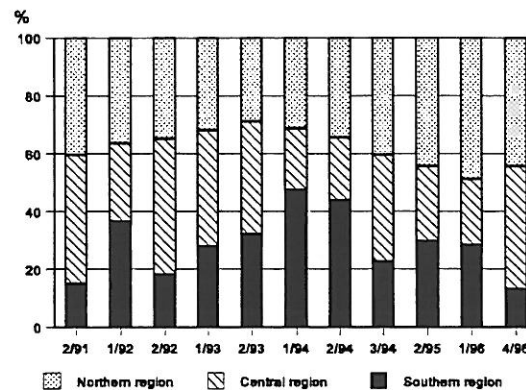


Figure 17 Relative regional share of fishable biomass of Cape hake 1991-94.

Recruitment potential

Incoming recruits to the stock of Cape hakes can be estimated from the numerical abundance of the 1.5-2 years old fish. These young fish settle down at the bottom usually in early spring (October-November) which is the first time one may assess and estimate the strength of year-classes by trawl surveys. Table 18 shows the recent estimates for the 1994 year-class, together with previous observations of the two-yearlings. A 'normal' recruitment level after two years is

usually around two billion fish ± 200 million. The 1994 year-class estimated from this survey consists of 2.3 billion fish, a level which is above 'normal' recruitment.

| Yearclass | 1988 | 1989 | 1990 | 1991 | 1991 | 1991 | 1992 | 1992 | 1993 | 1993 | 1994 | 1994 |
|-----------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Southern region | 980 | 100 | 300 | 990 | 670 | 390 | 250 | 2 308 | 1 730 | 510 | 485 | 672 |
| Central region | 1 320 | 170 | 1 620 | 3 500 | 1 230 | 1 370 | 1 880 | 3 017 | 490 | 430 | 1 030 | 1 313 |
| Northern region | 10 | 10 | 240 | 440 | 270 | 130 | 70 | 5 | 190 | 80 | 0 | 342 |
| Total | 2 205 | 515 | 1 518 | 4 930 | 2 170 | 1 890 | 2 200 | 1 235 | 2 410 | 1 020 | 1 515 | 2 327 |
| Survey/Year | 1/90 | 1/91 | 1/92 | 2/92 | 1/93 | 2/93 | 1/94 | 2/94 | 3/94 | 1/95 | 1/96 | 4/96 |

The 1993 year-class was estimated at one billion fish in May 1995, at 800 million in January and is in October reduced to 239 million fish. Even if the cohort analysis technique is considered rough and indicative the figures show low mortality on the 1993 year-class until February (annual mortality rate, $Z = 0.33$), while between February and March, the annual mortality rate has increased to $Z = 1.81$. This would correspond to that about 2.7% of the cohort is removed per month until January 1996 while since January the average monthly rate has been 15% of the remaining stock.

The recruit biomass for both species combined, Figure 16c and Table 17, has been in a slight upward trend during 1996. The strongest recruits biomass (estimated close to 400 000 tonnes) in the last four years, has been observed during the first and the second survey of 1997. In Table 19 the recruits are split by the age classes identified through the cohort analysis. The table shows that large proportion of juvenile (243 000 tonnes) belongs to the cohort that is now two years, the 1994 year-class. This fish have now a mean of about 24 cm and will start recruit to the fishable biomass towards the end of 1996. This shows a relative strong growth potential in the fishable biomass on a short term. During the next two years the fishery will depend on the life history of the 1994 year-class, which is right now above 'normal' recruitment level.

| | 1 year | 2 year | 3 year |
|----------------|--------|--------|--------|
| Cape hake | 82 | 135 | 66 |
| Deepwater hake | 30 | 108 | 53 |
| Total | 112 | 243 | 119 |

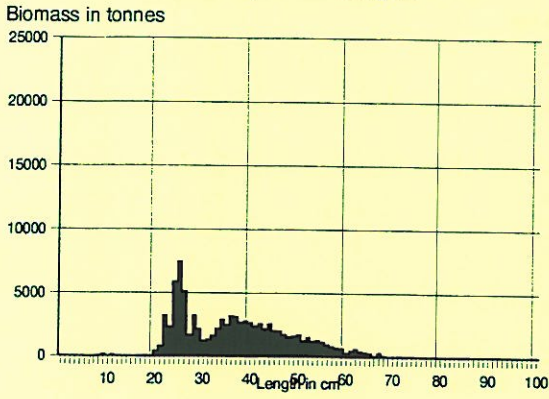
Management considerations

The main management policy for hake resources in Namibia is by limiting fishing mortality through the limitation of TAC. This policy recommends a yield of about 20% of the fishable biomass to rebuild the resources. Such fishing mortality is based on the general experience with fish with similar life span and growth rate. The policy has not been entirely successful particularly in recent years when the reported catches by far exceeded 20% of the fishable stocks biomass. Further, the recruitment level has been low during the last six years. The combinatorial effects of low recruitment and higher exploitation rates results in deprivation of the parent stock of Cape hake. During the last three years, annual catches were about or greater than 30% of the total fishable stock. High number of 1994 recruits have started entering the fishable biomass. The sizes of a landed hake from some commercial vessels show alarmingly high proportion of juvenile hakes throughout 1996, and this indicates serious growth overfishing in the stock of Cape hake. This implies that the 200 m depth limit is not sufficient management option for hake as large portion of undersized hakes can also be found outside the 200 bathymetric line.

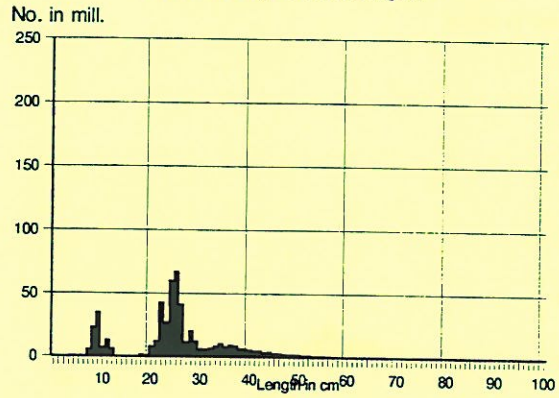
At the beginning of 1996, the adult population had prospects to be strengthened by the incoming 1994 yearclass. However, during 8 months this cohort has been subjected to such strong harvest that no net recruitment has occurred at the same time as the older fish population (>35 cm) has been reduced by 71 000 tonnes. These findings points to serious growth and recruitment overfishing during 1996 and the stock is in worse conditions than at the beginning of the year. The present harvest level is far beyond the present production in the stock.

Annex I Size composition of main stocks

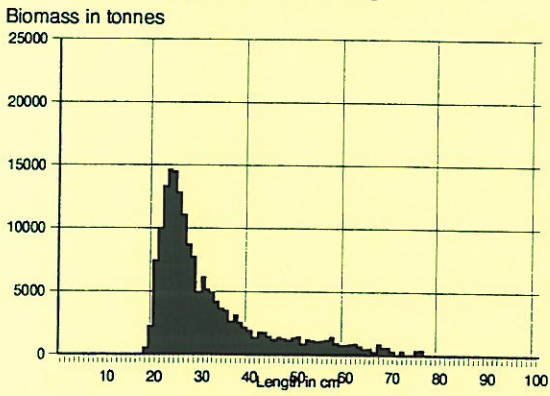
CAPE HAKE, Northern Region



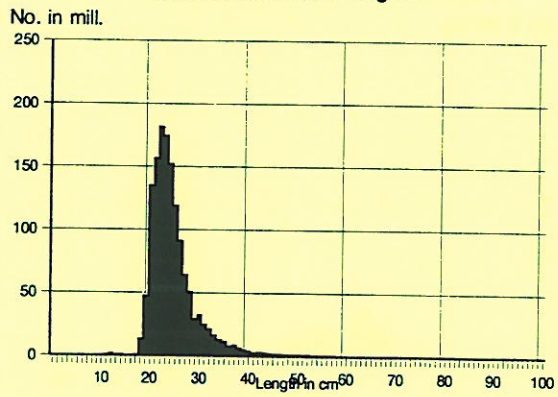
CAPE HAKE, Northern Region



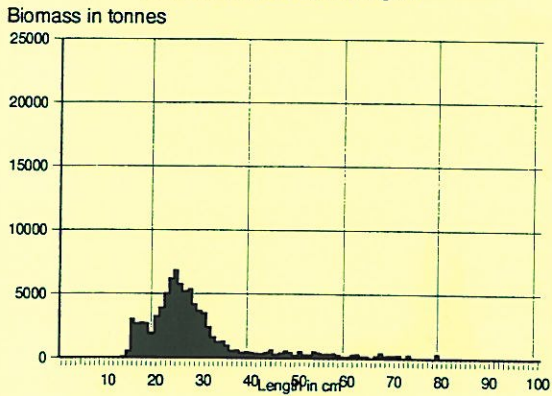
CAPE HAKE, Central Region



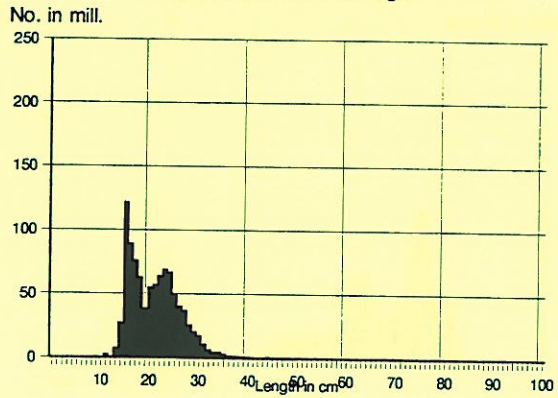
CAPE HAKE, Central Region



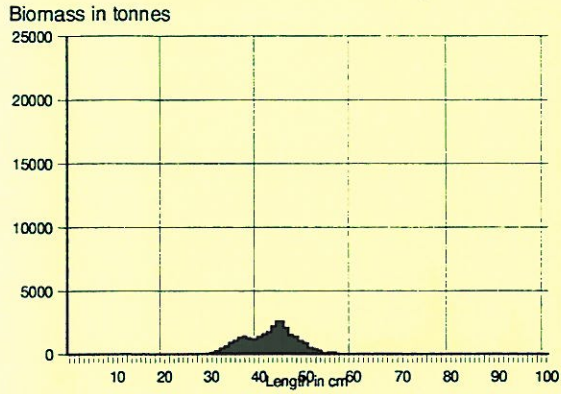
CAPE HAKE, Southern Region



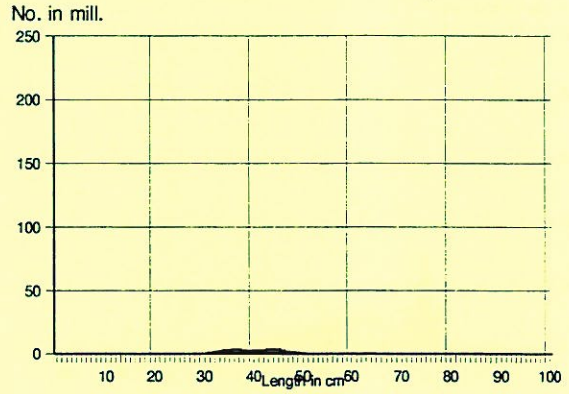
CAPE HAKE, Southern Region



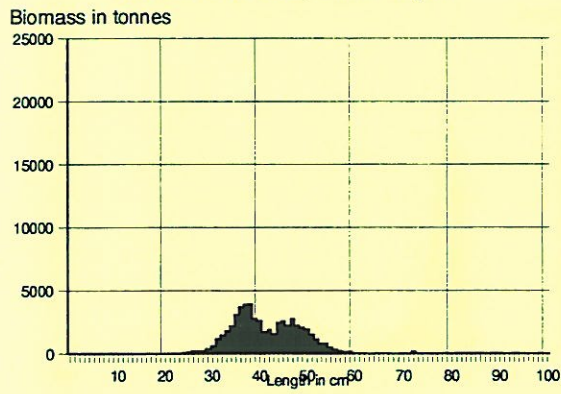
DEEP WATER HAKE, Northern Region



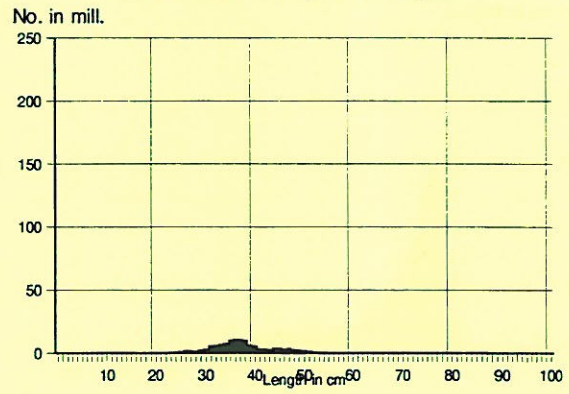
DEEP WATER HAKE, Northern Region



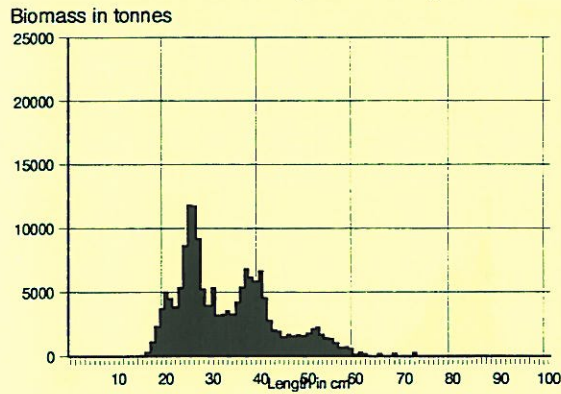
DEEP WATER HAKE, Central Region



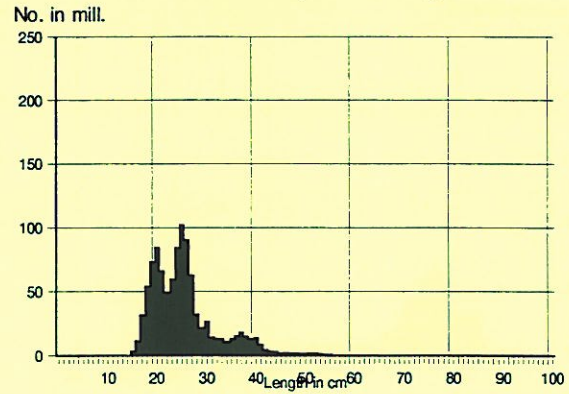
DEEP WATER HAKE, Central Region



DEEP WATER HAKE, Southern Region



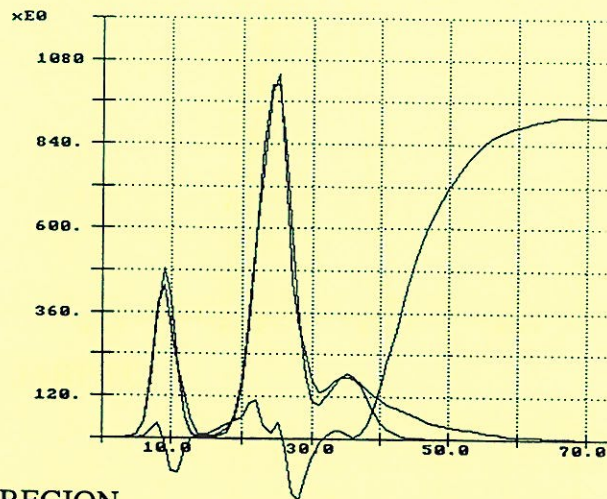
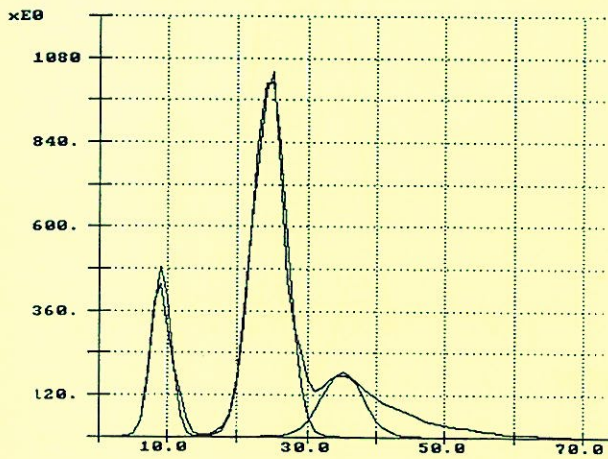
DEEP WATER HAKE, Southern Region



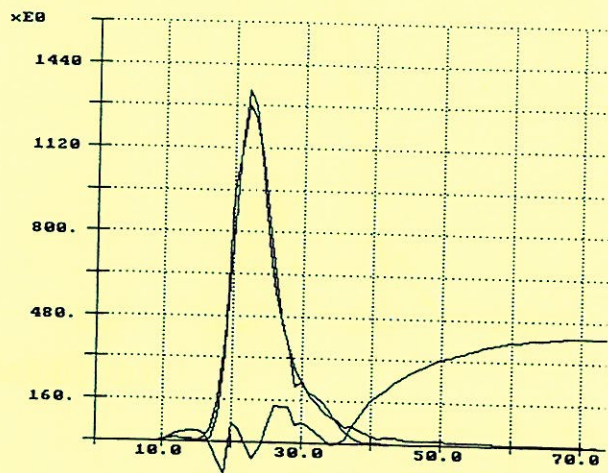
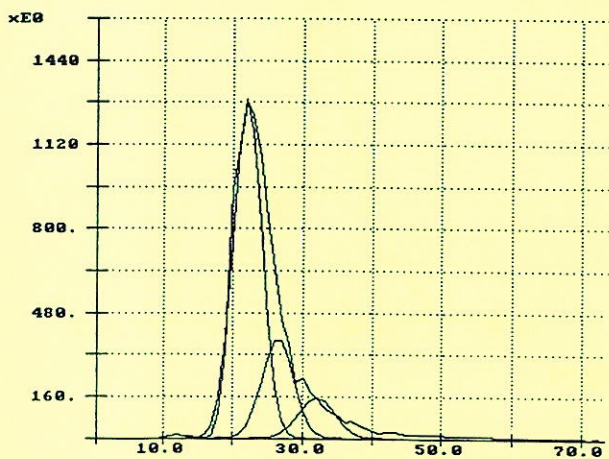
Annex II The size composition of the hake stocks split into length cohorts through optimizing techniques

CAPE HAKE

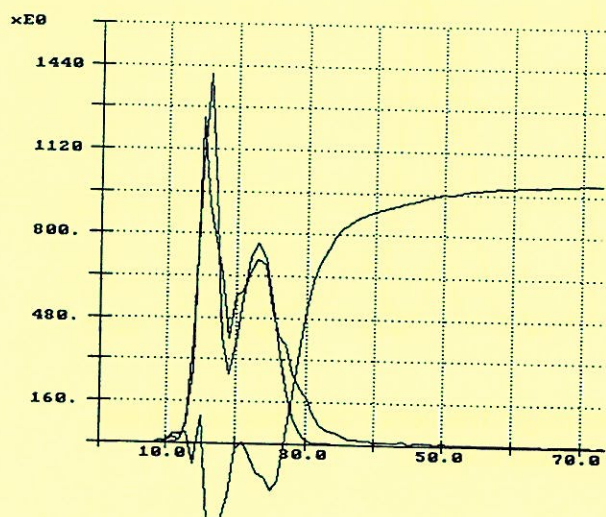
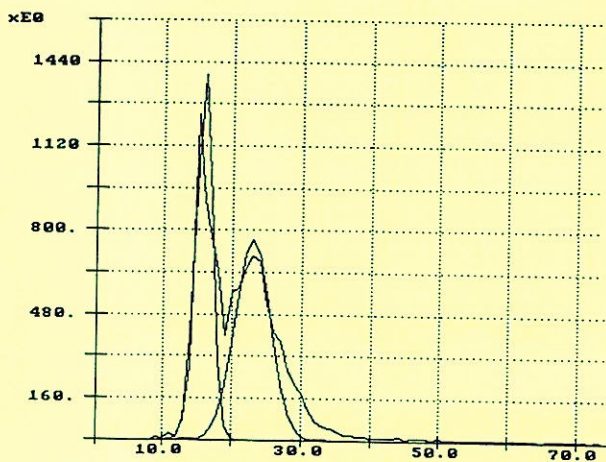
NORTHERN REGION



CENTRAL REGION



SOUTHERN REGION

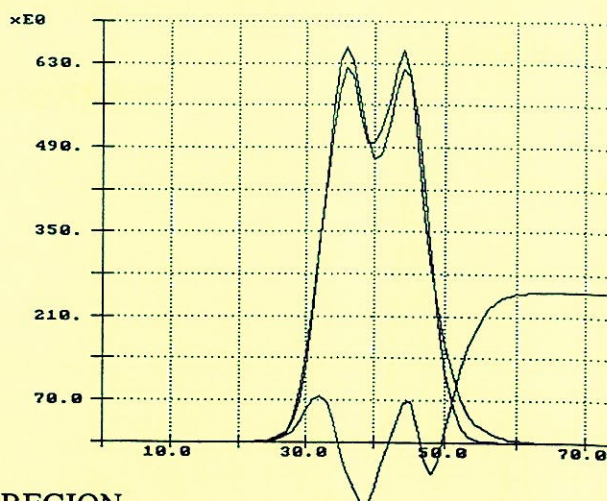
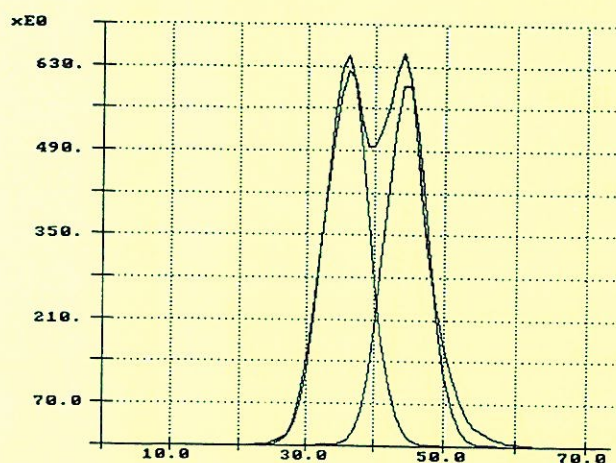


The length frequency distribution with the estimated cohorts.

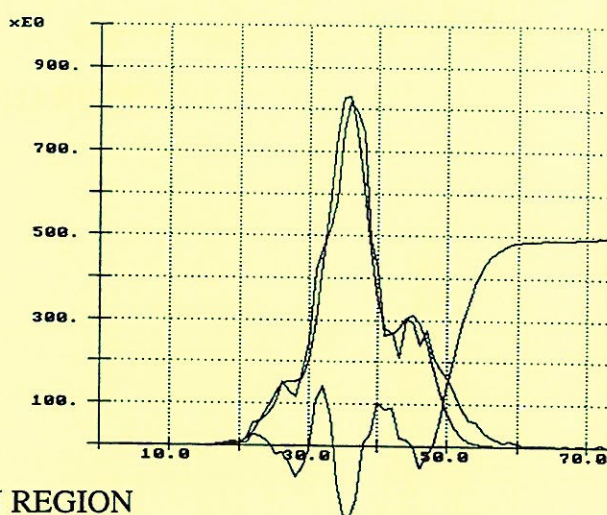
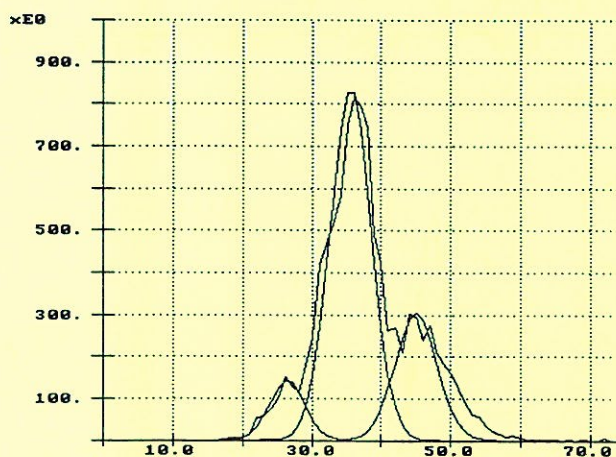
The length frequency distribution with the resultant distribution explained by the estimated cohorts.

DEEP WATER HAKE

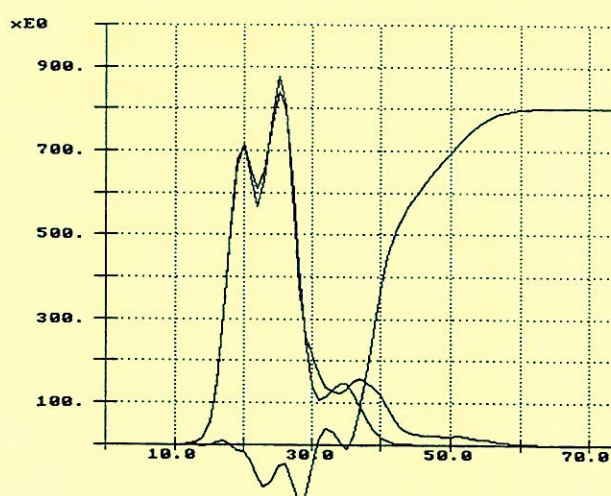
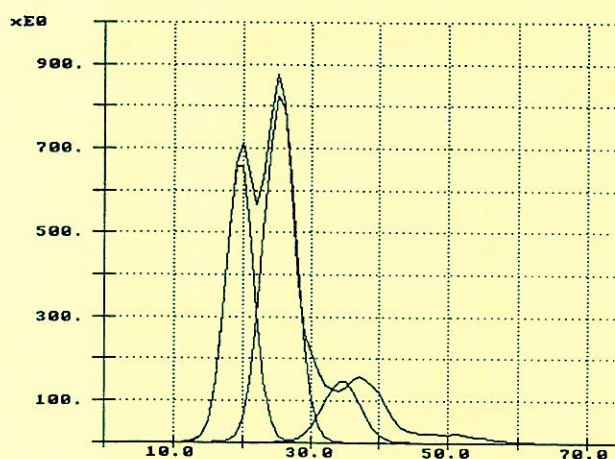
NORTHERN REGION



CENTRAL REGION



SOUTHERN REGION



The length frequency distribution with the estimated cohorts.

The length frequency distribution with the resultant distribution explained by the estimated cohorts.

Annex III Records of fishing stations

PROJECT STATION:1663
 DATE:11/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2840
 start stop duration Long E 1611
 TIME :07:20:00 07:36:00 16 (min) Purpose code: 3
 LOG : 685.80 686.60 0.80 Area code : 1
 FDEPTH: 103 102 GearCond.code: 9
 BDEPTH: 103 102 Validity code: 1
 Towing dir: 330° Wire out: 400 m Speed: 30 kn*10
 Sorted: 89 Kg Total catch: 154.41 CATCH/HOUR: 579.04

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|--------------|------|
| | weight | numbers | | |
| Callorhinchus capensis | 166.50 | 79 | 28.75 | |
| Deepwater fish mixture | 129.94 | | 22.44 | |
| Jasusalandii | 92.25 | 788 | 15.93 | 5451 |
| Merluccius capensis, female | 60.94 | 548 | 10.52 | 5454 |
| Merluccius capensis, male | 41.63 | 443 | 7.19 | 5453 |
| Mustelus palumbes | 20.25 | 11 | 3.50 | |
| Thyrzites atun | 20.25 | 101 | 3.50 | |
| Chelidonicichthys capensis | 15.19 | 79 | 2.62 | |
| Sufflogobius bibarbatatus | 9.68 | 2441 | 1.67 | |
| Merluccius capensis | 6.94 | 323 | 1.20 | 5457 |
| Austroglossus microlepis | 6.64 | 56 | 1.15 | 5455 |
| Sepia australis | 4.95 | 169 | 0.85 | |
| Trachurus capensis | 2.03 | 49 | 0.35 | 5452 |
| Squilla acuelata calmani | 1.24 | 124 | 0.21 | |
| Genypterus capensis | 0.64 | 8 | 0.11 | 5456 |
| Total | 579.07 | | 99.99 | |

PROJECT STATION:1664
 DATE:11/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2850
 start stop duration Long E 1554
 TIME :09:56:00 10:26:00 30 (min) Purpose code: 3
 LOG :1707.00 1708.60 1.60 Area code : 1
 FDEPTH: 157 155 GearCond.code: 2
 BDEPTH: 157 155 Validity code: 2
 Towing dir: 345° Wire out: 600 m Speed: 32 kn*10
 Sorted: 90 Kg Total catch: 495.79 CATCH/HOUR: 991.58

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|--------------|------|
| | weight | numbers | | |
| Merluccius capensis | 466.36 | 13214 | 47.03 | 5460 |
| Trachurus capensis | 172.26 | 3388 | 17.37 | 5461 |
| Merluccius capensis, female | 150.74 | 940 | 15.20 | 5459 |
| Merluccius capensis, male | 73.66 | 522 | 7.43 | 5458 |
| Sufflogobius bibarbatatus | 51.68 | 17680 | 5.21 | |
| Callorhinchus capensis | 34.34 | 12 | 3.46 | |
| Sepia australis | 16.78 | 680 | 1.69 | |
| Chelidonicichthys capensis | 9.52 | 22 | 0.96 | |
| Helicolenus dactylopterus | 3.28 | 294 | 0.33 | |
| Lepidopus caudatus | 1.92 | 124 | 0.19 | |
| Jasusalandii | 1.90 | 18 | 0.19 | |
| Lophius vomerinus | 1.86 | 10 | 0.19 | 5462 |
| Lolligoncula mercatoris | 1.82 | 590 | 0.18 | |
| Paracallionymus costatus | 1.48 | 46 | 0.15 | |
| Cynoglossus capensis | 1.22 | 30 | 0.12 | |
| Sepia bertheloti | 1.02 | 46 | 0.10 | |
| Sepia elegans | 0.80 | 22 | 0.08 | |
| Squilla acuelata calmani | 0.56 | 46 | 0.06 | |
| Genypterus capensis | 0.26 | 2 | 0.03 | 5463 |
| Austroglossus microlepis | 0.12 | 2 | 0.01 | 5464 |
| Total | 991.58 | | 99.98 | |

PROJECT STATION:1665
 DATE:11/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2858
 start stop duration Long E 1539
 TIME :12:56:00 13:26:00 30 (min) Purpose code: 3
 LOG :1726.40 1728.00 1.60 Area code : 1
 FDEPTH: 182 182 GearCond.code: 2
 BDEPTH: 182 182 Validity code: 2
 Towing dir: 355° Wire out: 650 m Speed: 30 kn*10
 Sorted: 92 Kg Total catch: 173.80 CATCH/HOUR: 347.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|---------------|------|
| | weight | numbers | | |
| Merluccius capensis | 183.20 | 5896 | 52.70 | 5469 |
| Merluccius capensis, female | 47.40 | 276 | 13.64 | 5468 |
| Merluccius capensis, male | 26.00 | 208 | 7.48 | 5467 |
| Sepia australis | 23.80 | 1252 | 6.85 | |
| Octopus sp. | 13.20 | 2 | 3.80 | |
| Helicolenus dactylopterus | 11.92 | 1336 | 3.43 | |
| Sufflogobius bibarbatatus | 8.24 | 5556 | 2.37 | |
| Paracallionymus costatus | 7.84 | 472 | 2.26 | |
| Lophius vomerinus | 6.16 | 42 | 1.77 | 5470 |
| Trachurus capensis | 5.96 | 76 | 1.71 | 5465 |
| Lolligoncula mercatoris | 3.32 | 1372 | 0.96 | |
| Chelidonicichthys capensis | 2.64 | 8 | 0.76 | |
| Etrumeus whiteheadi | 2.48 | 32 | 0.71 | 5466 |
| Holohalaelurus regani | 1.28 | 8 | 0.37 | |
| Todarodes sagittatus | 1.20 | 8 | 0.35 | |
| Cynoglossus capensis | 1.00 | 32 | 0.29 | |
| Maurollicus muelleri | 0.72 | 500 | 0.21 | |
| Todaropsis eblanae | 0.60 | 4 | 0.17 | |
| Coelorinchus fasciatus | 0.40 | 12 | 0.12 | |
| Lepidopus caudatus | 0.24 | 8 | 0.07 | |
| Total | 347.60 | | 100.02 | |

PROJECT STATION:1666
 DATE:11/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2919
 start stop duration Long E 1510
 TIME :17:14:00 17:44:00 30 (min) Purpose code: 3
 LOG :1763.30 1764.90 1.60 Area code : 1
 FDEPTH: 172 166 GearCond.code: 2
 BDEPTH: 172 166 Validity code: 2
 Towing dir: 212° Wire out: 560 m Speed: 30 kn*10
 Sorted: 123 Kg Total catch: 238.09 CATCH/HOUR: 476.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|---------------|------|
| | weight | numbers | | |
| Etmopterus brachyurus | 64.90 | 166 | 13.63 | |
| Trachurus capensis | 62.16 | 276 | 13.05 | 5471 |
| Merluccius capensis, female | 60.80 | 96 | 12.77 | 5474 |
| RAJIDAE | 60.00 | 2 | 12.60 | |
| Zeus capensis | 59.56 | 496 | 12.51 | |
| Chelidonicichthys capensis | 35.76 | 286 | 7.51 | |
| Merluccius capensis, male | 28.60 | 54 | 6.01 | 5473 |
| Callorhinchus capensis | 23.76 | 12 | 4.99 | |
| Merluccius capensis, male | 21.50 | 12 | 4.52 | 5475 |
| Holohalaelurus regani | 18.70 | 56 | 3.93 | |
| Merluccius capensis, female | 16.70 | 10 | 3.51 | 5476 |
| Emmelichthys nitidus | 6.50 | 100 | 1.37 | |
| Lophius vomerinus | 6.10 | 8 | 1.28 | 5472 |
| Sepia australis | 3.64 | 286 | 0.76 | |
| Chelidonicichthys queketti | 2.86 | 12 | 0.60 | |
| Scyliorhinus capensis | 2.10 | 12 | 0.44 | |
| Bassanago albescens | 1.66 | 44 | 0.35 | |
| Cynoglossus capensis | 0.88 | 44 | 0.18 | |
| Total | 476.18 | | 100.01 | |

PROJECT STATION:1667
 DATE:11/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2931
 start stop duration Long E 1439
 TIME :21:48:00 22:18:00 30 (min) Purpose code: 3
 LOG :1796.90 1798.60 1.70 Area code : 1
 FDEPTH: 381 387 GearCond.code: 2
 BDEPTH: 381 387 Validity code: 2
 Towing dir: 330° Wire out:1135 m Speed: 34 kn*10
 Sorted: 62 Kg Total catch: 61.51 CATCH/HOUR: 123.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|---------------|---------|---------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 47.80 | 254 | 38.86 | 5478 |
| Merluccius paradoxus, male | 31.00 | 200 | 25.20 | 5477 |
| Helicolenus dactylopterus | 13.00 | 64 | 10.57 | |
| Coelorinchus fasciatus | 10.60 | 212 | 8.62 | |
| Malacocephalus laevis | 6.40 | 6 | 5.20 | |
| Squalus blainvillei | 4.62 | 6 | 3.76 | |
| Genypterus capensis | 2.66 | 2 | 2.16 | |
| Holohalaelurus regani | 1.82 | 10 | 1.48 | |
| Todarodes sagittatus | 1.56 | 2 | 1.27 | |
| MYCTOPHIDAE | 1.16 | 108 | 0.94 | |
| Hoplostethus mediterraneus | 0.64 | 16 | 0.52 | |
| Chelidonicichthys queketti | 0.64 | 6 | 0.52 | |
| Zeus capensis | 0.56 | 4 | 0.46 | |
| Maurollicus muelleri | 0.36 | 276 | 0.29 | |
| Epigonus denticulatus | 0.12 | 4 | 0.10 | |
| Bassanago albescens | 0.08 | 6 | 0.07 | |
| Total | 123.02 | | 100.02 | |

PROJECT STATION:1668
 DATE:12/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2918
 start stop duration Long E 1426
 TIME :00:44:00 01:14:00 30 (min) Purpose code: 3
 LOG :1815.00 1816.70 1.70 Area code : 1
 FDEPTH: 621 625 GearCond.code: 2
 BDEPTH: 621 625 Validity code: 2
 Towing dir: 360° Wire out:1500 m Speed: 34 kn*10
 Sorted: 10 Kg Total catch: 9.71 CATCH/HOUR: 19.42

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|--------------|---------|--------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 4.94 | 26 | 25.44 | 5480 |
| Photichthys sp. | 3.54 | 216 | 18.23 | |
| Merluccius paradoxus, male | 2.38 | 10 | 12.26 | 5479 |
| Raja caudaspinosa | 1.76 | 2 | 9.06 | |
| MALACOSTEIDAE | 1.70 | 38 | 8.75 | |
| MYCTOPHIDAE | 1.46 | 92 | 7.52 | |
| Holohalaelurus regani | 1.12 | 2 | 5.77 | |
| SERGESTIDAE | 0.68 | 216 | 3.50 | |
| Coelorinchus fasciatus | 0.68 | 10 | 3.50 | |
| Hoplostethus mediterraneus | 0.32 | 4 | 1.65 | |
| SOLENOCEPHALIDAE | 0.22 | 16 | 1.13 | |
| Aphanopus sp. | 0.16 | 2 | 0.82 | |
| Allocyttus verrucosus | 0.14 | 2 | 0.72 | |
| Todaropsis eblanae | 0.12 | 2 | 0.62 | |
| Histioteuthis reversa | 0.10 | 2 | 0.51 | |
| Bassanago albescens | 0.10 | 6 | 0.51 | |
| Total | 19.42 | | 99.99 | |

PROJECT STATION:1669
 DATE:12/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2919 Long E 1430
 start stop duration
 TIME :05:10:00 05:40:00 30 (min) Purpose code: 3
 LOG :1830.30 1831.90 1.60 Area code : 1
 FDEPTH: 489 482 GearCond.code:
 BDEPTH: 489 482 Validity code: 1
 Towing dir: 160° Wire out:1300 m Speed: 30 kn*10
 Sorted: 112 Kg Total catch: 124.92 CATCH/HOUR: 249.84

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 129.50 | 182 | 51.83 | 5484 |
| Merluccius paradoxus, male | 41.70 | 76 | 16.69 | 5483 |
| Cruriraja parcomaculata | 24.16 | 28 | 9.67 | |
| Helicolenus dactylopterus | 16.06 | 64 | 6.43 | |
| Aristeus varidens | 10.42 | 1144 | 4.17 | |
| Etmopterus lucifer | 5.46 | 88 | 2.19 | |
| Squalus megalops | 4.86 | 4 | 1.95 | |
| Todarodes sagittatus | 3.96 | 6 | 1.59 | |
| Genypterus capensis | 2.60 | 2 | 1.04 | 5482 |
| GONOSTOMATIDAE | 2.26 | 58 | 0.90 | |
| Yarrella blackfordi | 1.66 | 136 | 0.66 | |
| Malacocephalus laevis | 1.60 | 10 | 0.64 | |
| Lophius vomerinus | 1.34 | 2 | 0.54 | 5481 |
| Selachophidium guentheri | 0.76 | 16 | 0.30 | |
| Notacanthus sexspinis | 0.70 | 10 | 0.28 | |
| Todaropsis eblanae | 0.54 | 28 | 0.22 | |
| Allocyttus verrucosus | 0.40 | 10 | 0.16 | |
| MYCTOPHIDAE | 0.36 | 34 | 0.14 | |
| Myxine capensis | 0.34 | 6 | 0.14 | |
| Hoplostethus cadenati | 0.30 | 4 | 0.12 | |
| Coelorinchus fasciatus | 0.24 | 4 | 0.10 | |
| Coelorinchus braueri | 0.24 | 16 | 0.10 | |
| Chelidonicichthys queketti | 0.24 | 4 | 0.10 | |
| HEMICHTHYIDAE | 0.10 | 4 | 0.04 | |
| Bassanago albescens | 0.04 | 4 | 0.02 | |
| Total | 249.84 | | 100.02 | |

PROJECT STATION:1672
 DATE:13/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2909 Long E 1425
 start stop duration
 TIME :00:18:00 00:48:00 30 (min) Purpose code: 3
 LOG :1888.80 1890.20 1.40 Area code : 1
 FDEPTH: 533 521 GearCond.code:
 BDEPTH: 533 521 Validity code:
 Towing dir: 355° Wire out:1500 m Speed: 28 kn*10
 Sorted: 37 Kg Total catch: 36.37 CATCH/HOUR: 72.74

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 37.60 | 38 | 51.69 | 5493 |
| Raja confundens | 9.80 | 14 | 13.47 | |
| Helicolenus dactylopterus | 6.90 | 36 | 9.49 | |
| Coelorinchus braueri | 3.22 | 176 | 4.43 | |
| Myxine capensis | 2.26 | 42 | 3.11 | |
| Nezumia sp. | 2.14 | 42 | 2.94 | |
| Lophius vomerinus | 1.56 | 2 | 2.14 | 5495 |
| Coelorinchus fasciatus | 1.36 | 14 | 1.87 | |
| MYCTOPHIDAE | 1.16 | 100 | 1.59 | |
| Etmopterus lucifer | 1.08 | 24 | 1.48 | |
| Plesionika martia | 0.88 | 232 | 1.21 | |
| Malacocephalus laevis | 0.68 | 2 | 0.93 | |
| Merluccius paradoxus, male | 0.60 | 2 | 0.82 | 5494 |
| Laemonema laureysi | 0.56 | 4 | 0.77 | |
| Photichthys sp. | 0.56 | 80 | 0.77 | |
| Nezumia micronychodon | 0.48 | 16 | 0.66 | |
| Notacanthus costaecanarie | 0.38 | 6 | 0.52 | |
| Oreosoma atlanticum | 0.38 | 4 | 0.52 | |
| Notacanthus sexspinis | 0.38 | 8 | 0.52 | |
| OPLOPHORIDAE | 0.28 | 98 | 0.38 | |
| Selachophidium guentheri | 0.16 | 4 | 0.22 | |
| Tripterothycis gilchristi | 0.14 | 4 | 0.19 | |
| MALACOSTEIDAE | 0.08 | 2 | 0.11 | |
| PASIPHAEIDAE | 0.06 | 6 | 0.08 | |
| HIPPOLYTIDAE | 0.04 | 2 | 0.05 | |
| Total | 72.74 | | 99.96 | |

PROJECT STATION:1670
 DATE:12/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2909 Long E 1431
 start stop duration
 TIME :18:56:00 19:26:00 30 (min) Purpose code: 3
 LOG :1870.10 1871.60 1.50 Area code : 1
 FDEPTH: 347 323 GearCond.code:
 BDEPTH: 347 323 Validity code: 1
 Towing dir: 3° Wire out:1050 m Speed: 30 kn*10
 Sorted: 71 Kg Total catch: 71.03 CATCH/HOUR: 142.06

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 50.40 | 228 | 35.48 | 5486 |
| Merluccius paradoxus, male | 31.60 | 162 | 22.24 | 5485 |
| Coelorinchus fasciatus | 12.90 | 138 | 9.08 | |
| Helicolenus dactylopterus | 7.48 | 26 | 5.27 | |
| Merluccius paradoxus, female | 7.20 | 6 | 5.07 | 5488 |
| Lophius vomerinus | 6.26 | 4 | 4.41 | 5490 |
| Malacocephalus laevis | 4.64 | 12 | 3.27 | |
| Raja caudaspinosa | 4.30 | 10 | 3.03 | |
| Epigonus denticulatus | 3.86 | 62 | 2.72 | |
| Merluccius paradoxus, male | 3.50 | 4 | 2.46 | 5487 |
| Genypterus capensis | 2.50 | 2 | 1.76 | 5489 |
| MYCTOPHIDAE | 2.20 | 440 | 1.55 | |
| Holohalaelurus regani | 2.16 | 6 | 1.52 | |
| Squalus megalops | 1.78 | 2 | 1.25 | |
| Cynoglossus capensis | 0.40 | 6 | 0.28 | |
| Etmopterus pusillus | 0.32 | 14 | 0.23 | |
| Sepia sp. | 0.30 | 8 | 0.21 | |
| Yarrella blackfordi | 0.26 | 6 | 0.18 | |
| Total | 142.06 | | 100.01 | |

PROJECT STATION:1673
 DATE:13/ 9/96 GEAR TYPE: BT No: POSITION:Lat S 2902 Long E 1446
 start stop duration
 TIME :04:56:00 05:26:00 30 (min) Purpose code: 3
 LOG :1911.40 1912.90 1.50 Area code : 1
 FDEPTH: 220 210 GearCond.code:
 BDEPTH: 220 210 Validity code: 1
 Towing dir: 360° Wire out: 700 m Speed: 30 kn*10
 Sorted: 110 Kg Total catch: 194.21 CATCH/HOUR: 388.42

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 94.80 | 86 | 24.41 | 5503 |
| Chelidonicichthys queketti | 64.00 | 104 | 16.48 | |
| Helicolenus dactylopterus | 50.80 | 1864 | 13.08 | |
| Thysites atun | 38.80 | 32 | 9.99 | |
| Sepia australis | 22.96 | 3216 | 5.91 | |
| Trachurus capensis | 18.16 | 64 | 4.68 | 5501 |
| Squalus megalops | 17.92 | 48 | 4.61 | |
| Callorhynchus capensis | 16.16 | 8 | 4.16 | |
| Lophius vomerinus | 15.70 | 8 | 4.04 | 5504 |
| Zeus capensis | 13.12 | 56 | 3.38 | |
| Merluccius capensis, male | 8.00 | 14 | 2.06 | 5502 |
| Lepidopus caudatus | 5.60 | 120 | 1.44 | |
| Holohalaelurus regani | 4.40 | 16 | 1.13 | |
| Genypterus capensis | 4.32 | 4 | 1.11 | 5499 |
| Mustelus palumbes | 3.68 | 8 | 0.95 | |
| Etrumeus whiteheadi | 3.04 | 32 | 0.78 | 5500 |
| Todaropsis eblanae | 2.00 | 8 | 0.51 | |
| Merluccius paradoxus, female | 1.94 | 12 | 0.50 | 5497 |
| Paracallionymus costatus | 1.12 | 216 | 0.29 | |
| Cynoglossus capensis | 0.88 | 40 | 0.23 | |
| Merluccius paradoxus, male | 0.58 | 4 | 0.15 | 5496 |
| Merluccius capensis | 0.28 | 28 | 0.07 | 5498 |
| Bassanago albescens | 0.16 | 8 | 0.04 | |
| Total | 388.42 | | 100.00 | |

PROJECT STATION:1671
 DATE:12/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2911 Long E 1430
 start stop duration
 TIME :21:38:00 22:08:00 30 (min) Purpose code: 3
 LOG :1880.30 1881.80 1.50 Area code : 1
 FDEPTH: 413 412 GearCond.code:
 BDEPTH: 413 412 Validity code:
 Towing dir: 340° Wire out:1200 m Speed: 30 kn*10
 Sorted: 20 Kg Total catch: 20.11 CATCH/HOUR: 40.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 13.60 | 26 | 33.81 | 5492 |
| Coelorinchus fasciatus | 9.66 | 134 | 24.02 | |
| Merluccius paradoxus, male | 9.10 | 24 | 22.63 | 5491 |
| Helicolenus dactylopterus | 5.58 | 20 | 13.87 | |
| MYCTOPHIDAE | 1.48 | 294 | 3.68 | |
| Myxine capensis | 0.42 | 6 | 1.04 | |
| Epigonus denticulatus | 0.16 | 2 | 0.40 | |
| Etmopterus brachyurus | 0.12 | 2 | 0.30 | |
| Hymenocephalus italicus | 0.10 | 4 | 0.25 | |
| Total | 40.22 | | 100.00 | |

PROJECT STATION:1674
 DATE:13/ 9/96 GEAR TYPE: BT No: POSITION:Lat S 2853 Long E 1502
 start stop duration
 TIME :07:47:00 07:58:00 11 (min) Purpose code: 3
 LOG :1929.50 1930.10 0.60 Area code : 1
 FDEPTH: 175 172 GearCond.code: 8
 BDEPTH: 175 172 Validity code: 9
 Towing dir: 350° Wire out: 650 m Speed: 30 kn*10
 Sorted: 61 Kg Total catch: 60.55 CATCH/HOUR: 330.27

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 131.45 | 44 | 39.80 | 5513 |
| Merluccius capensis, male | 44.18 | 16 | 13.38 | 5512 |
| Merluccius capensis, female | 42.82 | 207 | 12.97 | 5511 |
| Merluccius capensis, male | 34.09 | 245 | 10.32 | 5510 |
| Chelidonicichthys capensis | 24.05 | 104 | 7.28 | |
| Callorhynchus capensis | 11.51 | 5 | 3.49 | |
| Trachurus capensis | 9.93 | 22 | 3.01 | 5505 |
| Squalus megalops | 6.82 | 16 | 2.06 | |
| Lepidopus caudatus | 6.27 | 11 | 1.90 | |
| Merluccius capensis | 5.07 | 180 | 1.54 | 5509 |
| Merluccius paradoxus, female | 4.69 | 38 | 1.42 | 5508 |
| Helicolenus dactylopterus | 4.15 | 104 | 1.26 | |
| Genypterus capensis | 2.29 | 11 | 0.69 | 5506 |
| Merluccius paradoxus, male | 1.31 | 11 | 0.40 | 5507 |
| Holohalaelurus regani | 1.20 | 5 | 0.36 | |
| Zeus capensis | 0.22 | 11 | 0.07 | |
| Paracallionymus costatus | 0.22 | 33 | 0.07 | |
| Total | 330.27 | | 100.02 | |

PROJECT STATION:1675
 DATE:13/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2844
 start stop duration Long E 1519
 TIME :11:01:00 11:31:00 30 (min) Purpose code: 3
 LOG :1953.70 1955.20 1.50 Area code : 1
 FDEPTH: 171 171 GearCond.code:
 BDEPTH: 171 171 Validity code:
 Towing dir: 355° Wire out: 550 m Speed: 30 kn*10
 Sorted: 173 Kg Total catch: 173.30 CATCH/HOUR: 346.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Thyrsites atun | 132.30 | 54 | 38.17 | 5521 |
| Etrumeus whiteheadi | 70.90 | 1418 | 20.46 | 5514 |
| Merluccius capensis, female | 52.80 | 238 | 15.23 | 5515 |
| Merluccius capensis | 22.80 | 648 | 6.58 | 5516 |
| Maurollicus muelleri | 19.20 | 9040 | 5.54 | |
| Merluccius capensis, male | 16.00 | 120 | 4.62 | 5517 |
| Lepidopus caudatus | 11.30 | 110 | 3.26 | |
| Chelidonichthys capensis | 7.40 | 24 | 2.14 | |
| Zeus capensis | 5.36 | 192 | 1.55 | |
| Lophius vomerinus | 1.72 | 6 | 0.50 | 5518 |
| Holohalaelurus regani | 1.58 | 8 | 0.46 | |
| Sardinops ocellatus | 1.36 | 16 | 0.39 | 5520 |
| Trachurus capensis | 1.16 | 10 | 0.33 | 5519 |
| Chelidonichthys queketti | 0.90 | 8 | 0.26 | |
| Raja confundens | 0.54 | 2 | 0.16 | |
| Todaropsis eblanae | 0.54 | 2 | 0.16 | |
| Helicolenus dactylopterus | 0.44 | 82 | 0.13 | |
| Congiopodus spinifer | 0.16 | 2 | 0.05 | |
| Sepia australis | 0.12 | 8 | 0.03 | |
| MAJIDAE | 0.02 | 2 | 0.01 | |
| Total | 346.60 | | 100.03 | |

PROJECT STATION:1678
 DATE:14/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2820
 start stop duration Long E 1459
 TIME :07:25:00 07:55:00 30 (min) Purpose code: 3
 LOG :2074.40 2076.10 1.70 Area code : 1
 FDEPTH: 181 179 GearCond.code:
 BDEPTH: 181 179 Validity code: 1
 Towing dir: 60° Wire out: 600 m Speed: 30 kn*10
 Sorted: 119 Kg Total catch: 147.55 CATCH/HOUR: 295.10

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 84.94 | 470 | 28.78 | 5537 |
| Merluccius capensis, male | 66.80 | 616 | 22.64 | 5536 |
| Thyrsites atun | 61.20 | 22 | 20.74 | 5538 |
| Chelidonichthys capensis | 43.46 | 176 | 14.73 | |
| Chelidonichthys queketti | 10.14 | 74 | 3.44 | |
| Etrumeus whiteheadi | 9.06 | 190 | 3.07 | 5533 |
| Callorhynchus capensis | 3.98 | 2 | 1.35 | |
| Merluccius capensis | 3.84 | 114 | 1.30 | 5535 |
| Sufflogobius bibarbatatus | 2.22 | 1704 | 0.75 | |
| Raja straeleni | 2.02 | 2 | 0.68 | |
| Cynoglossus capensis | 1.90 | 16 | 0.64 | |
| Austroglossus microlepis | 1.86 | 4 | 0.63 | 5532 |
| Trachurus capensis | 1.32 | 6 | 0.45 | 5534 |
| Holohalaelurus regani | 0.72 | 2 | 0.24 | |
| C R A B S | 0.42 | 16 | 0.14 | |
| Zeus capensis | 0.34 | 16 | 0.12 | |
| Congiopodus spinifer | 0.30 | 2 | 0.10 | |
| Todaropsis eblanae | 0.26 | 2 | 0.09 | |
| Helicolenus dactylopterus | 0.14 | 6 | 0.05 | |
| Sepia australis | 0.10 | 16 | 0.03 | |
| Paracallionymus costatus | 0.08 | 10 | 0.03 | |
| Total | 295.10 | | 100.00 | |

PROJECT STATION:1676
 DATE:13/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2833
 start stop duration Long E 1524
 TIME :14:01:00 14:31:00 30 (min) Purpose code: 3
 LOG :1975.40 1977.00 1.60 Area code : 1
 FDEPTH: 166 162 GearCond.code:
 BDEPTH: 166 162 Validity code:
 Towing dir: 50° Wire out: 550 m Speed: 32 kn*10
 Sorted: 89 Kg Total catch: 130.61 CATCH/HOUR: 261.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 96.72 | 618 | 37.03 | 5522 |
| Trachurus capensis | 68.94 | 1452 | 26.39 | 5524 |
| Merluccius capensis | 40.42 | 1164 | 15.47 | 5525 |
| Merluccius capensis, male | 32.20 | 232 | 12.33 | 5523 |
| Lepidopus caudatus | 10.24 | 388 | 3.92 | |
| Lolligoncula mercatoris | 2.86 | 1864 | 1.09 | |
| Sufflogobius bibarbatatus | 2.86 | 920 | 1.09 | |
| Maurollicus muelleri | 2.64 | 2666 | 1.01 | |
| Raja straeleni | 1.36 | 4 | 0.52 | |
| Etrumeus whiteheadi | 0.82 | 12 | 0.31 | |
| Todarodes sagittatus | 0.64 | 4 | 0.25 | |
| Sepia australis | 0.64 | 32 | 0.25 | |
| Coelorhynchus fasciatus | 0.42 | 12 | 0.16 | |
| Sardinops ocellatus | 0.20 | 4 | 0.08 | |
| Bathypectes piperitus | 0.18 | 6 | 0.07 | |
| Helicolenus dactylopterus | 0.08 | 4 | 0.03 | |
| Total | 261.22 | | 100.00 | |

PROJECT STATION:1679
 DATE:14/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2830
 start stop duration Long E 1444
 TIME :10:45:00 11:15:00 30 (min) Purpose code: 3
 LOG :2097.00 2098.50 1.50 Area code : 1
 FDEPTH: 202 203 GearCond.code:
 BDEPTH: 202 203 Validity code:
 Towing dir: 360° Wire out: 650 m Speed: 30 kn*10
 Sorted: 98 Kg Total catch: 123.73 CATCH/HOUR: 247.46

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 40.10 | 260 | 16.20 | 5538 |
| Chelidonichthys capensis | 35.00 | 80 | 14.14 | |
| Merluccius capensis | 25.60 | 842 | 10.35 | 5537 |
| Trachurus capensis | 25.40 | 76 | 10.26 | 5534 |
| Squalus blainvillei | 18.92 | 48 | 7.65 | |
| Merluccius capensis, male | 14.40 | 136 | 5.82 | 5539 |
| Thyrsites atun | 14.10 | 10 | 5.70 | 5533 |
| Chelidonichthys queketti | 13.12 | 80 | 5.30 | |
| Lepidopus caudatus | 12.88 | 360 | 5.20 | |
| Merluccius paradoxus, female | 12.10 | 120 | 4.89 | 5536 |
| Lophius vomerinus | 10.20 | 8 | 4.12 | 5532 |
| Etrumeus whiteheadi | 7.84 | 108 | 3.17 | 5531 |
| Holohalaelurus regani | 7.76 | 28 | 3.14 | |
| Zeus capensis | 3.60 | 28 | 1.45 | |
| Raja straeleni | 3.12 | 4 | 1.26 | |
| Merluccius paradoxus, male | 1.00 | 10 | 0.40 | 5535 |
| Congiopodus spinifer | 0.96 | 4 | 0.39 | |
| Todaropsis eblanae | 0.48 | 4 | 0.19 | |
| Sepia australis | 0.44 | 40 | 0.18 | |
| Cynoglossus capensis | 0.40 | 4 | 0.16 | |
| Paracallionymus costatus | 0.04 | 20 | 0.02 | |
| Total | 247.46 | | 99.99 | |

PROJECT STATION:1677
 DATE:14/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2818
 start stop duration Long E 1508
 TIME :04:56:00 05:26:00 30 (min) Purpose code: 3
 LOG :2061.90 2063.50 1.60 Area code : 1
 FDEPTH: 178 177 GearCond.code:
 BDEPTH: 178 177 Validity code: 1
 Towing dir: 355° Wire out: 600 m Speed: 32 kn*10
 Sorted: 102 Kg Total catch: 229.01 CATCH/HOUR: 458.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 200.70 | 1080 | 43.82 | 5530 |
| Chelidonichthys capensis | 171.68 | 730 | 37.48 | |
| Merluccius capensis, male | 37.36 | 302 | 8.16 | 5531 |
| Sufflogobius bibarbatatus | 17.28 | 13294 | 3.77 | |
| Callorhynchus capensis | 7.20 | 4 | 1.57 | |
| Merluccius capensis | 5.86 | 144 | 1.28 | 5526 |
| Zeus capensis | 3.46 | 112 | 0.76 | |
| Etrumeus whiteheadi | 2.26 | 54 | 0.49 | 5527 |
| Cynoglossus capensis | 2.08 | 18 | 0.45 | |
| Squalus megalops | 1.76 | 4 | 0.38 | |
| Lophius vomerinus | 1.66 | 4 | 0.36 | 5529 |
| Raja straeleni | 1.58 | 4 | 0.34 | |
| Sepia australis | 1.36 | 104 | 0.30 | |
| Holohalaelurus regani | 1.04 | 10 | 0.23 | |
| C R A B S | 0.90 | 50 | 0.20 | |
| Genypterus capensis | 0.76 | 6 | 0.17 | 5528 |
| Congiopodus spinifer | 0.40 | 4 | 0.09 | |
| Lolligoncula mercatoris | 0.32 | 108 | 0.07 | |
| Lepidopus caudatus | 0.32 | 10 | 0.07 | |
| Paracallionymus costatus | 0.04 | 14 | 0.01 | |
| Total | 458.02 | | 100.00 | |

PROJECT STATION:1680
 DATE:14/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2845
 start stop duration Long E 1422
 TIME :15:21:00 15:51:00 30 (min) Purpose code: 3
 LOG :2130.90 2132.40 1.50 Area code : 1
 FDEPTH: 457 464 GearCond.code:
 BDEPTH: 457 464 Validity code:
 Towing dir: 360° Wire out:1300 m Speed: 30 kn*10
 Sorted: 25 Kg Total catch: 25.18 CATCH/HOUR: 50.36

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 28.60 | 46 | 56.79 | 5542 |
| Merluccius paradoxus, male | 14.70 | 30 | 29.19 | 5541 |
| Coelorhynchus fasciatus | 1.80 | 30 | 3.57 | |
| ARISTEIDAE | 1.58 | 174 | 3.14 | |
| Genypterus capensis | 1.56 | 2 | 3.10 | 5540 |
| Myxine capensis | 1.06 | 22 | 2.10 | |
| C E P H A L O P O D A | 0.52 | 20 | 1.03 | |
| Cynoglossus capensis | 0.20 | 2 | 0.40 | |
| Chelidonichthys queketti | 0.18 | 2 | 0.36 | |
| MYCTOPHIDAE | 0.06 | 20 | 0.12 | |
| GONOSTOMATIDAE | 0.04 | 2 | 0.08 | |
| Scorpaenidae | 0.02 | 2 | 0.04 | |
| Centrocyllium fabricii | 0.02 | 2 | 0.04 | |
| Malacocephalus laevis | 0.02 | 2 | 0.04 | |
| Total | 50.36 | | 100.00 | |

PROJECT STATION:1681
 DATE:14/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2846 Long E 1420
 start stop duration
 TIME :19:26:00 19:56:00 30 (min) Purpose code: 3
 LOG :2145.50 2147.00 1.50 Area code : 1
 FDEPTH: 557 558 GearCond.code:
 BDEPTH: 557 558 Validity code:
 Towing dir: 170° Wire out:1500 m Speed: 30 kn*10
 Sorted: 37 Kg Total catch: 36.84 CATCH/HOUR: 73.68

PROJECT STATION:1684
 DATE:15/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2818 Long E 1425
 start stop duration
 TIME :06:10:00 06:40:00 30 (min) Purpose code: 3
 LOG :2191.30 2192.80 1.50 Area code : 1
 FDEPTH: 500 497 GearCond.code:
 BDEPTH: 500 497 Validity code: 1
 Towing dir: 200° Wire out:1500 m Speed: 30 kn*10
 Sorted: 80 Kg Total catch: 118.08 CATCH/HOUR: 236.16

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| ARISTEIDAE | 15.50 | 1722 | 21.04 | |
| Merluccius capensis, female | 7.60 | 2 | 10.31 | 5544 |
| Coloconger cadenati | 6.72 | 10 | 9.12 | |
| Raja leopardus | 6.62 | 8 | 8.98 | |
| Merluccius paradoxus, female | 5.60 | 8 | 7.60 | 5546 |
| Nezumia sp. | 5.28 | 136 | 7.17 | |
| Coelorinchus fasciatus | 5.02 | 134 | 6.81 | |
| Neoharriotta pinnata | 4.98 | 8 | 6.76 | |
| Chaceon maritae | 4.38 | 48 | 5.94 | |
| Merluccius paradoxus, male | 4.10 | 8 | 5.56 | 5545 |
| Gemypteris capensis | 1.84 | 2 | 2.50 | 5543 |
| Raja confundens | 1.54 | 6 | 2.09 | |
| Deania profundorum | 1.16 | 2 | 1.57 | |
| Todarodes sagittatus | 0.74 | 2 | 1.00 | |
| Ebinania costaecanarie | 0.52 | 6 | 0.71 | |
| Melanostomias sp. | 0.46 | 6 | 0.62 | |
| Selachophidium guentheri | 0.42 | 6 | 0.57 | |
| Myxine capensis | 0.28 | 4 | 0.38 | |
| MYCTOPHIDAE | 0.22 | 22 | 0.30 | |
| Alloctytus verrucosus | 0.20 | 4 | 0.27 | |
| Etmopteris lucifer | 0.20 | 2 | 0.27 | |
| C E P H A L O P O D A | 0.12 | 6 | 0.16 | |
| Shrimps, small, non comm. | 0.06 | 14 | 0.08 | |
| Notacanthus sexspinis | 0.06 | 2 | 0.08 | |
| Cruriraja parcomaculata | 0.06 | 4 | 0.08 | |
| Total | 73.68 | | 99.97 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 84.00 | 252 | 35.57 | 5553 |
| Coelorinchus fasciatus | 47.76 | 956 | 20.22 | |
| Nezumia sp. | 23.26 | 560 | 9.85 | |
| Merluccius paradoxus, male | 21.90 | 82 | 9.27 | 5552 |
| Centroscyllium fabricii | 15.76 | 560 | 6.67 | |
| Cruriraja parcomaculata | 11.26 | 36 | 4.77 | |
| Neoharriotta pinnata | 8.36 | 16 | 3.54 | |
| Bathyrhaja smithii | 4.90 | 6 | 2.07 | |
| Trachyrinchus scabrus | 4.50 | 60 | 1.91 | |
| ARISTEIDAE | 2.36 | 690 | 1.00 | |
| Todarodes sagittatus | 2.32 | 4 | 0.98 | |
| Selachophidium guentheri | 2.20 | 26 | 0.93 | |
| Raja leopardus | 1.16 | 10 | 0.49 | |
| Merluccius paradoxus | 1.08 | 20 | 0.46 | 5551 |
| Malacocephalus laevis | 1.00 | 16 | 0.42 | |
| Neocyttus rhomboidalis | 0.90 | 10 | 0.38 | |
| Chaceon maritae | 0.76 | 10 | 0.32 | |
| Notacanthus sexspinis | 0.76 | 20 | 0.32 | |
| Galeus polli | 0.60 | 6 | 0.25 | |
| Epigonon denticulatus | 0.46 | 66 | 0.19 | |
| C E P H A L O P O D A | 0.40 | 16 | 0.17 | |
| Myxine capensis | 0.26 | 6 | 0.11 | |
| MYCTOPHIDAE | 0.20 | 46 | 0.08 | |
| Total | 236.16 | | 99.97 | |

PROJECT STATION:1682
 DATE:14/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2837 Long E 1418
 start stop duration
 TIME :23:03:00 23:23:00 20 (min) Purpose code: 3
 LOG :2164.80 2165.80 1.00 Area code : 1
 FDEPTH: 613 618 GearCond.code: 8
 BDEPTH: 613 618 Validity code: 9
 Towing dir: 7° Wire out:1750 m Speed: 30 kn*10
 Sorted: 65 Kg Total catch: 149.60 CATCH/HOUR: 448.80

PROJECT STATION:1685
 DATE:15/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2748 Long E 1445
 start stop duration
 TIME :11:18:00 11:48:00 30 (min) Purpose code: 3
 LOG :2232.40 2234.00 1.60 Area code : 1
 FDEPTH: 440 425 GearCond.code:
 BDEPTH: 440 425 Validity code:
 Towing dir: 320° Wire out:1350 m Speed: 32 kn*10
 Sorted: 160 Kg Total catch: 1248.59 CATCH/HOUR: 2497.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 115.65 | 99 | 25.77 | 5548 |
| Nezumia sp. | 63.15 | 1200 | 14.07 | |
| Coelorinchus braueri | 62.55 | 675 | 13.94 | |
| Alloctytus verrucosus | 48.90 | 555 | 10.90 | |
| Malacocephalus laevis | 40.20 | 270 | 8.96 | |
| Raja confundens | 26.70 | 195 | 5.95 | |
| Chaceon maritae | 25.20 | 255 | 5.61 | |
| Merluccius paradoxus, male | 17.25 | 27 | 3.84 | 5547 |
| Hydrolagus sp. | 16.05 | 60 | 3.58 | |
| Selachophidium guentheri | 13.80 | 150 | 3.07 | |
| Ebinania costaecanarie | 7.35 | 120 | 1.64 | |
| Coloconger cadenati | 4.20 | 15 | 0.94 | |
| Lithodes ferox | 3.60 | 15 | 0.80 | |
| Helicolenus dactylopterus | 1.80 | 15 | 0.40 | |
| MYCTOPHIDAE | 0.90 | 45 | 0.20 | |
| Hoplostethus cadenati | 0.90 | 45 | 0.20 | |
| ARISTEIDAE | 0.60 | 45 | 0.13 | |
| Total | 448.80 | | 100.00 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 1596.00 | 6016 | 63.91 | 5554 |
| Merluccius paradoxus, male | 736.00 | 2752 | 29.47 | 5555 |
| Coelorinchus fasciatus | 54.56 | 2128 | 2.18 | |
| Merluccius paradoxus | 39.52 | 880 | 1.58 | 5558 |
| Galeus polli | 18.56 | 208 | 0.74 | |
| Trachurus capensis | 15.68 | 48 | 0.63 | 5557 |
| Todarodes sagittatus | 10.24 | 16 | 0.41 | |
| Gemypteris capensis | 8.22 | 8 | 0.33 | 5556 |
| Cruriraja parcomaculata | 6.72 | 16 | 0.27 | |
| Coelorinchus braueri | 5.76 | 432 | 0.23 | |
| Epigonon denticulatus | 2.24 | 352 | 0.09 | |
| MYCTOPHIDAE | 1.28 | 480 | 0.05 | |
| Plesionika sp. | 1.12 | 192 | 0.04 | |
| Photichthys sp. | 0.48 | 48 | 0.02 | |
| Nezumia sp. | 0.48 | 16 | 0.02 | |
| Paracallionymus costatus | 0.32 | 32 | 0.01 | |
| Total | 2497.18 | | 99.98 | |

PROJECT STATION:1683
 DATE:15/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2828 Long E 1419
 start stop duration
 TIME :03:11:00 03:41:00 30 (min) Purpose code: 3
 LOG :2175.60 2177.10 1.50 Area code : 1
 FDEPTH: 609 615 GearCond.code:
 BDEPTH: 609 615 Validity code:
 Towing dir: 10° Wire out:1700 m Speed: 30 kn*10
 Sorted: 29 Kg Total catch: 95.60 CATCH/HOUR: 191.20

PROJECT STATION:1686
 DATE:15/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2741 Long E 1455
 start stop duration
 TIME :14:04:00 14:34:00 30 (min) Purpose code: 3
 LOG :2251.50 2253.10 1.60 Area code : 1
 FDEPTH: 274 275 GearCond.code:
 BDEPTH: 274 275 Validity code:
 Towing dir: 10° Wire out: 900 m Speed: 28 kn*10
 Sorted: 98 Kg Total catch: 327.52 CATCH/HOUR: 655.04

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrinchus scabrus | 63.50 | 600 | 33.21 | |
| Nezumia sp. | 39.50 | 770 | 20.66 | |
| Merluccius paradoxus, female | 23.60 | 32 | 12.34 | 5550 |
| Deania calcea | 20.40 | 20 | 10.67 | |
| Neocyttus rhomboidalis | 16.50 | 70 | 8.63 | |
| Selachophidium guentheri | 5.20 | 60 | 2.72 | |
| MYCTOPHIDAE | 3.40 | 270 | 1.78 | |
| Yareella blackfordi | 3.30 | 180 | 1.73 | |
| Chaceon maritae | 2.50 | 30 | 1.31 | |
| Ebinania costaecanarie | 2.20 | 10 | 1.15 | |
| Raja confundens | 1.80 | 10 | 0.94 | |
| Merluccius paradoxus, male | 1.70 | 4 | 0.89 | 5549 |
| Notacanthus sexspinis | 1.30 | 10 | 0.68 | |
| Etmopteris lucifer | 1.20 | 20 | 0.63 | |
| Alloctytus verrucosus | 1.10 | 20 | 0.58 | |
| Helicolenus dactylopterus | 1.00 | 10 | 0.52 | |
| Sepia australis | 1.00 | 30 | 0.52 | |
| Shrimps, small, non comm. | 0.60 | 60 | 0.31 | |
| Hoplostethus cadenati | 0.50 | 10 | 0.26 | |
| Melanostomias sp. | 0.50 | 10 | 0.26 | |
| Bathylagus glacialis | 0.40 | 10 | 0.21 | |
| Total | 191.20 | | 100.00 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 350.56 | 2440 | 53.52 | 5563 |
| Merluccius paradoxus, male | 123.30 | 964 | 18.82 | 5566 |
| Merluccius capensis, female | 33.00 | 18 | 5.04 | 5561 |
| Callorhynchus capensis | 30.88 | 10 | 4.71 | |
| Deepwater fish mixture | 25.74 | | 3.93 | |
| Merluccius paradoxus | 22.86 | 532 | 3.49 | 5562 |
| Galeus polli | 14.22 | 180 | 2.17 | |
| Trachurus capensis | 10.18 | 28 | 1.55 | 5564 |
| Lophius vomerinus | 10.10 | 4 | 1.54 | 5559 |
| Gemypteris capensis | 9.40 | 18 | 1.44 | 5567 |
| Merluccius capensis, male | 6.60 | 4 | 1.01 | 5560 |
| Todarodes sagittatus | 4.72 | 6 | 0.72 | |
| Squalus megalops | 3.88 | 10 | 0.59 | |
| MYCTOPHIDAE | 2.52 | 1170 | 0.38 | |
| Merluccius capensis, male | 2.16 | 18 | 0.33 | 5565 |
| Sufflogobius bibarbus | 1.90 | 946 | 0.29 | |
| Brama brama | 1.58 | 2 | 0.24 | |
| Krill | 0.90 | 2250 | 0.14 | |
| Squilla acuelata calmani | 0.54 | 46 | 0.08 | |
| Total | 655.04 | | 99.99 | |

DATE:15/ 9/96 GEAR TYPE: BT No:9 PROJECT STATION:1687
 start stop duration POSITION:Lat S 2740
 TIME :15:48:00 16:18:00 30 (min) Purpose code: 3
 LOG :2262.00 2263.50 1.50 Area code : 1
 FDEPTH: 167 159 GearCond.code:
 BDEPTH: 167 159 Validity code:
 Towing dir: 105° Wire out: 550 m Speed: 30 kn*10
 Sorted: 82 Kg Total catch: 254.56 CATCH/HOUR: 509.12

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| MYCTOPHIDAE | 172.84 | 44516 | 33.95 | |
| Merluccius capensis, female | 129.16 | 750 | 25.37 | 5573 |
| Sufflogobius bibarbatatus | 101.50 | 18796 | 19.94 | |
| Merluccius capensis, male | 44.88 | 358 | 8.82 | 5572 |
| Thyrssites atun | 24.00 | 8 | 4.71 | 5574 |
| Chelidonichthys capensis | 15.54 | 50 | 3.05 | |
| Merluccius capensis | 8.12 | 162 | 1.59 | 5569 |
| Trachurus capensis | 6.94 | 14 | 1.36 | 5568 |
| Galeus polli | 3.36 | 14 | 0.66 | |
| Austroglossus microlepis | 1.96 | 8 | 0.38 | 5571 |
| Genypterus capensis | 0.82 | 2 | 0.16 | 5570 |
| Total | 509.12 | | 99.99 | |

DATE:15/ 9/96 GEAR TYPE: BT No:2 PROJECT STATION:1688
 start stop duration POSITION:Lat S 2734
 TIME :17:37:00 18:07:00 30 (min) Purpose code: 3
 LOG :2272.40 2274.10 1.70 Area code : 1
 FDEPTH: 131 129 GearCond.code:
 BDEPTH: 131 129 Validity code:
 Towing dir: 345° Wire out: 450 m Speed: 30 kn*10
 Sorted: 60 Kg Total catch: 238.40 CATCH/HOUR: 476.80

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 229.60 | 1880 | 48.15 | 5578 |
| Merluccius capensis, male | 119.60 | 1256 | 25.08 | 5577 |
| Trachurus capensis | 52.80 | 336 | 11.07 | 5575 |
| Genypterus capensis | 33.68 | 56 | 7.06 | 5576 |
| Sufflogobius bibarbatatus | 17.36 | 3104 | 3.64 | |
| Merluccius capensis | 13.20 | 368 | 2.77 | 5579 |
| MYCTOPHIDAE | 7.04 | 3352 | 1.48 | |
| Chelidonichthys capensis | 3.52 | 8 | 0.74 | |
| Total | 476.80 | | 99.99 | |

DATE:16/ 9/96 GEAR TYPE: BT No:2 PROJECT STATION:1689
 start stop duration POSITION:Lat S 2715
 TIME :04:54:00 04:57:00 3 (min) Purpose code: 3
 LOG :2324.00 2324.20 0.20 Area code : 1
 FDEPTH: 159 159 GearCond.code: 9
 BDEPTH: 159 159 Validity code: 9
 Towing dir: 345° Wire out: 550 m Speed: 30 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------|------------|---------|-------------|------|
| | weight | numbers | | |
| N O C A T C H | 0.00 | | | |
| Total | | | | |

DATE:16/ 9/96 GEAR TYPE: BT No:2 PROJECT STATION:1690
 start stop duration POSITION:Lat S 2716
 TIME :06:20:00 06:50:00 30 (min) Purpose code: 3
 LOG :2333.40 2334.90 1.50 Area code : 1
 FDEPTH: 219 250 GearCond.code:
 BDEPTH: 219 250 Validity code:
 Towing dir: 270° Wire out: 700 m Speed: 30 kn*10
 Sorted: 75 Kg Total catch: 400.84 CATCH/HOUR: 801.68

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 323.70 | 3094 | 40.38 | 5587 |
| MYCTOPHIDAE | 132.08 | 88050 | 16.48 | |
| Merluccius paradoxus, male | 104.00 | 1274 | 12.97 | 5586 |
| Sufflogobius bibarbatatus | 72.68 | 36336 | 9.07 | |
| Merluccius paradoxus | 70.20 | 1496 | 8.76 | 5583 |
| Merluccius capensis, female | 31.20 | 182 | 3.89 | 5585 |
| Merluccius capensis, female | 21.20 | 24 | 2.64 | 5589 |
| Merluccius capensis, male | 18.34 | 130 | 2.29 | 5584 |
| Spondyliosoma cantharus | 7.42 | 14 | 0.93 | |
| Lepidopus caudatus | 6.50 | 40 | 0.81 | |
| Merluccius capensis, male | 3.00 | 6 | 0.37 | 5588 |
| Coelorinchus fasciatus | 2.34 | 66 | 0.29 | |
| Genypterus capensis | 1.92 | 12 | 0.24 | 5581 |
| Lophius vomerinus | 1.86 | 2 | 0.23 | 5580 |
| Galeus polli | 1.44 | 14 | 0.18 | |
| Sepia australis | 1.30 | 26 | 0.16 | |
| Todarodes sagittatus | 1.18 | 2 | 0.15 | |
| Austroglossus microlepis | 1.18 | 4 | 0.15 | 5582 |
| Squilla sp. | 0.14 | 14 | 0.02 | |
| Total | 801.68 | | 100.01 | |

DATE:16/ 9/96 GEAR TYPE: BT No:2 PROJECT STATION:1691
 start stop duration POSITION:Lat S 2718
 TIME :08:07:00 08:37:00 30 (min) Purpose code: 3
 LOG :2342.60 2344.20 1.60 Area code : 1
 FDEPTH: 299 307 GearCond.code:
 BDEPTH: 299 307 Validity code:
 Towing dir: 300° Wire out: 950 m Speed: 30 kn*10
 Sorted: 89 Kg Total catch: 312.92 CATCH/HOUR: 625.84

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 252.46 | 1774 | 40.34 | 5594 |
| Merluccius paradoxus | 169.66 | 3250 | 27.11 | 5595 |
| Merluccius paradoxus, male | 71.10 | 694 | 11.36 | 5593 |
| Coelorinchus fasciatus | 41.68 | 1144 | 6.66 | |
| Thyrssites atun | 27.50 | 8 | 4.39 | 5592 |
| Brama brama | 13.80 | 8 | 2.21 | |
| MYCTOPHIDAE | 13.14 | 6912 | 2.10 | |
| Helicolenus dactylopterus | 12.24 | 64 | 1.96 | |
| Lepidopus caudatus | 12.16 | 316 | 1.94 | |
| Genypterus capensis | 7.90 | 2 | 1.26 | 5591 |
| Malacocephalus laevis | 2.34 | 18 | 0.37 | |
| Lophius vomerinus | 1.26 | 2 | 0.20 | 5590 |
| Todarodes sagittatus | 0.64 | 10 | 0.10 | |
| Total | 625.88 | | 100.00 | |

DATE:16/ 9/96 GEAR TYPE: BT No:9 PROJECT STATION:1692
 start stop duration POSITION:Lat S 2723
 TIME :10:03:00 10:27:00 24 (min) Purpose code: 3
 LOG :2352.90 2354.10 1.20 Area code : 1
 FDEPTH: 355 361 GearCond.code:
 BDEPTH: 355 361 Validity code:
 Towing dir: 263° Wire out: 1100 m Speed: 30 kn*10
 Sorted: 112 Kg Total catch: 1273.16 CATCH/HOUR: 3182.90

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 1790.33 | 12540 | 56.25 | 5601 |
| Merluccius paradoxus, male | 920.80 | 6903 | 28.93 | 5600 |
| Merluccius paradoxus | 198.18 | 3143 | 6.23 | 5599 |
| Coelorinchus fasciatus | 113.78 | 2015 | 3.57 | |
| Trachurus capensis | 45.93 | 123 | 1.44 | 5598 |
| MYCTOPHIDAE | 33.15 | 16570 | 1.04 | |
| Thyrssites atun | 28.25 | 8 | 0.89 | 5596 |
| Helicolenus dactylopterus | 24.60 | 170 | 0.77 | |
| Lophius vomerinus | 19.38 | 3 | 0.61 | 5597 |
| Lepidopus caudatus | 7.53 | 35 | 0.24 | |
| Epigonus pandionis | 1.03 | 205 | 0.03 | |
| Total | 3182.96 | | 100.00 | |

DATE:16/ 9/96 GEAR TYPE: BT No:9 PROJECT STATION:1693
 start stop duration POSITION:Lat S 2727
 TIME :12:22:00 12:52:00 30 (min) Purpose code: 3
 LOG :2365.80 2367.50 1.70 Area code : 1
 FDEPTH: 436 441 GearCond.code:
 BDEPTH: 436 441 Validity code:
 Towing dir: 160° Wire out: 1400 m Speed: 34 kn*10
 Sorted: 130 Kg Total catch: 266.54 CATCH/HOUR: 533.08

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 286.06 | 1380 | 53.66 | 5603 |
| Coelorinchus fasciatus | 110.34 | 3872 | 20.70 | |
| Merluccius paradoxus, male | 72.84 | 332 | 13.66 | 5602 |
| Lophius vomerinus | 13.20 | 2 | 2.48 | 5604 |
| Helicolenus dactylopterus | 12.90 | 60 | 2.42 | |
| MYCTOPHIDAE | 6.40 | 716 | 1.20 | |
| Raja straeleni | 5.70 | 4 | 1.07 | |
| Galeus polli | 5.28 | 42 | 0.99 | |
| Todaropsis eblanae | 5.16 | 170 | 0.97 | |
| Todarodes sagittatus | 4.82 | 8 | 0.90 | |
| Genypterus capensis | 4.80 | 4 | 0.90 | 5605 |
| Plesionika sp. | 2.82 | 962 | 0.53 | |
| Selachophidium guentheri | 1.32 | 12 | 0.25 | |
| Yarrella blackfordi | 0.68 | 52 | 0.13 | |
| Nezumia sp. | 0.34 | 22 | 0.06 | |
| Malacocephalus laevis | 0.30 | 26 | 0.06 | |
| Bathynectes piperitus | 0.12 | 4 | 0.02 | |
| Total | 533.08 | | 100.00 | |

DATE:16/ 9/96 GEAR TYPE: BT No:9 PROJECT STATION:1694
 start stop duration POSITION:Lat S 2726
 TIME :14:34:00 15:04:00 30 (min) Purpose code: 3
 LOG :2376.00 2377.50 1.50 Area code : 1
 FDEPTH: 492 490 GearCond.code:
 BDEPTH: 492 490 Validity code:
 Towing dir: 322° Wire out: 1550 m Speed: 30 kn*10
 Sorted: 55 Kg Total catch: 55.03 CATCH/HOUR: 110.06

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 35.50 | 216 | 32.26 | 5608 |
| Merluccius paradoxus, female | 31.10 | 26 | 28.26 | 5607 |
| Merluccius paradoxus, male | 16.50 | 84 | 14.99 | 5606 |
| Coelorinchus fasciatus | 6.94 | 84 | 6.31 | |
| Photichthys sp. | 4.22 | 416 | 3.83 | |
| Nezumia sp. | 3.46 | 146 | 3.14 | |
| Coelorinchus braueri | 2.08 | 152 | 1.89 | |
| Todarodes sagittatus | 2.00 | 6 | 1.82 | |
| Selachophidium guentheri | 1.96 | 28 | 1.78 | |
| Galeus polli | 1.52 | 14 | 1.38 | |
| Malacocephalus laevis | 1.14 | 20 | 1.04 | |
| Helicolenus dactylopterus | 1.00 | 6 | 0.91 | |
| MYCTOPHIDAE | 0.94 | 82 | 0.85 | |
| Aristeus varidens | 0.58 | 206 | 0.53 | |
| Todaropsis eblanae | 0.50 | 30 | 0.45 | |
| Bassanago albescens | 0.42 | 2 | 0.38 | |
| Plesionika sp. | 0.20 | 56 | 0.18 | |
| Total | 110.06 | | 100.00 | |

PROJECT STATION:1695
 DATE:16/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2723 Long E 1412
 start stop duration Purpose code: 3
 TIME :16:38:00 17:08:00 30 (min) Area code : 1
 LOG :2383.20 2384.70 1.50 GearCond.code:
 FDEPTH: 594 602 Validity code:
 BDEPTH: 594 602
 Towing dir: 320* Wire out:1650 m Speed: 30 kn*10
 Sorted: 77 Kg Total catch: 100.26 CATCH/HOUR: 200.52

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 82.50 | 70 | 41.14 | 5609 |
| Trachyrincus scabrus | 47.20 | 612 | 23.54 | |
| Lophius vomerinus | 23.50 | 2 | 11.72 | 5610 |
| Nezumia sp. | 19.00 | 460 | 9.48 | |
| Selachophidium guentheri | 5.92 | 72 | 2.95 | |
| Cruriraja parcomaculata | 5.76 | 12 | 2.87 | |
| Deania profundorum | 5.56 | 8 | 2.77 | |
| Yarella blackfordi | 2.36 | 176 | 1.18 | |
| Centrosyllium fabricii | 1.80 | 32 | 0.90 | |
| Coelorinchus fasciatus | 1.48 | 8 | 0.74 | |
| Etmopterus pusillus | 1.24 | 4 | 0.62 | |
| Shrimps, small, non comm. | 1.16 | 288 | 0.58 | |
| Deepwater fish mixture | 0.56 | 44 | 0.28 | |
| Paradiplospinus gracilis | 0.52 | 4 | 0.26 | |
| Notacanthus sexspinis | 0.52 | 16 | 0.26 | |
| Trachyscorpia capensis | 0.44 | 4 | 0.22 | |
| Melanostomias sp. | 0.28 | 12 | 0.14 | |
| Ebinania costaecanarie | 0.24 | 4 | 0.12 | |
| Chaceon maritae | 0.20 | 4 | 0.10 | |
| Aristeus varidens | 0.20 | 32 | 0.10 | |
| Plesionika sp. | 0.08 | 20 | 0.04 | |
| Total | 200.52 | | 100.01 | |

PROJECT STATION:1698
 DATE:17/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2701 Long E 1401
 start stop duration Purpose code: 3
 TIME :00:46:00 01:16:00 30 (min) Area code : 1
 LOG :2425.70 2427.30 1.60 GearCond.code:
 FDEPTH: 449 445 Validity code:
 BDEPTH: 449 445
 Towing dir: 330* Wire out:1300 m Speed: 32 kn*10
 Sorted: 67 Kg Total catch: 66.98 CATCH/HOUR: 133.96

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 47.50 | 86 | 35.46 | 5616 |
| Merluccius paradoxus, male | 36.40 | 80 | 27.17 | 5615 |
| Coelorinchus fasciatus | 17.50 | 186 | 13.06 | |
| Helicolenus dactylopterus | 11.90 | 46 | 8.88 | |
| Lophius vomerinus | 6.84 | 2 | 5.11 | 5617 |
| Cruriraja parcomaculata | 3.64 | 6 | 2.72 | |
| Todarodes sagittatus | 2.22 | 2 | 1.66 | |
| Selachophidium guentheri | 1.78 | 30 | 1.33 | |
| Nezumia sp. | 1.64 | 62 | 1.22 | |
| Plesionika sp. | 0.94 | 100 | 0.70 | |
| MYCTOPHIDAE | 0.90 | 76 | 0.67 | |
| Yarella blackfordi * | 0.58 | 32 | 0.43 | |
| Etmopterus lucifer | 0.50 | 2 | 0.37 | |
| Coelorinchus braueri | 0.50 | 28 | 0.37 | |
| Shrimps, small, non comm. | 0.40 | 550 | 0.30 | |
| Galeus polli | 0.22 | 2 | 0.16 | |
| Bassanago albescens | 0.18 | 2 | 0.13 | |
| SERGESTIDAE | 0.14 | 22 | 0.10 | |
| Notacanthus sexspinis | 0.12 | 4 | 0.09 | |
| Nanichthys simulans | 0.06 | 4 | 0.04 | |
| Total | 133.96 | | 99.97 | |

PROJECT STATION:1696
 DATE:16/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2712 Long E 1401
 start stop duration Purpose code: 3
 TIME :19:11:00 19:41:00 30 (min) Area code : 1
 LOG :2398.40 2400.00 1.60 GearCond.code:
 FDEPTH: 651 648 Validity code:
 BDEPTH: 651 648
 Towing dir: 324* Wire out:1750 m Speed: 30 kn*10
 Sorted: 51 Kg Total catch: 148.86 CATCH/HOUR: 297.72

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 172.70 | 2762 | 58.01 | |
| Merluccius paradoxus, female | 53.90 | 44 | 18.10 | 5612 |
| Nezumia sp. | 34.22 | 804 | 11.49 | |
| Cruriraja parcomaculata | 10.78 | 34 | 3.62 | |
| Etmopterus brachyurus | 4.62 | 78 | 1.55 | |
| Merluccius paradoxus, male | 3.40 | 4 | 1.14 | 5611 |
| Raja leopardus | 3.20 | 56 | 1.07 | |
| Malacocephalus laevis | 2.86 | 12 | 0.96 | |
| Yarella blackfordi | 2.86 | 166 | 0.96 | |
| Neocyttus rhomboidalis | 2.54 | 34 | 0.85 | |
| Todarodes sagittatus | 1.98 | 12 | 0.67 | |
| Trachyscorpia capensis | 1.54 | 12 | 0.52 | |
| Notacanthus sexspinis | 1.00 | 12 | 0.34 | |
| Selachophidium guentheri | 0.88 | 12 | 0.30 | |
| Hoplostethus cadenati | 0.56 | 22 | 0.19 | |
| S H R I M P S | 0.34 | 88 | 0.11 | |
| Ceratias holboelli | 0.22 | 12 | 0.07 | |
| Nemichthys scolopaceus | 0.12 | 12 | 0.04 | |
| Total | 297.72 | | 99.99 | |

PROJECT STATION:1699
 DATE:17/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2701 Long E 1410
 start stop duration Purpose code: 3
 TIME :05:07:00 05:37:00 30 (min) Area code : 1
 LOG :2442.80 2444.50 1.70 GearCond.code:
 FDEPTH: 405 402 Validity code:
 BDEPTH: 405 402
 Towing dir: 345* Wire out:1200 m Speed: 32 kn*10
 Sorted: 266 Kg Total catch: 402.48 CATCH/HOUR: 804.96

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Coelorinchus fasciatus | 256.10 | 7176 | 31.82 | |
| Merluccius paradoxus, female | 239.50 | 610 | 29.75 | 5621 |
| Merluccius paradoxus, male | 159.30 | 448 | 19.79 | 5620 |
| Lophius vomerinus | 60.90 | 12 | 7.57 | 5619 |
| Genypterus capensis | 22.20 | 14 | 2.76 | 5618 |
| Todarodes sagittatus | 15.98 | 14 | 1.99 | |
| Helicolenus dactylopterus | 14.44 | 104 | 1.79 | |
| Selachophidium guentheri | 14.30 | 260 | 1.78 | |
| Bathynectes piperitus | 8.84 | 182 | 1.10 | |
| Galeus polli | 7.02 | 66 | 0.87 | |
| Nezumia sp. | 4.42 | 234 | 0.55 | |
| Aristeus varidens | 1.56 | 612 | 0.19 | |
| Malacocephalus laevis | 0.40 | 40 | 0.05 | |
| Total | 804.96 | | 100.01 | |

PROJECT STATION:1697
 DATE:16/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2701 Long E 1356
 start stop duration Purpose code: 3
 TIME :22:36:00 23:06:00 30 (min) Area code : 1
 LOG :2415.30 2416.80 1.50 GearCond.code:
 FDEPTH: 544 539 Validity code:
 BDEPTH: 544 539
 Towing dir: 325* Wire out:1500 m Speed: 30 kn*10
 Sorted: 119 Kg Total catch: 144.02 CATCH/HOUR: 288.04

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 152.70 | 130 | 53.01 | 5613 |
| Nezumia sp. | 72.16 | 1636 | 25.05 | |
| Coelorinchus braueri | 15.50 | 476 | 5.38 | |
| Merluccius paradoxus, male | 9.30 | 14 | 3.23 | 5614 |
| Selachophidium guentheri | 7.76 | 106 | 2.69 | |
| Notacanthus sexspinis | 6.20 | 146 | 2.15 | |
| Hoplostethus cadenati | 5.70 | 400 | 1.98 | |
| SERGESTIDAE | 5.00 | 1050 | 1.74 | |
| Yarella blackfordi * | 2.20 | 126 | 0.76 | |
| Deania profundorum | 2.10 | 4 | 0.73 | |
| Raja leopardus | 1.76 | 10 | 0.61 | |
| Ebinania costaecanarie | 1.76 | 30 | 0.61 | |
| Coelorinchus fasciatus | 1.26 | 6 | 0.44 | |
| Etmopterus brachyurus | 0.96 | 16 | 0.33 | |
| Todarodes sagittatus | 0.86 | 4 | 0.30 | |
| Plesionika sp. | 0.50 | 166 | 0.17 | |
| MYCTOPHIDAE | 0.50 | 44 | 0.17 | |
| Neoscorpelus macrolepidotus | 0.44 | 26 | 0.15 | |
| Aphanopus sp. | 0.30 | 4 | 0.10 | |
| Tripterygion gilchristi | 0.24 | 6 | 0.08 | |
| Trachyscorpia capensis | 0.24 | 4 | 0.08 | |
| ARISTEIDAE | 0.24 | 20 | 0.08 | |
| STOMIIDAE | 0.14 | 10 | 0.05 | |
| Howella sheroni | 0.10 | 4 | 0.03 | |
| Nemichthys scolopaceus | 0.06 | 4 | 0.02 | |
| Todaropsis eblanae | 0.06 | 4 | 0.02 | |
| Total | 288.04 | | 99.96 | |

PROJECT STATION:1700
 DATE:17/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2659 Long E 1417
 start stop duration Purpose code: 3
 TIME :07:25:00 07:55:00 30 (min) Area code : 1
 LOG :2454.50 2456.00 1.50 GearCond.code:
 FDEPTH: 375 373 Validity code:
 BDEPTH: 375 373
 Towing dir: 350* Wire out:1150 m Speed: 30 kn*10
 Sorted: 184 Kg Total catch: 904.72 CATCH/HOUR: 1809.44

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 778.14 | 2440 | 43.00 | 5625 |
| Coelorinchus fasciatus | 430.38 | 7560 | 23.79 | |
| Merluccius paradoxus, male | 422.82 | 1620 | 23.37 | 5624 |
| Lophius vomerinus | 36.60 | 14 | 2.02 | 5623 |
| Helicolenus dactylopterus | 30.24 | 162 | 1.67 | |
| Cruriraja parcomaculata | 22.46 | 10 | 1.24 | |
| Bathynectes piperitus | 21.92 | 400 | 1.21 | |
| MYCTOPHIDAE | 20.52 | 8522 | 1.13 | |
| Todarodes sagittatus | 19.54 | 54 | 1.08 | |
| Nezumia sp. | 9.82 | 238 | 0.54 | |
| Galeus polli | 6.70 | 64 | 0.37 | |
| Genypterus capensis | 4.88 | 2 | 0.27 | 5622 |
| Aristeus varidens | 1.84 | 680 | 0.10 | |
| Selachophidium guentheri | 1.40 | 76 | 0.08 | |
| Squilla sp. | 0.76 | 140 | 0.04 | |
| Epigonus denticulatus | 0.54 | 130 | 0.03 | |
| C E P H A L O P O D A | 0.44 | 22 | 0.02 | |
| Nemichthys scolopaceus | 0.44 | 10 | 0.02 | |
| Total | 1809.44 | | 99.98 | |

PROJECT STATION:1701
 DATE:17/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2658 Long E 1427
 start stop duration
 TIME :09:34:00 10:04:00 30 (min) Purpose code: 3
 LOG :2465.70 2467.10 1.40 Area code : 1
 FDEPTH: 334 326 GearCond.code:
 BDEPTH: 334 326 Validity code:
 Towing dir: 70° Wire out:1000 m Speed: 28 kn*10
 Sorted: 115 Kg Total catch: 344.02 CATCH/HOUR: 688.04

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 294.70 | 1924 | 42.83 | 5630 |
| Coelorrinchus fasciatus | 167.56 | 5360 | 24.35 | |
| Merluccius paradoxus, male | 118.02 | 1362 | 17.15 | 5631 |
| MYCTOPHIDAE | 41.02 | 9148 | 5.96 | |
| Todarodes sagittatus | 16.50 | 26 | 2.40 | |
| Lophius vomerinus | 14.20 | 8 | 2.06 | 5628 |
| Thyrssites atun | 13.70 | 4 | 1.99 | 5629 |
| Helicolenus dactylopterus | 11.94 | 66 | 1.74 | |
| Trachurus capensis | 2.86 | 6 | 0.42 | 5626 |
| Bathynectes piperitus | 2.28 | 40 | 0.33 | |
| Holohalaelurus regani | 1.56 | 6 | 0.23 | |
| Epigonus denticulatus | 1.30 | 196 | 0.19 | |
| Galeus polli | 0.92 | 14 | 0.13 | |
| Genypterus capensis | 0.84 | 2 | 0.12 | 5627 |
| Todaropsis eblanae | 0.32 | 40 | 0.05 | |
| Squilla aculeata calmani | 0.26 | 20 | 0.04 | |
| Hoplostethus mediterraneus | 0.06 | 6 | 0.01 | |
| Total | 688.04 | | 100.00 | |

PROJECT STATION:1702
 DATE:17/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2656 Long E 1438
 start stop duration
 TIME :11:34:00 12:04:00 30 (min) Purpose code: 3
 LOG :2476.30 2477.90 1.60 Area code : 1
 FDEPTH: 263 253 GearCond.code:
 BDEPTH: 263 253 Validity code:
 Towing dir: 70° Wire out: 750 m Speed: 32 kn*10
 Sorted: 82 Kg Total catch: 319.27 CATCH/HOUR: 638.54

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 233.34 | 2482 | 36.54 | 5633 |
| Merluccius paradoxus, male | 133.00 | 1466 | 20.93 | 5636 |
| MYCTOPHIDAE | 117.14 | 74966 | 18.34 | |
| Coelorrinchus fasciatus | 55.06 | 1306 | 8.62 | |
| Merluccius capensis, female | 46.76 | 46 | 7.32 | 5635 |
| Todarodes sagittatus | 23.20 | 38 | 3.63 | |
| Sufflogobius bibarbatatus | 9.90 | 2744 | 1.55 | |
| Lophius vomerinus | 8.90 | 12 | 1.39 | 5632 |
| Todaropsis eblanae | 7.10 | 308 | 1.11 | |
| Genypterus capensis | 2.00 | 12 | 0.31 | 5634 |
| Galeus polli | 1.30 | 10 | 0.20 | |
| Bathynectes piperitus | 0.84 | 10 | 0.13 | |
| Total | 638.54 | | 99.97 | |

PROJECT STATION:1703
 DATE:17/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2648 Long E 1449
 start stop duration
 TIME :13:35:00 14:05:00 30 (min) Purpose code: 3
 LOG :2488.80 2490.60 1.80 Area code : 1
 FDEPTH: 184 177 GearCond.code:
 BDEPTH: 184 177 Validity code:
 Towing dir: 52° Wire out: 600 m Speed: 36 kn*10
 Sorted: 62 Kg Total catch: 446.86 CATCH/HOUR: 893.72

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 349.60 | 4832 | 39.12 | 5644 |
| Merluccius paradoxus, male | 200.00 | 2976 | 22.38 | 5643 |
| Merluccius paradoxus | 175.20 | 3760 | 19.60 | 5642 |
| Sufflogobius bibarbatatus | 81.60 | 18688 | 9.13 | |
| Chelidonichthys capensis | 29.76 | 48 | 3.33 | |
| Merluccius capensis, female | 24.32 | 128 | 2.72 | 5641 |
| Todarodes sagittatus | 10.60 | 18 | 1.19 | |
| Merluccius capensis, male | 5.44 | 48 | 0.61 | 5640 |
| Lepidopus caudatus | 4.80 | 80 | 0.54 | |
| Galeus polli | 3.36 | 16 | 0.38 | |
| Genypterus capensis | 2.56 | 16 | 0.29 | 5639 |
| Zeus capensis | 1.92 | 16 | 0.21 | |
| Austroglossus microlepis | 1.64 | 6 | 0.18 | 5637 |
| Todaropsis eblanae | 1.60 | 48 | 0.18 | |
| Lophius vomerinus | 1.32 | 2 | 0.15 | 5638 |
| Total | 893.72 | | 100.01 | |

PROJECT STATION:1704
 DATE:17/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2646 Long E 1455
 start stop duration
 TIME :15:13:00 15:43:00 30 (min) Purpose code: 3
 LOG :2498.90 2500.50 1.60 Area code : 1
 FDEPTH: 151 151 GearCond.code:
 BDEPTH: 151 151 Validity code:
 Towing dir: 337° Wire out: 600 m Speed: 32 kn*10
 Sorted: 59 Kg Total catch: 677.92 CATCH/HOUR: 1355.84

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 399.60 | 4248 | 29.47 | 5646 |
| Merluccius capensis, male | 290.40 | 3720 | 21.42 | 5645 |
| Sufflogobius bibarbatatus | 283.20 | 62472 | 20.89 | |
| Chelidonichthys capensis | 177.60 | 528 | 13.10 | |
| Merluccius capensis | 140.40 | 3360 | 10.36 | 5647 |
| Lepidopus caudatus | 52.56 | 2664 | 3.88 | |
| Todaropsis eblanae | 5.76 | 168 | 0.42 | |
| Austroglossus microlepis | 5.12 | 20 | 0.38 | 5648 |
| Sepia australis | 1.20 | 48 | 0.09 | |
| Total | 1355.84 | | 100.01 | |

PROJECT STATION:1705
 DATE:18/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2630 Long E 1455
 start stop duration
 TIME :04:48:00 05:08:00 20 (min) Purpose code: 3
 LOG :2568.10 2569.20 1.10 Area code : 1
 FDEPTH: 115 114 GearCond.code: 9
 BDEPTH: 115 114 Validity code: 1
 Towing dir: 160° Wire-out: 450 m Speed: 30 kn*10
 Sorted: 54 Kg Total catch: 108.14 CATCH/HOUR: 324.42

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 147.30 | 1170 | 45.40 | 5650 |
| Sufflogobius bibarbatatus | 78.90 | 12336 | 24.32 | |
| Chelidonichthys capensis | 48.90 | 150 | 15.07 | |
| Merluccius capensis, male | 39.90 | 450 | 12.30 | 5649 |
| Merluccius capensis | 5.22 | 216 | 1.61 | 5651 |
| Trachurus capensis | 1.08 | 24 | 0.33 | 5652 |
| Lepidopus caudatus | 1.02 | 42 | 0.31 | |
| Pterothrissus belloci | 0.72 | 6 | 0.22 | |
| Sepia australis | 0.60 | 18 | 0.18 | |
| MYCTOPHIDAE | 0.60 | 402 | 0.18 | |
| Todaropsis eblanae | 0.18 | 6 | 0.06 | |
| Total | 324.42 | | 99.98 | |

PROJECT STATION:1706
 DATE:18/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2640 Long E 1434
 start stop duration
 TIME :08:03:00 08:33:00 30 (min) Purpose code: 3
 LOG :2592.00 2593.40 1.40 Area code : 1
 FDEPTH: 271 279 GearCond.code: 8
 BDEPTH: 271 279 Validity code: 4
 Towing dir: 250° Wire out: 800 m Speed: 30 kn*10
 Sorted: 119 Kg Total catch: 118.54 CATCH/HOUR: 237.08

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 81.70 | 706 | 34.46 | 5658 |
| Coelorrinchus fasciatus | 37.10 | 594 | 15.65 | |
| MYCTOPHIDAE | 30.94 | 3380 | 13.05 | |
| Genypterus capensis | 18.80 | 12 | 7.91 | 5653 |
| Sufflogobius bibarbatatus | 13.06 | 4898 | 5.51 | |
| Lophius vomerinus | 13.00 | 10 | 5.48 | 5654 |
| Merluccius paradoxus, male | 10.80 | 108 | 4.56 | 5659 |
| Merluccius capensis, female | 9.68 | 32 | 4.08 | 5657 |
| Callorhynchus capensis | 8.60 | 4 | 3.63 | |
| Merluccius paradoxus | 6.02 | 124 | 2.54 | 5655 |
| Todarodes sagittatus | 2.82 | 4 | 1.19 | |
| Merluccius capensis, male | 2.18 | 10 | 0.92 | 5656 |
| Todaropsis eblanae | 0.92 | 36 | 0.39 | |
| Squilla aculeata calmani | 0.80 | 124 | 0.34 | |
| OPHICHTHIDAE | 0.36 | 2 | 0.15 | |
| Galeus polli | 0.28 | 2 | 0.12 | |
| Sepia australis | 0.02 | 2 | 0.01 | |
| Total | 237.08 | | 100.01 | |

PROJECT STATION:1707
 DATE:18/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2641 Long E 1423
 start stop duration
 TIME :10:27:00 10:57:00 30 (min) Purpose code: 3
 LOG :2607.10 2608.60 1.50 Area code : 1
 FDEPTH: 335 337 GearCond.code:
 BDEPTH: 335 337 Validity code:
 Towing dir: 162° Wire out:1100 m Speed: 30 kn*10
 Sorted: 178 Kg Total catch: 387.80 CATCH/HOUR: 775.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 361.64 | 1988 | 46.63 | 5661 |
| Merluccius paradoxus, male | 181.30 | 1340 | 23.38 | 5660 |
| MYCTOPHIDAE | 75.60 | 41234 | 9.75 | |
| Coelorrinchus fasciatus | 46.44 | 994 | 5.99 | |
| Merluccius capensis, female | 32.98 | 20 | 4.25 | 5667 |
| Merluccius capensis, female | 16.62 | 24 | 2.14 | 5666 |
| Todarodes sagittatus | 13.58 | 32 | 1.75 | |
| Helicolenus dactylopterus | 12.98 | 74 | 1.67 | |
| Trachurus capensis | 8.02 | 24 | 1.03 | 5663 |
| Todaropsis eblanae | 7.04 | 308 | 0.91 | |
| Nezumia sp. | 5.50 | 154 | 0.71 | |
| Genypterus capensis | 5.34 | 2 | 0.69 | 5662 |
| Merluccius capensis, male | 3.20 | 2 | 0.41 | 5664 |
| Merluccius capensis, male | 3.16 | 4 | 0.41 | 5665 |
| Galeus polli | 1.96 | 18 | 0.25 | |
| Raja straeleni | 0.18 | 4 | 0.02 | |
| Epigonus denticulatus | 0.10 | 10 | 0.01 | |
| Squilla aculeata calmani | 0.04 | 4 | 0.01 | |
| Total | 775.68 | | 100.01 | |

PROJECT STATION:1708
 DATE:18/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2640 Long E 1418
 start stop duration
 TIME :13:24:00 13:54:00 30 (min) Purpose code: 3
 LOG :2622.40 2623.90 1.50 Area code : 1
 FDEPTH: 381 359 GearCond.code:
 BDEPTH: 381 359 Validity code:
 Towing dir: 360° Wire out:1150 m Speed: kn*10
 Sorted: 182 Kg Total catch: 475.00 CATCH/HOUR: 950.00

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 459.24 | 1564 | 48.34 | 5670 |
| Merluccius paradoxus, male | 188.76 | 732 | 19.87 | 5669 |
| Coelorrinchus fasciatus | 145.78 | 236 | 15.35 | |
| Helicolenus dactylopterus | 53.66 | 298 | 5.65 | |
| Nezumia sp. | 33.64 | 224 | 3.54 | |
| Todarodes sagittatus | 15.22 | 26 | 1.60 | |
| Genypterus capensis | 11.40 | 10 | 1.20 | 5668 |
| Galeus polli | 10.94 | 96 | 1.15 | |
| Bathynectes piperitus | 5.24 | 128 | 0.55 | |
| Schedophilus huttoni | 5.18 | 6 | 0.55 | |
| MYCTOPHIDAE | 5.12 | 640 | 0.54 | |
| Bassanago albescens | 3.78 | 6 | 0.40 | |
| Lophius vomerinus | 3.02 | 2 | 0.32 | 5671 |
| Selachophidium guentheri | 2.78 | 64 | 0.29 | |
| Plesionika sp. | 2.68 | 1014 | 0.28 | |
| Todaropsis eblanae | 2.50 | 128 | 0.26 | |
| Photichthys argenteus | 1.06 | 80 | 0.11 | |
| Total | 950.00 | | 100.00 | |

PROJECT STATION:1709
 DATE:18/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2640 Long E 1401
 start stop duration
 TIME :15:47:00 16:17:00 30 (min) Purpose code: 3
 LOG :2634.50 2636.00 1.50 Area code : 1
 FDEPTH: 409 408 GearCond.code:
 BDEPTH: 409 408 Validity code:
 Towing dir: 360° Wire out:1200 m Speed: 30 kn*10
 Sorted: 351 Kg Total catch: 393.98 CATCH/HOUR: 787.96

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 429.50 | 1236 | 54.51 | 5674 |
| Merluccius paradoxus, male | 193.70 | 620 | 24.58 | 5673 |
| Coelorinchus fasciatus | 80.76 | 900 | 10.25 | |
| Todarodes sagittatus | 37.26 | 50 | 4.73 | |
| Genypterus capensis | 20.90 | 20 | 2.65 | 5672 |
| Helicolenus dactylopterus | 13.20 | 80 | 1.68 | |
| Nezumia sp. | 9.36 | 130 | 1.19 | |
| Galeus polli | 1.66 | 16 | 0.21 | |
| Selachophidium guentheri | 0.56 | 20 | 0.07 | |
| ARISTEIDAE | 0.56 | 226 | 0.07 | |
| Bathynectes piperitus | 0.50 | 10 | 0.06 | |
| Total | 787.96 | | 100.00 | |

PROJECT STATION:1710
 DATE:18/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2641 Long E 1351
 start stop duration
 TIME :18:13:00 18:43:00 30 (min) Purpose code: 3
 LOG :2647.30 2648.80 1.50 Area code : 1
 FDEPTH: 427 426 GearCond.code:
 BDEPTH: 427 426 Validity code:
 Towing dir: 360° Wire out:1250 m Speed: 30 kn*10
 Sorted: 116 Kg Total catch: 165.38 CATCH/HOUR: 330.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Coelorinchus fasciatus | 97.80 | 1230 | 29.57 | |
| Merluccius paradoxus, female | 96.90 | 240 | 29.30 | 5678 |
| Merluccius paradoxus, male | 69.40 | 182 | 20.98 | 5677 |
| Helicolenus dactylopterus | 22.08 | 126 | 6.68 | |
| Diaphus sp. | 10.08 | 990 | 3.05 | |
| Genypterus capensis | 8.86 | 6 | 2.68 | 5675 |
| Bathynectes piperitus | 7.02 | 12 | 2.12 | |
| Lophius vomerinus | 6.38 | 2 | 1.93 | 5676 |
| Nezumia sp. | 6.24 | 258 | 1.89 | |
| Todarodes sagittatus | 3.60 | 6 | 1.09 | |
| Galeus polli | 1.02 | 12 | 0.31 | |
| ARISTEIDAE | 0.48 | 180 | 0.15 | |
| Selachophidium guentheri | 0.36 | 12 | 0.11 | |
| Photichthys argenteus | 0.30 | 18 | 0.09 | |
| Todaropsis eblanae | 0.24 | 18 | 0.07 | |
| Total | 330.76 | | 100.02 | |

PROJECT STATION:1711
 DATE:18/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2641 Long E 1344
 start stop duration
 TIME :20:32:00 21:02:00 30 (min) Purpose code: 3
 LOG :2658.10 2659.60 1.50 Area code : 1
 FDEPTH: 482 480 GearCond.code:
 BDEPTH: 482 480 Validity code:
 Towing dir: 345° Wire out:1350 m Speed: 30 kn*10
 Sorted: 73 Kg Total catch: 91.08 CATCH/HOUR: 182.16

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 83.40 | 104 | 45.78 | 5680 |
| Nezumia sp. | 17.16 | 1176 | 9.42 | |
| Helicolenus dactylopterus | 14.92 | 72 | 8.19 | |
| Merluccius paradoxus, male | 14.70 | 22 | 8.07 | 5679 |
| Lophius vomerinus | 12.30 | 2 | 6.75 | 5681 |
| Hoplostethus cadenati | 9.40 | 480 | 5.16 | |
| Selachophidium guentheri | 6.12 | 124 | 3.36 | |
| Galeus polli | 5.52 | 36 | 3.03 | |
| Photichthys argenteus | 4.84 | 328 | 2.66 | |
| MYCTOPHIDAE | 4.76 | 440 | 2.61 | |
| Todarodes sagittatus | 3.84 | 4 | 2.11 | |
| Etmopterus brachyurus | 1.60 | 12 | 0.88 | |
| Etmopterus pusillus | 1.24 | 4 | 0.68 | |
| ARISTEIDAE | 0.60 | 68 | 0.33 | |
| Todaropsis eblanae | 0.48 | 4 | 0.26 | |
| Cruriraja parcomaculata | 0.40 | 4 | 0.22 | |
| Epigonus denticulatus | 0.40 | 4 | 0.22 | |
| Ebinania costaecanarie | 0.16 | 8 | 0.09 | |
| Scopelosaurus meadi | 0.12 | 4 | 0.07 | |
| Notacanthus sexspinis | 0.12 | 4 | 0.07 | |
| Malacocephalus laevis | 0.08 | 4 | 0.04 | |
| Total | 182.16 | | 100.00 | |

PROJECT STATION:1712
 DATE:18/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2636 Long E 1340
 start stop duration
 TIME :22:40:00 23:10:00 30 (min) Purpose code: 3
 LOG :2665.20 2666.70 1.50 Area code : 1
 FDEPTH: 550 554 GearCond.code:
 BDEPTH: 550 554 Validity code:
 Towing dir: 340° Wire out:1600 m Speed: 30 kn*10
 Sorted: 250 Kg Total catch: 401.52 CATCH/HOUR: 803.04

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 350.20 | 390 | 43.61 | 5682 |
| Nezumia sp. | 129.60 | 2892 | 16.14 | |
| Hoplostethus cadenati | 90.60 | 3696 | 11.28 | |
| Notacanthus sexspinis | 55.20 | 288 | 6.87 | |
| Lophius vomerinus | 43.30 | 8 | 5.39 | 5685 |
| Merluccius paradoxus, male | 29.30 | 44 | 3.65 | 5683 |
| Trachyrinchus scabrus | 21.24 | 924 | 2.64 | |
| Selachophidium guentheri | 17.52 | 288 | 2.18 | |
| Genypterus capensis | 15.10 | 2 | 1.88 | 5684 |
| Coelorinchus matamua | 10.20 | 36 | 1.27 | |
| Todarodes sagittatus | 8.88 | 24 | 1.11 | |
| MYCTOPHIDAE | 6.48 | 1044 | 0.81 | |
| Epigonus telescopus | 5.76 | 48 | 0.72 | |
| Etmopterus pusillus | 4.20 | 12 | 0.52 | |
| Coelorinchus fasciatus | 3.84 | 48 | 0.48 | |
| Ebinania costaecanarie | 2.28 | 36 | 0.28 | |
| Photichthys argenteus | 1.92 | 108 | 0.24 | |
| Lithodes ferox | 1.90 | 2 | 0.24 | |
| Etmopterus brachyurus | 1.68 | 24 | 0.21 | |
| Bathyraja smithii | 1.56 | 12 | 0.19 | |
| Neosopelus macrolepidotus | 0.96 | 24 | 0.12 | |
| ARISTEIDAE | 0.48 | 60 | 0.06 | |
| SERGESTIDAE | 0.48 | 108 | 0.06 | |
| Plesionika sp. | 0.24 | 48 | 0.03 | |
| Shrimps, small, non comm. | 0.12 | 216 | 0.01 | |
| Total | 803.04 | | 99.99 | |

PROJECT STATION:1713
 DATE:19/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2624 Long E 1341
 start stop duration
 TIME :05:05:00 05:35:00 30 (min) Purpose code: 3
 LOG :2691.80 2693.40 1.60 Area code : 1
 FDEPTH: 439 443 GearCond.code:
 BDEPTH: 439 443 Validity code:
 Towing dir: 360° Wire out:1200 m Speed: 32 kn*10
 Sorted: 150 Kg Total catch: 568.34 CATCH/HOUR: 1136.68

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 784.32 | 1808 | 69.00 | 5687 |
| Merluccius paradoxus, male | 136.42 | 312 | 12.00 | 5686 |
| Coelorinchus fasciatus | 85.12 | 934 | 7.49 | |
| Nezumia sp. | 49.02 | 1140 | 4.31 | |
| Helicolenus dactylopterus | 29.42 | 190 | 2.59 | |
| Selachophidium guentheri | 12.00 | 212 | 1.06 | |
| Hoplostethus cadenati | 10.64 | 616 | 0.94 | |
| Schedophilus huttoni | 9.34 | 8 | 0.82 | |
| Todarodes sagittatus | 4.40 | 8 | 0.39 | |
| Notacanthus sexspinis | 4.26 | 182 | 0.37 | |
| Ebinania costaecanarie | 4.10 | 174 | 0.36 | |
| Photichthys argenteus | 2.36 | 212 | 0.21 | |
| ARISTEIDAE | 1.82 | 152 | 0.16 | |
| Centroscyllium fabricii | 1.14 | 8 | 0.10 | |
| Galeus polli | 0.60 | 8 | 0.05 | |
| Plesionika sp. | 0.60 | 182 | 0.05 | |
| Yarellia blackfordi | 0.38 | 8 | 0.03 | |
| Epigonus denticulatus | 0.30 | 16 | 0.03 | |
| Diaphus sp. | 0.22 | 30 | 0.02 | |
| Allocyttus verrucosus | 0.22 | 8 | 0.02 | |
| Total | 1136.68 | | 100.00 | |

PROJECT STATION:1714
 DATE:19/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2624 Long E 1352
 start stop duration
 TIME :08:08:00 08:38:00 30 (min) Purpose code: 3
 LOG :2704.90 2706.50 1.60 Area code : 1
 FDEPTH: 400 397 GearCond.code:
 BDEPTH: 400 397 Validity code:
 Towing dir: 110° Wire out:1200 m Speed: 32 kn*10
 Sorted: 186 Kg Total catch: 244.89 CATCH/HOUR: 489.78

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 257.50 | 734 | 52.57 | 5691 |
| Coelorinchus fasciatus | 88.00 | 904 | 17.97 | |
| Merluccius paradoxus, male | 52.00 | 164 | 10.62 | 5690 |
| Helicolenus dactylopterus | 39.76 | 248 | 8.12 | |
| Genypterus capensis | 14.40 | 12 | 2.94 | 5688 |
| Nezumia sp. | 13.12 | 656 | 2.68 | |
| Hoplostethus cadenati | 6.16 | 584 | 1.26 | |
| Lophius vomerinus | 4.94 | 2 | 1.01 | 5689 |
| Trachurus capensis | 2.80 | 8 | 0.57 | 5693 |
| Todarodes sagittatus | 2.64 | 4 | 0.54 | |
| MYCTOPHIDAE | 2.00 | 1224 | 0.41 | |
| Merluccius capensis, female | 1.58 | 2 | 0.32 | 5692 |
| Selachophidium guentheri | 1.04 | 24 | 0.21 | |
| Notacanthus sexspinis | 0.96 | 48 | 0.20 | |
| Epigonus denticulatus | 0.96 | 40 | 0.20 | |
| ARISTEIDAE | 0.88 | 352 | 0.18 | |
| Bathynectes piperitus | 0.48 | 16 | 0.10 | |
| Ceratias holboellii | 0.40 | 8 | 0.08 | |
| Ebinania costaecanarie | 0.16 | 8 | 0.03 | |
| Total | 489.78 | | 100.01 | |

PROJECT STATION:1715
 DATE:19/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2627 Long E 1359
 start stop duration
 TIME :10:16:00 10:46:00 30 (min) Purpose code: 3
 LOG :2712.80 2714.30 1.50 Area code : 1
 FDEPTH: 393 389 GearCond.code:
 BDEPTH: 393 389 Validity code:
 Towing dir: 110° Wire out:1150 m Speed: 30 kn*10
 Sorted: 110 Kg Total catch: 402.07 CATCH/HOUR: 804.14

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 371.60 | 1060 | 46.21 | 5694 |
| Merluccius paradoxus, male | 148.20 | 482 | 18.43 | 5695 |
| Coelorinchus fasciatus | 105.62 | 1248 | 13.13 | |
| Trachurus capensis | 51.80 | 122 | 6.44 | 5697 |
| Lophius vomerinus | 32.70 | 8 | 4.07 | 5699 |
| Nezumia sp. | 31.92 | 1262 | 3.97 | |
| Helicolenus dactylopterus | 31.00 | 170 | 3.86 | |
| Merluccius capensis, male | 7.50 | 6 | 0.93 | 5696 |
| Gerypteris capensis | 7.20 | 4 | 0.90 | 5698 |
| Todarodes sagittatus | 6.04 | 6 | 0.75 | |
| Selachophidium guentheri | 6.04 | 182 | 0.75 | |
| MYCTOPHIDAE | 1.36 | 624 | 0.17 | |
| Notacanthus sexspinis | 1.18 | 20 | 0.15 | |
| Plesionika sp. | 1.10 | 514 | 0.14 | |
| Hoplostethus mediterraneus | 0.72 | 110 | 0.09 | |
| Photichthys argenteus | 0.14 | 6 | 0.02 | |
| Total | 804.12 | | 100.01 | |

PROJECT STATION:1719
 DATE:20/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2006 Long E 1435
 start stop duration
 TIME :04:53:00 05:23:00 30 (min) Purpose code: 3
 LOG :2810.90 2812.60 1.70 Area code : 1
 FDEPTH: 185 185 GearCond.code:
 BDEPTH: 185 185 Validity code:
 Towing dir: 360° Wire out: 600 m Speed: 33 kn*10
 Sorted: 58 Kg Total catch: 199.65 CATCH/HOUR: 399.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 249.56 | 2402 | 62.50 | 5724 |
| Sufflogobius bibarbatatus | 64.40 | 14000 | 16.13 | |
| Merluccius capensis, female | 32.62 | 84 | 8.17 | 5726 |
| Merluccius paradoxus, male | 20.66 | 238 | 5.17 | 5723 |
| Merluccius capensis, male | 9.10 | 42 | 2.28 | 5725 |
| Coelorinchus fasciatus | 7.92 | 330 | 1.98 | |
| Merluccius paradoxus | 3.78 | 92 | 0.95 | 5722 |
| Lepidopus caudatus | 2.80 | 56 | 0.70 | |
| Austroglossus microlepis | 2.38 | 10 | 0.60 | 5721 |
| Trachurus capensis | 2.10 | 8 | 0.53 | 5728 |
| MYCTOPHIDAE | 1.48 | 638 | 0.37 | |
| Lophius vomerinus | 1.30 | 4 | 0.33 | 5727 |
| Todaropsis eblanae | 1.20 | 22 | 0.30 | |
| Total | 399.30 | | 100.01 | |

PROJECT STATION:1716
 DATE:19/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2622 Long E 1401
 start stop duration
 TIME :12:58:00 13:28:00 30 (min) Purpose code: 3
 LOG :2726.80 2728.30 1.50 Area code : 1
 FDEPTH: 339 338 GearCond.code:
 BDEPTH: 339 338 Validity code:
 Towing dir: 125° Wire out:1100 m Speed: 30 kn*10
 Sorted: 180 Kg Total catch: 1065.97 CATCH/HOUR: 2131.94

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 1256.28 | 6944 | 58.93 | 5705 |
| Merluccius paradoxus, male | 439.42 | 2914 | 20.61 | 5704 |
| Krill | 174.38 | 418500 | 8.18 | |
| Coelorinchus fasciatus | 67.90 | 2326 | 3.18 | |
| Merluccius paradoxus, female | 40.80 | 42 | 1.91 | 5703 |
| Helicolenus dactylopterus | 36.28 | 418 | 1.70 | |
| Trachurus capensis | 28.70 | 76 | 1.35 | 5706 |
| Todarodes sagittatus | 23.88 | 32 | 1.12 | |
| MYCTOPHIDAE | 19.38 | 27126 | 0.91 | |
| Merluccius capensis, female | 14.00 | 14 | 0.66 | 5702 |
| Nezumia sp. | 11.16 | 310 | 0.52 | |
| Galeus polli | 8.52 | 124 | 0.40 | |
| Lophius vomerinus | 7.70 | 8 | 0.36 | 5701 |
| Merluccius paradoxus | 3.56 | 94 | 0.17 | 5700 |
| Total | 2131.96 | | 100.00 | |

PROJECT STATION:1720
 DATE:20/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2600 Long E 1419
 start stop duration
 TIME :07:20:00 07:50:00 30 (min) Purpose code: 3
 LOG :2827.70 2829.40 1.70 Area code : 1
 FDEPTH: 205 214 GearCond.code:
 BDEPTH: 205 214 Validity code:
 Towing dir: 265° Wire out: 650 m Speed: 34 kn*10
 Sorted: 107 Kg Total catch: 1162.79 CATCH/HOUR: 2325.58

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 808.80 | 6888 | 34.78 | 5734 |
| Merluccius paradoxus, female | 534.00 | 7752 | 22.96 | 5732 |
| Merluccius capensis, male | 428.40 | 4104 | 18.42 | 5733 |
| Sufflogobius bibarbatatus | 252.00 | 44208 | 10.84 | |
| MYCTOPHIDAE | 145.20 | 79872 | 6.24 | |
| Merluccius paradoxus, male | 90.48 | 1512 | 3.89 | 5731 |
| Lepidopus caudatus | 14.40 | 216 | 0.62 | |
| Trachurus capensis | 13.92 | 96 | 0.60 | 5730 |
| Coelorinchus fasciatus | 12.00 | 216 | 0.52 | |
| Todarodes sagittatus | 10.20 | 20 | 0.44 | |
| Merluccius capensis, female | 6.60 | 2 | 0.28 | 5735 |
| Todaropsis eblanae | 3.60 | 72 | 0.15 | |
| Lophius vomerinus | 3.34 | 12 | 0.14 | 5736 |
| Austroglossus microlepis | 2.64 | 6 | 0.11 | 5729 |
| Total | 2325.58 | | 99.99 | |

PROJECT STATION:1717
 DATE:19/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2620 Long E 1419
 start stop duration
 TIME :15:03:00 15:33:00 30 (min) Purpose code: 3
 LOG :2736.20 2737.70 1.50 Area code : 1
 FDEPTH: 298 272 GearCond.code:
 BDEPTH: 298 272 Validity code:
 Towing dir: 80° Wire out: 950 m Speed: 30 kn*10
 Sorted: 128 Kg Total catch: 946.44 CATCH/HOUR: 1892.88

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 1420.80 | 11616 | 75.06 | 5710 |
| Merluccius paradoxus, male | 201.60 | 1184 | 10.65 | 5709 |
| Merluccius capensis, female | 117.00 | 120 | 6.18 | 5712 |
| Coelorinchus fasciatus | 62.08 | 1856 | 3.28 | |
| Merluccius capensis, male | 29.00 | 42 | 1.53 | 5711 |
| Krill | 17.92 | | 0.95 | |
| Trachurus capensis | 11.52 | 32 | 0.61 | 5708 |
| Merluccius paradoxus | 7.68 | 160 | 0.41 | 5707 |
| Sufflogobius bibarbatatus | 7.36 | 3936 | 0.39 | |
| MYCTOPHIDAE | 5.76 | 2752 | 0.30 | |
| Helicolenus dactylopterus | 4.80 | 32 | 0.25 | |
| Squilla sp. | 2.88 | 160 | 0.15 | |
| Galeus polli | 2.88 | 64 | 0.15 | |
| Todaropsis eblanae | 0.96 | 32 | 0.05 | |
| Chlorophthalmus atlanticus | 0.64 | 32 | 0.03 | |
| Total | 1892.88 | | 99.99 | |

PROJECT STATION:1721
 DATE:20/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2601 Long E 1413
 start stop duration
 TIME :08:55:00 09:13:00 18 (min) Purpose code: 3
 LOG :2834.80 2835.70 0.90 Area code : 1
 FDEPTH: 259 263 GearCond.code: 9
 BDEPTH: 259 263 Validity code: 1
 Towing dir: 240° Wire out: 750 m Speed: 30 kn*10
 Sorted: 111 Kg Total catch: 478.88 CATCH/HOUR: 1596.27

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sufflogobius bibarbatatus | 447.20 | 81067 | 28.02 | |
| Merluccius paradoxus, female | 396.00 | 6027 | 24.81 | 5741 |
| Merluccius paradoxus, male | 309.33 | 4693 | 19.38 | 5742 |
| Lophius vomerinus | 116.67 | 110 | 7.31 | 5738 |
| Merluccius capensis, female | 96.00 | 880 | 6.01 | 5744 |
| Squilla acuelata calmani | 84.53 | 4693 | 5.30 | |
| Merluccius capensis, female | 50.00 | 43 | 3.13 | 5740 |
| Merluccius capensis, male | 49.33 | 427 | 3.09 | 5743 |
| Todarodes sagittatus | 16.20 | 73 | 1.01 | |
| Austroglossus microlepis | 12.00 | 33 | 0.75 | 5737 |
| Coelorinchus fasciatus | 7.20 | 160 | 0.45 | |
| Galeus polli | 5.07 | 133 | 0.32 | |
| MYCTOPHIDAE | 4.53 | 2293 | 0.28 | |
| Merluccius capensis, male | 1.67 | 3 | 0.10 | 5739 |
| Todaropsis eblanae | 0.53 | 27 | 0.03 | |
| Total | 1596.26 | | 99.99 | |

PROJECT STATION:1718
 DATE:19/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2617 Long E 1427
 start stop duration
 TIME :16:46:00 17:16:00 30 (min) Purpose code: 3
 LOG :2745.70 2747.40 1.70 Area code : 1
 FDEPTH: 222 212 GearCond.code:
 BDEPTH: 222 212 Validity code:
 Towing dir: 335° Wire out: 800 m Speed: 33 kn*10
 Sorted: 76 Kg Total catch: 198.27 CATCH/HOUR: 396.54

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Krill | 286.00 | | 72.12 | |
| Merluccius paradoxus, female | 58.60 | 520 | 14.78 | 5720 |
| Merluccius capensis, female | 11.10 | 50 | 2.80 | 5718 |
| Sufflogobius bibarbatatus | 7.60 | 1020 | 1.92 | |
| Thyrssites atun | 5.80 | 2 | 1.46 | 5716 |
| Merluccius paradoxus, male | 5.50 | 66 | 1.39 | 5719 |
| Lophius vomerinus | 5.40 | 2 | 1.36 | 5715 |
| Lepidopus caudatus | 5.20 | 90 | 1.31 | |
| Coelorinchus fasciatus | 4.60 | 130 | 1.16 | |
| MYCTOPHIDAE | 3.50 | 1930 | 0.88 | |
| Merluccius capensis, male | 2.00 | 10 | 0.50 | 5717 |
| Austroglossus microlepis | 0.78 | 2 | 0.20 | 5713 |
| Gerypteris capensis | 0.46 | 2 | 0.12 | 5714 |
| Total | 396.54 | | 100.00 | |

PROJECT STATION:1722
 DATE:20/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2601 Long E 1402
 start stop duration
 TIME :11:41:00 12:11:00 30 (min) Purpose code: 3
 LOG :2849.60 2851.10 1.50 Area code : 1
 FDEPTH: 308 306 GearCond.code:
 BDEPTH: 308 306 Validity code:
 Towing dir: 360° Wire out: 950 m Speed: 30 kn*10
 Sorted: 477 Kg Total catch: 1120.65 CATCH/HOUR: 2241.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Coelorinchus fasciatus | 921.20 | 21056 | 41.10 | |
| Merluccius paradoxus, female | 386.90 | 1478 | 17.26 | 5748 |
| Merluccius capensis, female | 243.10 | 294 | 10.85 | 5745 |
| Helicolenus dactylopterus | 161.28 | 1064 | 7.20 | |
| Lophius vomerinus | 99.18 | 72 | 4.43 | 5750 |
| Galeus polli | 73.92 | 896 | 3.30 | |
| Squilla acuelata calmani | 70.00 | 2800 | 3.12 | |
| Merluccius capensis, male | 61.80 | 84 | 2.76 | 5746 |
| Nezumia sp. | 58.80 | 1848 | 2.62 | |
| Merluccius paradoxus, male | 56.50 | 220 | 2.52 | 5747 |
| Lophius vomerinus | 50.12 | 12 | 2.24 | 5751 |
| Bathynectes piperitus | 28.56 | 1064 | 1.27 | |
| Sufflogobius bibarbatatus | 10.64 | 3920 | 0.47 | |
| Lepidopus caudatus | 10.08 | 56 | 0.45 | |
| Gerypteris capensis | 8.10 | 4 | 0.36 | 5749 |
| Chlorophthalmus atlanticus | 1.12 | 112 | 0.05 | |
| Total | 2241.30 | | 100.00 | |

PROJECT STATION:1723
 DATE:20/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2600
 start stop duration Long E 1347
 TIME :15:23:00 15:53:00 30 (min) Purpose code: 3
 LOG :2869.20 2870.90 1.50 Area code : 1
 FDEPTH: 400 405 GearCond.code:
 BDEPTH: 400 405 Validity code:
 Towing dir: 360° Wire out:1200 m Speed: 30 kn*10
 Sorted: 226 Kg Total catch: 277.80 CATCH/HOUR: 555.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 273.50 | 648 | 49.23 | 5755 |
| Gemmyterus capensis | 88.50 | 34 | 15.93 | 5752 |
| Coelorrinchus fasciatus | 44.80 | 340 | 8.06 | |
| Merluccius paradoxus, male | 44.50 | 106 | 8.01 | 5754 |
| Raja confundens | 28.80 | 20 | 5.18 | |
| Helicolenus dactylopterus | 27.00 | 70 | 4.86 | |
| Lophius vomerinus | 19.20 | 12 | 3.46 | 5753 |
| Notacanthus sexspinis | 13.10 | 200 | 2.36 | |
| Nezumia sp. | 11.30 | 280 | 2.03 | |
| Myxine capensis | 2.80 | 30 | 0.50 | |
| Selachophidium guentheri | 1.50 | 10 | 0.27 | |
| Epigonus denticulatus | 0.40 | 10 | 0.07 | |
| Galeus polli | 0.20 | 10 | 0.04 | |
| Total | 555.60 | | 100.00 | |

PROJECT STATION:1726
 DATE:21/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2541
 start stop duration Long E 1424
 TIME :06:44:00 07:08:00 24 (min) Purpose code: 3
 LOG :2972.30 2973.50 1.20 Area code : 1
 FDEPTH: 176 178 GearCond.code: 9
 BDEPTH: 176 178 Validity code: 1
 Towing dir: 330° Wire out: 550 m Speed: 30 kn*10
 Sorted: 80 Kg Total catch: 587.96 CATCH/HOUR: 1469.90

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 716.63 | 6413 | 48.75 | 5765 |
| Merluccius capensis, female | 432.00 | 2655 | 29.39 | 5766 |
| Sufflogobius bibarbatatus | 183.38 | 50423 | 12.48 | |
| Chelidonichthys capensis | 46.13 | 90 | 3.14 | |
| MYCTOPHIDAE | 39.60 | 23288 | 2.69 | |
| Merluccius capensis, female | 29.75 | 15 | 2.02 | 5763 |
| Merluccius capensis, male | 6.75 | 5 | 0.46 | 5762 |
| Lepidopus caudatus | 6.30 | 158 | 0.43 | |
| Austroglossus microlepis | 3.88 | 13 | 0.26 | 5760 |
| Trachurus capensis | 3.60 | 23 | 0.24 | 5764 |
| Lophius vomerinus | 1.00 | 3 | 0.07 | 5761 |
| Coelorrinchus fasciatus | 0.90 | 45 | 0.06 | |
| Total | 1469.92 | | 99.99 | |

PROJECT STATION:1727
 DATE:22/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2524
 start stop duration Long E 1358
 TIME :12:26:00 12:56:00 30 (min) Purpose code: 3
 LOG :3093.90 3095.60 1.60 Area code : 1
 FDEPTH: 237 233 GearCond.code:
 BDEPTH: 237 233 Validity code:
 Towing dir: 350° Wire out: 750 m Speed: 32 kn*10
 Sorted: 205 Kg Total catch: 265.46 CATCH/HOUR: 530.92

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 283.70 | 1326 | 53.44 | 5770 |
| Sufflogobius bibarbatatus | 94.90 | 18980 | 17.87 | |
| MYCTOPHIDAE | 43.10 | 30170 | 8.12 | |
| Coelorrinchus fasciatus | 30.10 | 1014 | 5.67 | |
| Merluccius capensis, male | 24.70 | 126 | 4.65 | 5771 |
| Thyrsites atun | 20.90 | 6 | 3.94 | 5768 |
| Todarodes sagittatus | 12.00 | 24 | 2.26 | |
| Squilla aculeata calmani | 8.52 | 486 | 1.60 | |
| Trachurus capensis | 6.64 | 30 | 1.25 | 5769 |
| Lophius vomerinus | 3.30 | 14 | 0.62 | 5767 |
| Lepidopus caudatus | 2.34 | 36 | 0.44 | |
| Bathynectes piperitus | 0.72 | 102 | 0.14 | |
| Total | 530.92 | | 100.00 | |

PROJECT STATION:1724
 DATE:20/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2547
 start stop duration Long E 1335
 TIME :20:23:00 20:53:00 30 (min) Purpose code: 3
 LOG :2904.60 2906.20 1.60 Area code : 1
 FDEPTH: 616 616 GearCond.code:
 BDEPTH: 616 616 Validity code:
 Towing dir: 355° Wire out:1550 m Speed: 31 kn*10
 Sorted: 186 Kg Total catch: 460.33 CATCH/HOUR: 920.66

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 312.00 | 294 | 33.89 | 5756 |
| Nezumia sp. | 291.50 | 14300 | 31.66 | |
| Selachophidium guentheri | 102.74 | 1584 | 11.16 | |
| Hoplostethus cadenati | 97.90 | 5104 | 10.63 | |
| Deania calcea | 56.54 | 22 | 6.14 | |
| Raja confundens | 15.40 | 22 | 1.67 | |
| Yarrella blackfordi | 9.90 | 396 | 1.08 | |
| Todarodes sagittatus | 7.26 | 22 | 0.79 | |
| Diaphus sp. | 5.50 | 660 | 0.60 | |
| Ebinania costaecanarie | 4.62 | 44 | 0.50 | |
| Merluccius paradoxus, male | 4.10 | 6 | 0.45 | 5757 |
| ARISTEIDAE | 2.86 | 242 | 0.31 | |
| Notacanthus sexspinis | 2.64 | 66 | 0.29 | |
| Bathyrcoonger vicinus | 2.42 | 44 | 0.26 | |
| Photichthys argenteus | 2.20 | 198 | 0.24 | |
| Alloctylus verrucosus | 1.54 | 22 | 0.17 | |
| Squilla aculeata calmani | 0.88 | 44 | 0.10 | |
| Epigonus denticulatus | 0.66 | 44 | 0.07 | |
| Total | 920.66 | | 100.01 | |

PROJECT STATION:1728
 DATE:22/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2524
 start stop duration Long E 1344
 TIME :16:48:00 17:18:00 30 (min) Purpose code: 3
 LOG :3114.40 3115.90 1.50 Area code : 1
 FDEPTH: 336 335 GearCond.code:
 BDEPTH: 336 335 Validity code:
 Towing dir: 360° Wire out:1000 m Speed: 30 kn*10
 Sorted: 131 Kg Total catch: 324.83 CATCH/HOUR: 649.66

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 161.60 | 592 | 24.87 | 5773 |
| Helicolenus dactylopterus | 112.00 | 1040 | 17.24 | |
| Merluccius paradoxus, female | 82.90 | 250 | 12.76 | 5775 |
| Merluccius capensis, female | 81.90 | 48 | 12.61 | 5777 |
| Coelorrinchus fasciatus | 79.20 | 1984 | 12.19 | |
| Lophius vomerinus | 33.60 | 20 | 5.17 | 5772 |
| Squilla aculeata calmani | 21.28 | 1152 | 3.28 | |
| Notacanthus sexspinis | 21.12 | 928 | 3.25 | |
| Galeus polli | 18.08 | 368 | 2.78 | |
| Nezumia sp. | 16.80 | 848 | 2.59 | |
| Bathynectes piperitus | 9.60 | 384 | 1.48 | |
| Merluccius paradoxus, male | 6.40 | 22 | 0.99 | 5774 |
| Epigonus denticulatus | 2.08 | 112 | 0.32 | |
| MYCTOPHIDAE | 1.92 | 464 | 0.30 | |
| Merluccius capensis, male | 1.02 | 2 | 0.16 | 5776 |
| Selachophidium guentheri | 0.16 | 16 | 0.02 | |
| Total | 649.66 | | 100.01 | |

PROJECT STATION:1725
 DATE:20/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2541
 start stop duration Long E 1337
 TIME :23:21:00 23:51:00 30 (min) Purpose code: 3
 LOG :2920.20 2921.70 1.50 Area code : 1
 FDEPTH: 496 498 GearCond.code:
 BDEPTH: 496 498 Validity code:
 Towing dir: 350° Wire out:1300 m Speed: 30 kn*10
 Sorted: 162 Kg Total catch: 266.16 CATCH/HOUR: 532.32

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 239.50 | 304 | 44.99 | 5759 |
| Nezumia sp. | 130.80 | 3248 | 24.57 | |
| Cruriraja parcomaculata | 24.00 | 32 | 4.51 | |
| Hoplostethus cadenati | 20.96 | 1576 | 3.94 | |
| Selachophidium guentheri | 17.44 | 376 | 3.28 | |
| Notacanthus sexspinis | 16.64 | 336 | 3.13 | |
| Lithodes ferax | 15.60 | 16 | 2.93 | |
| Merluccius paradoxus, male | 14.10 | 20 | 2.65 | 5758 |
| Schedophilus huttoni | 8.56 | 8 | 1.61 | |
| Todarodes sagittatus | 7.60 | 16 | 1.43 | |
| Galeus polli | 6.08 | 24 | 1.14 | |
| Etmopterus brachyurus | 6.00 | 8 | 1.13 | |
| Ebinania costaecanarie | 5.60 | 8 | 1.05 | |
| Photichthys argenteus | 4.64 | 112 | 0.87 | |
| Helicolenus dactylopterus | 4.24 | 32 | 0.80 | |
| Yarrella blackfordi | 3.12 | 136 | 0.59 | |
| MYCTOPHIDAE | 2.40 | 1768 | 0.45 | |
| GONOSTOMATIDAE | 1.44 | 136 | 0.27 | |
| Epigonus telescopus | 0.96 | 24 | 0.18 | |
| Trachyrincus scabrus | 0.88 | 56 | 0.17 | |
| FRISSEIDAE | 0.48 | 224 | 0.09 | |
| Aristeidae | 0.48 | 48 | 0.09 | |
| Krill | 0.40 | 272 | 0.08 | |
| Stomias boa boa | 0.40 | 24 | 0.08 | |
| Total | 532.32 | | 100.03 | |

PROJECT STATION:1729
 DATE:22/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2517
 start stop duration Long E 1338
 TIME :18:59:00 19:29:00 30 (min) Purpose code: 3
 LOG :3125.40 3126.90 1.50 Area code : 1
 FDEPTH: 350 354 GearCond.code:
 BDEPTH: 350 354 Validity code:
 Towing dir: 360° Wire out:1300 m Speed: 30 kn*10
 Sorted: 194 Kg Total catch: 303.65 CATCH/HOUR: 607.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 307.70 | 454 | 50.67 | 5780 |
| Nezumia sp. | 159.00 | 3160 | 26.18 | |
| Galeus polli | 42.40 | 580 | 6.98 | |
| Raja confundens | 29.70 | 20 | 4.89 | |
| Merluccius paradoxus, male | 21.60 | 40 | 3.56 | 5779 |
| Todarodes sagittatus | 10.30 | 10 | 1.70 | |
| Selachophidium guentheri | 8.80 | 440 | 1.45 | |
| Helicolenus dactylopterus | 7.50 | 60 | 1.23 | |
| Lophius vomerinus | 5.20 | 2 | 0.86 | 5778 |
| Notacanthus sexspinis | 4.30 | 130 | 0.71 | |
| Diaphus sp. | 2.70 | 360 | 0.44 | |
| Hoplostethus cadenati | 2.50 | 100 | 0.41 | |
| Ebinania costaecanarie | 1.40 | 50 | 0.23 | |
| Bathynectes piperitus | 1.00 | 30 | 0.16 | |
| Trachyrincus scabrus | 0.60 | 10 | 0.10 | |
| Yarrella blackfordi | 0.50 | 10 | 0.08 | |
| Squilla aculeata calmani | 0.50 | 50 | 0.08 | |
| Shrimps, small, non comm. | 0.50 | 120 | 0.08 | |
| Todaropsis eblanae | 0.40 | 10 | 0.07 | |
| Photichthys argenteus | 0.40 | 40 | 0.07 | |
| ARISTEIDAE | 0.30 | 150 | 0.05 | |
| Total | 607.30 | | 100.00 | |

PROJECT STATION:1730
 DATE:22/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2512 Long E 1335
 start stop duration
 TIME :21:35:00 22:05:00 30 (min) Purpose code: 3
 LOG :3132.60 3134.00 1.40 Area code : 1
 FDEPTH: 551 551 GearCond.code:
 BDEPTH: 551 551 Validity code:
 Towing dir: 360° Wire out:1450 m Speed: 28 kn*10

Sorted: 333 Kg Total catch: 472.91 CATCH/HOUR: 945.82

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 577.50 | 590 | 61.06 | 5782 |
| Nezumia sp. | 213.00 | 3948 | 22.52 | |
| Selachophidium guentheri | 33.00 | 588 | 3.49 | |
| Raja caudaspinosa | 31.44 | 24 | 3.32 | |
| Lophius vomerinus | 27.80 | 6 | 2.94 | 5783 |
| Notacanthus sexspinis | 12.96 | 336 | 1.37 | |
| Trachyrincus scabrus | 12.12 | 108 | 1.28 | |
| Galeus polli | 9.12 | 108 | 0.96 | |
| Todarodes sagittatus | 6.84 | 12 | 0.72 | |
| Epigonus telescopus | 6.24 | 36 | 0.66 | |
| Merluccius paradoxus, male | 5.00 | 6 | 0.53 | 5781 |
| ARISTEIDAE | 4.80 | 396 | 0.51 | |
| Yarrella blackfordi | 2.04 | 60 | 0.22 | |
| Hoplostethus cadenati | 2.04 | 192 | 0.22 | |
| MYCTOPHIDAE | 1.32 | 348 | 0.14 | |
| STOMIDAE | 0.24 | 24 | 0.03 | |
| Photichthys argenteus | 0.24 | 12 | 0.03 | |
| SERGESTIDAE | 0.12 | 60 | 0.01 | |
| Total | 945.82 | | 100.01 | |

PROJECT STATION:1731
 DATE:22/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2507 Long E 1333
 start stop duration
 TIME :23:47:00 00:17:00 30 (min) Purpose code: 3
 LOG :3139.10 3140.60 1.50 Area code : 1
 FDEPTH: 642 640 GearCond.code:
 BDEPTH: 642 640 Validity code:
 Towing dir: 360° Wire out:1700 m Speed: 30 kn*10

Sorted: 94 Kg Total catch: 322.33 CATCH/HOUR: 644.66

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Nezumia sp. | 170.10 | 4032 | 26.39 | |
| Hoplostethus cadenati | 168.30 | 8730 | 26.11 | |
| Merluccius paradoxus, female | 98.90 | 94 | 15.34 | 5785 |
| Bathyraxia smithii | 65.52 | 18 | 10.16 | |
| Selachophidium guentheri | 55.26 | 792 | 8.57 | |
| Raja caudaspinosa | 38.88 | 90 | 6.03 | |
| Todarodes sagittatus | 24.30 | 42 | 3.77 | |
| Merluccius paradoxus, male | 8.10 | 10 | 1.26 | 5784 |
| MYCTOPHIDAE | 7.38 | 1080 | 1.14 | |
| Yarrella blackfordi | 3.24 | 144 | 0.50 | |
| Photichthys argenteus | 1.80 | 90 | 0.28 | |
| SERGESTIDAE | 1.62 | 324 | 0.25 | |
| ARISTEIDAE | 0.72 | 54 | 0.11 | |
| Etmopterus pusillus | 0.54 | 18 | 0.08 | |
| Total | 644.66 | | 99.99 | |

PROJECT STATION:1732
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2505 Long E 1337
 start stop duration
 TIME :02:03:00 02:33:00 30 (min) Purpose code: 3
 LOG :3146.80 3148.20 1.40 Area code : 1
 FDEPTH: 500 500 GearCond.code:
 BDEPTH: 500 500 Validity code:
 Towing dir: 360° Wire out:1400 m Speed: 28 kn*10

Sorted: 257 Kg Total catch: 350.39 CATCH/HOUR: 700.78

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 369.70 | 406 | 52.76 | 5786 |
| Raja caudaspinosa | 127.20 | 160 | 18.15 | |
| Merluccius paradoxus, male | 74.40 | 86 | 10.62 | 5787 |
| Nezumia sp. | 63.20 | 1968 | 9.02 | |
| Selachophidium guentheri | 31.52 | 456 | 4.50 | |
| Ebinania costaecanarie | 13.76 | 8 | 1.96 | |
| Lophius vomerinus | 7.00 | 2 | 1.00 | 5788 |
| Galeus polli | 5.52 | 80 | 0.79 | |
| Notacanthus sexspinis | 3.68 | 64 | 0.53 | |
| Helicolenus dactylopterus | 1.60 | 16 | 0.23 | |
| Hoplostethus cadenati | 1.44 | 56 | 0.21 | |
| MYCTOPHIDAE | 1.20 | 904 | 0.17 | |
| Photichthys argenteus | 0.32 | 16 | 0.05 | |
| Squilla acuelata calmani | 0.16 | 8 | 0.02 | |
| Trachyrincus scabrus | 0.08 | 8 | 0.01 | |
| Total | 700.78 | | 100.02 | |

PROJECT STATION:1733
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2503 Long E 1340
 start stop duration
 TIME :03:59:00 04:21:00 22 (min) Purpose code: 3
 LOG :3153.50 3154.60 1.10 Area code : 1
 FDEPTH: 400 396 GearCond.code: 9
 BDEPTH: 400 396 Validity code: 1
 Towing dir: 5° Wire out:1200 m Speed: 30 kn*10

Sorted: 96 Kg Total catch: 109.02 CATCH/HOUR: 297.33

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 163.64 | 322 | 55.04 | 5790 |
| Nezumia sp. | 51.76 | 1726 | 17.41 | |
| Merluccius paradoxus, male | 18.55 | 49 | 6.24 | 5789 |
| Helicolenus dactylopterus | 12.33 | 104 | 4.15 | |
| Lophius vomerinus | 10.23 | 3 | 3.44 | 5791 |
| Squilla acuelata calmani | 9.57 | 646 | 3.22 | |
| Notacanthus sexspinis | 7.69 | 237 | 2.59 | |
| Coelorinchus fasciatus | 5.70 | 185 | 1.92 | |
| Galeus polli | 5.21 | 65 | 1.75 | |
| Raja confundens | 3.98 | 8 | 1.34 | |
| Selachophidium guentheri | 3.93 | 188 | 1.32 | |
| Diaphus sp. | 2.35 | 319 | 0.79 | |
| Ebinania costaecanarie | 1.23 | 41 | 0.41 | |
| Epigonus denticulatus | 0.55 | 25 | 0.18 | |
| Photichthys argenteus | 0.33 | 30 | 0.11 | |
| Shrimps, small, non comm. | 0.30 | 112 | 0.10 | |
| Total | 297.35 | | 100.01 | |

PROJECT STATION:1734
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2503 Long E 1346
 start stop duration
 TIME :05:47:00 06:17:00 30 (min) Purpose code: 3
 LOG :3163.10 3164.70 1.60 Area code : 1
 FDEPTH: 260 267 GearCond.code:
 BDEPTH: 260 267 Validity code:
 Towing dir: 350° Wire out: 780 m Speed: 30 kn*10

Sorted: 121 Kg Total catch: 716.61 CATCH/HOUR: 1433.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 1036.80 | 5784 | 72.34 | 5795 |
| Merluccius capensis, male | 187.20 | 1212 | 13.06 | 5794 |
| Merluccius paradoxus, female | 87.60 | 732 | 6.11 | 5797 |
| Sufflogobius bibarbatus | 38.64 | 6228 | 2.70 | |
| Helicolenus dactylopterus | 23.88 | 216 | 1.67 | |
| Coelorinchus fasciatus | 23.04 | 600 | 1.61 | |
| Trachurus capensis | 12.96 | 48 | 0.90 | 5793 |
| Lepidopus caudatus | 6.00 | 48 | 0.42 | 5796 |
| Merluccius paradoxus, male | 5.16 | 48 | 0.36 | |
| Squilla acuelata calmani | 4.92 | 300 | 0.34 | |
| MYCTOPHIDAE | 3.60 | 1644 | 0.25 | |
| Lophius vomerinus | 3.42 | 8 | 0.24 | 5792 |
| Total | 1433.22 | | 100.00 | |

PROJECT STATION:1735
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2500 Long E 1352
 start stop duration
 TIME :08:01:00 08:31:00 30 (min) Purpose code: 3
 LOG :3172.40 3174.00 1.60 Area code : 1
 FDEPTH: 203 218 GearCond.code:
 BDEPTH: 203 218 Validity code:
 Towing dir: 270° Wire out: 650 m Speed: 30 kn*10

Sorted: 155 Kg Total catch: 3027.90 CATCH/HOUR: 6055.80

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 5376.60 | 26362 | 88.78 | 5798 |
| MYCTOPHIDAE | 504.60 | 392458 | 8.33 | |
| Thyrssites atun | 97.70 | 28 | 1.61 | 5799 |
| Merluccius capensis, male | 42.70 | 290 | 0.71 | 5800 |
| Merluccius capensis, female | 34.20 | 164 | 0.56 | 5801 |
| Total | 6055.80 | | 99.99 | |

PROJECT STATION:1736
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2450 Long E 1356
 start stop duration
 TIME :10:22:00 10:42:00 20 (min) Purpose code: 3
 LOG :3187.10 3188.50 1.40 Area code : 2
 FDEPTH: 175 184 GearCond.code:
 BDEPTH: 175 184 Validity code:
 Towing dir: 220° Wire out: 600 m Speed: 35 kn*10

Sorted: 89 Kg Total catch: 3080.96 CATCH/HOUR: 9242.88

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 8985.60 | 63936 | 97.22 | 5803 |
| Merluccius capensis, male | 66.18 | 723 | 0.72 | 5804 |
| Thyrssites atun | 64.65 | 18 | 0.70 | 5802 |
| Sufflogobius bibarbatus | 60.48 | 864 | 0.65 | |
| Merluccius capensis, female | 60.18 | 612 | 0.65 | 5805 |
| Chelidonichthys capensis | 5.28 | 12 | 0.06 | |
| Pterothrissus belloci | 0.36 | 3 | | |
| Lophius vomerinus | 0.15 | 3 | | 5806 |
| Total | 9242.88 | | 100.00 | |

PROJECT STATION:1737
 DATE:23/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2442 Long E 1353
 start stop duration
 TIME :12:22:00 12:52:00 30 (min) Purpose code: 3
 LOG :3198.10 3199.80 1.70 Area code : 2
 FDEPTH: 236 237 GearCond.code:
 BDEPTH: 236 237 Validity code:
 Towing dir: 360° Wire out: 750 m Speed: 34 kn*10

Sorted: 123 Kg Total catch: 230.75 CATCH/HOUR: 461.50

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 324.00 | 2668 | 70.21 | 5809 |
| Merluccius capensis, male | 69.20 | 520 | 14.99 | 5808 |
| Lophius vomerinus | 26.20 | 128 | 5.68 | 5810 |
| Coelorinchus fasciatus | 21.60 | 836 | 4.68 | |
| Sufflogobius bibarbatus | 6.80 | 1154 | 1.47 | |
| Austroglossus microlepis | 4.30 | 6 | 0.93 | 5807 |
| Lepidopus caudatus | 4.20 | 64 | 0.91 | |
| Todarodes sagittatus | 1.92 | 4 | 0.42 | |
| Trachurus capensis | 1.68 | 8 | 0.36 | |
| MYCTOPHIDAE | 0.72 | 220 | 0.16 | |
| Bathynectes piperitus | 0.44 | 8 | 0.16 | |
| Squilla acuelata calmani | 0.44 | 24 | 0.10 | |
| Total | 461.50 | | 100.01 | |

PROJECT STATION:1738
 DATE:23/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2443 Long E 1343
 start stop duration
 TIME :14:48:00 15:18:00 30 (min) Purpose code: 3
 LOG :3213.90 3215.40 1.50 Area code : 2
 FDEPTH: 374 373 GearCond.code:
 BDEPTH: 374 373 Validity code:
 Towing dir: 360* Wire out:1000 m Speed: 30 kn*10
 Sorted: 74 Kg Total catch: 134.09 CATCH/HOUR: 268.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 91.90 | 298 | 34.27 | 5812 |
| Nezumia sp. | 52.00 | 2600 | 19.39 | |
| Squilla acuelata calmani | 25.10 | 1510 | 9.36 | |
| Helicolenus dactylopterus | 22.30 | 230 | 8.32 | |
| Bathynectes piperitus | 15.60 | 2230 | 5.82 | |
| Coelorinchus fasciatus | 15.30 | 440 | 5.71 | |
| Merluccius capensis, female | 14.90 | 6 | 5.56 | 5814 |
| Merluccius paradoxus, male | 8.80 | 28 | 3.28 | 5811 |
| Notacanthus sexspinis | 7.80 | 220 | 2.91 | |
| ARISTEIDAE | 6.20 | 2070 | 2.31 | |
| Lophius vomerinus | 3.18 | 2 | 1.19 | 5813 |
| Galeus polli | 3.10 | 150 | 1.16 | |
| Epigonus denticulatus | 1.10 | 70 | 0.41 | |
| Selachophidium guentheri | 0.80 | 120 | 0.30 | |
| Ebinania costaeanarie | 0.10 | 10 | 0.04 | |
| Total | 268.18 | | 100.03 | |

PROJECT STATION:1741
 DATE:24/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2430 Long E 1326
 start stop duration
 TIME :00:41:00 01:11:00 30 (min) Purpose code: 3
 LOG :3273.20 3274.60 1.40 Area code : 2
 FDEPTH: 473 473 GearCond.code: 8
 BDEPTH: 473 473 Validity code: 1
 Towing dir: 340* Wire out:1400 m Speed: 28 kn*10
 Sorted: 56 Kg Total catch: 243.32 CATCH/HOUR: 486.64

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 164.00 | 400 | 33.70 | |
| Epigonus telescopus | 115.00 | 540 | 23.63 | |
| Merluccius paradoxus, female | 56.30 | 66 | 11.57 | 5821 |
| Nezumia sp. | 51.40 | 1020 | 10.56 | |
| Helicolenus dactylopterus | 51.20 | 160 | 10.52 | |
| Coelorinchus fasciatus | 15.40 | 120 | 3.16 | |
| Lithodes ferox | 7.54 | 14 | 1.55 | |
| Merluccius paradoxus, male | 7.20 | 12 | 1.48 | 5822 |
| Notacanthus sexspinis | 5.20 | 40 | 1.07 | |
| Todarodes sagittatus | 5.00 | 20 | 1.03 | |
| Raja confundens | 3.80 | 20 | 0.78 | |
| Myxine capensis | 2.60 | 20 | 0.53 | |
| MYCTOPHIDAE | 1.60 | 140 | 0.33 | |
| Yarrella blackfordi | 0.40 | 40 | 0.08 | |
| Total | 486.64 | | 99.99 | |

PROJECT STATION:1739
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2443 Long E 1336
 start stop duration
 TIME :17:25:00 17:55:00 30 (min) Purpose code: 3
 LOG :3226.70 3228.30 1.60 Area code : 2
 FDEPTH: 424 420 GearCond.code:
 BDEPTH: 424 420 Validity code:
 Towing dir: 350* Wire out:1200 m Speed: 32 kn*10
 Sorted: 113 Kg Total catch: 190.25 CATCH/HOUR: 380.50

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 143.30 | 304 | 37.66 | 5816 |
| Helicolenus dactylopterus | 92.76 | 680 | 24.38 | |
| Nezumia sp. | 52.16 | 1352 | 13.71 | |
| Raja doutrei | 20.44 | 8 | 5.37 | |
| Selachophidium guentheri | 18.84 | 504 | 4.95 | |
| Merluccius paradoxus, male | 10.70 | 24 | 2.81 | 5815 |
| Lophius vomerinus | 10.02 | 8 | 2.63 | |
| Raja confundens | 6.58 | 176 | 1.73 | |
| Notacanthus sexspinis | 6.24 | 4 | 1.64 | 5814 |
| Coelorinchus fasciatus | 4.42 | 56 | 1.16 | |
| Genypterus capensis | 4.02 | 2 | 1.06 | 5813 |
| Bathyroconger vicinus | 2.60 | 8 | 0.68 | |
| Todarodes sagittatus | 2.46 | 8 | 0.65 | |
| Photichthys argenteus | 2.24 | 196 | 0.59 | |
| ARISTEIDAE | 1.26 | 406 | 0.33 | |
| Galeus polli | 1.12 | 14 | 0.29 | |
| Trachyrincus scabrus | 0.78 | 14 | 0.20 | |
| Epigonus denticulatus | 0.56 | 22 | 0.15 | |
| Total | 380.50 | | 99.99 | |

PROJECT STATION:1742
 DATE:24/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2427 Long E 1328
 start stop duration
 TIME :09:31:00 10:01:00 30 (min) Purpose code: 3
 LOG :3293.30 3294.90 1.60 Area code : 2
 FDEPTH: 382 382 GearCond.code:
 BDEPTH: 382 382 Validity code:
 Towing dir: 340* Wire out:1100 m Speed: 32 kn*10
 Sorted: 164 Kg Total catch: 1053.62 CATCH/HOUR: 2107.24

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 1445.40 | 4406 | 68.59 | 5824 |
| Merluccius paradoxus, male | 235.96 | 776 | 11.20 | 5823 |
| Coelorinchus fasciatus | 92.40 | 2212 | 4.38 | |
| Nezumia sp. | 84.98 | 3250 | 4.03 | |
| Helicolenus dactylopterus | 75.40 | 496 | 3.58 | |
| Lophius vomerinus | 59.80 | 22 | 2.84 | 5826 |
| Epigonus denticulatus | 38.94 | 2410 | 1.85 | |
| Genypterus capensis | 18.10 | 14 | 0.86 | 5825 |
| Schedophilus huttoni | 15.52 | 16 | 0.74 | |
| Notacanthus sexspinis | 8.74 | 132 | 0.41 | |
| Krill | 8.58 | 8580 | 0.41 | |
| Todarodes sagittatus | 6.28 | 34 | 0.30 | |
| Lithodes ferox | 6.10 | 8 | 0.29 | |
| Selachophidium guentheri | 2.98 | 100 | 0.14 | |
| PANDALIDAE | 1.82 | 544 | 0.09 | |
| Galeus polli | 1.82 | 16 | 0.09 | |
| Bathynectes piperitus | 1.48 | 298 | 0.07 | |
| Ebinania costaeanarie | 1.48 | 34 | 0.07 | |
| Squilla acuelata calmani | 0.66 | 34 | 0.03 | |
| MYCTOPHIDAE | 0.50 | 100 | 0.02 | |
| Photichthys argenteus | 0.34 | 16 | 0.02 | |
| Total | 2107.28 | | 100.01 | |

PROJECT STATION:1740
 DATE:23/ 9/96 GEAR TYPE: BT No:9 POSITION:Lat S 2441 Long E 1327
 start stop duration
 TIME :20:32:00 21:02:00 30 (min) Purpose code: 3
 LOG :3246.00 3247.50 1.50 Area code : 2
 FDEPTH: 582 598 GearCond.code:
 BDEPTH: 582 598 Validity code:
 Towing dir: 170* Wire out:1500 m Speed: 30 kn*10
 Sorted: 89 Kg Total catch: 193.00 CATCH/HOUR: 386.00

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 92.90 | 74 | 24.07 | 5820 |
| Nezumia sp. | 80.50 | 1200 | 20.85 | |
| Trachyrincus scabrus | 62.00 | 280 | 16.06 | |
| Malacocephalus laevis | 37.40 | 130 | 9.69 | |
| Deania calcea | 18.00 | 20 | 4.66 | |
| Ebinania costaeanarie | 17.90 | 10 | 4.64 | |
| Selachophidium guentheri | 15.10 | 250 | 3.91 | |
| Hoplostethus cadenati | 12.20 | 1420 | 3.16 | |
| Lophius vailanti | 11.90 | 2 | 3.08 | 5818 |
| Lithodes ferox | 10.30 | 14 | 2.67 | |
| Lophius vomerinus | 10.00 | 2 | 2.59 | 5817 |
| Todarodes sagittatus | 6.80 | 20 | 1.76 | |
| Bassanago albescens | 2.60 | 10 | 0.67 | |
| Yarrella blackfordi | 1.90 | 20 | 0.49 | |
| Merluccius paradoxus, male | 1.80 | 2 | 0.47 | 5819 |
| Notacanthus sexspinis | 1.50 | 40 | 0.39 | |
| Raja confundens | 1.40 | 10 | 0.36 | |
| Diaphus sp. | 0.70 | 70 | 0.18 | |
| Allocyttus verrucosus | 0.50 | 10 | 0.13 | |
| ARISTEIDAE | 0.40 | 70 | 0.10 | |
| Ceratias holboelli | 0.10 | 10 | 0.03 | |
| Photichthys argenteus | 0.10 | 10 | 0.03 | |
| Total | 386.00 | | 99.99 | |

PROJECT STATION:1743
 DATE:24/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2423 Long E 1335
 start stop duration
 TIME :11:38:00 11:58:00 20 (min) Purpose code: 3
 LOG :3303.40 3304.50 1.10 Area code : 2
 FDEPTH: 342 340 GearCond.code:
 BDEPTH: 342 340 Validity code:
 Towing dir: 50* Wire out: 950 m Speed: 32 kn*10
 Sorted: 200 Kg Total catch: 503.05 CATCH/HOUR: 1509.15

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Cubiceps caeruleus | 453.00 | 1440 | 30.02 | |
| Merluccius capensis, female | 204.90 | 111 | 13.58 | 5828 |
| Merluccius paradoxus, female | 191.25 | 699 | 12.67 | 5829 |
| Coelorinchus fasciatus | 184.50 | 4590 | 12.23 | |
| Helicolenus dactylopterus | 165.00 | 1950 | 10.93 | |
| Nezumia sp. | 81.00 | 1560 | 5.37 | |
| Merluccius capensis, male | 52.50 | 33 | 3.48 | 5827 |
| Todarodes sagittatus | 45.30 | 90 | 3.00 | |
| Notacanthus sexspinis | 42.90 | 810 | 2.84 | |
| Merluccius paradoxus, male | 27.30 | 105 | 1.81 | 5830 |
| Galeus polli | 15.00 | 1110 | 0.99 | |
| Lophius vomerinus | 12.75 | 12 | 0.84 | 5832 |
| Trachurus capensis | 10.35 | 9 | 0.69 | 5831 |
| MYCTOPHIDAE | 3.60 | 300 | 0.24 | |
| Epigonus denticulatus | 3.60 | 120 | 0.24 | |
| Selachophidium guentheri | 3.30 | 270 | 0.22 | |
| Bathynectes piperitus | 2.70 | 90 | 0.18 | |
| Total | 1509.15 | | 100.01 | |

PROJECT STATION:1744
 DATE:24/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2422
 start stop duration Long E 1353
 TIME :14:19:00 14:49:00 30 (min) Purpose code: 3
 LOG :3321.70 3323.20 1.50 Area code : 2
 FDEPTH: 279 279 GearCond.code:
 BDEPTH: 279 279 Validity code:
 Towing dir: 350° Wire out: 850 m Speed: 30 kn*10
 Sorted: 174 Kg Total catch: 281.01 CATCH/HOUR: 562.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 232.10 | 374 | 41.30 | 5836 |
| Coelorinchus fasciatus | 112.00 | 588 | 19.93 | |
| Sufflogobius bibarbatatus | 60.20 | 6846 | 10.71 | |
| Merluccius capensis, male | 43.30 | 86 | 7.70 | 5835 |
| Helicolenus dactylopterus | 41.30 | 434 | 7.35 | |
| Lophius vomerinus | 23.60 | 46 | 4.20 | 5837 |
| Trachurus capensis | 16.80 | 42 | 2.99 | 5838 |
| Merluccius paradoxus, female | 11.80 | 80 | 2.10 | 5834 |
| Todarodes sagittatus | 7.56 | 14 | 1.35 | |
| Squilla aculeata calmani | 5.32 | 322 | 0.95 | |
| Lepidopus caudatus | 4.20 | 56 | 0.75 | |
| Galeus polli | 1.96 | 70 | 0.35 | |
| Ebinania costaecanarie | 0.98 | 14 | 0.17 | |
| Merluccius paradoxus, male | 0.90 | 6 | 0.16 | 5833 |
| Total | 562.02 | | 100.01 | |

PROJECT STATION:1749
 DATE:25/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2402
 start stop duration Long E 1344
 TIME :10:02:00 10:10:00 8 (min) Purpose code: 3
 LOG :3418.50 3419.00 0.50 Area code : 2
 FDEPTH: 260 261 GearCond.code:
 BDEPTH: 260 261 Validity code:
 Towing dir: 279° Wire out: 750 m Speed: 30 kn*10
 Sorted: 52 Kg Total catch: 61.93 CATCH/HOUR: 464.48

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 231.38 | 1853 | 49.81 | 5849 |
| Merluccius capensis, male | 66.75 | 810 | 14.37 | 5850 |
| Todarodes sagittatus | 50.48 | 128 | 10.87 | |
| Brama brama | 49.13 | 38 | 10.58 | |
| Coelorinchus fasciatus | 48.75 | 773 | 10.50 | |
| Lophius vomerinus | 13.88 | 8 | 2.99 | 5851 |
| MYCTOPHIDAE | 3.45 | 848 | 0.74 | |
| Chlorophthalmus atlanticus | 0.68 | 23 | 0.15 | |
| Total | 464.50 | | 100.01 | |

PROJECT STATION:1750
 DATE:25/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2400
 start stop duration Long E 1337
 TIME :11:41:00 11:47:00 6 (min) Purpose code: 3
 LOG :3425.50 3425.80 0.30 Area code : 2
 FDEPTH: 272 272 GearCond.code: 9
 BDEPTH: 272 272 Validity code: 1
 Towing dir: 270° Wire out: 850 m Speed: 30 kn*10
 Sorted: 123 Kg Total catch: 149.53 CATCH/HOUR: 1495.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 732.50 | 5570 | 48.99 | 5853 |
| Merluccius capensis, male | 331.50 | 2790 | 22.17 | 5852 |
| Coelorinchus fasciatus | 274.50 | 8010 | 18.36 | |
| Todarodes sagittatus | 50.10 | 150 | 3.35 | |
| Lophius vomerinus | 39.50 | 50 | 2.64 | 5854 |
| Chlorophthalmus atlanticus | 21.30 | 1080 | 1.42 | |
| Trachurus capensis | 13.50 | 30 | 0.90 | |
| Sufflogobius bibarbatatus | 11.70 | 1350 | 0.78 | |
| Helicolenus dactylopterus | 8.40 | 810 | 0.56 | |
| Squilla aculeata calmani | 7.80 | 330 | 0.52 | |
| MYCTOPHIDAE | 4.50 | 1080 | 0.30 | |
| Total | 1495.30 | | 99.99 | |

PROJECT STATION:1751
 DATE:25/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2400
 start stop duration Long E 1330
 TIME :13:03:00 13:15:00 12 (min) Purpose code: 3
 LOG :3433.00 3433.70 0.70 Area code : 2
 FDEPTH: 281 281 GearCond.code: 9
 BDEPTH: 281 281 Validity code: 1
 Towing dir: 350° Wire out: 900 m Speed: 34 kn*10
 Sorted: 152 Kg Total catch: 334.79 CATCH/HOUR: 1673.95

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 679.50 | 2220 | 40.59 | 5857 |
| Merluccius capensis, female | 374.25 | 2640 | 22.36 | 5856 |
| Coelorinchus fasciatus | 238.50 | 5340 | 14.25 | |
| Merluccius capensis, male | 194.50 | 1575 | 11.62 | 5855 |
| Helicolenus dactylopterus | 89.10 | 1200 | 5.32 | |
| Chlorophthalmus atlanticus | 59.10 | 3540 | 3.53 | |
| Sufflogobius bibarbatatus | 10.80 | 900 | 0.65 | |
| Squilla aculeata calmani | 10.80 | 1230 | 0.65 | |
| Lophius vomerinus | 8.40 | 10 | 0.50 | 5858 |
| Pterothrissus belloci | 5.70 | 60 | 0.34 | |
| Bathynectes piperitus | 2.40 | 210 | 0.14 | |
| Nezumia sp. | 0.90 | 30 | 0.05 | |
| Total | 1673.95 | | 100.00 | |

PROJECT STATION:1746
 DATE:24/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2415
 start stop duration Long E 1357
 TIME :16:05:00 16:35:00 30 (min) Purpose code: 3
 LOG :3329.00 3330.60 1.60 Area code : 2
 FDEPTH: 237 238 GearCond.code:
 BDEPTH: 237 238 Validity code:
 Towing dir: 360° Wire out: 750 m Speed: 32 kn*10
 Sorted: 108 Kg Total catch: 262.04 CATCH/HOUR: 524.08

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 265.20 | 1248 | 50.60 | 5842 |
| Merluccius capensis, male | 79.60 | 328 | 15.19 | 5841 |
| Merluccius capensis, female | 67.90 | 42 | 12.96 | 5844 |
| Coelorinchus fasciatus | 30.32 | 664 | 5.79 | |
| Sufflogobius bibarbatatus | 25.76 | 3904 | 4.92 | |
| Merluccius capensis, male | 21.70 | 16 | 4.14 | 5843 |
| Lophius vomerinus | 21.30 | 98 | 4.06 | 5840 |
| Lepidopus caudatus | 6.88 | 208 | 1.31 | |
| Squalus megalops | 2.40 | 8 | 0.46 | |
| Galeus polli | 1.44 | 8 | 0.27 | |
| Austroglossus microlepis | 0.94 | 2 | 0.18 | 5839 |
| Squilla aculeata calmani | 0.64 | 104 | 0.12 | |
| Total | 524.08 | | 100.00 | |

PROJECT STATION:1746
 DATE:24/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2415
 start stop duration Long E 1304
 TIME :17:46:00 18:06:00 20 (min) Purpose code: 3
 LOG :3339.60 3340.40 0.80 Area code : 2
 FDEPTH: 154 157 GearCond.code: 9
 BDEPTH: 154 157 Validity code: 1
 Towing dir: 10° Wire out: 500 m Speed: 30 kn*10
 Sorted: 24 Kg Total catch: 70.57 CATCH/HOUR: 211.71

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 96.75 | 918 | 45.70 | 5848 |
| Merluccius capensis, male | 93.60 | 1134 | 44.21 | 5847 |
| Sufflogobius bibarbatatus | 14.76 | 4473 | 6.97 | |
| Todaropsis eblanae | 2.70 | 63 | 1.28 | |
| MYCTOPHIDAE | 1.53 | 711 | 0.72 | |
| Austroglossus microlepis | 1.29 | 21 | 0.61 | 5846 |
| Lophius vomerinus | 1.08 | 12 | 0.51 | 5845 |
| Total | 211.71 | | 100.00 | |

PROJECT STATION:1747
 DATE:25/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2401
 start stop duration Long E 1408
 TIME :04:48:00 04:52:00 4 (min) Purpose code: 3
 LOG :3393.20 3393.40 0.20 Area code : 2
 FDEPTH: 150 150 GearCond.code: 9
 BDEPTH: 150 150 Validity code: 9
 Towing dir: 167° Wire out: 500 m Speed: 30 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------|------------|---------|-------------|------|
| | weight | numbers | | |
| N O C A T C H | 0.00 | | | |
| Total | | | | |

PROJECT STATION:1748
 DATE:25/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2402
 start stop duration Long E 1357
 TIME :07:14:00 07:15:00 1 (min) Purpose code: 3
 LOG :3404.70 3404.70 Area code : 2
 FDEPTH: 227 227 GearCond.code: 9
 BDEPTH: 227 227 Validity code: 9
 Towing dir: 270° Wire out: 700 m Speed: 30 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------|------------|---------|-------------|------|
| | weight | numbers | | |
| N O C A T C H | 0.00 | | | |
| Total | | | | |

PROJECT STATION:1752
 DATE:25/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2359
 start stop duration Long E 1325
 TIME :14:41:00 15:11:00 30 (min) Purpose code: 3
 LOG :3440.00 3441.60 1.60 Area code : 2
 FDEPTH: 290 290 GearCond.code:
 BDEPTH: 290 290 Validity code:
 Towing dir: 350° Wire out: 900 m Speed: 32 kn*10
 Sorted: 154 Kg Total catch: 620.62 CATCH/HOUR: 1241.24

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Coelorinchus fasciatus | 263.12 | 3036 | 21.20 | |
| Merluccius capensis, female | 235.18 | 1050 | 18.95 | 5862 |
| Trachurus capensis | 185.56 | 4946 | 14.95 | 5864 |
| Merluccius capensis, male | 170.98 | 558 | 13.77 | 5861 |
| Helicolenus dactylopterus | 145.84 | 2602 | 11.73 | |
| Chlorophthalmus atlanticus | 101.32 | 5696 | 8.16 | |
| Merluccius paradoxus, female | 64.64 | 526 | 5.21 | 5860 |
| Todarodes sagittatus | 16.52 | 42 | 1.33 | |
| Bathynectes piperitus | 15.60 | 1734 | 1.26 | |
| Merluccius paradoxus, male | 15.52 | 150 | 1.25 | 5859 |
| Lophius vomerinus | 12.50 | 20 | 1.01 | 5863 |
| Squilla aculeata calmani | 7.00 | 350 | 0.56 | |
| Squalus megalops | 3.84 | 8 | 0.31 | |
| Torpedo nobiliana | 2.34 | 8 | 0.19 | |
| Galeus polli | 1.58 | 16 | 0.13 | |
| Total | 1241.24 | | 100.01 | |

PROJECT STATION:1753
 DATE:25/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2358 Long E 1313
 start stop duration
 TIME :17:26:00 17:56:00 30 (min) Purpose code: 3
 LOG :3454.30 3455.90 1.60 Area code : 2
 FDEPTH: 407 406 GearCond.code:
 BDEPTH: 407 406 Validity code:
 Towing dir: 338* Wire out:1150 m Speed: 31 kn*10
 Sorted: 268 Kg Total catch: 409.03 CATCH/HOUR: 818.06

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|------------------------------|----------------------|------------------------|-------|
| Merluccius paradoxus, female | 388.40 | 1016 | 47.48 |
| Helicolenus dactylopterus | 192.00 | 1116 | 23.47 |
| Merluccius paradoxus, male | 43.80 | 94 | 5.35 |
| Nezumia sp. | 29.40 | 1332 | 3.59 |
| Lophius vomerinus | 28.80 | 18 | 3.52 |
| Selachophidium guentheri | 20.04 | 300 | 2.45 |
| Genypterus capensis | 19.50 | 8 | 2.38 |
| Shrimps, small, non comm. | 17.88 | 4260 | 2.19 |
| Coelorinchus fasciatus | 15.96 | 360 | 1.95 |
| Raja leopardus | 14.64 | 12 | 1.79 |
| Galeus polli | 13.80 | 144 | 1.69 |
| Trachyrincus scabrus | 9.60 | 144 | 1.17 |
| Epigonus denticulatus | 8.04 | 216 | 0.98 |
| Centroscyllium fabricii | 7.68 | 24 | 0.94 |
| Bathynectes piperitus | 2.88 | 324 | 0.35 |
| Todarodes sagittatus | 2.52 | 12 | 0.31 |
| Notacanthus sexspinis | 1.20 | 60 | 0.15 |
| Ebinania costaecanarie | 0.84 | 24 | 0.10 |
| Yarrella blackfordi | 0.60 | 72 | 0.07 |
| Squilla aculeata calmani | 0.48 | 24 | 0.06 |
| Total | 818.06 | | 99.99 |

PROJECT STATION:1754
 DATE:25/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2400 Long E 1312
 start stop duration
 TIME :19:30:00 20:00:00 30 (min) Purpose code: 3
 LOG :3463.80 3465.30 1.50 Area code : 2
 FDEPTH: 506 506 GearCond.code:
 BDEPTH: 506 506 Validity code:
 Towing dir: 335* Wire out:1350 m Speed: 30 kn*10
 Sorted: 80 Kg Total catch: 189.00 CATCH/HOUR: 378.00

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|------------------------------|----------------------|------------------------|--------|
| Trachyrincus scabrus | 135.00 | 996 | 35.71 |
| Merluccius paradoxus, female | 112.30 | 158 | 29.71 |
| Hoplostethus cadenati | 36.48 | 2808 | 9.65 |
| Deania calcea | 15.84 | 24 | 4.19 |
| Nezumia sp. | 15.72 | 792 | 4.16 |
| Schedophilus huttoni | 11.88 | 12 | 3.14 |
| Selachophidium guentheri | 7.56 | 144 | 2.00 |
| Raja confundens | 7.44 | 12 | 1.97 |
| Helicolenus dactylopterus | 6.96 | 12 | 1.84 |
| Deania profundorum | 5.16 | 36 | 1.37 |
| Todarodes sagittatus | 4.68 | 12 | 1.24 |
| Yarrella blackfordi | 4.68 | 288 | 1.24 |
| Centroscyllium fabricii | 3.60 | 12 | 0.95 |
| Merluccius paradoxus, male | 2.60 | 4 | 0.69 |
| Lophius vomerinus | 2.46 | 2 | 0.65 |
| Diaphys sp. | 1.80 | 276 | 0.48 |
| Shrimps, small, non comm. | 1.68 | 528 | 0.44 |
| Bassanago albescens | 0.72 | 12 | 0.19 |
| Notacanthus sexspinis | 0.72 | 12 | 0.19 |
| Photichthys argenteus | 0.72 | 72 | 0.19 |
| Total | 378.00 | | 100.00 |

PROJECT STATION:1755
 DATE:25/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2401 Long E 1310
 start stop duration
 TIME :21:37:00 22:07:00 30 (min) Purpose code: 3
 LOG :3471.80 3473.30 1.50 Area code : 2
 FDEPTH: 600 600 GearCond.code:
 BDEPTH: 600 600 Validity code:
 Towing dir: 335* Wire out:1550 m Speed: 30 kn*10
 Sorted: 88 Kg Total catch: 147.50 CATCH/HOUR: 295.00

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|------------------------------|----------------------|------------------------|--------|
| Merluccius paradoxus, female | 89.20 | 102 | 30.24 |
| Nezumia sp. | 53.40 | 1494 | 18.10 |
| Centrophorus squamosus | 24.50 | 2 | 8.31 |
| Hoplostethus cadenati | 23.88 | 1590 | 8.09 |
| Selachophidium guentheri | 20.10 | 348 | 6.81 |
| Todarodes sagittatus | 16.92 | 54 | 5.74 |
| Yarrella blackfordi | 11.22 | 630 | 3.80 |
| Raja caudaspinosa | 8.58 | 6 | 2.91 |
| SERGESTIDAE | 8.22 | 1896 | 2.79 |
| Deania profundorum | 7.32 | 12 | 2.48 |
| STOMIIDAE | 6.00 | 348 | 2.03 |
| Trachyrincus scabrus | 5.82 | 72 | 1.97 |
| PHOTICHTHYIDAE | 5.34 | 462 | 1.81 |
| Cruriraja parcomaculata | 4.26 | 6 | 1.44 |
| Lithodes ferox | 2.40 | 6 | 0.81 |
| Bathylagus glacilis | 1.86 | 174 | 0.63 |
| Merluccius paradoxus, male | 1.20 | 2 | 0.41 |
| Photichthys argenteus | 1.02 | 90 | 0.35 |
| Ebinania costaecanarie | 0.96 | 12 | 0.33 |
| PASIPHAEDAE | 0.78 | 162 | 0.26 |
| ARISTEIDAE | 0.72 | 60 | 0.24 |
| Alepocephalus sp. | 0.48 | 12 | 0.16 |
| MYCTOPHIDAE | 0.36 | 72 | 0.12 |
| HIPPOLYTIDAE | 0.30 | 6 | 0.10 |
| Lamprogrammus exutus | 0.24 | 6 | 0.08 |
| POLYCHAELIDAE | 0.06 | 12 | 0.02 |
| Nephropsis atlantica | 0.06 | 6 | 0.02 |
| Total | 295.20 | | 100.05 |

PROJECT STATION:1756
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2345 Long E 1307
 start stop duration
 TIME :02:20:00 02:50:00 30 (min) Purpose code: 3
 LOG :3495.00 3496.60 1.60 Area code : 2
 FDEPTH: 557 557 GearCond.code:
 BDEPTH: 557 557 Validity code:
 Towing dir: 360* Wire out:1450 m Speed: 32 kn*10
 Sorted: 121 Kg Total catch: 203.64 CATCH/HOUR: 407.28

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|------------------------------|----------------------|------------------------|--------|
| Merluccius paradoxus, female | 177.60 | 198 | 43.61 |
| Deania calcea | 69.20 | 40 | 16.99 |
| Hoplostethus cadenati | 53.20 | 3544 | 13.06 |
| Nezumia sp. | 18.16 | 576 | 4.46 |
| Todarodes sagittatus | 17.44 | 32 | 4.28 |
| Deania profundorum | 13.60 | 24 | 3.34 |
| STOMIIDAE | 8.40 | 528 | 2.06 |
| Yarrella blackfordi | 8.24 | 536 | 2.02 |
| Schedophilus huttoni | 7.76 | 8 | 1.91 |
| Selachophidium guentheri | 6.48 | 128 | 1.59 |
| Lophius vomerinus | 4.90 | 2 | 1.20 |
| Trachyrincus scabrus | 3.92 | 8 | 0.96 |
| Merluccius paradoxus, male | 2.90 | 4 | 0.71 |
| SERGESTIDAE | 2.88 | 1088 | 0.71 |
| OPISTHOTEUTHIDAE | 2.88 | 8 | 0.71 |
| Coelorinchus matamua | 2.64 | 8 | 0.65 |
| MYCTOPHIDAE | 2.00 | 304 | 0.49 |
| BATHYLAGIDAE | 0.80 | 96 | 0.20 |
| Lamprogrammus exutus | 0.72 | 16 | 0.18 |
| Lithodes ferox | 0.68 | 2 | 0.17 |
| ARISTEIDAE | 0.64 | 56 | 0.16 |
| PASIPHAEDAE | 0.64 | 144 | 0.16 |
| Neocyttus rhomboidalis | 0.48 | 8 | 0.12 |
| Alepocephalus sp. | 0.40 | 16 | 0.10 |
| Nephropsis atlantica | 0.32 | 24 | 0.08 |
| Photichthys argenteus | 0.24 | 32 | 0.06 |
| POLYCHAELIDAE | 0.16 | 16 | 0.04 |
| Total | 407.28 | | 100.02 |

PROJECT STATION:1757
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2339 Long E 1307
 start stop duration
 TIME :04:46:00 05:16:00 30 (min) Purpose code: 3
 LOG :3502.80 3504.40 1.60 Area code : 2
 FDEPTH: 454 458 GearCond.code:
 BDEPTH: 454 458 Validity code:
 Towing dir: 355* Wire out:1200 m Speed: 30 kn*10
 Sorted: 193 Kg Total catch: 562.73 CATCH/HOUR: 1125.46

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|------------------------------|----------------------|------------------------|-------|
| Merluccius paradoxus, female | 297.20 | 444 | 26.41 |
| Trachyrincus scabrus | 290.70 | 1496 | 25.83 |
| Hoplostethus cadenati | 108.46 | 7752 | 9.64 |
| Nezumia sp. | 103.02 | 3774 | 9.15 |
| Epigonus denticulatus | 88.40 | 1394 | 7.85 |
| Helicolenus dactylopterus | 88.40 | 714 | 7.85 |
| Deania profundorum | 67.32 | 102 | 5.98 |
| Lophius vomerinus | 21.10 | 10 | 1.87 |
| Merluccius paradoxus, male | 14.20 | 22 | 1.26 |
| Todarodes sagittatus | 12.24 | 34 | 1.09 |
| Coelorinchus matamua | 8.50 | 34 | 0.76 |
| Notacanthus sexspinis | 8.16 | 272 | 0.73 |
| Yarrella blackfordi | 6.46 | 442 | 0.57 |
| Genypterus capensis | 6.20 | 2 | 0.55 |
| Lamprogrammus exutus | 2.72 | 34 | 0.24 |
| Selachophidium guentheri | 2.38 | 68 | 0.21 |
| Total | 1125.46 | | 99.99 |

PROJECT STATION:1758
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2341 Long E 1324
 start stop duration
 TIME :08:42:00 09:07:00 25 (min) Purpose code: 3
 LOG :3523.50 3524.80 1.30 Area code : 2
 FDEPTH: 271 270 GearCond.code: 9
 BDEPTH: 271 270 Validity code: 1
 Towing dir: 360* Wire out: 850 m Speed: 30 kn*10
 Sorted: 144 Kg Total catch: 188.22 CATCH/HOUR: 451.73

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|-----------------------------|----------------------|------------------------|-------|
| Merluccius capensis, female | 143.04 | 1003 | 31.66 |
| Todarodes sagittatus | 8.78 | 29 | 1.94 |
| Squalus megalops | 1.46 | 5 | 0.32 |
| MYCTOPHIDAE | 1.03 | 317 | 0.23 |
| Galeus polli | 0.55 | 5 | 0.12 |
| Helicolenus dactylopterus | 0.19 | 24 | 0.04 |
| Total | 155.05 | | 34.31 |

PROJECT STATION:1759
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2339 Long E 1331
 start stop duration
 TIME :11:07:00 11:37:00 30 (min) Purpose code: 3
 LOG :3534.70 3536.20 1.50 Area code : 2
 FDEPTH: 239 237 GearCond.code:
 BDEPTH: 239 237 Validity code:
 Towing dir: 360* Wire out: 800 m Speed: 30 kn*10
 Sorted: 258 Kg Total catch: 257.24 CATCH/HOUR: 514.48

| SPECIES | CATCH/HOUR weight | % OF TOT. C numbers | SAMP |
|-----------------------------|----------------------|------------------------|--------|
| Merluccius capensis, female | 278.20 | 1208 | 54.07 |
| Trachurus capensis | 127.00 | 446 | 24.69 |
| Merluccius capensis, male | 84.30 | 468 | 16.39 |
| Coelorinchus fasciatus | 9.40 | 166 | 1.83 |
| Todarodes sagittatus | 7.50 | 14 | 1.46 |
| Lophius vomerinus | 5.62 | 20 | 1.09 |
| Sufflogobius bibarbatatus | 1.58 | 182 | 0.31 |
| Pterothrissus bellocci | 0.56 | 4 | 0.11 |
| Chlorophthalmus atlanticus | 0.32 | 16 | 0.06 |
| Total | 514.48 | | 100.01 |

PROJECT STATION:1760
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2340
 start stop duration Long E 1340
 TIME :14:00:00 14:04:00 4 (min) Purpose code: 3
 LOG :3548.00 3548.20 0.20 Area code : 2
 FDEPTH: 213 212 GearCond.code: 9
 BDEPTH: 213 212 Validity code: 1
 Towing dir: 360° Wire out: 700 m Speed: 30 kn*10
 Sorted: 185 Kg Total catch: 184.61 CATCH/HOUR: 2769.15

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 1845.75 | 12705 | 66.65 | 5590 |
| Merluccius capensis, female | 903.00 | 4785 | 32.61 | 5589 |
| Chelidonichthys capensis | 18.60 | 30 | 0.67 | |
| Sufflogobius bibarbatatus | 1.80 | 120 | 0.07 | |
| Total | 2769.15 | | 100.00 | |

PROJECT STATION:1765
 DATE:29/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2320
 start stop duration Long E 1324
 TIME :06:42:00 07:00:00 18 (min) Purpose code: 3
 LOG :3792.90 3793.70 0.80 Area code : 2
 FDEPTH: 281 289 GearCond.code: 9
 BDEPTH: 281 289 Validity code: 1
 Towing dir: 340° Wire out: 850 m Speed: 30 kn*10
 Sorted: 99 Kg Total catch: 278.86 CATCH/HOUR: 929.53

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 293.17 | 2157 | 31.54 | 5601 |
| Coelorinchus fasciatus | 283.60 | 4587 | 30.51 | |
| Brama brama | 85.43 | 73 | 9.19 | |
| Trachurus capensis | 72.67 | 317 | 7.82 | 5603 |
| Merluccius capensis, male | 66.17 | 413 | 7.12 | 5602 |
| Lophius vomerinus | 35.50 | 50 | 3.82 | 5604 |
| Chlorophthalmus atlanticus | 26.00 | 1583 | 2.80 | |
| PORTUNIDAE | 25.77 | 1090 | 2.77 | |
| Todarodes sagittatus | 16.33 | 23 | 1.76 | |
| Helicolenus dactylopterus | 10.40 | 123 | 1.12 | |
| Lepidopus caudatus | 5.43 | 23 | 0.58 | |
| Squilla acuelata calmani | 2.97 | 173 | 0.32 | |
| Todaropsis eblanae | 2.73 | 50 | 0.29 | |
| Pterothrissus bellocci | 2.73 | 23 | 0.29 | |
| Galeus polli | 0.73 | 73 | 0.08 | |
| Total | 929.63 | | 100.01 | |

PROJECT STATION:1761
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2340
 start stop duration Long E 1348
 TIME :15:54:00 16:09:00 15 (min) Purpose code: 3
 LOG :3558.60 3559.30 0.70 Area code : 2
 FDEPTH: 187 185 GearCond.code: 9
 BDEPTH: 187 185 Validity code: 1
 Towing dir: 360° Wire out: 600 m Speed: 30 kn*10
 Sorted: 106 Kg Total catch: 291.41 CATCH/HOUR: 1165.64

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 707.84 | 7260 | 60.73 | 5591 |
| Merluccius capensis, female | 388.84 | 2276 | 33.36 | 5592 |
| Trachurus capensis | 53.12 | 252 | 4.56 | 5593 |
| Lepidopus caudatus | 7.04 | 100 | 0.60 | |
| Sufflogobius bibarbatatus | 6.04 | 772 | 0.52 | |
| Coelorinchus fasciatus | 2.44 | 68 | 0.21 | |
| Todaropsis eblanae | 0.32 | 12 | 0.03 | |
| Total | 1165.64 | | 100.01 | |

PROJECT STATION:1766
 DATE:29/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2320
 start stop duration Long E 1316
 TIME :08:36:00 09:06:00 30 (min) Purpose code: 3
 LOG :3801.80 3803.30 1.50 Area code : 2
 FDEPTH: 358 363 GearCond.code: 9
 BDEPTH: 358 363 Validity code: 1
 Towing dir: 360° Wire out:1050 m Speed: 30 kn*10
 Sorted: 123 Kg Total catch: 165.93 CATCH/HOUR: 331.86

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 123.80 | 498 | 37.30 | 5607 |
| Merluccius capensis, female | 57.00 | 28 | 17.18 | 5605 |
| Helicolenus dactylopterus | 35.20 | 320 | 10.61 | |
| Nezumia sp. | 20.48 | 672 | 6.17 | |
| Lophius vomerinus | 16.40 | 10 | 4.94 | 5609 |
| Todarodes sagittatus | 13.52 | 40 | 4.07 | |
| Merluccius capensis, male | 10.70 | 10 | 3.22 | 5606 |
| MYCTOPHIDAE | 9.28 | 1796 | 2.80 | |
| Selachophidium guentheri | 8.40 | 8 | 2.53 | |
| Merluccius paradoxus, male | 7.70 | 34 | 2.32 | 5608 |
| Coelorinchus coelorhinc. polli | 6.56 | 208 | 1.98 | |
| Galeus polli | 5.36 | 128 | 1.62 | |
| Coelorinchus fasciatus | 3.68 | 136 | 1.11 | |
| Brama brama | 3.46 | 2 | 1.04 | |
| Bathynectes piperitus | 3.12 | 528 | 0.94 | |
| PANDALIDAE | 2.72 | 624 | 0.82 | |
| Ebinania costaecanarie | 1.28 | 24 | 0.39 | |
| Schedophilus huttoni | 1.12 | 80 | 0.34 | |
| Squilla acuelata calmani | 0.80 | 32 | 0.24 | |
| Epigonus denticulatus | 0.64 | 40 | 0.19 | |
| Notacanthus sexspinis | 0.64 | 24 | 0.19 | |
| Total | 331.86 | | 100.00 | |

PROJECT STATION:1762
 DATE:26/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2339
 start stop duration Long E 1357
 TIME :17:57:00 18:01:00 4 (min) Purpose code: 3
 LOG :3569.70 3569.90 0.20 Area code : 2
 FDEPTH: 170 170 GearCond.code: 9
 BDEPTH: 170 170 Validity code: 1
 Towing dir: 360° Wire out: 550 m Speed: 30 kn*10
 Sorted: 24 Kg Total catch: 58.99 CATCH/HOUR: 884.85

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 609.45 | 2850 | 68.88 | 5595 |
| Merluccius capensis, male | 185.70 | 1500 | 20.99 | 5594 |
| Trachurus capensis | 84.75 | 525 | 9.58 | 5596 |
| Pterothrissus bellocci | 4.95 | 45 | 0.56 | |
| Total | 884.85 | | 100.01 | |

PROJECT STATION:1763
 DATE:28/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2321
 start stop duration Long E 1353
 TIME :13:58:00 14:01:00 3 (min) Purpose code: 3
 LOG :3706.40 3706.50 0.10 Area code : 2
 FDEPTH: 161 161 GearCond.code: 9
 BDEPTH: 161 161 Validity code: 9
 Towing dir: 350° Wire out: 500 m Speed: 30 kn*10
 Sorted: Kg Total catch: CATCH/HOUR:

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------|------------|---------|-------------|------|
| | weight | numbers | | |
| N O C A T C H | 0.00 | | | |

PROJECT STATION:1767
 DATE:29/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2319
 start stop duration Long E 1308
 TIME :10:48:00 11:18:00 30 (min) Purpose code: 3
 LOG :3813.30 3814.70 1.40 Area code : 2
 FDEPTH: 428 432 GearCond.code: 9
 BDEPTH: 428 432 Validity code: 9
 Towing dir: 350° Wire out:1200 m Speed: 28 kn*10
 Sorted: 231 Kg Total catch: 632.50 CATCH/HOUR: 1265.00

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 665.30 | 1778 | 52.59 | 5610 |
| Trachyrincus scabrus | 125.20 | 1880 | 9.90 | |
| Helicolenus dactylopterus | 124.00 | 940 | 9.80 | |
| Nezumia sp. | 97.20 | 2520 | 7.68 | |
| Selachophidium guentheri | 52.60 | 1020 | 4.16 | |
| Merluccius paradoxus, male | 42.40 | 124 | 3.35 | 5611 |
| Bassanago albescens | 25.00 | 60 | 1.98 | |
| Galeus polli | 24.60 | 260 | 1.94 | |
| Raja confundens | 24.00 | 20 | 1.90 | |
| Lophius vomerinus | 23.70 | 20 | 1.87 | 5612 |
| Schedophilus huttoni | 22.40 | 20 | 1.77 | |
| Todarodes sagittatus | 13.00 | 20 | 1.03 | |
| Deania profundorum | 11.60 | 20 | 0.92 | |
| Etmopterus pusillus | 6.60 | 20 | 0.52 | |
| Notacanthus sexspinis | 4.00 | 120 | 0.32 | |
| Coelorinchus fasciatus | 3.40 | 120 | 0.27 | |
| Total | 1265.00 | | 100.00 | |

PROJECT STATION:1764
 DATE:29/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2320
 start stop duration Long E 1331
 TIME :04:56:00 05:11:00 15 (min) Purpose code: 3
 LOG :3785.50 3786.30 0.80 Area code : 2
 FDEPTH: 208 214 GearCond.code: 9
 BDEPTH: 208 214 Validity code: 1
 Towing dir: 270° Wire out: 650 m Speed: 31 kn*10
 Sorted: 97 Kg Total catch: 204.09 CATCH/HOUR: 816.36

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 387.08 | 2804 | 47.42 | 5598 |
| Merluccius capensis, female | 324.08 | 2364 | 39.70 | 5597 |
| Coelorinchus fasciatus | 63.60 | 2076 | 7.79 | |
| Thysites atun | 12.60 | 4 | 1.54 | 5599 |
| Lophius vomerinus | 10.16 | 36 | 1.24 | 5600 |
| Todarodes sagittatus | 8.64 | 72 | 1.06 | |
| Sufflogobius bibarbatatus | 6.60 | 1464 | 0.81 | |
| Pterothrissus bellocci | 3.60 | 24 | 0.44 | |
| Total | 816.36 | | 100.00 | |

PROJECT STATION:1768
 DATE:29/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2317
 start stop duration Long E 1259
 TIME :13:20:00 13:50:00 30 (min) Purpose code: 3
 LOG :3825.00 3826.50 1.50 Area code : 2
 FDEPTH: 651 650 GearCond.code:
 BDEPTH: 651 650 Validity code:
 Towing dir: 360° Wire out:1700 m Speed: 30 kn*10

Sorted: 87 Kg Total catch: 485.98 CATCH/HOUR: 971.96

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Deania profundorum | 196.80 | 96 | 20.25 | |
| Alloctythus verrucosus | 141.60 | 288 | 14.57 | |
| Hoplostethus cadenati | 128.40 | 7266 | 13.21 | |
| Nezumia sp. | 100.32 | 2856 | 10.32 | |
| Merluccius paradoxus, female | 90.20 | 92 | 9.28 | 5613 |
| Notacanthus sexspinis | 73.92 | 744 | 7.61 | |
| Raja confundens | 48.96 | 24 | 5.04 | |
| Yarellia blackfordi | 48.24 | 2184 | 4.96 | |
| Selachophidium guentheri | 40.80 | 624 | 4.20 | |
| Coelorinchus matama | 28.08 | 72 | 2.89 | |
| Lamprogrammus exutus | 22.80 | 72 | 2.35 | |
| Todarodes sagittatus | 14.40 | 24 | 1.48 | |
| Bathynectes piperitus | 11.52 | 96 | 1.19 | |
| Nansenia problematica * | 5.04 | 48 | 0.52 | |
| Merluccius paradoxus, male | 4.50 | 4 | 0.46 | 5614 |
| ALEPOCEPHALIDAE | 4.08 | 24 | 0.42 | |
| Lophius vomerinus | 3.38 | 2 | 0.35 | 5615 |
| Chaceon maritae | 3.12 | 2 | 0.32 | |
| SHRPA18 | 2.64 | 288 | 0.27 | |
| POLYCHAELIDAE | 1.68 | 48 | 0.17 | |
| Lithodes ferox | 1.48 | 4 | 0.15 | |
| Total | | 971.96 | 100.01 | |

PROJECT STATION:1772
 DATE:30/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2258
 start stop duration Long E 1322
 TIME :10:41:00 11:11:00 30 (min) Purpose code: 3
 LOG :3898.50 3900.40 1.90 Area code : 2
 FDEPTH: 339 340 GearCond.code:
 BDEPTH: 339 340 Validity code:
 Towing dir: 360° Wire out:1000 m Speed: 38 kn*10

Sorted: 79 Kg Total catch: 79.34 CATCH/HOUR: 158.68

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 63.50 | 42 | 40.02 | 5629 |
| Merluccius paradoxus, female | 42.70 | 176 | 26.91 | 5633 |
| Schedophilus huttoni | 7.80 | 4 | 4.92 | |
| Todarodes sagittatus | 7.46 | 18 | 4.70 | |
| Coelorinchus fasciatus | 6.28 | 118 | 3.96 | |
| Helicolenus dactylopterus | 5.88 | 70 | 3.71 | |
| Merluccius capensis, male | 5.30 | 6 | 3.34 | 5628 |
| Gerypteris capensis | 4.40 | 4 | 2.77 | 5630 |
| Trachurus capensis | 4.08 | 12 | 2.57 | 5631 |
| Krill | 3.14 | 7160 | 1.98 | |
| Nezumia sp. | 2.06 | 72 | 1.30 | |
| MYCTOPHIDAE | 1.84 | 610 | 1.16 | |
| Merluccius paradoxus, male | 1.14 | 6 | 0.72 | 5632 |
| Chlorophthalmus atlanticus | 1.10 | 38 | 0.69 | |
| Coelorinchus coelorhinc. polli | 1.00 | 42 | 0.63 | |
| Galeus polli | 0.58 | 10 | 0.37 | |
| Ebinania costaecanarie | 0.30 | 6 | 0.19 | |
| Solenocera africana | 0.08 | 30 | 0.05 | |
| Epigonus denticulatus | 0.04 | 8 | 0.03 | |
| Total | | 158.68 | 100.02 | |

PROJECT STATION:1769
 DATE:29/ 9/96 GEAR TYPE: BT No:2 POSITION:Lat S 2304
 start stop duration Long E 1300
 TIME :16:07:00 16:37:00 30 (min) Purpose code: 3
 LOG :3838.80 3840.40 1.60 Area code : 2
 FDEPTH: 544 540 GearCond.code:
 BDEPTH: 544 540 Validity code:
 Towing dir: 360° Wire out:1500 m Speed: 32 kn*10

Sorted: 26 Kg Total catch: 456.55 CATCH/HOUR: 913.10

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 320.20 | 482 | 35.07 | 5616 |
| Trachyrincus scabrus | 160.60 | 638 | 17.59 | |
| Hoplostethus cadenati | 136.40 | 10494 | 14.94 | |
| Nezumia sp. | 64.46 | 2090 | 7.06 | |
| Selachophidium guentheri | 53.24 | 1144 | 5.83 | |
| Plesionika sp. | 35.86 | 5522 | 3.93 | |
| Deania profundorum | 28.16 | 44 | 3.08 | |
| Todarodes sagittatus | 27.28 | 66 | 2.99 | |
| Raja confundens | 25.30 | 22 | 2.77 | |
| Merluccius paradoxus, male | 24.82 | 38 | 2.72 | 5617 |
| Yarellia blackfordi | 17.38 | 1408 | 1.90 | |
| Helicolenus dactylopterus | 13.64 | 44 | 1.49 | |
| Lophius vomerinus | 4.44 | 2 | 0.49 | 5618 |
| MYCTOPHIDAE | 0.66 | 44 | 0.07 | |
| Epigonus denticulatus | 0.66 | 22 | 0.07 | |
| Total | | 913.10 | 100.00 | |

PROJECT STATION:1773
 DATE:30/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2259
 start stop duration Long E 1329
 TIME :13:08:00 13:20:00 12 (min) Purpose code: 3
 LOG :3910.30 3910.80 0.50 Area code : 2
 FDEPTH: 260 260 GearCond.code: 9
 BDEPTH: 260 260 Validity code: 1
 Towing dir: 360° Wire out: 750 m Speed: 26 kn*10

Sorted: 29 Kg Total catch: 29.18 CATCH/HOUR: 145.90

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Centrolophus niger | 69.25 | 20 | 47.46 | 5637 |
| Merluccius capensis, male | 41.00 | 145 | 28.10 | 5635 |
| Merluccius capensis, female | 22.25 | 120 | 15.25 | 5634 |
| Schedophilus huttoni | 7.30 | 5 | 5.00 | |
| Trachurus capensis | 4.10 | 10 | 2.81 | 5636 |
| Squalus megalops | 2.00 | 5 | 1.37 | |
| Total | | 145.90 | 99.99 | |

PROJECT STATION:1770
 DATE:30/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2300
 start stop duration Long E 1301
 TIME :05:13:00 05:43:00 30 (min) Purpose code: 3
 LOG :3869.40 3870.90 1.50 Area code : 2
 FDEPTH: 463 463 GearCond.code:
 BDEPTH: 463 463 Validity code:
 Towing dir: 350° Wire out:1250 m Speed: 30 kn*10

Sorted: 21 Kg Total catch: 226.95 CATCH/HOUR: 453.90

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 225.00 | 424 | 49.57 | 5619 |
| Trachyrincus scabrus | 118.50 | 510 | 26.11 | |
| Helicolenus dactylopterus | 32.70 | 280 | 7.20 | |
| Raja confundens | 15.70 | 10 | 3.46 | |
| Merluccius paradoxus, male | 15.20 | 26 | 3.35 | 5620 |
| Centroscyllium fabricii | 11.40 | 10 | 2.51 | |
| Hoplostethus cadenati | 11.10 | 540 | 2.45 | |
| Nezumia sp. | 8.40 | 220 | 1.85 | |
| Todarodes sagittatus | 6.50 | 30 | 1.43 | |
| Plesionika sp. | 4.60 | 1530 | 1.01 | |
| Lophius vomerinus | 2.90 | 2 | 0.64 | 5621 |
| Yarellia blackfordi | 1.90 | 310 | 0.42 | |
| Total | | 453.90 | 100.00 | |

PROJECT STATION:1774
 DATE:30/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2259
 start stop duration Long E 1337
 TIME :15:17:00 15:47:00 30 (min) Purpose code: 3
 LOG :3921.70 3923.20 1.50 Area code : 2
 FDEPTH: 150 150 GearCond.code:
 BDEPTH: 150 150 Validity code:
 Towing dir: 360° Wire out: 500 m Speed: 30 kn*10

Sorted: 77 Kg Total catch: 910.75 CATCH/HOUR: 1821.50

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Thyrsites atun | 1518.00 | 810 | 83.34 | 5642 |
| Merluccius capensis, female | 168.00 | 1318 | 9.22 | 5638 |
| Merluccius capensis, male | 62.00 | 612 | 3.40 | 5639 |
| Trachurus capensis | 35.96 | 218 | 1.97 | 5641 |
| Todarodes sagittatus | 16.80 | 30 | 0.92 | |
| Chelidonicichthys capensis | 7.26 | 14 | 0.40 | |
| Todaropsis eblanae | 4.30 | 136 | 0.24 | |
| Austroglossus microlepis | 2.88 | 12 | 0.16 | 5640 |
| Lophius vomerinus | 2.00 | 10 | 0.11 | 5643 |
| Sufflogobius bibarbatatus | 1.96 | 226 | 0.11 | |
| Lepidopus caudatus | 1.66 | 14 | 0.09 | |
| Chatrabus melanurus | 0.68 | 14 | 0.04 | |
| Total | | 1821.50 | 100.00 | |

PROJECT STATION:1771
 DATE:30/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2258
 start stop duration Long E 1306
 TIME :07:33:00 08:03:00 30 (min) Purpose code: 3
 LOG :3879.70 3881.30 1.60 Area code : 2
 FDEPTH: 311 305 GearCond.code:
 BDEPTH: 311 305 Validity code:
 Towing dir: 340° Wire out: 960 m Speed: 32 kn*10

Sorted: 214 Kg Total catch: 1282.01 CATCH/HOUR: 2564.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 1545.24 | 4376 | 60.27 | 5622 |
| Helicolenus dactylopterus | 488.60 | 6482 | 19.06 | |
| Merluccius paradoxus, female | 210.40 | 638 | 8.21 | 5626 |
| Merluccius capensis, female | 63.30 | 48 | 2.47 | 5624 |
| MYCTOPHIDAE | 59.14 | 6876 | 2.31 | |
| Coelorinchus fasciatus | 32.90 | 1190 | 1.28 | |
| Todarodes sagittatus | 30.10 | 104 | 1.17 | |
| Coelorinchus coelorhinc. polli | 29.40 | 910 | 1.15 | |
| Galeus polli | 26.60 | 384 | 1.04 | |
| Chlorophthalmus atlanticus | 19.60 | 980 | 0.76 | |
| Merluccius paradoxus, male | 16.00 | 66 | 0.62 | 5627 |
| Beryx splendens | 14.00 | 70 | 0.55 | |
| Epigonus denticulatus | 12.94 | 734 | 0.50 | |
| Merluccius capensis, male | 7.40 | 8 | 0.29 | 5625 |
| Malacocephalus laevis | 6.30 | 70 | 0.25 | |
| Gerypteris capensis | 2.10 | 2 | 0.08 | 5623 |
| Total | | 2564.02 | 100.01 | |

PROJECT STATION:1775
 DATE:30/ 9/96 GEAR TYPE: BT No:3 POSITION:Lat S 2257
 start stop duration Long E 1343
 TIME :16:58:00 17:28:00 30 (min) Purpose code: 3
 LOG :3930.80 3932.30 1.50 Area code : 2
 FDEPTH: 143 143 GearCond.code:
 BDEPTH: 143 143 Validity code:
 Towing dir: 360° Wire out: 500 m Speed: 30 kn*10

Sorted: 52 Kg Total catch: 459.11 CATCH/HOUR: 918.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 433.20 | 3566 | 47.18 | 5644 |
| Merluccius capensis, male | 180.50 | 1938 | 19.66 | 5645 |
| Trachurus capensis | 85.50 | 512 | 9.31 | 5646 |
| Sufflogobius bibarbatatus | 68.78 | 11790 | 7.49 | |
| Lepidopus caudatus | 68.02 | 892 | 7.41 | |
| Pterothrissus bellocci | 24.00 | 310 | 2.61 | |
| Todaropsis eblanae | 22.60 | 492 | 2.46 | |
| Callorhynchus capensis | 22.22 | 18 | 2.42 | |
| Lophius vomerinus | 6.86 | 6 | 0.75 | 5647 |
| Chelidonicichthys capensis | 4.94 | 18 | 0.54 | |
| Austroglossus microlepis | 1.60 | 6 | 0.17 | 5648 |
| Total | | 918.22 | 100.00 | |

PROJECT STATION:1776
 DATE: 1/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2235 Long E 1355
 start stop duration
 TIME :04:52:00 04:55:00 3 (min) Purpose code: 3
 LOG :3983.90 3984.10 0.20 Area code : 2
 FDEPTH: 122 122 GearCond.code: 9
 BDEPTH: 122 122 Validity code: 9
 Towing dir: 360° Wire out: 450 m Speed: 30 kn*10

Sorted: Kg Total catch: CATCH/HOUR:

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|---------------|----------------|-------------|------|
| N O C A T C H | weight numbers | | |
| Total | 0.00 | | |

PROJECT STATION:1777
 DATE: 1/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2236 Long E 1340
 start stop duration
 TIME :07:17:00 07:28:00 11 (min) Purpose code: 3
 LOG :3999.30 3999.80 0.50 Area code : 2
 FDEPTH: 134 134 GearCond.code: 9
 BDEPTH: 134 134 Validity code: 1
 Towing dir: 340° Wire out: 450 m Speed: 30 kn*10

Sorted: 50 Kg Total catch: 196.38 CATCH/HOUR: 1071.16

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|--------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Merluccius capensis, female | 415.64 4058 | 38.80 | 5649 |
| Trachurus capensis | 381.82 3142 | 35.65 | 5652 |
| Merluccius capensis, male | 261.82 2836 | 24.44 | 5650 |
| Lepidopus caudatus | 5.45 109 | 0.51 | |
| Merluccius capensis, juveniles | 2.18 175 | 0.20 | 5651 |
| Lophius vomerinus | 1.75 5 | 0.16 | 5654 |
| Austroglossus microlepis | 1.64 5 | 0.15 | 5653 |
| Sufflogobius bibarbatatus | 0.87 218 | 0.08 | |
| Chrysaora sp. | 0.00 4238 | | |
| Aequorea aequorea | 0.00 21818 | | |
| Total | 1071.17 | 99.99 | |

PROJECT STATION:1778
 DATE: 1/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2237 Long E 1326
 start stop duration
 TIME :09:47:00 10:17:00 30 (min) Purpose code: 3
 LOG :4014.70 4016.20 1.50 Area code : 2
 FDEPTH: 245 245 GearCond.code: 9
 BDEPTH: 245 245 Validity code: 9
 Towing dir: 360° Wire out: 750 m Speed: 30 kn*10

Sorted: 90 Kg Total catch: 121.38 CATCH/HOUR: 242.76

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Merluccius capensis, male | 53.90 318 | 22.20 | 5655 |
| Merluccius capensis, female | 51.00 294 | 21.01 | 5656 |
| Coelorinchus fasciatus | 48.60 722 | 20.02 | |
| MYCTOPHIDAE | 29.16 18954 | 12.01 | |
| Trachurus capensis | 16.10 66 | 6.63 | 5658 |
| Todarodes sagittatus | 13.20 38 | 5.44 | |
| Sufflogobius bibarbatatus | 9.12 1108 | 3.76 | |
| Lophius vomerinus | 9.06 12 | 3.73 | 5659 |
| Merluccius capensis, female | 7.40 2 | 3.05 | 5660 |
| Lepidopus caudatus | 3.54 6 | 1.46 | |
| Chlorophthalmus atlanticus | 0.90 66 | 0.37 | |
| Todaropsis eblanae | 0.50 8 | 0.21 | |
| Bathynectes piperitus | 0.12 6 | 0.05 | |
| Merluccius capensis | 0.10 10 | 0.04 | 5657 |
| Synagrops microlepis | 0.06 6 | 0.02 | |
| Chrysaora sp. | 0.00 40 | | |
| Aequorea aequorea | 0.00 3360 | | |
| Total | 242.76 | 100.00 | |

PROJECT STATION:1779
 DATE: 1/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2238 Long E 1313
 start stop duration
 TIME :16:23:00 16:53:00 30 (min) Purpose code: 3
 LOG :4039.40 4041.00 1.60 Area code : 2
 FDEPTH: 295 289 GearCond.code: 9
 BDEPTH: 295 289 Validity code: 9
 Towing dir: 360° Wire out: 900 m Speed: 32 kn*10

Sorted: 164 Kg Total catch: 173.70 CATCH/HOUR: 347.40

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Merluccius capensis, female | 203.30 520 | 58.52 | 5661 |
| Merluccius capensis, male | 72.00 220 | 20.73 | 5662 |
| Trachurus capensis | 20.90 62 | 6.02 | 5665 |
| Coelorinchus fasciatus | 11.00 84 | 3.17 | |
| Merluccius paradoxus, female | 10.00 58 | 2.88 | 5663 |
| Schedophilus huttoni | 8.50 8 | 2.45 | |
| Todarodes sagittatus | 8.40 12 | 2.42 | |
| Lophius vomerinus | 5.18 6 | 1.49 | 5666 |
| MYCTOPHIDAE | 3.66 1084 | 1.05 | |
| Chlorophthalmus atlanticus | 2.20 138 | 0.63 | |
| Helicolenus dactylopterus | 0.60 192 | 0.17 | |
| Merluccius paradoxus, male | 0.60 6 | 0.17 | 5664 |
| Plesionika sp. | 0.54 162 | 0.16 | |
| Epigonus denticulatus | 0.24 12 | 0.07 | |
| Galeus polli | 0.24 6 | 0.07 | |
| Sufflogobius bibarbatatus | 0.04 26 | 0.01 | |
| Chrysaora sp. | 0.00 14 | | |
| Aequorea aequorea | 0.00 1040 | | |
| Total | 347.40 | 100.01 | |

PROJECT STATION:1780
 DATE: 2/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2220 Long E 2219
 start stop duration
 TIME :00:17:00 00:47:00 30 (min) Purpose code: 3
 LOG :4082.20 4083.80 1.60 Area code : 2
 FDEPTH: 548 555 GearCond.code: 9
 BDEPTH: 548 555 Validity code: 9
 Towing dir: 348° Wire out:1500 m Speed: 32 kn*10

Sorted: 268 Kg Total catch: 617.15 CATCH/HOUR: 1234.30

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Merluccius paradoxus, female | 426.30 536 | 34.54 | 5668 |
| Deania quadrispinosum | 381.00 240 | 30.87 | |
| Hoplostethus cadenati | 240.00 13980 | 19.44 | |
| Nezumia sp. | 37.20 1260 | 3.01 | |
| Merluccius paradoxus, male | 31.48 46 | 2.55 | 5667 |
| Plesionika sp. | 21.80 6420 | 1.77 | |
| Centroscymnus crepidater | 18.00 20 | 1.46 | |
| Selachophidium guentheri | 17.00 280 | 1.38 | |
| Hydrolagus sp. | 15.40 20 | 1.25 | |
| Trachyrincus scabrus | 12.60 80 | 1.02 | |
| Coelorinchus matamua | 8.40 40 | 0.68 | |
| Notacanthus sexspinis | 7.20 100 | 0.58 | |
| Raja confundens | 4.80 20 | 0.39 | |
| Neocyttus rhomboidalis | 3.80 40 | 0.31 | |
| ARISTEIDAE | 3.40 320 | 0.28 | |
| Helicolenus dactylopterus | 2.80 80 | 0.23 | |
| Heterocarpus sp. | 1.80 80 | 0.15 | |
| Trachurus capensis | 1.32 2 | 0.11 | 5669 |
| Total | 1234.30 | 100.02 | |

PROJECT STATION:1781
 DATE: 2/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2220 Long E 1247
 start stop duration
 TIME :05:03:00 05:33:00 30 (min) Purpose code: 3
 LOG :4093.00 4094.60 1.60 Area code : 2
 FDEPTH: 436 434 GearCond.code: 9
 BDEPTH: 436 434 Validity code: 9
 Towing dir: 360° Wire out:1150 m Speed: 32 kn*10

Sorted: 190 Kg Total catch: 466.07 CATCH/HOUR: 932.14

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Merluccius paradoxus, female | 544.46 1348 | 58.41 | 5670 |
| Trachyrincus scabrus | 126.40 816 | 13.56 | |
| Helicolenus dactylopterus | 69.60 272 | 7.47 | |
| Nezumia sp. | 40.64 1262 | 4.36 | |
| Deania profundorum | 36.48 64 | 3.91 | |
| Merluccius paradoxus, male | 33.78 88 | 3.62 | 5671 |
| Hoplostethus cadenati | 28.16 2720 | 3.02 | |
| Schedophilus huttoni | 18.08 16 | 1.94 | |
| Epigonus telescopus | 13.28 96 | 1.42 | |
| Shrimps, small, non comm. | 8.00 80 | 0.86 | |
| Yarella blackfordi | 4.80 80 | 0.51 | |
| Lophius vomerinus | 3.82 2 | 0.41 | 5672 |
| Aristeus varidens | 1.76 224 | 0.19 | |
| Notacanthus sexspinis | 1.60 80 | 0.17 | |
| Epigonus denticulatus | 0.80 32 | 0.09 | |
| MYCTOPHIDAE | 0.32 128 | 0.03 | |
| Galeus polli | 0.16 16 | 0.02 | |
| Total | 932.14 | 99.99 | |

PROJECT STATION:1782
 DATE: 2/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2220 Long E 1253
 start stop duration
 TIME :07:49:00 08:19:00 30 (min) Purpose code: 3
 LOG :4102.40 4103.90 1.50 Area code : 2
 FDEPTH: 355 358 GearCond.code: 9
 BDEPTH: 355 358 Validity code: 9
 Towing dir: 360° Wire out:1050 m Speed: 30 kn*10

Sorted: 178 Kg Total catch: 235.29 CATCH/HOUR: 470.58

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Merluccius capensis, female | 217.00 170 | 46.11 | 5674 |
| Helicolenus dactylopterus | 86.78 964 | 18.44 | |
| Merluccius paradoxus, female | 44.20 140 | 9.39 | 5675 |
| Merluccius capensis, male | 40.80 48 | 8.67 | 5673 |
| Krill | 30.50 6 | 6.48 | |
| Schedophilus huttoni | 18.34 6 | 3.90 | |
| Todarodes sagittatus | 9.44 26 | 2.01 | |
| Deania calcea | 4.02 6 | 0.85 | |
| Galeus polli | 3.56 86 | 0.76 | |
| Epigonus denticulatus | 2.90 178 | 0.62 | |
| Lophius vomerinus | 2.28 2 | 0.48 | 5677 |
| Trachyrincus scabrus | 2.24 6 | 0.48 | |
| Merluccius paradoxus, male | 1.74 6 | 0.37 | 5676 |
| Coelorinchus fasciatus | 1.66 40 | 0.35 | |
| Selachophidium guentheri | 1.52 32 | 0.32 | |
| Plesionika sp. | 1.12 12 | 0.24 | |
| Nezumia sp. | 0.72 26 | 0.15 | |
| MYCTOPHIDAE | 0.66 244 | 0.14 | |
| Chlorophthalmus atlanticus | 0.40 14 | 0.08 | |
| SEPIIDAE | 0.38 0.08 | | |
| Hoplostethus cadenati | 0.26 32 | 0.06 | |
| Notacanthus sexspinis | 0.06 6 | 0.01 | |
| Total | 470.58 | 100.00 | |

PROJECT STATION:1783
 DATE: 2/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2219 Long E 1306
 start stop duration
 TIME :11:31:00 12:01:00 30 (min) Purpose code: 3
 LOG :4119.10 4120.50 1.40 Area code : 2
 FDEPTH: 256 254 GearCond.code: 9
 BDEPTH: 256 254 Validity code:
 Towing dir: 360° Wire out: 750 m Speed: 28 kn*10
 Sorted: 283 Kg Total catch: 996.89 CATCH/HOUR: 1993.78

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 685.30 | 2408 | 34.37 | 5678 |
| Trachurus capensis | 643.30 | 3082 | 32.27 | 5680 |
| Merluccius capensis, female | 462.28 | 2352 | 23.19 | 5679 |
| Coelorinchus fasciatus | 85.04 | 944 | 4.27 | |
| Hexanchus griseus | 37.00 | 2 | 1.86 | |
| Chlorophthalmus atlanticus | 26.32 | 2554 | 1.32 | |
| Merluccius capensis, female | 15.80 | 10 | 0.79 | 5683 |
| Lophius vomerinus | 11.70 | 8 | 0.59 | 5681 |
| Pterothrissus belloci | 8.68 | 90 | 0.44 | |
| Synagrops microlepis | 5.60 | 336 | 0.28 | |
| Bathynectes piperitus | 3.02 | 140 | 0.15 | |
| Galeus polli | 2.94 | 76 | 0.15 | |
| Merluccius capensis, male | 2.60 | 2 | 0.13 | 5682 |
| Centroscymnus crepidater | 2.24 | 6 | 0.11 | |
| Sufflogobius bibarbatatus | 0.98 | 210 | 0.05 | |
| Lepidopus caudatus | 0.98 | 6 | 0.05 | |
| Total | 1993.78 | | 100.02 | |

PROJECT STATION:1787
 DATE: 3/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2149 Long E 1322
 start stop duration
 TIME :08:54:00 09:00:00 6 (min) Purpose code: 3
 LOG :4224.20 4224.60 0.40 Area code : 2
 FDEPTH: 150 150 GearCond.code: 9
 BDEPTH: 150 150 Validity code:
 Towing dir: 360° Wire out: 500 m Speed: 30 kn*10
 Sorted: 67 Kg Total catch: 497.33 CATCH/HOUR: 4973.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 1859.00 | 25190 | 37.38 | 5697 |
| Merluccius capensis, female | 1656.00 | 13530 | 33.30 | 5698 |
| Trachurus capensis | 1094.50 | 14300 | 22.01 | 5700 |
| Merluccius capensis, female | 185.50 | 340 | 3.73 | 5702 |
| Pterothrissus belloci | 42.90 | 440 | 0.86 | |
| Lophius vomerinus | 32.90 | 70 | 0.66 | 5699 |
| Chelidonichthys capensis | 31.90 | 110 | 0.64 | |
| Todaropsis eblanae | 23.10 | 440 | 0.46 | |
| Merluccius capensis, male | 20.00 | 30 | 0.40 | 5701 |
| Bathynectes piperitus | 17.60 | 770 | 0.35 | |
| Sufflogobius bibarbatatus | 9.90 | 1650 | 0.20 | |
| Total | 4973.30 | | 99.99 | |

PROJECT STATION:1788
 DATE: 3/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2150 Long E 1314
 start stop duration
 TIME :10:53:00 11:04:00 11 (min) Purpose code: 3
 LOG :4234.10 4234.60 0.50 Area code : 2
 FDEPTH: 165 165 GearCond.code: 9
 BDEPTH: 165 165 Validity code:
 Towing dir: 350° Wire out: 550 m Speed: 32 kn*10
 Sorted: 133 Kg Total catch: 2799.62 CATCH/HOUR: 15270.65

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 13121.24 | 129775 | 85.92 | 5708 |
| Merluccius capensis, male | 1509.05 | 23160 | 9.88 | 5703 |
| Merluccius capensis, female | 423.16 | 1925 | 2.77 | 5704 |
| Merluccius capensis, male | 97.20 | 218 | 0.64 | 5707 |
| Pterothrissus belloci | 46.36 | 464 | 0.30 | |
| Bathynectes piperitus | 46.36 | 2782 | 0.30 | |
| Austroglossus microlepis | 14.13 | 22 | 0.09 | 5705 |
| Lophius vomerinus | 8.84 | 76 | 0.06 | 5706 |
| Sufflogobius bibarbatatus | 4.64 | 3709 | 0.03 | |
| Total | 15270.98 | | 99.99 | |

PROJECT STATION:1784
 DATE: 2/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2215 Long E 1316
 start stop duration
 TIME :14:04:00 14:34:00 30 (min) Purpose code: 3
 LOG :4132.10 4133.60 1.50 Area code : 2
 FDEPTH: 224 223 GearCond.code:
 BDEPTH: 224 223 Validity code:
 Towing dir: 360° Wire out: 680 m Speed: 30 kn*10
 Sorted: 95 Kg Total catch: 435.84 CATCH/HOUR: 871.68

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 499.80 | 4204 | 57.34 | 5685 |
| Merluccius capensis, female | 238.56 | 1234 | 27.37 | 5686 |
| Trachurus capensis | 30.60 | 34 | 3.51 | 5687 |
| Lepidopus caudatus | 27.52 | 284 | 3.16 | |
| Thyrsites atun | 24.60 | 6 | 2.82 | 5688 |
| Coelorinchus fasciatus | 23.46 | 646 | 2.69 | |
| Merluccius capensis, female | 14.60 | 12 | 1.67 | 5684 |
| Lophius vomerinus | 5.00 | 2 | 0.57 | 5689 |
| Sufflogobius bibarbatatus | 4.88 | 862 | 0.56 | |
| Pterothrissus belloci | 2.20 | 12 | 0.25 | |
| Todaropsis eblanae | 0.46 | 12 | 0.05 | |
| Aequorea aequorea | 0.00 | 4800 | | |
| Chrysaora sp. | 0.00 | 266 | | |
| Total | 871.68 | | 99.99 | |

PROJECT STATION:1789
 DATE: 3/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2150 Long E 1302
 start stop duration
 TIME :13:21:00 13:42:00 21 (min) Purpose code: 3
 LOG :4248.00 4249.10 1.10 Area code : 2
 FDEPTH: 280 281 GearCond.code: 9
 BDEPTH: 280 281 Validity code: 9
 Towing dir: 350° Wire out: 850 m Speed: 30 kn*10
 Sorted: 23 Kg Total catch: 25.32 CATCH/HOUR: 72.34

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 33.00 | 174 | 45.62 | 5709 |
| Merluccius capensis, female | 20.00 | 157 | 27.65 | 5710 |
| Coelorinchus fasciatus | 6.97 | 91 | 9.64 | |
| Trachurus capensis | 5.80 | 43 | 8.02 | 5711 |
| Callorhynchus capensis | 2.86 | 3 | 3.95 | |
| Pterothrissus belloci | 1.43 | 11 | 1.98 | |
| Chlorophthalmus atlanticus | 0.63 | 34 | 0.87 | |
| Bathynectes piperitus | 0.40 | 23 | 0.55 | |
| Synagrops microlepis | 0.40 | 40 | 0.55 | |
| Galeus polli | 0.29 | 6 | 0.40 | |
| Lepidopus caudatus | 0.29 | 3 | 0.40 | |
| MYCTOPHIDAE | 0.23 | 80 | 0.32 | |
| Sufflogobius bibarbatatus | 0.06 | 17 | 0.08 | |
| Chrysaora sp. | 0.00 | 397 | | |
| Total | 72.36 | | 100.03 | |

PROJECT STATION:1785
 DATE: 2/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2214 Long E 1330
 start stop duration
 TIME :17:07:00 17:17:00 10 (min) Purpose code: 3
 LOG :4150.20 4150.80 0.60 Area code : 2
 FDEPTH: 151 151 GearCond.code: 9
 BDEPTH: 151 151 Validity code: 1
 Towing dir: 360° Wire out: 550 m Speed: 30 kn*10
 Sorted: 42 Kg Total catch: 187.46 CATCH/HOUR: 1124.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, male | 391.20 | 3672 | 34.78 | 5691 |
| Merluccius capensis, female | 350.40 | 2496 | 31.15 | 5690 |
| Trachurus capensis | 230.40 | 2232 | 20.48 | 5694 |
| Merluccius capensis, female | 110.40 | 150 | 9.82 | 5693 |
| Merluccius capensis, male | 10.80 | 18 | 0.96 | 5692 |
| Chelidonichthys capensis | 10.08 | 24 | 0.90 | |
| Sufflogobius bibarbatatus | 6.72 | 1488 | 0.60 | |
| PORTUNIDAE | 4.80 | 24 | 0.43 | |
| Pterothrissus belloci | 4.80 | 48 | 0.43 | |
| Austroglossus microlepis | 3.00 | 6 | 0.27 | 5695 |
| Merluccius capensis | 2.16 | 144 | 0.19 | 5696 |
| Chrysaora sp. | 0.00 | 10050 | | |
| Aequorea aequorea | 0.00 | 40200 | | |
| Total | 1124.76 | | 100.01 | |

PROJECT STATION:1790
 DATE: 3/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2151 Long E 1248
 start stop duration
 TIME :16:28:00 16:58:00 30 (min) Purpose code: 3
 LOG :4264.30 4265.80 1.50 Area code : 2
 FDEPTH: 323 322 GearCond.code:
 BDEPTH: 323 322 Validity code:
 Towing dir: 350° Wire out:1000 m Speed: 30 kn*10
 Sorted: 257 Kg Total catch: 292.38 CATCH/HOUR: 584.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 318.70 | 318 | 54.50 | 5715 |
| Merluccius paradoxus, female | 66.60 | 240 | 11.39 | 5712 |
| Merluccius capensis, male | 63.90 | 92 | 10.93 | 5714 |
| Helicolenus dactylopterus | 47.70 | 924 | 8.16 | |
| Lophius vomerinus | 28.40 | 28 | 4.86 | 5716 |
| Galeus polli | 10.92 | 282 | 1.87 | |
| Schedophilus huttoni | 10.44 | 6 | 1.79 | |
| Todarodes sagittatus | 7.08 | 36 | 1.21 | |
| Squalus megalops | 6.18 | 12 | 1.06 | |
| Plesionika sp. | 5.34 | 2428 | 0.91 | |
| Coelorinchus coelorhinc. polli | 3.66 | 120 | 0.63 | |
| Bathynectes piperitus | 3.12 | 168 | 0.53 | |
| Nezumia sp. | 2.28 | 108 | 0.39 | |
| PORTUNIDAE | 2.16 | 114 | 0.37 | |
| Beryx splendens | 1.80 | 6 | 0.31 | |
| MYCTOPHIDAE | 1.74 | 678 | 0.30 | |
| Chlorophthalmus atlanticus | 1.50 | 90 | 0.26 | |
| Merluccius paradoxus, male | 0.96 | 4 | 0.16 | 5713 |
| Epigonus denticulatus | 0.84 | 90 | 0.14 | |
| Ebinania costaeacanarie | 0.84 | 18 | 0.14 | |
| Malacocephalus laevis | 0.60 | 6 | 0.10 | |
| Total | 584.76 | | 100.01 | |

PROJECT STATION:1786
 DATE: 3/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2148 Long E 1343
 start stop duration
 TIME :04:49:00 05:00:00 11 (min) Purpose code: 3
 LOG :4201.90 4202.40 0.50 Area code : 2
 FDEPTH: 99 99 GearCond.code: 8
 BDEPTH: 99 99 Validity code: 9
 Towing dir: 360° Wire out: 400 m Speed: 30 kn*10
 Sorted: Kg Total catch: 5.00 CATCH/HOUR: 27.27

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sufflogobius bibarbatatus | 27.27 | | 100.00 | |
| Aequorea aequorea | 0.00 | 7745 | | |
| Chrysaora sp. | 0.00 | 862 | | |
| Total | 27.27 | | 100.00 | |

PROJECT STATION:1791
 DATE: 3/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2151
 start stop duration Long E 1239
 TIME :19:11:00 19:41:00 30 (min) Purpose code: 3
 LOG :4277.00 4278.50 1.50 Area code : 2
 FDEPTH: 502 507 GearCond.code:
 BDEPTH: 502 507 Validity code:
 Towing dir: 360° Wire out:1350 m Speed: 30 kn*10
 Sorted: 183 Kg Total catch: 438.11 CATCH/HOUR: 876.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 330.00 | 1870 | 37.66 | |
| Merluccius paradoxus, female | 283.90 | 542 | 32.40 | 5717 |
| Hoplostethus cadenati | 62.92 | 5826 | 7.18 | |
| Epigonus telescopus | 43.34 | 396 | 4.95 | |
| Helicolenus dactylopterus | 42.68 | 220 | 4.87 | |
| Cruriraja parcomaculata | 32.78 | 22 | 3.74 | |
| Nezumia sp. | 24.20 | 704 | 2.76 | |
| Lophius vomerinus | 17.00 | 8 | 1.94 | 5719 |
| Merluccius paradoxus, male | 13.00 | 24 | 1.48 | 5718 |
| Todarodes sagittatus | 11.22 | 22 | 1.28 | |
| Shrimps, small, non comm. | 3.30 | 1364 | 0.38 | |
| Yarrella blackfordi | 3.08 | 308 | 0.35 | |
| Ebinania costaeacanarie | 2.20 | 22 | 0.25 | |
| Galeus polli | 2.20 | 88 | 0.25 | |
| Aristeus varidens | 1.76 | 132 | 0.20 | |
| Selachophidium guentheri | 1.10 | 44 | 0.13 | |
| MYCTOPHIDAE | 0.88 | 88 | 0.10 | |
| Bathynectes piperitus | 0.66 | 22 | 0.08 | |
| Total | 876.22 | | 100.00 | |

PROJECT STATION:1794
 DATE: 4/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2131
 start stop duration Long E 1237
 TIME :03:05:00 03:35:00 30 (min) Purpose code: 3
 LOG :4308.40 4310.00 1.60 Area code : 2
 FDEPTH: 433 434 GearCond.code:
 BDEPTH: 433 434 Validity code:
 Towing dir: 350° Wire out:1250 m Speed: 32 kn*10
 Sorted: 18 Kg Total catch: 744.04 CATCH/HOUR: 1488.08

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Nezumia sp. | 627.20 | 1664 | 42.15 | |
| Trachyrincus scabrus | 353.60 | 3328 | 23.76 | |
| Merluccius paradoxus, female | 305.10 | 672 | 20.50 | 5725 |
| Helicolenus dactylopterus | 50.56 | 384 | 3.40 | |
| Merluccius paradoxus, male | 23.30 | 48 | 1.57 | 5726 |
| Deania profundorum | 22.40 | 32 | 1.51 | |
| Lophius vomerinus | 20.80 | 20 | 1.40 | 5727 |
| Raja confundens | 20.16 | 32 | 1.35 | |
| Selachophidium guentheri | 19.84 | 1120 | 1.33 | |
| Hoplostethus cadenati | 18.88 | 1344 | 1.27 | |
| Shrimps, small, non comm. | 7.68 | 2336 | 0.52 | |
| Galeus polli | 6.08 | 64 | 0.41 | |
| PORTUNIDAE | 5.12 | 128 | 0.34 | |
| Epigonus telescopus | 3.20 | 128 | 0.22 | |
| Aristeus varidens | 2.24 | 224 | 0.15 | |
| Notacanthus sexspinis | 1.28 | 64 | 0.09 | |
| MYCTOPHIDAE | 0.64 | 32 | 0.04 | |
| Total | 1488.08 | | 100.01 | |

PROJECT STATION:1792
 DATE: 3/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2150
 start stop duration Long E 1237
 TIME :21:26:00 21:56:00 30 (min) Purpose code: 3
 LOG :4284.00 4285.50 1.50 Area code : 2
 FDEPTH: 605 609 GearCond.code:
 BDEPTH: 605 609 Validity code:
 Towing dir: 360° Wire out:1650 m Speed: 30 kn*10
 Sorted: 633 Kg Total catch: 813.08 CATCH/HOUR: 1626.16

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 996.00 | 1230 | 61.25 | 5721 |
| Trachyrincus scabrus | 271.70 | 754 | 16.71 | |
| Hoplostethus cadenati | 81.90 | 6396 | 5.04 | |
| Nezumia sp. | 69.94 | 2990 | 4.30 | |
| Centroprorus squamosus | 65.80 | 6 | 4.05 | |
| Merluccius paradoxus, male | 41.50 | 64 | 2.55 | 5720 |
| Deania profundorum | 19.76 | 26 | 1.22 | |
| Lithodes ferox | 19.76 | 78 | 1.22 | |
| Raja confundens | 14.56 | 104 | 0.90 | |
| Selachophidium guentheri | 10.40 | 234 | 0.64 | |
| Bathylagus glacialis | 8.06 | 546 | 0.50 | |
| Yarrella blackfordi | 5.72 | 546 | 0.35 | |
| Notacanthus sexspinis | 4.68 | 52 | 0.29 | |
| Alepocephalus sp. | 4.42 | 364 | 0.27 | |
| Neocyttus rhomboidalis | 3.90 | 26 | 0.24 | |
| Heterocarpus sp. | 3.12 | 962 | 0.19 | |
| Bathyracoconger vicinus | 2.86 | 104 | 0.18 | |
| POLYCHAETIDAE | 0.78 | 52 | 0.05 | |
| Nephropsis atlantica | 0.52 | 26 | 0.03 | |
| Heterocarpus sp. | 0.52 | 26 | 0.03 | |
| Nemichthys scolopaceus | 0.26 | 26 | 0.02 | |
| Total | 1626.16 | | 100.03 | |

PROJECT STATION:1795
 DATE: 4/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2127
 start stop duration Long E 1251
 TIME :06:11:00 06:41:00 30 (min) Purpose code: 3
 LOG :4325.80 4327.50 1.70 Area code : 2
 FDEPTH: 309 310 GearCond.code:
 BDEPTH: 309 310 Validity code:
 Towing dir: 360° Wire out: 920 m Speed: 32 kn*10
 Sorted: 21 Kg Total catch: 189.47 CATCH/HOUR: 378.94

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 191.10 | 456 | 50.43 | 5728 |
| Merluccius capensis, male | 44.90 | 114 | 11.85 | 5729 |
| Pterothrissus bellocci | 19.92 | 120 | 5.26 | |
| Beryx splendens | 19.80 | 120 | 5.23 | |
| Lophius vomerinus | 17.60 | 14 | 4.64 | 5731 |
| MYCTOPHIDAE | 14.28 | 4200 | 3.77 | |
| Todarodes sagittatus | 13.62 | 54 | 3.59 | |
| Helicolenus dactylopterus | 11.52 | 270 | 3.04 | |
| Schedophilus huttoni | 9.54 | 6 | 2.52 | |
| Squalus megalops | 7.98 | 18 | 2.11 | |
| PORTUNIDAE | 6.06 | 300 | 1.60 | |
| Chlorophthalmus atlanticus | 5.22 | 198 | 1.38 | |
| Dentex macrophthalmus | 4.50 | 12 | 1.19 | |
| Coelorinchus coelorhinc. polli | 4.02 | 144 | 1.06 | |
| Coelorinchus fasciatus | 3.24 | 102 | 0.86 | |
| Galeus polli | 2.76 | 36 | 0.73 | |
| Plesionika sp. | 1.20 | 468 | 0.32 | |
| Trachyrincus scabrus | 0.90 | 18 | 0.24 | |
| Merluccius paradoxus, female | 0.48 | 2 | 0.13 | 5730 |
| Epigonus denticulatus | 0.42 | 30 | 0.11 | |
| Malacocephalus laevis | 0.36 | 12 | 0.10 | |
| Synagrops microlepis | 0.24 | 18 | 0.06 | |
| Notacanthus sexspinis | 0.18 | 6 | 0.05 | |
| Chrysaora sp. | 0.00 | 888 | | |
| Total | 379.84 | | 100.27 | |

PROJECT STATION:1793
 DATE: 4/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2139
 start stop duration Long E 1232
 TIME :00:32:00 01:02:00 30 (min) Purpose code: 3
 LOG :4296.90 4298.50 1.60 Area code : 2
 FDEPTH: 672 669 GearCond.code:
 BDEPTH: 672 669 Validity code:
 Towing dir: 350° Wire out:1750 m Speed: 32 kn*10
 Sorted: 135 Kg Total catch: 243.10 CATCH/HOUR: 486.20

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 166.70 | 176 | 34.29 | 5723 |
| Trachyrincus scabrus | 53.88 | 156 | 11.08 | |
| Nezumia sp. | 51.48 | 3480 | 10.59 | |
| Bathyraraja smithii | 43.08 | 108 | 8.86 | |
| Centroprorus squamosus | 26.00 | 2 | 5.35 | |
| Deania quadrispinosum | 23.52 | 24 | 4.84 | |
| Schedophilus huttoni | 20.64 | 12 | 4.25 | |
| Notacanthus sexspinis | 18.84 | 156 | 3.87 | |
| Lophius vomerinus | 18.70 | 8 | 3.85 | 5724 |
| Selachophidium guentheri | 11.16 | 216 | 2.30 | |
| Merluccius paradoxus, male | 10.80 | 14 | 2.22 | 5722 |
| Todarodes sagittatus | 6.72 | 12 | 1.38 | |
| Hoplostethus cadenati | 5.16 | 168 | 1.06 | |
| Lycodes agulhensis | 5.04 | 12 | 1.04 | |
| Chaceon maritae | 4.80 | 4 | 0.99 | |
| Alepocephalus sp. | 3.96 | 264 | 0.81 | |
| Yarrella blackfordi | 3.72 | 288 | 0.77 | |
| Rossia enigmatica | 3.48 | 24 | 0.72 | |
| Heterocarpus sp. | 2.28 | 168 | 0.47 | |
| Bathylagus glacialis | 1.80 | 96 | 0.37 | |
| Bathyracoconger vicinus | 1.20 | 24 | 0.25 | |
| CONOSTOMATIDAE | 0.96 | 24 | 0.20 | |
| GALATHEIDAE * | 0.48 | 768 | 0.10 | |
| MYCTOPHIDAE | 0.48 | 24 | 0.10 | |
| Melanocetus johnsoni | 0.36 | 12 | 0.07 | |
| Nephropsis atlantica | 0.24 | 12 | 0.05 | |
| Photichthys argenteus | 0.12 | 12 | 0.02 | |
| SERGESTIDAE | 0.12 | 48 | 0.02 | |
| Total | 486.20 | | 100.02 | |

PROJECT STATION:1796
 DATE: 4/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2125
 start stop duration Long E 1302
 TIME :08:53:00 09:13:00 20 (min) Purpose code: 3
 LOG :4340.20 4341.30 1.10 Area code : 2
 FDEPTH: 222 220 GearCond.code:
 BDEPTH: 222 220 Validity code:
 Towing dir: 360° Wire out: 700 m Speed: 30 kn*10
 Sorted: 78 Kg Total catch: 281.40 CATCH/HOUR: 844.20

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 634.50 | 5265 | 75.16 | 5734 |
| Merluccius capensis, female | 79.65 | 642 | 9.43 | 5733 |
| Merluccius capensis, male | 76.80 | 678 | 9.10 | 5732 |
| Synagrops microlepis | 11.88 | 999 | 1.41 | |
| Todarodes sagittatus | 10.80 | 54 | 1.28 | |
| Bathynectes piperitus | 8.37 | 378 | 0.99 | |
| Coelorinchus fasciatus | 8.37 | 162 | 0.99 | |
| Chlorophthalmus atlanticus | 5.94 | 351 | 0.70 | |
| Sufflogobius bibarbus | 4.32 | 486 | 0.51 | |
| Lophius vomerinus | 2.22 | 9 | 0.26 | 5735 |
| Pterothrissus bellocci | 1.35 | 27 | 0.16 | |
| Chrysaora sp. | 0.00 | 3750 | | |
| Aequorea aequorea | 0.00 | 1500 | | |
| Total | 844.20 | | 99.99 | |

PROJECT STATION:1797
 DATE: 4/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2123
 start stop duration
 TIME :11:05:00 11:35:00 30 (min) Purpose code: 3
 LOG :4353.90 4355.40 1.50 Area code : 2
 FDEPTH: 133 132 GearCond.code: 2
 BDEPTH: 133 132 Validity code:
 Towing dir: 360° Wire out: 450 m Speed: 30 kn*10

Sorted: 184 Kg Total catch: 975.23 CATCH/HOUR: 1950.46

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 931.20 | 13952 | 47.74 | 5738 |
| Merluccius capensis, male | 532.00 | 5920 | 27.28 | 5736 |
| Merluccius capensis, female | 302.40 | 1472 | 15.50 | 5737 |
| Thyrsites atun | 135.50 | 38 | 6.95 | 5739 |
| Chelidonichthys capensis | 24.48 | 48 | 1.26 | |
| Austroglossus microlepis | 7.04 | 16 | 0.36 | 5740 |
| Galeorhinus galeus | 6.00 | 2 | 0.31 | |
| Sufflogobius bibarbatus | 4.16 | 1296 | 0.21 | |
| Lophius vomerinus | 2.40 | 16 | 0.12 | 5741 |
| Bathynectes piperitus | 1.92 | 80 | 0.10 | |
| BATRACHIDIDAE | 1.28 | 32 | 0.07 | |
| Todaropsis eblanae | 0.96 | 32 | 0.05 | |
| Lepidopus caudatus | 0.80 | 16 | 0.04 | |
| Synagrops microlepis | 0.32 | 32 | 0.02 | |
| Total | 1950.46 | | 100.01 | |

PROJECT STATION:1798
 DATE: 4/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2105
 start stop duration
 TIME :14:21:00 14:51:00 30 (min) Purpose code: 3
 LOG :4378.90 4380.10 1.20 Area code : 2
 FDEPTH: 126 129 GearCond.code: 2
 BDEPTH: 126 129 Validity code:
 Towing dir: 120° Wire out: 375 m Speed: 24 kn*10

Sorted: 95 Kg Total catch: 190.15 CATCH/HOUR: 380.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 158.20 | 1790 | 41.60 | 5747 |
| Trachurus capensis | 106.24 | 2108 | 27.94 | 5748 |
| Merluccius capensis, male | 56.14 | 788 | 14.76 | 5746 |
| Thyrsites atun | 26.00 | 8 | 6.84 | 5749 |
| Callorhinus capensis | 20.30 | 14 | 5.34 | |
| Pterorhinus belloci | 5.02 | 134 | 1.32 | |
| Sufflogobius bibarbatus | 4.42 | 598 | 1.16 | |
| Sardinops ocellatus | 1.16 | 12 | 0.31 | 5743 |
| Austroglossus microlepis | 0.54 | 4 | 0.14 | 5745 |
| Merluccius capensis | 0.46 | 50 | 0.12 | 5742 |
| Lophius vomerinus | 0.40 | 4 | 0.11 | 5750 |
| Todarodes sagittatus | 0.40 | 4 | 0.11 | |
| Etrumeus whiteheadi | 0.32 | 14 | 0.08 | 5744 |
| Bathynectes piperitus | 0.22 | 4 | 0.06 | |
| Lepidopus caudatus | 0.18 | 4 | 0.05 | |
| Synagrops microlepis | 0.18 | 26 | 0.05 | |
| Todaropsis eblanae | 0.12 | 4 | 0.03 | |
| Chrysaora sp. | 0.00 | 240 | | |
| Aequorea aequorea | 0.00 | 960 | | |
| Total | 380.30 | | 100.02 | |

PROJECT STATION:1799
 DATE: 4/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2100
 start stop duration
 TIME :16:20:00 16:32:00 12 (min) Purpose code: 3
 LOG :4390.70 4391.30 0.60 Area code : 2
 FDEPTH: 130 134 GearCond.code: 9
 BDEPTH: 130 134 Validity code: 1
 Towing dir: 350° Wire out: 450 m Speed: 30 kn*10

Sorted: 41 Kg Total catch: 2361.44 CATCH/HOUR: 11807.20

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 11326.25 | 174250 | 95.93 | 5759 |
| Merluccius capensis, male | 170.00 | 2125 | 1.44 | 5751 |
| Merluccius capensis, female | 89.25 | 1275 | 0.76 | 5752 |
| Sufflogobius bibarbatus | 68.00 | 15300 | 0.58 | |
| Sardinops ocellatus | 38.25 | 425 | 0.32 | 5753 |
| Thyrsites atun | 37.75 | 10 | 0.32 | 5758 |
| Synagrops microlepis | 34.00 | 6375 | 0.29 | |
| Merluccius capensis, female | 10.25 | 25 | 0.09 | 5761 |
| PORTUNIDAE | 8.50 | 850 | 0.07 | |
| Engraulis capensis | 8.50 | 425 | 0.07 | 5754 |
| Lophius vomerinus | 8.00 | 15 | 0.07 | 5756 |
| Austroglossus microlepis | 5.00 | 5 | 0.04 | 5755 |
| Merluccius capensis, male | 3.45 | 25 | 0.03 | 5760 |
| Total | 11807.20 | | 100.01 | |

PROJECT STATION:1800
 DATE: 4/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2106
 start stop duration
 TIME :20:59:00 21:29:00 30 (min) Purpose code: 3
 LOG :4425.90 4427.40 1.50 Area code : 2
 FDEPTH: 450 450 GearCond.code: 2
 BDEPTH: 450 450 Validity code:
 Towing dir: 355° Wire out:1250 m Speed: 30 kn*10

Sorted: 259 Kg Total catch: 457.51 CATCH/HOUR: 915.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 434.10 | 964 | 47.44 | 5763 |
| Trachyrincus scabrus | 392.70 | 3172 | 42.92 | |
| Merluccius paradoxus, male | 26.40 | 56 | 2.89 | 5762 |
| Nezumia sp. | 23.52 | 400 | 2.57 | |
| Helicolenus dactylopterus | 21.20 | 210 | 2.32 | |
| Lophius vomerinus | 14.60 | 4 | 1.60 | 5764 |
| Hoplostethus cadenati | 1.26 | 232 | 0.14 | |
| Plesionika sp. | 0.42 | 126 | 0.05 | |
| Notacanthus sexspinis | 0.42 | 42 | 0.05 | |
| Yarella blackfordi | 0.20 | 22 | 0.02 | |
| MYCTOPHIDAE | 0.20 | 64 | 0.02 | |
| Total | 915.02 | | 100.02 | |

PROJECT STATION:1801
 DATE: 4/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2106
 start stop duration
 TIME :23:33:00 00:03:00 30 (min) Purpose code: 3
 LOG :4435.80 4437.30 1.50 Area code : 2
 FDEPTH: 567 565 GearCond.code: 2
 BDEPTH: 567 565 Validity code:
 Towing dir: 350° Wire out:1600 m Speed: 30 kn*10

Sorted: 310 Kg Total catch: 616.01 CATCH/HOUR: 1232.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 406.90 | 1586 | 33.03 | |
| Merluccius paradoxus, female | 392.50 | 528 | 31.86 | 5766 |
| Centrophorus squamosus | 111.50 | 8 | 9.05 | |
| Deania quadrispinosum | 97.50 | 20 | 7.91 | |
| Nezumia sp. | 79.82 | 3666 | 6.48 | |
| Hoplostethus cadenati | 48.36 | 3458 | 3.93 | |
| Raja doutrei | 22.60 | 4 | 1.83 | |
| Lophius vomerinus | 15.60 | 4 | 1.27 | |
| Merluccius paradoxus, male | 10.70 | 16 | 0.87 | 5765 |
| Raja confundens | 10.00 | 4 | 0.81 | |
| Lophius vaillanti | 8.00 | 2 | 0.65 | 5767 |
| Notacanthus sexspinis | 7.80 | 52 | 0.63 | |
| Plesionika sp. | 4.94 | 910 | 0.40 | |
| Alepocephalus sp. | 4.94 | 104 | 0.40 | |
| Helicolenus dactylopterus | 3.38 | 26 | 0.27 | |
| Lithodes ferox | 3.06 | 6 | 0.25 | |
| Yarella blackfordi | 2.34 | 208 | 0.19 | |
| Lamprogrammus exutus | 1.30 | 26 | 0.11 | |
| Selachophidium guentheri | 0.78 | 26 | 0.06 | |
| Total | 1232.02 | | 100.00 | |

PROJECT STATION:1802
 DATE: 5/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2107
 start stop duration
 TIME :01:45:00 02:15:00 30 (min) Purpose code: 3
 LOG :4443.40 4445.80 1.40 Area code : 2
 FDEPTH: 634 631 GearCond.code: 2
 BDEPTH: 634 631 Validity code:
 Towing dir: 350° Wire out:1700 m Speed: 28 kn*10

Sorted: 23 Kg Total catch: 545.08 CATCH/HOUR: 1090.16

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 678.10 | 796 | 62.20 | 5770 |
| Trachyrincus scabrus | 180.00 | 450 | 16.51 | |
| Nezumia sp. | 46.34 | 1396 | 4.25 | |
| Deania quadrispinosum | 37.80 | 30 | 3.47 | |
| Hoplostethus cadenati | 26.54 | 886 | 2.43 | |
| Lamprogrammus exutus | 26.40 | 210 | 2.42 | |
| Bathyrhaja smithii | 22.70 | 4 | 2.08 | |
| Merluccius paradoxus, male | 22.30 | 32 | 2.05 | 5769 |
| Raja confundens | 10.80 | 4 | 0.99 | |
| Yarella blackfordi | 8.54 | 660 | 0.78 | |
| Lophius vomerinus | 6.84 | 2 | 0.63 | 5771 |
| Todarodes sagittatus | 5.54 | 16 | 0.51 | |
| Bathyrhococong vicinus | 4.20 | 106 | 0.39 | |
| SHRPA18 | 3.74 | 316 | 0.34 | |
| Plesionika sp. | 3.14 | 1320 | 0.29 | |
| Notacanthus sexspinis | 3.14 | 16 | 0.29 | |
| Alepocephalus sp. | 2.10 | 166 | 0.19 | |
| Selachophidium guentheri | 0.60 | 16 | 0.06 | |
| ARISTEIDAE | 0.60 | 60 | 0.06 | |
| Nephropsis atlantica | 0.60 | 60 | 0.06 | |
| GALATHEIDAE * | 0.14 | 120 | 0.01 | |
| Total | 1090.16 | | 100.01 | |

PROJECT STATION:1803
 DATE: 5/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2104
 start stop duration
 TIME :05:53:00 06:23:00 30 (min) Purpose code: 3
 LOG :4466.60 4468.20 1.60 Area code : 2
 FDEPTH: 373 375 GearCond.code: 2
 BDEPTH: 373 375 Validity code:
 Towing dir: 350° Wire out:1100 m Speed: 32 kn*10

Sorted: 96 Kg Total catch: 142.94 CATCH/HOUR: 285.88

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 72.70 | 216 | 25.43 | 5772 |
| Helicolenus dactylopterus | 66.24 | 984 | 23.17 | |
| Merluccius capensis, female | 46.10 | 38 | 16.13 | 5774 |
| Lophius vomerinus | 18.20 | 12 | 6.37 | 5777 |
| Schedophilus huttoni | 14.52 | 6 | 5.08 | |
| Todarodes sagittatus | 11.34 | 54 | 3.97 | |
| Deepwater fish mixture | 9.78 | | 3.42 | |
| Nezumia sp. | 8.64 | 372 | 3.02 | |
| MYCTOPHIDAE | 6.78 | 2854 | 2.37 | |
| Krill | 5.70 | | 1.99 | |
| Merluccius paradoxus, male | 4.48 | 10 | 1.57 | 5773 |
| Cenypiterus capensis | 3.38 | 4 | 1.18 | 5776 |
| Coelorrhinus coelorrhinc. polli | 3.00 | 78 | 1.05 | |
| Heptranchias perlo | 2.88 | 6 | 1.01 | |
| Merluccius capensis, male | 1.76 | 2 | 0.62 | 5775 |
| Histioteuthis reversa | 1.50 | 114 | 0.52 | |
| Galeus polli | 1.50 | 36 | 0.52 | |
| Yarella blackfordi | 1.14 | 156 | 0.40 | |
| Bathynectes piperitus | 0.90 | 36 | 0.31 | |
| Shrimps, small, non comm. | 0.90 | 372 | 0.31 | |
| Malacocephalus laevis | 0.72 | 12 | 0.25 | |
| Hoplostethus cadenati | 0.66 | 48 | 0.23 | |
| Ebinania costaeannarie | 0.54 | 6 | 0.19 | |
| Nephropsis atlantica | 0.48 | 312 | 0.17 | |
| Bassanago albescens | 0.42 | 12 | 0.15 | |
| Epigonus denticulatus | 0.42 | 30 | 0.15 | |
| Laemonema laureysi | 0.36 | 6 | 0.13 | |
| Coelorrhinus fasciatus | 0.36 | 12 | 0.13 | |
| Trachyrincus scabrus | 0.18 | 24 | 0.06 | |
| Dicrolene intronigra | 0.18 | 6 | 0.06 | |
| Selachophidium guentheri | 0.12 | 6 | 0.04 | |
| Total | 285.88 | | 100.00 | |

PROJECT STATION:1804
 DATE: 5/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2103
 start stop duration Long E 1245
 TIME :08:28:00 08:58:00 30 (min) Purpose code: 3
 LOG :4478.20 4479.70 1.50 Area code : 2
 FDEPTH: 336 338 GearCond.code:
 BDEPTH: 336 338 Validity code:
 Towing dir: 350° Wire out: 990 m Speed: 30 kn*10
 Sorted: 227 Kg Total catch: 254.68 CATCH/HOUR: 509.36

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 285.60 | 276 | 56.07 | 5779 |
| Merluccius capensis, male | 61.80 | 78 | 12.13 | 5778 |
| Merluccius paradoxus, female | 60.80 | 216 | 11.94 | 5780 |
| Helicolenus dactylopterus | 38.76 | 660 | 7.61 | |
| Todarodes sagittatus | 19.56 | 84 | 3.84 | |
| Lophius vomerinus | 12.30 | 6 | 2.41 | 5781 |
| Beryx splendens | 8.16 | 38 | 1.60 | |
| MYCTOPHIDAE | 5.88 | 1356 | 1.15 | |
| Nezumia sp. | 5.22 | 90 | 1.02 | |
| Coelorinchus coelorhinc. polli | 3.12 | 90 | 0.61 | |
| Coelorinchus fasciatus | 2.34 | 48 | 0.46 | |
| Chlorophthalmus punctatus | 2.22 | 84 | 0.44 | |
| Galeus polli | 1.08 | 18 | 0.21 | |
| Ebinania costaecanarie | 0.78 | 6 | 0.15 | |
| Shrimps, small, non comm. | 0.66 | 228 | 0.13 | |
| Rossia enigmatica | 0.48 | 6 | 0.09 | |
| Bathynectes piperitus | 0.42 | 18 | 0.08 | |
| Epigonus denticulatus | 0.12 | 12 | 0.02 | |
| Synagrops microlepis | 0.06 | 6 | 0.01 | |
| Total | 509.36 | | 99.97 | |

PROJECT STATION:1807
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2044
 start stop duration Long E 1238
 TIME :06:28:00 06:58:00 30 (min) Purpose code: 3
 LOG :4563.70 4565.30 1.60 Area code : 3
 FDEPTH: 321 318 GearCond.code:
 BDEPTH: 321 318 Validity code:
 Towing dir: 335° Wire out: 990 m Speed: 31 kn*10
 Sorted: 255 Kg Total catch: 270.71 CATCH/HOUR: 541.42

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 378.60 | 454 | 69.93 | 5793 |
| Merluccius capensis, male | 84.40 | 144 | 15.59 | 5792 |
| Lophius vomerinus | 19.70 | 16 | 1.64 | 5795 |
| Merluccius paradoxus, female | 9.60 | 36 | 1.77 | 5794 |
| Coelorinchus coelorhinc. polli | 8.76 | 324 | 1.62 | |
| Coelorinchus fasciatus | 8.64 | 162 | 1.60 | |
| Todarodes sagittatus | 8.64 | 30 | 1.60 | |
| Synagrops microlepis | 6.96 | 588 | 1.29 | |
| Helicolenus dactylopterus | 6.36 | 90 | 1.17 | |
| Chlorophthalmus atlanticus | 2.64 | 108 | 0.49 | |
| Galeus polli | 1.92 | 30 | 0.35 | |
| Lepidopus caudatus | 1.78 | 2 | 0.33 | |
| Dentex macrophthalmus | 1.74 | 6 | 0.32 | |
| Beryx splendens | 0.72 | 2 | 0.13 | |
| Epigonus denticulatus | 0.48 | 42 | 0.09 | |
| Plesionika sp. | 0.30 | 60 | 0.06 | |
| Malacocephalus laevis | 0.18 | 6 | 0.03 | |
| Chrysaora sp. | 0.00 | 888 | | |
| Aequorea aequorea | 0.00 | 32000 | | |
| Total | 541.42 | | 100.01 | |

PROJECT STATION:1808
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2047
 start stop duration Long E 1228
 TIME :09:38:00 10:08:00 30 (min) Purpose code: 3
 LOG :4578.60 4580.10 1.50 Area code : 3
 FDEPTH: 340 334 GearCond.code:
 BDEPTH: 340 334 Validity code:
 Towing dir: 340° Wire out:1050 m Speed: 30 kn*10
 Sorted: 388 Kg Total catch: 471.26 CATCH/HOUR: 942.52

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 440.56 | 554 | 46.74 | 5797 |
| Merluccius paradoxus, female | 274.74 | 976 | 29.15 | 5799 |
| Helicolenus dactylopterus | 156.80 | 2674 | 16.64 | |
| Merluccius capensis, male | 19.50 | 134 | 2.07 | 5796 |
| Merluccius paradoxus, male | 13.96 | 48 | 1.48 | 5798 |
| Squalus megalops | 9.66 | 28 | 1.02 | |
| Schedophilus huttoni | 6.44 | 14 | 0.68 | |
| Epigonus denticulatus | 6.02 | 504 | 0.64 | |
| Coelorinchus fasciatus | 4.34 | 70 | 0.46 | |
| Galeus polli | 3.92 | 56 | 0.42 | |
| Nezumia sp. | 2.80 | 112 | 0.30 | |
| Synagrops microlepis | 1.40 | 112 | 0.15 | |
| Ebinania costaecanarie | 0.84 | 14 | 0.09 | |
| Hoplostethus cadenati | 0.84 | 56 | 0.09 | |
| Chlorophthalmus atlanticus | 0.56 | 28 | 0.06 | |
| MYCTOPHIDAE | 0.14 | 56 | 0.01 | |
| Total | 942.52 | | 100.00 | |

PROJECT STATION:1809
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2051
 start stop duration Long E 1222
 TIME :12:20:00 12:50:00 30 (min) Purpose code: 3
 LOG :4591.70 4593.20 1.50 Area code : 3
 FDEPTH: 468 468 GearCond.code:
 BDEPTH: 468 468 Validity code:
 Towing dir: 33° Wire out:1350 m Speed: 30 kn*10
 Sorted: 427 Kg Total catch: 1627.56 CATCH/HOUR: 3255.12

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 1638.00 | 12600 | 50.32 | |
| Merluccius paradoxus, female | 666.24 | 1694 | 20.47 | 5801 |
| Raja caudaspinosa | 408.24 | 336 | 12.54 | |
| Nezumia sp. | 184.80 | 11424 | 5.68 | |
| Hoplostethus cadenati | 117.60 | 12936 | 3.61 | |
| Centrophorus squamosus | 100.00 | 8 | 3.07 | |
| Helicolenus dactylopterus | 67.20 | 336 | 2.06 | |
| Merluccius paradoxus, male | 26.90 | 68 | 0.83 | 5800 |
| Lophius vomerinus | 15.40 | 8 | 0.47 | 5802 |
| Galeus polli | 15.12 | 168 | 0.46 | |
| Todarodes sagittatus | 13.20 | 30 | 0.41 | |
| Neoharriotta pinnata | 2.42 | 2 | 0.07 | |
| Chrysaora sp. | 0.00 | 1112 | | |
| Total | 3255.12 | | 99.99 | |

PROJECT STATION:1810
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2049
 start stop duration Long E 1215
 TIME :14:38:00 15:08:00 30 (min) Purpose code: 3
 LOG :4600.00 4601.50 1.50 Area code : 3
 FDEPTH: 558 559 GearCond.code:
 BDEPTH: 558 559 Validity code:
 Towing dir: 330° Wire out:1600 m Speed: 30 kn*10
 Sorted: 309 Kg Total catch: 715.82 CATCH/HOUR: 1431.64

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 583.10 | 2856 | 40.73 | |
| Merluccius paradoxus, female | 486.30 | 818 | 33.97 | 5803 |
| Nezumia sp. | 137.36 | 3026 | 9.59 | |
| Deania calcea | 87.04 | 34 | 6.08 | |
| Centrophorus squamosus | 29.80 | 2 | 2.08 | |
| Merluccius paradoxus, male | 20.10 | 38 | 1.40 | 5804 |
| Schedophilus huttoni | 15.98 | 34 | 1.12 | |
| Shrimps, small, non comm. | 14.62 | 6766 | 1.02 | |
| Raja caudaspinosa | 8.80 | 6 | 0.61 | |
| Todarodes sagittatus | 8.40 | 16 | 0.59 | |
| Hoplostethus cadenati | 7.82 | 306 | 0.55 | |
| Helicolenus dactylopterus | 7.82 | 68 | 0.55 | |
| Lamprogrammus exutus | 6.46 | 102 | 0.45 | |
| Lithodes ferox | 5.86 | 20 | 0.41 | |
| Yarella blackfordi | 4.76 | 612 | 0.33 | |
| Lophius vomerinus | 3.40 | 2 | 0.24 | 5805 |
| Chaceon maritae | 3.00 | 4 | 0.21 | |
| Etmopterus pusillus | 0.68 | 68 | 0.05 | |
| Notacanthus sexspinis | 0.34 | 34 | 0.02 | |
| Total | 1431.64 | | 100.00 | |

PROJECT STATION:1806
 DATE: 5/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2047
 start stop duration Long E 1301
 TIME :13:50:00 13:58:00 8 (min) Purpose code: 3
 LOG :4513.10 4513.40 0.30 Area code : 3
 FDEPTH: 141 140 GearCond.code: 9
 BDEPTH: 141 140 Validity code:
 Towing dir: 130° Wire out: 430 m Speed: 30 kn*10
 Sorted: 85 Kg Total catch: 160.72 CATCH/HOUR: 1205.40

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 750.00 | 10283 | 62.22 | 5790 |
| Merluccius capensis, female | 236.25 | 2700 | 19.60 | 5787 |
| Merluccius capensis, male | 148.50 | 1328 | 12.32 | 5788 |
| Raja leoparden | 50.63 | 23 | 4.20 | |
| Callorhynchus capensis | 12.53 | 8 | 1.04 | |
| Lophius vomerinus | 3.30 | 15 | 0.27 | 5791 |
| Synagrops microlepis | 1.80 | 180 | 0.15 | |
| Sufflogobius bibarbatatus | 1.80 | 330 | 0.15 | |
| Merluccius capensis | 0.60 | 68 | 0.05 | 5789 |
| Chrysaora sp. | 0.00 | 1125 | | |
| Aequorea aequorea | 0.00 | 4500 | | |
| Total | 1205.41 | | 100.00 | |

PROJECT STATION:1811
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2048
 start stop duration Long E 1208
 TIME :17:14:00 17:44:00 30 (min) Purpose code: 3
 LOG :4609.10 4610.70 1.60 Area code : 3
 FDEPTH: 663 661 GearCond.code:
 BDEPTH: 663 661 Validity code:
 Towing dir: 330° Wire out:1750 m Speed: 32 kn*10

Sorted: 233 Kg Total catch: 589.16 CATCH/HOUR: 1178.32

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Deania calcea | 334.12 | 96 | 28.36 | |
| Merluccius paradoxus, female | 333.70 | 372 | 28.32 | 5807 |
| Trachyrincus scabrus | 295.00 | 820 | 25.04 | |
| Nezumia sp. | 108.00 | 3400 | 9.17 | |
| Centrophorus squamosus | 56.60 | 4 | 4.80 | |
| Lophius vaillanti | 11.50 | 2 | 0.98 | 5808 |
| Notacanthus sexspinis | 9.20 | 80 | 0.78 | |
| Merluccius paradoxus, male | 6.60 | 10 | 0.56 | 5806 |
| Alloctyus verrucosus | 6.00 | 20 | 0.51 | |
| Lamprogrammus exutus | 5.80 | 80 | 0.49 | |
| Alepocephalus sp. | 3.20 | 140 | 0.27 | |
| Epigonus telescopus | 2.60 | 20 | 0.22 | |
| Yarella blackfordi | 2.00 | 400 | 0.17 | |
| Hoplostethus cadenati | 1.60 | 40 | 0.14 | |
| Parapeneus longirostris | 1.40 | 140 | 0.12 | |
| Dicrolene intransigra | 1.00 | 60 | 0.08 | |
| Total | 1178.32 | | 100.01 | |

PROJECT STATION:1812
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2032
 start stop duration Long E 1200
 TIME :20:44:00 21:14:00 30 (min) Purpose code: 3
 LOG :4627.90 4629.50 1.60 Area code : 3
 FDEPTH: 602 600 GearCond.code:
 BDEPTH: 602 600 Validity code:
 Towing dir: 330° Wire out:1600 m Speed: 32 kn*10

Sorted: 207 Kg Total catch: 501.04 CATCH/HOUR: 1002.08

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 322.80 | 450 | 32.21 | 5810 |
| Trachyrincus scabrus | 292.50 | 1092 | 29.19 | |
| Nezumia sp. | 108.94 | 3900 | 10.87 | |
| Deania quadrispinosum | 71.24 | 26 | 7.11 | |
| Lithodes ferax | 67.60 | 182 | 6.75 | |
| Bathylagus glacialis | 46.28 | 3848 | 4.62 | |
| Centrophorus squamosus | 25.10 | 2 | 2.50 | |
| Helicolenus dactylopterus | 10.66 | 104 | 1.06 | |
| Merluccius paradoxus, male | 10.50 | 18 | 1.05 | 5809 |
| Todarodes sagittatus | 6.34 | 10 | 0.63 | |
| Raja caudaspinosa | 5.46 | 26 | 0.54 | |
| Ebinania costaecanarie | 4.42 | 52 | 0.44 | |
| Tripophos sp. | 3.92 | 546 | 0.39 | |
| Hoplostethus cadenati | 3.38 | 130 | 0.34 | |
| Notacanthus sexspinis | 3.38 | 104 | 0.34 | |
| Selachophidium guentheri | 3.12 | 104 | 0.31 | |
| Heterocarpus sp. | 2.60 | 182 | 0.26 | |
| OPLOPHORIDAE | 1.82 | 468 | 0.18 | |
| GONOSTOMATIDAE | 1.82 | 26 | 0.18 | |
| Yarella blackfordi | 1.82 | 52 | 0.18 | |
| MYCTOPHIDAE | 1.56 | 182 | 0.16 | |
| Alepocephalus sp. | 1.56 | 104 | 0.16 | |
| Lophius vomerinus | 1.10 | 2 | 0.11 | 5811 |
| Bathyrcoconger vicinus | 1.04 | 26 | 0.10 | |
| SERGESTIDAE | 1.04 | 52 | 0.10 | |
| POLYCHAELIDAE | 0.78 | 52 | 0.08 | |
| Aristeus varidens | 0.78 | 130 | 0.08 | |
| Melanocetus johnsoni | 0.26 | 52 | 0.03 | |
| Lamprogrammus exutus | 0.26 | 26 | 0.03 | |
| Total | 1002.08 | | 100.00 | |

PROJECT STATION:1813
 DATE: 6/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2028
 start stop duration Long E 1202
 TIME :22:57:00 23:27:00 30 (min) Purpose code: 3
 LOG :4635.30 4636.90 1.60 Area code : 3
 FDEPTH: 512 511 GearCond.code:
 BDEPTH: 512 511 Validity code:
 Towing dir: 340° Wire out:1400 m Speed: 32 kn*10

Sorted: 175 Kg Total catch: 740.41 CATCH/HOUR: 1480.82

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 846.40 | 5520 | 57.16 | |
| Nezumia sp. | 250.70 | 4876 | 16.93 | |
| Merluccius paradoxus, female | 241.10 | 400 | 16.28 | 5813 |
| Neoharriotta pinnata | 27.14 | 46 | 1.83 | |
| Centrophorus squamosus | 25.70 | 2 | 1.74 | |
| Raja caudaspinosa | 19.78 | 46 | 1.34 | |
| Helicolenus dactylopterus | 15.64 | 138 | 1.06 | |
| Lophius vomerinus | 14.10 | 6 | 0.95 | 5814 |
| Lophius vaillanti | 10.40 | 2 | 0.70 | 5815 |
| Merluccius paradoxus, male | 6.40 | 12 | 0.43 | 5812 |
| Plesionika sp. | 5.98 | 1656 | 0.40 | |
| Hoplostethus cadenati | 4.60 | 276 | 0.31 | |
| Ebinania costaecanarie | 4.14 | 46 | 0.28 | |
| Epigonus denticulatus | 4.14 | 184 | 0.28 | |
| Neosopelus macrolepidotus | 1.38 | 46 | 0.09 | |
| Bathylagus glacialis | 1.38 | 92 | 0.09 | |
| Tripophos sp. | 0.92 | 230 | 0.06 | |
| MYCTOPHIDAE | 0.92 | 138 | 0.06 | |
| Total | 1480.82 | | 99.99 | |

PROJECT STATION:1814
 DATE: 7/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2026
 start stop duration Long E 1204
 TIME :01:03:00 01:33:00 30 (min) Purpose code: 3
 LOG :4642.90 4644.30 1.40 Area code : 3
 FDEPTH: 409 408 GearCond.code:
 BDEPTH: 409 408 Validity code:
 Towing dir: 335° Wire out:1200 m Speed: 28 kn*10

Sorted: 120 Kg Total catch: 235.59 CATCH/HOUR: 471.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Helicolenus dactylopterus | 188.10 | 1216 | 39.92 | |
| Merluccius paradoxus, female | 154.20 | 454 | 32.73 | 5817 |
| Nezumia sp. | 37.44 | 1972 | 7.95 | |
| Hoplostethus cadenati | 26.82 | 2268 | 5.69 | |
| Galeus polli | 15.20 | 208 | 3.23 | |
| Merluccius capensis, female | 8.22 | 6 | 1.74 | 5818 |
| Lophius vomerinus | 7.34 | 6 | 1.56 | 5819 |
| Epigonus denticulatus | 7.02 | 514 | 1.49 | |
| Merluccius paradoxus, male | 5.40 | 10 | 1.15 | 5816 |
| Ebinania costaecanarie | 4.86 | 108 | 1.03 | |
| Todarodes sagittatus | 2.70 | 10 | 0.57 | |
| Beryx splendens | 2.16 | 10 | 0.46 | |
| Coelorinchus coelorhinc. polli | 1.88 | 36 | 0.40 | |
| Selachophidium guentheri | 1.52 | 136 | 0.32 | |
| Malacocephalus laevis | 0.80 | 18 | 0.17 | |
| Bathynectes piperitus | 0.62 | 28 | 0.13 | |
| Laemonema laureysi | 0.62 | 18 | 0.13 | |
| MYCTOPHIDAE | 0.44 | 54 | 0.09 | |
| Notacanthus sexspinis | 0.18 | 10 | 0.04 | |
| PANDALIDAE | 0.18 | 64 | 0.04 | |
| Bathyrāja smithii | 0.08 | 10 | 0.02 | |
| Total | 465.78 | | 98.86 | |

PROJECT STATION:1815
 DATE: 7/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2027
 start stop duration Long E 1212
 TIME :05:08:00 05:38:00 30 (min) Purpose code: 3
 LOG :4657.00 4658.00 1.50 Area code : 3
 FDEPTH: 313 312 GearCond.code:
 BDEPTH: 313 312 Validity code:
 Towing dir: 350° Wire out: 950 m Speed: 30 kn*10

Sorted: 44 Kg Total catch: 219.81 CATCH/HOUR: 439.62

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 145.70 | 350 | 33.14 | 5821 |
| Pterothrissus belloci | 70.00 | 410 | 15.92 | |
| Dentex macrophthalmus | 66.50 | 230 | 15.13 | 5820 |
| Merluccius capensis, male | 59.02 | 170 | 13.43 | 5822 |
| Chlorophthalmus atlanticus | 36.80 | 1494 | 8.37 | |
| Synsagrops microlepis | 15.40 | 1374 | 3.50 | |
| Neoharriotta pinnata | 11.70 | 10 | 2.66 | |
| Trachurus capensis | 7.90 | 40 | 1.80 | 5824 |
| Coelorinchus coelorhinc. polli | 6.90 | 230 | 1.57 | |
| Coelorinchus fasciatus | 4.80 | 90 | 1.09 | |
| Helicolenus dactylopterus | 4.30 | 70 | 0.98 | |
| Todarodes sagittatus | 3.80 | 10 | 0.86 | |
| Hoplostethus cadenati | 3.40 | 300 | 0.77 | |
| Lophius vomerinus | 1.20 | 2 | 0.27 | 5823 |
| Nezumia sp. | 1.20 | 40 | 0.27 | |
| Malacocephalus laevis | 0.40 | 20 | 0.09 | |
| Galeus polli | 0.40 | 10 | 0.09 | |
| Bathynectes piperitus | 0.20 | 20 | 0.05 | |
| Chrysaora sp. | 0.00 | 134 | | |
| Total | 439.62 | | 99.99 | |

PROJECT STATION:1816
 DATE: 7/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2026
 start stop duration Long E 1223
 TIME :07:58:00 08:05:00 7 (min) Purpose code: 3
 LOG :4671.90 4672.30 0.40 Area code : 3
 FDEPTH: 297 295 GearCond.code: 9
 BDEPTH: 297 295 Validity code: 9
 Towing dir: 350° Wire out: 900 m Speed: 30 kn*10

Sorted: 2 Kg Total catch: 2.16 CATCH/HOUR: 18.51

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 10.11 | 17 | 54.62 | 5825 |
| Trachurus capensis | 5.83 | 43 | 31.50 | 5827 |
| Pterothrissus belloci | 1.46 | 17 | 7.89 | |
| Merluccius polli, female | 0.60 | 9 | 3.24 | 5826 |
| Todarodes sagittatus | 0.51 | 9 | 2.76 | |
| Aequorea aequorea | 0.00 | 428571 | | |
| Chrysaora sp. | 0.00 | 11906 | | |
| Total | 18.51 | | 100.01 | |

PROJECT STATION:1817
 DATE: 7/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 2010
 start stop duration Long E 1249
 TIME :13:42:00 13:48:00 6 (min) Purpose code: 3
 LOG :4710.40 4710.60 0.20 Area code : 3
 FDEPTH: 122 120 GearCond.code: 9
 BDEPTH: 122 120 Validity code: 9
 Towing dir: 178° Wire out: 400 m Speed: 20 kn*10

Sorted: Kg Total catch: CATCH/HOUR:

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis | 31.20 | 260 | 3120.00 | 5828 |
| Total | 31.20 | | 3120.00 | |

PROJECT STATION:1818
 DATE: 7/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 1957 Long E 1234
 start stop duration
 TIME :16:31:00 16:37:00 6 (min) Purpose code: 3
 LOG :4730.40 4730.60 0.20 Area code : 3
 FDEPTH: 134 134 GearCond.code: 9
 BDEPTH: 134 134 Validity code: 4
 Towing dir: 350° Wire out: 450 m Speed: 30 kn*10
 Sorted: 21 Kg Total catch: 420.82 CATCH/HOUR: 4208.20

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 3522.20 | 87180 | 83.70 | 5832 |
| Merluccius capensis, female | 423.40 | 3410 | 10.06 | 5830 |
| Merluccius capensis, male | 186.60 | 1800 | 4.43 | 5829 |
| Pterothrissus belloci | 26.00 | 600 | 0.62 | |
| Merluccius capensis | 20.00 | 3000 | 0.48 | 5831 |
| Synagrops microlepis | 18.00 | 3800 | 0.43 | |
| Sufflogobius bibarbatatus | 8.00 | 2000 | 0.19 | |
| PORTUNIDAE | 4.00 | 200 | 0.10 | |
| Chrysaora sp. | 0.00 | 20000 | | |
| Total | 4208.20 | | 100.01 | |

PROJECT STATION:1822
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2009 Long E 1159
 start stop duration
 TIME :11:41:00 12:11:00 30 (min) Purpose code: 3
 LOG :4790.40 4791.80 1.40 Area code : 3
 FDEPTH: 350 364 GearCond.code: 9
 BDEPTH: 360 364 Validity code: 4
 Towing dir: 330° Wire out:1030 m Speed: 28 kn*10
 Sorted: 172 Kg Total catch: 302.01 CATCH/HOUR: 604.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 149.10 | 214 | 24.68 | 5850 |
| Helicolenus dactylopterus | 128.10 | 2204 | 21.21 | |
| Trachurus capensis | 39.70 | 100 | 6.57 | 5855 |
| Merluccius capensis, male | 37.88 | 70 | 6.27 | 5851 |
| Lophius vomerinus | 35.40 | 40 | 5.86 | 5854 |
| Merluccius paradoxus, female | 27.00 | 94 | 4.47 | 5852 |
| Pterothrissus belloci | 24.78 | 140 | 4.10 | |
| Synagrops microlepis | 23.24 | 1832 | 3.85 | |
| Galeus polli | 17.92 | 280 | 2.97 | |
| Coelorrinchus coelorrhinc. polli | 15.82 | 322 | 2.62 | |
| Nezumia sp. | 15.54 | 644 | 2.57 | |
| Todarodes sagittatus | 14.42 | 42 | 2.39 | |
| Bathynectes piperitus | 13.30 | 322 | 2.20 | |
| Squalus megalops | 13.02 | 14 | 2.16 | |
| Epigonus denticulatus | 9.80 | 1218 | 1.62 | |
| Schedophilus huttoni | 8.54 | 14 | 1.41 | |
| Raja leopardus | 7.68 | 2 | 1.27 | |
| Ebinania costaecanarie | 5.04 | 70 | 0.83 | |
| Pandalina sp. | 3.36 | 1022 | 0.56 | |
| Merluccius paradoxus, male | 3.36 | 10 | 0.56 | 5853 |
| Chlorophthalmus punctatus | 2.94 | 224 | 0.49 | |
| Coelorrinchus fasciatus | 2.10 | 28 | 0.35 | |
| Beryx splendens | 1.82 | 14 | 0.30 | |
| Laemonema laureysi | 1.54 | 28 | 0.25 | |
| Hoplostethus cadenati | 1.26 | 70 | 0.21 | |
| Bassanago albescens | 0.70 | 14 | 0.12 | |
| Quentherus altivela | 0.36 | 2 | 0.06 | |
| Malacocephalus laevis | 0.28 | 14 | 0.05 | |
| Total | 604.00 | | 100.00 | |

PROJECT STATION:1819
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2000 Long E 1225
 start stop duration
 TIME :04:59:00 05:07:00 8 (min) Purpose code: 3
 LOG :4756.20 4756.70 0.50 Area code : 3
 FDEPTH: 195 196 GearCond.code: 9
 BDEPTH: 195 196 Validity code: 9
 Towing dir: 340° Wire out: 600 m Speed: 30 kn*10
 Sorted: 1 Kg Total catch: 13.58 CATCH/HOUR: 101.85

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 36.75 | 420 | 36.08 | 5836 |
| Merluccius capensis, female | 34.65 | 210 | 34.02 | 5834 |
| Merluccius capensis, male | 13.65 | 105 | 13.40 | 5833 |
| Pterothrissus belloci | 8.40 | 105 | 8.25 | |
| Synagrops microlepis | 4.20 | 735 | 4.12 | |
| Sufflogobius bibarbatatus | 3.15 | 315 | 3.09 | |
| Merluccius capensis | 1.05 | 105 | 1.03 | 5835 |
| Aequorea aequorea | 0.00 | 67500 | | |
| Chrysaora sp. | 0.00 | 39795 | | |
| Total | 101.85 | | 99.99 | |

PROJECT STATION:1823
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2010 Long E 1152
 start stop duration
 TIME :13:58:00 14:28:00 30 (min) Purpose code: 3
 LOG :4800.30 4801.90 1.60 Area code : 3
 FDEPTH: 468 467 GearCond.code: 9
 BDEPTH: 468 467 Validity code: 4
 Towing dir: 320° Wire out:1400 m Speed: 32 kn*10
 Sorted: 219 Kg Total catch: 631.76 CATCH/HOUR: 1263.52

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 748.80 | 6038 | 59.26 | |
| Merluccius paradoxus, female | 355.80 | 718 | 28.16 | 5856 |
| Nezumia sp. | 61.20 | 2546 | 4.84 | |
| Merluccius paradoxus, male | 20.80 | 40 | 1.65 | 5857 |
| Epigonus denticulatus | 20.52 | 540 | 1.62 | |
| Todarodes sagittatus | 16.92 | 72 | 1.34 | |
| Helicolenus dactylopterus | 8.28 | 1224 | 0.66 | |
| Centroporus sp. | 7.60 | 2 | 0.60 | |
| Hoplostethus cadenati | 6.84 | 572 | 0.54 | |
| Pandalina sp. | 5.76 | 2556 | 0.46 | |
| Chaceon maritae | 4.90 | 16 | 0.39 | |
| Plesionika sp. | 2.16 | 540 | 0.17 | |
| Lophius vomerinus | 2.14 | 2 | 0.17 | 5858 |
| MYCTOPHIDAE | 1.80 | 252 | 0.14 | |
| Total | 1263.52 | | 100.00 | |

PROJECT STATION:1820
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2003 Long E 1219
 start stop duration
 TIME :06:58:00 07:18:00 20 (min) Purpose code: 3
 LOG :4765.40 4766.40 1.00 Area code : 3
 FDEPTH: 240 240 GearCond.code: 9
 BDEPTH: 240 240 Validity code: 4
 Towing dir: 340° Wire out: 720 m Speed: 30 kn*10
 Sorted: 51 Kg Total catch: 183.83 CATCH/HOUR: 551.49

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 235.56 | 1500 | 42.71 | 5837 |
| Trachurus capensis | 159.30 | 1311 | 28.89 | 5839 |
| Merluccius capensis, male | 87.06 | 621 | 15.79 | 5838 |
| Merluccius capensis, female | 33.30 | 57 | 6.04 | 5843 |
| Pterothrissus belloci | 24.42 | 498 | 4.43 | |
| Merluccius capensis, male | 4.83 | 12 | 0.88 | 5842 |
| Todarodes sagittatus | 2.82 | 12 | 0.51 | |
| Lophius vomerinus | 2.16 | 6 | 0.39 | 5840 |
| Dentex macrophthalmus | 1.92 | 12 | 0.35 | 5841 |
| Synagrops microlepis | 0.12 | 24 | 0.02 | |
| Chrysaora sp. | 0.00 | 1998 | | |
| Aequorea aequorea | 0.00 | 108000 | | |
| Total | 551.49 | | 100.01 | |

PROJECT STATION:1824
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 2008 Long E 1146
 start stop duration
 TIME :16:09:00 16:39:00 30 (min) Purpose code: 3
 LOG :4808.60 4810.10 1.50 Area code : 3
 FDEPTH: 577 573 GearCond.code: 9
 BDEPTH: 577 573 Validity code: 4
 Towing dir: 330° Wire out:1600 m Speed: 30 kn*10
 Sorted: 247 Kg Total catch: 650.27 CATCH/HOUR: 1300.54

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 130.50 | 368 | 34.56 | 5845 |
| Dentex macrophthalmus | 74.63 | 398 | 19.77 | 5849 |
| Merluccius capensis, male | 44.13 | 170 | 11.69 | 5844 |
| Chlorophthalmus atlanticus | 39.75 | 2325 | 10.53 | |
| Pterothrissus belloci | 30.30 | 98 | 8.02 | |
| Trachurus capensis | 14.25 | 113 | 3.77 | 5847 |
| Schedophilus huttoni | 12.90 | 15 | 3.42 | |
| Coelorrinchus fasciatus | 8.25 | 90 | 2.18 | |
| Synagrops microlepis | 7.80 | 885 | 2.07 | |
| Lophius vomerinus | 7.75 | 38 | 2.05 | 5848 |
| Trigla lyra | 2.10 | 15 | 0.56 | |
| Todarodes sagittatus | 1.95 | 15 | 0.52 | |
| Austroglossus microlepis | 1.48 | 3 | 0.39 | 5846 |
| Todarodes eblanale | 0.90 | 45 | 0.24 | |
| MYCTOPHIDAE | 0.75 | 165 | 0.20 | |
| Solenocera africana | 0.15 | 15 | 0.04 | |
| Chrysaora sp. | 0.00 | 195 | | |
| Aequorea aequorea | 0.00 | 28000 | | |
| Total | 377.59 | | 100.01 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 399.50 | 564 | 30.72 | 5859 |
| Trachyrincus scabrus | 396.80 | 1550 | 30.51 | |
| Raja confundens | 102.60 | 62 | 7.89 | |
| Nezumia sp. | 89.90 | 2708 | 6.91 | |
| Denia profundorum | 80.90 | 30 | 6.22 | |
| Ebinania costaecanarie | 51.14 | 526 | 3.93 | |
| Denia calcea | 48.98 | 30 | 3.77 | |
| Todarodes sagittatus | 26.96 | 30 | 2.07 | |
| Lophius vomerinus | 20.70 | 4 | 1.59 | 5861 |
| Hoplostethus cadenati | 20.14 | 1510 | 1.55 | |
| Helicolenus dactylopterus | 16.12 | 92 | 1.24 | |
| Merluccius paradoxus, male | 12.60 | 20 | 0.97 | 5860 |
| Yarella blackfordi | 9.30 | 1550 | 0.72 | |
| S H R I M P S | 6.82 | 2728 | 0.52 | |
| Chaceon maritae, male | 4.70 | 6 | 0.36 | |
| Selachophidium quentheri | 4.64 | 122 | 0.36 | |
| Epigonus telescopus | 3.10 | 58 | 0.24 | |
| Lithodes ferox | 2.50 | 6 | 0.19 | |
| Lophius vaillanti | 1.60 | 2 | 0.12 | 5862 |
| POLYCHAELIDAE | 0.92 | 30 | 0.07 | |
| Epigonus denticulatus | 0.62 | 30 | 0.05 | |
| Total | 1300.54 | | 100.00 | |

PROJECT STATION:1825
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 1949
 start stop duration Long E 1137
 TIME :19:52:00 20:22:00 30 (min) Purpose code: 3
 LOG :4830.50 4832.10 1.60 Area code : 3
 FDEPTH: 529 529 GearCond.code:
 BDEPTH: 529 529 Validity code:
 Towing dir: 337° Wire out:1400 m Speed: 29 kn*10
 Sorted: 269 Kg Total catch: 613.18 CATCH/HOUR: 1226.36

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 452.70 | 804 | 36.91 | 5863 |
| Trachyrincus scabrus | 448.50 | 2610 | 36.57 | |
| Nezumia sp. | 110.10 | 2970 | 8.98 | |
| Helicolenus dactylopterus | 79.50 | 690 | 6.48 | |
| Todarodes sagittatus | 30.90 | 120 | 2.52 | |
| Raja confundens | 26.40 | 210 | 2.15 | |
| Lophius vomerinus | 12.50 | 4 | 1.02 | 5865 |
| Merluccius paradoxus, male | 11.70 | 22 | 0.95 | 5864 |
| Epigonus telescopus | 9.60 | 150 | 0.78 | |
| Yarella blackfordi * | 9.60 | 1710 | 0.78 | |
| Hoplostethus cadenati | 9.00 | 690 | 0.73 | |
| Lophius vaillanti | 8.90 | 4 | 0.73 | 5866 |
| Raja leopardus | 8.40 | 60 | 0.68 | |
| Chaceon maritae | 3.76 | 14 | 0.31 | |
| Aristeus varidens | 2.40 | 180 | 0.20 | |
| Galeus polli | 2.10 | 60 | 0.17 | |
| Epigonus denticulatus | 0.30 | 30 | 0.02 | |
| Total | 1226.36 | | 99.98 | |

PROJECT STATION:1828
 DATE: 9/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1942
 start stop duration Long E 1202
 TIME :07:54:00 08:24:00 30 (min) Purpose code: 3
 LOG :4875.60 4877.20 1.40 Area code : 3
 FDEPTH: 308 307 GearCond.code:
 BDEPTH: 308 307 Validity code:
 Towing dir: 350° Wire-out: 930 m Speed: 28 kn*10
 Sorted: 148 Kg Total catch: 271.14 CATCH/HOUR: 542.28

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Dentex macrophthalmus | 206.00 | 970 | 37.99 | 5881 |
| Merluccius capensis, female | 169.00 | 442 | 31.16 | 5878 |
| Chlorophthalmus atlanticus | 70.00 | 7828 | 12.91 | |
| Merluccius capensis, male | 45.10 | 158 | 8.32 | 5879 |
| Trachurus capensis | 19.70 | 138 | 3.63 | 5880 |
| Todarodes sagittatus | 10.20 | 60 | 1.88 | |
| Schedophilus huttoni | 7.10 | 20 | 1.31 | |
| Pterothrissus belloci | 5.30 | 70 | 0.98 | |
| Synagrops microlepis | 3.70 | 470 | 0.68 | |
| Nezumia sp. | 1.80 | 50 | 0.33 | |
| Helicolenus dactylopterus | 1.80 | 50 | 0.33 | |
| Austroglossus microlepis | 0.88 | 2 | 0.16 | 5882 |
| Bathynectes piperitus | 0.70 | 30 | 0.13 | |
| Trigla lyra | 0.40 | 10 | 0.07 | |
| Merluccius capensis | 0.40 | 30 | 0.07 | 5883 |
| MYCTOPHIDAE | 0.20 | 90 | 0.04 | |
| Total | 542.28 | | 99.99 | |

PROJECT STATION:1826
 DATE: 8/10/96 GEAR TYPE: BT No:2 POSITION:Lat S 1947
 start stop duration Long E 1142
 TIME :22:42:00 23:00:00 18 (min) Purpose code: 3
 LOG :4841.50 4842.30 0.80 Area code : 3
 FDEPTH: 417 417 GearCond.code: 9
 BDEPTH: 417 417 Validity code:
 Towing dir: 330° Wire out:1230 m Speed: 32 kn*10
 Sorted: 140 Kg Total catch: 424.31 CATCH/HOUR: 1414.37

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 576.33 | 4680 | 40.75 | |
| Merluccius paradoxus, female | 343.83 | 820 | 24.31 | 5868 |
| Helicolenus dactylopterus | 240.50 | 2340 | 17.00 | |
| Selachophidium guentheri | 75.83 | 1993 | 5.36 | |
| Nezumia sp. | 27.50 | 23 | 1.94 | 5869 |
| Lophius vomerinus | 26.00 | 217 | 1.84 | |
| Galeus polli | 23.83 | 4290 | 1.68 | |
| Merluccius paradoxus, male | 22.97 | 87 | 1.62 | |
| Todarodes sagittatus | 15.60 | 173 | 1.10 | |
| Ebinania costaecanarie | 13.00 | 433 | 0.92 | |
| Epigonus denticulatus | 12.33 | 30 | 0.87 | 5867 |
| Merluccius paradoxus, male | 6.93 | 130 | 0.49 | |
| Coelorrhinus fasciatus | 6.07 | 43 | 0.43 | |
| Laemonema laureysi | 6.07 | 1343 | 0.43 | |
| PANDALIDAE | 3.90 | 43 | 0.28 | |
| OCTOPOTEUTHIDAE | 2.60 | 130 | 0.18 | |
| MYCTOPHIDAE | 2.60 | 43 | 0.18 | |
| Aphanopus sp. | 2.40 | 3 | 0.17 | 5870 |
| Lophius vaillanti | 2.17 | 43 | 0.15 | |
| Nemichthys scolopaceus | 1.73 | 87 | 0.12 | |
| Bathynectes piperitus | 1.30 | 87 | 0.09 | |
| Hoplostethus cadenati | 0.87 | 87 | 0.06 | |
| Tripophlos sp. | | | | |
| Total | 1414.36 | | 99.97 | |

PROJECT STATION:1829
 DATE: 9/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1940
 start stop duration Long E 1210
 TIME :10:03:00 10:33:00 30 (min) Purpose code: 3
 LOG :4887.00 4888.50 1.50 Area code : 3
 FDEPTH: 253 254 GearCond.code:
 BDEPTH: 253 254 Validity code:
 Towing dir: 344° Wire out: 750 m Speed: 30 kn*10
 Sorted: 183 Kg Total catch: 187.37 CATCH/HOUR: 374.74

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 153.50 | 1800 | 40.96 | 5888 |
| Merluccius capensis, female | 137.70 | 834 | 36.75 | 5884 |
| Merluccius capensis, male | 50.00 | 288 | 13.34 | 5885 |
| MYCTOPHIDAE | 7.64 | 3828 | 2.04 | |
| Dentex macrophthalmus | 5.54 | 40 | 1.48 | 5887 |
| Todarodes sagittatus | 5.50 | 30 | 1.47 | |
| Synagrops microlepis | 4.30 | 602 | 1.15 | |
| Pterothrissus belloci | 3.52 | 62 | 0.94 | |
| Lophius vomerinus | 2.70 | 2 | 0.72 | 5889 |
| Squalus megalops | 2.16 | 4 | 0.58 | |
| Schedophilus huttoni | 0.86 | 2 | 0.23 | |
| Chlorophthalmus atlanticus | 0.48 | 224 | 0.13 | |
| Merluccius polli | 0.46 | 22 | 0.12 | 5886 |
| Todaropsis eblanae | 0.22 | 4 | 0.06 | |
| Trigla lyra | 0.08 | 2 | 0.02 | |
| Sufflogobius bibarbus | 0.08 | 36 | 0.02 | |
| Total | 374.74 | | 100.01 | |

PROJECT STATION:1827
 DATE: 9/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1943
 start stop duration Long E 1153
 TIME :05:24:00 05:54:00 30 (min) Purpose code: 3
 LOG :4862.40 4864.00 1.60 Area code : 3
 FDEPTH: 354 353 GearCond.code:
 BDEPTH: 354 353 Validity code:
 Towing dir: 350° Wire out:1050 m Speed: 32 kn*10
 Sorted: 152 Kg Total catch: 248.75 CATCH/HOUR: 497.50

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 159.40 | 246 | 32.04 | 5873 |
| Helicolenus dactylopterus | 101.60 | 2528 | 20.42 | |
| Merluccius capensis, male | 41.80 | 84 | 8.40 | 5874 |
| Pterothrissus belloci | 39.52 | 272 | 7.94 | |
| Neoharriotta pinnata | 33.60 | 8 | 6.75 | |
| Synagrops microlepis | 19.28 | 1336 | 3.88 | |
| Merluccius paradoxus, female | 18.70 | 64 | 3.76 | 5872 |
| Hydrolagus sp. | 17.52 | 8 | 3.52 | |
| Nezumia sp. | 9.76 | 376 | 1.96 | |
| Coelorrhinus coelorrhinus, polli | 7.84 | 288 | 1.58 | |
| Coelorrhinus fasciatus | 7.68 | 104 | 1.54 | |
| Lophius vomerinus | 7.62 | 6 | 1.53 | 5877 |
| Chlorophthalmus atlanticus | 7.20 | 224 | 1.45 | |
| Todarodes sagittatus | 6.80 | 16 | 1.37 | |
| Dentex macrophthalmus | 5.70 | 18 | 1.15 | 5876 |
| Trachurus capensis | 4.74 | 12 | 0.95 | 5875 |
| Merluccius paradoxus, male | 2.50 | 8 | 0.50 | 5871 |
| Galeus polli | 2.48 | 48 | 0.50 | |
| Ebinania costaecanarie | 1.44 | 40 | 0.29 | |
| Bathynectes piperitus | 1.20 | 48 | 0.24 | |
| Epigonus denticulatus | 0.72 | 80 | 0.14 | |
| S H R I M P S | 0.24 | 120 | 0.05 | |
| Hoplostethus cadenati | 0.16 | 32 | 0.03 | |
| Hoplostethus cadenati | 0.16 | 32 | 0.03 | |
| Total | 497.66 | | 100.02 | |

PROJECT STATION:1830
 DATE: 9/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1933
 start stop duration Long E 1225
 TIME :13:45:00 13:48:00 3 (min) Purpose code: 3
 LOG :4907.80 4907.95 0.15 Area code : 3
 FDEPTH: 139 139 GearCond.code: 9
 BDEPTH: 139 139 Validity code: 9
 Towing dir: 350° Wire out: 500 m Speed: 28 kn*10
 Sorted: 14 Kg Total catch: 1113.74 CATCH/HOUR: 22274.80

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 22208.20 | 876380 | 99.70 | 5890 |
| Merluccius capensis, female | 33.00 | 260 | 0.15 | 5891 |
| Merluccius capensis, male | 24.00 | 200 | 0.11 | 5892 |
| Squalus megalops | 8.60 | 20 | 0.04 | |
| Austroglossus microlepis | 0.80 | 20 | | 5893 |
| Merluccius capensis | 0.20 | 20 | | 5894 |
| Total | 22274.80 | | 100.00 | |

PROJECT STATION:1831
 DATE: 9/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1912
 start stop duration Long E 1212
 TIME :16:36:00 17:06:00 30 (min) Purpose code: 3
 LOG :4933.10 4934.60 1.50 Area code : 3
 FDEPTH: 161 159 GearCond.code:
 BDEPTH: 161 159 Validity code:
 Towing dir: 345° Wire out: 550 m Speed: 30 kn*10
 Sorted: 43 Kg Total catch: 613.53 CATCH/HOUR: 1227.06

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 1167.50 | 19750 | 95.15 | 5897 |
| Merluccius capensis, female | 25.28 | 214 | 2.06 | 5895 |
| Todarodes sagittatus | 21.00 | 100 | 1.71 | |
| Merluccius capensis, male | 13.28 | 146 | 1.08 | 5896 |
| Chrysaura sp. | 0.00 | 200 | | |
| Total | 1227.06 | | 100.00 | |

PROJECT STATION:1832
 DATE: 9/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1927
 start stop duration Long E 1123
 TIME :23:15:00 23:45:00 30 (min) Purpose code: 3
 LOG :4987.70 4989.20 1.50 Area code : 3
 FDEPTH: 653 653 GearCond.code:
 BDEPTH: 653 653 Validity code:
 Towing dir: 355° Wire out:1750 m Speed: 30 kn*10
 Sorted: 260 Kg Total catch: 464.24 CATCH/HOUR: 928.48

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 411.00 | 518 | 44.27 | 5899 |
| Trachyrincus scabrus | 263.70 | 810 | 28.40 | |
| Nezumia sp. | 108.90 | 4716 | 11.73 | |
| Deania quadrispinosum | 45.90 | 18 | 4.94 | |
| Bathyraxa smithii | 17.10 | 2 | 1.84 | |
| Lophius vaillanti | 13.80 | 2 | 1.49 | 5901 |
| Hoplostethus cadenati | 12.96 | 540 | 1.40 | |
| Selachophidium guentheri | 10.08 | 180 | 1.09 | |
| Lophius vomerinus | 9.56 | 4 | 1.03 | 5900 |
| Todarodes sagittatus | 8.10 | 36 | 0.87 | |
| Merluccius paradoxus, male | 7.40 | 12 | 0.80 | 5898 |
| Heterocarpus sp. | 7.02 | 404 | 0.76 | |
| Neoharriotta pinnata | 3.60 | 2 | 0.39 | |
| CONOSTOMATIDAE | 2.88 | 252 | 0.31 | |
| MELANOSTOMIATIDAE | 1.62 | 72 | 0.17 | |
| MYCTOPHIDAE | 1.08 | 180 | 0.12 | |
| Bathylagus glacialis | 0.72 | 270 | 0.08 | |
| Tripophlos sp. | 0.72 | 90 | 0.08 | |
| Plesionika sp. | 0.72 | 270 | 0.08 | |
| Notacanthus sexspinis | 0.54 | 18 | 0.06 | |
| STOMIIDAE | 0.54 | 36 | 0.06 | |
| Raja leopardus | 0.36 | 18 | 0.04 | |
| Nephropsis atlantica | 0.18 | 18 | 0.02 | |
| Total | 928.48 | | 100.03 | |

PROJECT STATION:1835
 DATE:10/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1917
 start stop duration Long E 1141
 TIME :07:15:00 07:45:00 30 (min) Purpose code: 3
 LOG :5021.70 5023.30 1.60 Area code : 3
 FDEPTH: 342 340 GearCond.code:
 BDEPTH: 342 340 Validity code:
 Towing dir: 350° Wire out:1030 m Speed: 32 kn*10
 Sorted: 121 Kg Total catch: 190.84 CATCH/HOUR: 381.68

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 154.40 | 250 | 40.45 | 5911 |
| Helicolenus dactylopterus | 113.00 | 5606 | 29.61 | |
| Merluccius capensis, male | 46.40 | 82 | 12.16 | 5912 |
| Pterothrissus bellocci | 16.74 | 134 | 4.39 | |
| Dentex macrophthalmus | 13.60 | 66 | 3.56 | 5914 |
| Raja pullopnctata | 5.10 | 4 | 1.34 | |
| Trachurus capensis | 4.90 | 22 | 1.28 | 5915 |
| Coelorinchus coelorhinc. polli | 4.04 | 114 | 1.06 | |
| Ebinania costaeacanarie | 3.50 | 114 | 0.92 | |
| Neoharriotta pinnata | 3.32 | 2 | 0.87 | |
| Nezumia sp. | 2.44 | 154 | 0.64 | |
| Todarodes sagittatus | 2.00 | 4 | 0.52 | |
| Chlorophthalmus atlanticus | 1.84 | 84 | 0.48 | |
| Bathynectes piperitus | 1.64 | 50 | 0.43 | |
| Galeus polli | 1.50 | 20 | 0.39 | |
| Lophius vomerinus | 1.50 | 2 | 0.39 | 5916 |
| Merluccius paradoxus, female | 1.50 | 6 | 0.39 | 5913 |
| Epigonus denticulatus | 1.20 | 90 | 0.31 | |
| Shrimps, small, non comm. | 1.14 | 516 | 0.30 | |
| Raja confundens | 0.60 | 4 | 0.16 | |
| MYCTOPHIDAE | 0.30 | 110 | 0.08 | |
| Laemonema laureysi | 0.24 | 14 | 0.06 | |
| Synagrops microlepis | 0.24 | 14 | 0.06 | |
| Hoplostethus cadenati | 0.20 | 74 | 0.05 | |
| Todaropsis eblanae | 0.20 | 4 | 0.05 | |
| Bassanago albescens | 0.14 | 4 | 0.04 | |
| Total | 381.68 | | 99.99 | |

PROJECT STATION:1833
 DATE:10/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1924
 start stop duration Long E 1128
 TIME :01:57:00 02:27:00 30 (min) Purpose code: 3
 LOG :4997.80 4999.40 1.60 Area code : 3
 FDEPTH: 552 552 GearCond.code:
 BDEPTH: 552 552 Validity code:
 Towing dir: 355° Wire out:1550 m Speed: 32 kn*10
 Sorted: 147 Kg Total catch: 318.88 CATCH/HOUR: 637.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 223.80 | 364 | 35.09 | 5903 |
| Trachyrincus scabrus | 223.20 | 976 | 35.00 | |
| Nezumia sp. | 52.00 | 1728 | 8.15 | |
| Helicolenus dactylopterus | 46.72 | 320 | 7.33 | |
| Todarodes sagittatus | 21.92 | 80 | 3.44 | |
| Raja confundens | 19.68 | 32 | 3.09 | |
| Merluccius paradoxus, male | 11.00 | 16 | 1.72 | 5902 |
| Lophius vomerinus | 10.00 | 6 | 1.57 | 5904 |
| Epigonus pandionis | 7.36 | 64 | 1.15 | |
| Chaceon maritae | 6.08 | 16 | 0.95 | |
| Galeus polli | 3.84 | 48 | 0.60 | |
| Raja leopardus | 2.56 | 16 | 0.40 | |
| Selachophidium guentheri | 2.24 | 48 | 0.35 | |
| Hoplostethus cadenati | 2.24 | 224 | 0.35 | |
| Bathyraxa smithii | 1.92 | 32 | 0.30 | |
| Epigonus denticulatus | 0.96 | 64 | 0.15 | |
| MYCTOPHIDAE | 0.80 | 304 | 0.13 | |
| Tripophlos sp. | 0.48 | 240 | 0.08 | |
| PANDALIDAE | 0.48 | 320 | 0.08 | |
| CANAA00 | 0.32 | 208 | 0.05 | |
| Plesionika sp. | 0.16 | 128 | 0.03 | |
| Total | 637.76 | | 100.01 | |

PROJECT STATION:1836
 DATE:10/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1919
 start stop duration Long E 1152
 TIME :09:51:00 10:21:00 30 (min) Purpose code: 3
 LOG :5036.30 5037.80 1.50 Area code : 3
 FDEPTH: 307 305 GearCond.code:
 BDEPTH: 307 305 Validity code:
 Towing dir: 350° Wire out: 900 m Speed: 30 kn*10
 Sorted: 283 Kg Total catch: 400.61 CATCH/HOUR: 801.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 424.90 | 902 | 53.03 | 5917 |
| Merluccius capensis, male | 151.30 | 378 | 18.88 | 5918 |
| Dentex macrophthalmus | 92.40 | 506 | 11.53 | 5919 |
| Chlorophthalmus atlanticus | 52.40 | 2226 | 6.54 | |
| Pterothrissus bellocci | 26.88 | 202 | 3.35 | |
| Coelorinchus coelorhinc. polli | 25.20 | 748 | 3.15 | |
| Trachurus capensis | 11.90 | 68 | 1.49 | 5920 |
| Trigla lyra | 4.08 | 16 | 0.51 | |
| Synagrops microlepis | 3.76 | 176 | 0.47 | |
| Helicolenus dactylopterus | 2.96 | 280 | 0.37 | |
| Solenocera africana | 2.56 | 854 | 0.32 | |
| Todarodes sagittatus | 2.24 | 8 | 0.28 | |
| Bathynectes piperitus | 0.32 | 8 | 0.04 | |
| Galeus polli | 0.32 | 8 | 0.04 | |
| Total | 801.22 | | 100.00 | |

PROJECT STATION:1834
 DATE:10/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1921
 start stop duration Long E 1132
 TIME :04:33:00 05:03:00 30 (min) Purpose code: 3
 LOG :5007.80 5009.30 1.50 Area code : 3
 FDEPTH: 451 453 GearCond.code:
 BDEPTH: 451 453 Validity code:
 Towing dir: 350° Wire out:1300 m Speed: 30 kn*10
 Sorted: 102 Kg Total catch: 229.80 CATCH/HOUR: 459.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius paradoxus, female | 107.80 | 270 | 23.46 | 5906 |
| Helicolenus dactylopterus | 102.30 | 756 | 22.26 | |
| Nezumia sp. | 78.64 | 1956 | 17.11 | |
| Trachyrincus scabrus | 72.04 | 996 | 15.67 | |
| Hoplostethus cadenati | 22.00 | 2036 | 4.79 | |
| Lophius vomerinus | 17.50 | 10 | 3.81 | 5910 |
| Merluccius capensis, female | 13.80 | 16 | 3.00 | 5907 |
| Todarodes sagittatus | 7.04 | 20 | 1.53 | |
| Laemonema laureysi | 6.82 | 98 | 1.48 | |
| Merluccius capensis, male | 5.10 | 4 | 1.11 | 5908 |
| Malacocephalus laevis | 3.18 | 76 | 0.69 | |
| Galeus polli | 3.08 | 44 | 0.67 | |
| Selachophidium guentheri | 2.86 | 66 | 0.62 | |
| Shrimps, small, non comm. | 2.86 | 66 | 0.62 | |
| Coelorinchus coelorhinc. polli | 2.86 | 32 | 0.62 | |
| Epigonus denticulatus | 2.52 | 130 | 0.55 | |
| Merluccius paradoxus, male | 2.40 | 6 | 0.52 | 5905 |
| Ebinania costaeacanarie | 2.08 | 32 | 0.45 | |
| Yarrella blackfordi | 1.64 | 262 | 0.36 | |
| Raja confundens | 1.32 | 10 | 0.29 | |
| Trachurus capensis | 0.80 | 2 | 0.17 | 5909 |
| MYCTOPHIDAE | 0.54 | 182 | 0.12 | |
| Scorpaenopsis saurus | 0.32 | 10 | 0.07 | |
| Bathynectes piperitus | 0.10 | 20 | 0.02 | |
| Total | 459.60 | | 99.99 | |

PROJECT STATION:1837
 DATE:10/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1904
 start stop duration Long E 1200
 TIME :13:25:00 13:55:00 30 (min) Purpose code: 3
 LOG :5060.90 5062.30 1.40 Area code : 3
 FDEPTH: 227 232 GearCond.code:
 BDEPTH: 227 232 Validity code:
 Towing dir: 180° Wire out: 700 m Speed: 28 kn*10
 Sorted: 148 Kg Total catch: 726.22 CATCH/HOUR: 1452.44

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 938.50 | 12090 | 64.62 | 5923 |
| Merluccius capensis, female | 369.50 | 1440 | 25.44 | 5921 |
| Merluccius capensis, male | 77.50 | 330 | 5.34 | 5922 |
| Sufflogobius bibarbatatus | 23.70 | 4416 | 1.63 | |
| Todarodes sagittatus | 14.50 | 100 | 1.00 | |
| Synagrops microlepis | 9.70 | 1310 | 0.67 | |
| Pterothrissus bellocci | 5.10 | 120 | 0.35 | |
| TRIAXIDAE | 3.28 | 2 | 0.23 | |
| Dentex macrophthalmus | 2.70 | 20 | 0.19 | 5927 |
| Chlorophthalmus atlanticus | 2.10 | 330 | 0.14 | |
| Squalus megalops | 1.86 | 2 | 0.13 | |
| Trigla lyra | 1.40 | 10 | 0.10 | |
| Austroglossus microlepis | 1.30 | 2 | 0.09 | 5926 |
| Lophius vomerinus, juveniles | 0.70 | 10 | 0.05 | 5925 |
| Merluccius polli | 0.60 | 30 | 0.04 | 5924 |
| Total | 1452.44 | | 100.02 | |

PROJECT STATION:1838
 DATE:10/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1852 Long E 1150
 start stop duration
 TIME :16:40:00 17:10:00 30 (min) Purpose code: 3
 LOG :6081.00 6082.60 1.60 Area code : 3
 FDEPTH: 244 243 GearCond.code:
 BDEPTH: 244 243 Validity code:
 Towing dir: 150° Wire out: 750 m Speed: 30 kn*10
 Sorted: 70 Kg Total catch: 152.75 CATCH/HOUR: 305.50

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlorophthalmus atlanticus | 163.80 | 23568 | 53.62 | |
| Merluccius capensis, female | 53.40 | 148 | 17.48 | 5928 |
| Pterothrissus belloci | 32.68 | 630 | 10.70 | |
| Trachurus capensis | 21.20 | 158 | 6.94 | 5930 |
| Merluccius capensis, male | 8.94 | 34 | 2.93 | 5929 |
| Trigla lyra | 6.36 | 42 | 2.08 | |
| Todarodes sagittatus | 4.06 | 14 | 1.33 | |
| Lophius vomerinus | 3.86 | 4 | 1.26 | 5932 |
| Merluccius polli | 3.46 | 174 | 1.13 | 5933 |
| Dentex macrocephalus | 3.10 | 32 | 1.01 | 5931 |
| Synagrops microlepis | 2.86 | 306 | 0.94 | |
| Austroglossus microlepis | 0.56 | 2 | 0.18 | 5934 |
| MYCTOPHIDAE | 0.34 | 136 | 0.11 | |
| PORTUNIDAE | 0.34 | 14 | 0.11 | |
| Sufflogobius bibarbatu | 0.34 | 40 | 0.11 | |
| Solenocera africana | 0.20 | 34 | 0.07 | |
| Total | 305.50 | | 100.00 | |

PROJECT STATION:1841
 DATE:11/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1726 Long E 1128
 start stop duration
 TIME :07:14:00 07:29:00 15 (min) Purpose code: 3
 LOG :6205.70 6206.60 0.90 Area code : 3
 FDEPTH: 195 194 GearCond.code: 9
 BDEPTH: 195 194 Validity code:
 Towing dir: 180° Wire-out: 600 m Speed: 32 kn*10
 Sorted: 60 Kg Total catch: 787.11 CATCH/HOUR: 3148.44

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Dentex macrocephalus | 1433.60 | 23968 | 45.53 | 5950 |
| Chlorophthalmus atlanticus | 622.72 | 18480 | 19.78 | |
| Synagrops microlepis | 446.88 | 38752 | 14.19 | |
| Trachurus capensis | 118.72 | 2488 | 3.77 | 5951 |
| Merluccius capensis, female | 95.84 | 760 | 3.04 | 5949 |
| Squatina aculeata | 90.20 | 4 | 2.86 | |
| Helicolenus dactylopterus | 79.52 | 1456 | 2.53 | |
| MYCTOPHIDAE | 52.64 | 21728 | 1.67 | |
| Trigla lyra | 50.40 | 448 | 1.60 | |
| Merluccius capensis, male | 44.80 | 448 | 1.42 | 5948 |
| Pterothrissus belloci | 41.44 | 1008 | 1.32 | |
| Todarodes sagittatus | 39.20 | 112 | 1.25 | |
| Merluccius polli | 28.00 | 760 | 0.89 | 5947 |
| Zenopsis conchifer | 4.48 | 112 | 0.14 | |
| Total | 3148.44 | | 99.99 | |

PROJECT STATION:1839
 DATE:11/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1727 Long E 1119
 start stop duration
 TIME :02:47:00 03:02:00 15 (min) Purpose code: 3
 LOG :6180.60 6181.40 0.80 Area code : 3
 FDEPTH: 444 446 GearCond.code: 9
 BDEPTH: 444 446 Validity code:
 Towing dir: 335° Wire out:1300 m Speed: 25 kn*10
 Sorted: 74 Kg Total catch: 459.71 CATCH/HOUR: 1838.84

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Hoplostethus cadenati | 641.20 | 31428 | 34.87 | |
| Helicolenus dactylopterus | 324.80 | 2408 | 17.66 | |
| Trachyrincus scabrus | 260.40 | 1904 | 14.16 | |
| Merluccius polli, female | 206.60 | 244 | 11.24 | 5935 |
| Merluccius paradoxus, female | 122.40 | 268 | 6.66 | 5936 |
| Nezumia sp. | 47.60 | 896 | 2.59 | |
| Lophius vomerinus | 36.20 | 8 | 1.97 | 5939 |
| Lophius vaillanti | 32.00 | 20 | 1.74 | 5940 |
| Epigonus denticulatus | 27.44 | 2180 | 1.49 | |
| Galeus polli | 27.44 | 280 | 1.49 | |
| Beryx splendens | 15.68 | 56 | 0.85 | |
| Aristeus varidens | 12.88 | 2744 | 0.70 | |
| Dentex macrocephalus | 12.40 | 40 | 0.67 | 5938 |
| Plesionika sp. | 11.76 | 5376 | 0.64 | |
| Benthodesmus tenuis | 10.64 | 224 | 0.58 | |
| Chlorophthalmus atlanticus | 9.52 | 784 | 0.52 | |
| Trachurus capensis | 7.84 | 168 | 0.43 | 5941 |
| Merluccius paradoxus, male | 6.52 | 12 | 0.35 | 5937 |
| Gadella imberbis | 6.16 | 560 | 0.33 | |
| Bathynectes piperitus | 5.60 | 280 | 0.30 | |
| Yarellia blackfordi | 5.04 | 840 | 0.27 | |
| Chaceon maritae | 4.20 | 20 | 0.23 | |
| PANDALIDAE | 1.68 | 504 | 0.09 | |
| Synagrops microlepis | 1.12 | 56 | 0.06 | |
| Laemonema laureysi | 0.56 | 56 | 0.03 | |
| Lamprogrammus exutus | 0.56 | 56 | 0.03 | |
| ASTRONESTHIDAE | 0.56 | 56 | 0.03 | |
| Total | 1838.80 | | 99.98 | |

PROJECT STATION:1842
 DATE:11/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1732 Long E 1123
 start stop duration
 TIME :09:23:07 09:53:36 30 (min) Purpose code: 3
 LOG :5214.13 5215.60 1.47 Area code : 3
 FDEPTH: 262 262 GearCond.code: 2
 BDEPTH: 262 262 Validity code:
 Towing dir: 170° Wire out: 800 m Speed: 30 kn*10
 Sorted: 152 Kg Total catch: 1189.00 CATCH/HOUR: 2378.00

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Merluccius capensis, female | 1017.96 | 2394 | 42.81 | 5953 |
| Chlorophthalmus atlanticus | 373.80 | 8316 | 15.72 | |
| Helicolenus dactylopterus | 304.50 | 4704 | 12.80 | |
| Merluccius capensis, male | 206.84 | 568 | 8.70 | 5952 |
| Pterothrissus belloci | 140.70 | 798 | 5.92 | |
| Squalus megalops | 98.70 | 336 | 4.15 | |
| Dentex macrocephalus | 50.92 | 294 | 2.14 | 5958 |
| Trigla lyra | 49.56 | 168 | 2.08 | |
| Parapaneus longirostris | 32.76 | 4620 | 1.38 | |
| Hyperoglyphe moselii | 22.26 | 42 | 0.94 | |
| Coelorrhinchus coelorrhinc. polli | 22.26 | 546 | 0.94 | |
| Merluccius polli, male | 12.06 | 64 | 0.51 | 5954 |
| Synagrops microlepis | 11.76 | 672 | 0.49 | |
| Galeus polli | 11.34 | 126 | 0.48 | |
| Merluccius polli, female | 8.60 | 42 | 0.36 | 5955 |
| Trachurus capensis | 7.24 | 22 | 0.30 | 5959 |
| Lophius vomerinus | 4.20 | 2 | 0.18 | 5957 |
| Lophius vaillanti | 1.28 | 2 | 0.05 | 5956 |
| Malacocephalus occidentalis | 1.26 | 42 | 0.05 | |
| Total | 2378.00 | | 100.00 | |

PROJECT STATION:1840
 DATE:11/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1725 Long E 1132
 start stop duration
 TIME :05:16:00 05:46:00 30 (min) Purpose code: 3
 LOG :6196.20 6197.80 1.60 Area code : 3
 FDEPTH: 145 142 GearCond.code:
 BDEPTH: 145 142 Validity code:
 Towing dir: 170° Wire out: 550 m Speed: 32 kn*10
 Sorted: 35 Kg Total catch: 705.87 CATCH/HOUR: 1411.74

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 674.40 | 17280 | 47.77 | 5946 |
| Dentex macrocephalus | 328.80 | 7104 | 23.29 | 5945 |
| Chlorophthalmus atlanticus | 93.60 | 14160 | 6.63 | |
| Helicolenus dactylopterus | 93.12 | 672 | 6.60 | |
| Synagrops microlepis | 73.92 | 14016 | 5.24 | |
| Pterothrissus belloci | 46.56 | 912 | 3.30 | |
| Merluccius capensis, female | 28.02 | 220 | 1.98 | 5943 |
| Todarodes sagittatus | 27.84 | 96 | 1.97 | |
| Merluccius capensis | 18.32 | 1420 | 1.30 | 5944 |
| Merluccius capensis, male | 14.68 | 154 | 1.04 | 5942 |
| Sepia australis | 5.28 | 192 | 0.37 | |
| Cynoglossus zanzibarensis | 2.88 | 288 | 0.20 | |
| Bathynectes piperitus | 1.92 | 192 | 0.14 | |
| Yarellia blackfordi | 0.96 | 48 | 0.07 | |
| Bassanago albescens | 0.48 | 48 | 0.03 | |
| Squilla aculeata calmani | 0.48 | 48 | 0.03 | |
| Todaropsis eblanae | 0.48 | 288 | 0.03 | |
| Total | 1411.74 | | 99.99 | |

PROJECT STATION:1843
 DATE:11/10/96 GEAR TYPE: BT No:3 POSITION:Lat S 1736 Long E 1126
 start stop duration
 TIME :11:28:32 11:57:54 29 (min) Purpose code: 3
 LOG :5220.61 5221.80 1.19 Area code : 3
 FDEPTH: 208 218 GearCond.code:
 BDEPTH: 208 218 Validity code:
 Towing dir: 175° Wire out: 650 m Speed: 30 kn*10
 Sorted: 46 Kg Total catch: 373.25 CATCH/HOUR: 772.24

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Synagrops microlepis | 304.14 | 42269 | 39.38 | |
| Chlorophthalmus atlanticus | 214.14 | 5803 | 27.73 | |
| Merluccius polli | 77.59 | 2979 | 10.05 | 5965 |
| Trigla lyra | 38.48 | 186 | 4.98 | |
| Merluccius capensis, female | 38.28 | 145 | 4.96 | 5961 |
| Pterothrissus belloci | 27.62 | 434 | 3.58 | |
| Helicolenus dactylopterus | 22.97 | 341 | 2.97 | |
| Dentex macrocephalus | 13.03 | 217 | 1.69 | 5966 |
| Trachurus capensis | 8.07 | 155 | 1.05 | 5962 |
| Argyrosomus hololepidotus | 7.76 | 31 | 1.00 | |
| Umbrina canariensis | 6.21 | 6 | 0.80 | |
| Merluccius capensis, male | 5.90 | 33 | 0.76 | 5960 |
| Parapaneus longirostris | 3.41 | 838 | 0.44 | |
| Merluccius polli, female | 1.24 | 25 | 0.16 | 5964 |
| Todaropsis eblanae | 0.93 | 31 | 0.12 | |
| Merluccius polli, male | 0.93 | 12 | 0.12 | 5963 |
| Coelorrhinchus coelorrhinc. polli | 0.62 | 31 | 0.08 | |
| Bathynectes piperitus | 0.62 | 31 | 0.08 | |
| Zenopsis conchifer | 0.31 | 31 | 0.04 | |
| Total | 772.25 | | 99.99 | |

PROJECT STATION: 1844
 DATE: 11/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1742 Long E 1125
 start stop duration
 TIME :13:36:26 14:06:55 30 (min) Purpose code: 3
 LOG :5228.59 5229.82 1.23 Area code : 3
 FDEPTH: 238 233 GearCond.code: 3
 BDEPTH: 238 233 Validity code:
 Towing dir: 170° Wire out: 750 m Speed: 28 kn*10
 Sorted: 71 Kg Total catch: 455.35 CATCH/HOUR: 910.70

PROJECT STATION: 1847
 DATE: 11/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1759 Long E 1122
 start stop duration
 TIME :20:52:17 21:22:49 31 (min) Purpose code: 3
 LOG :5262.74 5264.37 1.63 Area code : 3
 FDEPTH: 491 506 GearCond.code: 3
 BDEPTH: 491 506 Validity code:
 Towing dir: 165° Wire-out: 1400 m Speed: 30 kn*10
 Sorted: 95 Kg Total catch: 525.56 CATCH/HOUR: 1017.21

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlorophthalmus atlanticus | 309.00 | 8970 | 33.93 | |
| Squalus megalops | 120.30 | 510 | 13.21 | |
| Helicolenus dactylopterus | 114.90 | 2220 | 12.62 | |
| Synagrops microlepis | 114.90 | 8010 | 12.62 | |
| Merluccius capensis, female | 67.30 | 194 | 7.39 | 5970 |
| Parapenaeus longirostris | 52.30 | 9210 | 5.73 | |
| Pterothrissus bellocci | 48.00 | 450 | 5.27 | |
| Merluccius polli | 19.04 | 406 | 2.09 | 5967 |
| Dentex macrocephalus | 17.70 | 210 | 1.94 | 5968 |
| Trigla lyra | 14.40 | 60 | 1.58 | |
| Merluccius capensis, male | 10.30 | 32 | 1.13 | 5969 |
| Coelorrinchus coelorhinc. polli | 7.80 | 240 | 0.86 | |
| Trachurus capensis | 5.70 | 90 | 0.63 | 5973 |
| Raja leoparden | 5.00 | 4 | 0.55 | |
| Merluccius polli, female | 1.82 | 14 | 0.20 | 5972 |
| Raja miraletus | 1.80 | 2 | 0.20 | |
| Merluccius polli, male | 0.54 | 6 | 0.06 | 5971 |
| Total | 910.70 | | 100.01 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 274.06 | 1889 | 26.94 | |
| Hoplostethus cadenati | 212.13 | 11861 | 20.85 | |
| Helicolenus dactylopterus | 148.65 | 929 | 14.61 | |
| Nezumia sp. | 120.77 | 7123 | 11.87 | |
| Merluccius paradoxus, female | 108.19 | 236 | 10.64 | 5985 |
| Squalus megalops | 35.30 | 62 | 3.47 | |
| Trachurus capensis | 33.75 | 434 | 3.32 | 5988 |
| Centrophorus squamosus | 32.83 | 31 | 3.23 | |
| Galeus polli | 10.84 | 124 | 1.07 | |
| Lophius vomerinus | 8.05 | 4 | 0.79 | 5986 |
| Merluccius polli, female | 7.45 | 8 | 0.73 | 5989 |
| Pterothrissus bellocci | 5.57 | 31 | 0.55 | |
| Malacocephalus occidentalis | 4.65 | 62 | 0.46 | |
| Lophius vaillanti | 3.72 | 2 | 0.37 | 5987 |
| Epigonus denticulatus | 3.41 | 341 | 0.34 | |
| SHRNE21 | 3.41 | 1920 | 0.34 | |
| Ebinania costaecanarie | 2.79 | 31 | 0.27 | |
| Chaceon maritae | 1.12 | 4 | 0.11 | |
| Merluccius paradoxus, male | 0.52 | 2 | 0.05 | 5984 |
| Total | 1017.21 | | 100.01 | |

PROJECT STATION: 1845
 DATE: 11/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1748 Long E 1122
 start stop duration
 TIME :16:01:56 16:25:42 24 (min) Purpose code: 3
 LOG :5237.70 5238.88 1.18 Area code : 3
 FDEPTH: 375 377 GearCond.code: 9
 BDEPTH: 375 377 Validity code:
 Towing dir: 180° Wire out: 1200 m Speed: 30 kn*10
 Sorted: 233 Kg Total catch: 811.36 CATCH/HOUR: 2028.40

PROJECT STATION: 1848
 DATE: 11/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1809 Long E 1127
 start stop duration
 TIME :23:40:57 00:10:36 30 (min) Purpose code: 3
 LOG :5274.72 5276.01 1.29 Area code : 3
 FDEPTH: 442 447 GearCond.code: 3
 BDEPTH: 442 447 Validity code:
 Towing dir: 182° Wire out: 1300 m Speed: 30 kn*10
 Sorted: 144 Kg Total catch: 566.43 CATCH/HOUR: 1132.86

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Helicolenus dactylopterus | 1136.25 | 11250 | 56.02 | |
| Merluccius capensis, female | 358.75 | 405 | 17.69 | 5974 |
| Epigonus denticulatus | 156.60 | 6705 | 7.72 | |
| Galeus polli | 68.40 | 765 | 3.37 | |
| Merluccius paradoxus, female | 65.50 | 118 | 3.23 | 5977 |
| Merluccius capensis, male | 54.58 | 65 | 2.69 | 5975 |
| Coelorrinchus coelorhinc. polli | 45.90 | 900 | 2.26 | |
| Guentherus altivela | 22.05 | 45 | 1.09 | |
| Hoplostethus cadenati | 20.70 | 900 | 1.02 | |
| Laemonema laureysi | 19.80 | 225 | 0.98 | |
| Nezumia sp. | 17.55 | 405 | 0.87 | |
| Yarella blackfordi | 15.75 | 630 | 0.78 | |
| Chlorophthalmus atlanticus | 15.75 | 450 | 0.78 | |
| Merluccius polli, female | 13.60 | 18 | 0.67 | 5978 |
| Pterothrissus bellocci | 8.55 | 45 | 0.42 | |
| Lophius vomerinus | 4.25 | 5 | 0.21 | 5979 |
| Malacocephalus laevis | 3.15 | 45 | 0.16 | |
| Merluccius paradoxus, male | 1.28 | 3 | 0.06 | 5976 |
| Total | 2028.41 | | 100.02 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachyrincus scabrus | 406.40 | 4064 | 35.87 | |
| Helicolenus dactylopterus | 235.20 | 1792 | 20.76 | |
| Merluccius paradoxus, female | 106.20 | 282 | 9.37 | 5991 |
| Nezumia sp. | 91.20 | 3936 | 8.05 | |
| Merluccius capensis, female | 75.70 | 84 | 6.68 | 5993 |
| Hoplostethus cadenati | 59.52 | 3040 | 5.25 | |
| Neoharriotta pinnata | 31.36 | 64 | 2.77 | |
| Lophius vomerinus | 21.60 | 14 | 1.91 | 5995 |
| Lophius vaillanti | 18.30 | 6 | 1.62 | 5996 |
| Todarodes sagittatus | 14.08 | 32 | 1.24 | |
| Ebinania costaecanarie | 13.76 | 160 | 1.21 | |
| Chlorophthalmus atlanticus | 12.80 | 352 | 1.13 | |
| Pterothrissus bellocci | 12.16 | 64 | 1.07 | |
| Malacocephalus occidentalis | 11.84 | 128 | 1.05 | |
| Galeus polli | 4.48 | 64 | 0.40 | |
| Merluccius capensis, male | 3.68 | 6 | 0.32 | 5992 |
| Merluccius paradoxus, male | 3.20 | 8 | 0.28 | 5990 |
| SHRNE21 | 2.24 | 736 | 0.20 | |
| Laemonema laureysi | 2.24 | 32 | 0.20 | |
| Merluccius polli, female | 1.94 | 2 | 0.17 | 5994 |
| Bassanago albescens | 1.92 | 64 | 0.17 | |
| Guentherus altivela | 1.76 | 2 | 0.16 | |
| Epigonus denticulatus | 1.28 | 64 | 0.11 | |
| Total | 1132.86 | | 99.99 | |

PROJECT STATION: 1846
 DATE: 11/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1750 Long E 1128
 start stop duration
 TIME :18:24:45 18:39:15 15 (min) Purpose code: 3
 LOG :5250.93 5251.67 0.74 Area code : 3
 FDEPTH: 206 222 GearCond.code: 9
 BDEPTH: 206 222 Validity code:
 Towing dir: 180° Wire out: 600 m Speed: 30 kn*10
 Sorted: 188 Kg Total catch: 1407.29 CATCH/HOUR: 5629.16

PROJECT STATION: 1849
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1812 Long E 1129
 start stop duration
 TIME :01:40:33 02:10:09 30 (min) Purpose code: 3
 LOG :5281.55 5282.88 1.33 Area code : 3
 FDEPTH: 349 346 GearCond.code: 3
 BDEPTH: 349 346 Validity code:
 Towing dir: 175° Wire out: 1050 m Speed: 28 kn*10
 Sorted: 171 Kg Total catch: 604.02 CATCH/HOUR: 1208.04

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlorophthalmus atlanticus | 1528.80 | 44460 | 27.16 | |
| Squalus megalops | 1029.60 | 2808 | 18.29 | |
| Helicolenus dactylopterus | 943.80 | 9360 | 16.77 | |
| Pterothrissus bellocci | 767.52 | 9204 | 13.63 | |
| Dentex macrocephalus | 670.80 | 5772 | 11.92 | 5980 |
| Merluccius capensis, female | 511.40 | 1472 | 9.08 | 5981 |
| Merluccius capensis, male | 112.80 | 372 | 2.00 | 5982 |
| Trigla lyra | 40.56 | 312 | 0.72 | |
| Galeus polli | 15.60 | 156 | 0.28 | |
| PORTUNIDAE | 6.24 | 312 | 0.11 | |
| Cynoglossus zanzibarensis | 1.56 | 156 | 0.03 | |
| Lophius vaillanti | 0.48 | 4 | 0.01 | 5983 |
| Total | 5629.16 | | 100.00 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Helicolenus dactylopterus | 672.00 | 8792 | 55.63 | |
| Merluccius capensis, female | 225.40 | 558 | 18.66 | 5998 |
| Pterothrissus bellocci | 75.04 | 588 | 6.21 | |
| Hoplostethus cadenati | 72.80 | 4508 | 6.03 | |
| Merluccius capensis, male | 43.60 | 124 | 3.61 | 5997 |
| Chlorophthalmus atlanticus | 40.32 | 1148 | 3.34 | |
| Coelorrinchus fasciatus | 19.60 | 616 | 1.62 | |
| Laemonema laureysi | 13.72 | 308 | 1.14 | |
| Dentex macrocephalus | 12.88 | 56 | 1.07 | 6000 |
| Bathynectes piperitus | 7.28 | 112 | 0.60 | |
| Trigla lyra | 7.00 | 28 | 0.58 | |
| Lophius vomerinus | 6.36 | 6 | 0.53 | 5999 |
| Galeus polli | 4.76 | 84 | 0.39 | |
| Todarodes sagittatus | 3.64 | 28 | 0.30 | |
| Synagrops microlepis | 3.36 | 252 | 0.28 | |
| Ebinania costaecanarie | 0.28 | 28 | 0.02 | |
| Total | 1208.04 | | 100.01 | |

PROJECT STATION: 1850
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1815 Long E 1133
 start stop duration
 TIME :04:59:02 05:29:58 31 (min) Purpose code: 3
 LOG :5293.25 5294.90 1.65 Area code : 3
 FDEPTH: 226 212 GearCond. code: 7
 BDEPTH: 226 212 Validity code:
 Towing dir: 155° Wire out: 700 m Speed: 31 kn*10
 Sorted: 109 Kg Total catch: 404.41 CATCH/HOUR: 782.73

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Synagrops microlepis | 237.93 | 21677 | 30.40 | |
| Helicolenus dactylopterus | 214.20 | 6821 | 27.37 | |
| Chlorophthalmus atlanticus | 121.16 | 412 | 15.48 | |
| Callorhynchus capensis | 54.58 | 62 | 6.97 | |
| Merluccius capensis, female | 37.45 | 172 | 4.78 | 6001 |
| Trigla lyra | 33.83 | 147 | 4.32 | |
| Trachurus capensis | 29.13 | 232 | 3.72 | 6004 |
| Merluccius capensis, male | 10.55 | 58 | 1.35 | 6002 |
| Pterothrissus belloci | 7.53 | 184 | 0.96 | |
| MYCTOPHIDAE | 7.16 | 2626 | 0.91 | |
| Merluccius polli | 6.19 | 157 | 0.79 | 6003 |
| PORTUNIDAE | 5.15 | 294 | 0.66 | |
| Coelorinchus coelorhinc. polli | 4.59 | 110 | 0.59 | |
| Todarodes sagittatus | 3.68 | 17 | 0.47 | |
| Dentex macrophthalmus | 2.40 | 25 | 0.31 | 6005 |
| Mustelus palumbes | 2.26 | 2 | 0.29 | |
| Squalus megalops | 1.95 | 2 | 0.25 | |
| Bathynectes piperitus | 1.65 | 17 | 0.21 | |
| S H R I M P S | 0.74 | 110 | 0.09 | |
| Nephropsis atlantica | 0.37 | 37 | 0.05 | |
| Austroglossus microlepis | 0.25 | 6 | 0.03 | 6006 |
| Aequorea aequorea | 0.00 | 1742 | | |
| Total | 782.75 | | 100.00 | |

PROJECT STATION: 1851
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1826 Long E 1134
 start stop duration
 TIME :07:35:06 07:55:05 20 (min) Purpose code: 3
 LOG :5304.47 5305.53 1.06 Area code : 3
 FDEPTH: 208 209 GearCond. code: 9
 BDEPTH: 208 209 Validity code:
 Towing dir: 178° Wire out: 600 m Speed: 30 kn*10
 Sorted: 49 Kg Total catch: 281.78 CATCH/HOUR: 845.34

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 339.15 | 3696 | 40.12 | 6009 |
| MYCTOPHIDAE | 216.75 | 154821 | 25.64 | |
| Helicolenus dactylopterus | 77.01 | 2295 | 9.11 | |
| Callorhynchus capensis | 47.16 | 51 | 5.58 | |
| Merluccius capensis, female | 37.20 | 165 | 4.40 | 6007 |
| Chlorophthalmus atlanticus | 36.45 | 1959 | 4.31 | |
| Todarodes sagittatus | 27.78 | 102 | 3.29 | |
| Merluccius capensis, male | 13.20 | 72 | 1.56 | 6008 |
| Squalus megalops | 12.48 | 24 | 1.48 | |
| Trigla lyra | 11.46 | 75 | 1.36 | |
| Synagrops microlepis | 8.16 | 840 | 0.97 | |
| PORTUNIDAE | 6.87 | 534 | 0.81 | |
| Pterothrissus belloci | 6.12 | 153 | 0.72 | |
| Austroglossus microlepis | 3.30 | 153 | 0.39 | 6010 |
| Raja miraletus | 1.53 | 3 | 0.18 | |
| Merluccius polli | 0.72 | 24 | 0.09 | 6011 |
| Total | 845.34 | | 100.01 | |

PROJECT STATION: 1852
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1832 Long E 1131
 start stop duration
 TIME :09:36:26 10:07:21 31 (min) Purpose code: 3
 LOG :5313.31 5314.91 1.60 Area code : 3
 FDEPTH: 249 247 GearCond. code:
 BDEPTH: 249 247 Validity code:
 Towing dir: 170° Wire out: 750 m Speed: 30 kn*10
 Sorted: 125 Kg Total catch: 151.35 CATCH/HOUR: 292.94

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 83.52 | 650 | 28.51 | 6015 |
| Merluccius capensis, female | 73.26 | 267 | 25.01 | 6013 |
| Chlorophthalmus atlanticus | 38.32 | 1773 | 13.08 | |
| Helicolenus dactylopterus | 29.81 | 1653 | 10.18 | |
| Merluccius capensis, male | 14.81 | 62 | 5.06 | 6012 |
| Synagrops microlepis | 13.86 | 1196 | 4.73 | |
| Mustelus mustelus | 10.45 | 2 | 3.57 | |
| Merluccius polli | 6.39 | 257 | 2.18 | 6014 |
| MYCTOPHIDAE | 4.99 | 1792 | 1.70 | |
| Pterothrissus belloci | 4.22 | 46 | 1.44 | |
| Trigla lyra | 3.64 | 27 | 1.24 | |
| Squalus megalops | 3.06 | 12 | 1.04 | |
| Raja straeleni | 1.84 | 2 | 0.63 | |
| Hoplostethus cadenati | 1.82 | 1548 | 0.62 | |
| Todarodes sagittatus | 1.41 | 2 | 0.48 | |
| Bathynectes piperitus | 0.74 | 50 | 0.25 | |
| Dentex macrophthalmus | 0.46 | 4 | 0.16 | |
| SHRPE21 | 0.35 | 62 | 0.12 | |
| Total | 292.95 | | 100.00 | |

PROJECT STATION: 1838
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1838 Long E 1127
 start stop duration
 TIME :11:49:31 12:19:28 30 (min) Purpose code: 3
 LOG :5321.77 5323.09 1.32 Area code : 3
 FDEPTH: 294 292 GearCond. code:
 BDEPTH: 294 292 Validity code:
 Towing dir: 170° Wire out: 900 m Speed: 30 kn*10
 Sorted: 117 Kg Total catch: 243.03 CATCH/HOUR: 486.06

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Helicolenus dactylopterus | 148.40 | 3804 | 30.53 | |
| Merluccius capensis, female | 132.10 | 346 | 27.18 | 6016 |
| Chlorophthalmus atlanticus | 96.60 | 2956 | 19.87 | |
| Pterothrissus belloci | 20.72 | 210 | 4.26 | |
| Dentex macrophthalmus | 20.40 | 136 | 4.20 | 6021 |
| Merluccius capensis, male | 17.60 | 56 | 3.62 | 6017 |
| Trachurus capensis | 17.50 | 104 | 3.60 | 6020 |
| Coelorinchus coelorhinc. polli | 9.24 | 294 | 1.90 | |
| Trigla lyra | 6.16 | 28 | 1.27 | |
| Synagrops microlepis | 6.02 | 434 | 1.24 | |
| Squalus megalops | 4.20 | 14 | 0.86 | |
| Merluccius polli | 3.06 | 88 | 0.63 | 6018 |
| Hoplostethus cadenati | 2.24 | 112 | 0.46 | |
| Lophius vomerinus | 1.70 | 2 | 0.35 | 6019 |
| Bathynectes piperitus | 0.84 | 14 | 0.17 | |
| Beryx splendens | 0.30 | 2 | 0.06 | |
| S H R I M P S | 0.28 | 56 | 0.06 | |
| Total | 487.36 | | 100.26 | |

PROJECT STATION: 1854
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1836 Long E 1134
 start stop duration
 TIME :14:04:46 14:31:35 27 (min) Purpose code: 3
 LOG :5332.77 5334.30 1.53 Area code : 3
 FDEPTH: 230 230 GearCond. code:
 BDEPTH: 230 230 Validity code:
 Towing dir: 340° Wire out: 700 m Speed: 30 kn*10
 Sorted: 99 Kg Total catch: 250.46 CATCH/HOUR: 556.58

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlorophthalmus atlanticus | 190.67 | 15889 | 34.26 | |
| Helicolenus dactylopterus | 157.87 | 7211 | 28.36 | |
| Trachurus capensis | 102.02 | 827 | 18.33 | 6025 |
| Merluccius capensis, female | 31.11 | 109 | 5.59 | 6022 |
| Pterothrissus belloci | 24.80 | 347 | 4.46 | |
| Synagrops microlepis | 15.07 | 1347 | 2.71 | |
| Merluccius capensis, male | 11.00 | 47 | 1.98 | 6023 |
| Trigla lyra | 8.13 | 53 | 1.46 | |
| Mustelus mustelus | 5.44 | 2 | 0.98 | |
| Bathynectes piperitus | 3.33 | 240 | 0.60 | |
| Merluccius polli | 3.24 | 98 | 0.58 | 6024 |
| Todarodes sagittatus | 2.00 | 13 | 0.36 | |
| Coelorinchus coelorhinc. polli | 1.07 | 27 | 0.19 | |
| Lophius vomerinus | 0.42 | 2 | 0.08 | 6027 |
| Dentex macrophthalmus | 0.40 | 4 | 0.07 | 6026 |
| Austroglossus microlepis | 0.13 | 13 | 0.02 | |
| Total | 556.70 | | 100.03 | |

PROJECT STATION: 1855
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1836 Long E 1140
 start stop duration
 TIME :16:14:07 16:44:06 30 (min) Purpose code: 3
 LOG :5343.97 5345.50 1.53 Area code : 3
 FDEPTH: 215 223 GearCond. code:
 BDEPTH: 215 223 Validity code:
 Towing dir: 180° Wire out: 650 m Speed: 32 kn*10
 Sorted: 68 Kg Total catch: 204.73 CATCH/HOUR: 409.46

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus capensis | 244.80 | 3760 | 59.79 | 6030 |
| Dentex macrophthalmus | 44.20 | 244 | 10.79 | 6031 |
| Trigla lyra | 24.96 | 144 | 6.10 | |
| Synagrops microlepis | 23.04 | 2672 | 5.63 | |
| Chlorophthalmus atlanticus | 22.08 | 2816 | 5.39 | |
| Merluccius capensis, female | 19.10 | 82 | 4.66 | 6029 |
| Pterothrissus belloci | 12.96 | 208 | 3.17 | |
| Merluccius capensis, male | 6.60 | 32 | 1.61 | 6028 |
| Austroglossus microlepis | 4.64 | 16 | 1.13 | 6033 |
| Merluccius polli | 2.88 | 176 | 0.70 | 6034 |
| PORTUNIDAE | 2.08 | 144 | 0.51 | |
| Lophius vomerinus | 1.00 | 2 | 0.24 | 6032 |
| Plesionika sp. | 0.80 | 160 | 0.20 | |
| MYCTOPHIDAE | 0.32 | 208 | 0.08 | |
| Total | 409.46 | | 100.00 | |

PROJECT STATION: 1856
 DATE: 12/10/96 GEAR TYPE: BT No:3 POSITION: Lat S 1850 Long E 1136
 start stop duration
 TIME :18:51:52 19:21:14 29 (min) Purpose code: 3
 LOG :5359.37 5360.96 1.59 Area code : 3
 FDEPTH: 267 269 GearCond. code:
 BDEPTH: 267 269 Validity code:
 Towing dir: 180° Wire out: 810 m Speed: 32 kn*10
 Sorted: 105 Kg Total catch: 244.19 CATCH/HOUR: 505.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlorophthalmus atlanticus | 137.17 | 8168 | 27.15 | |
| Dentex macrophthalmus | 116.07 | 943 | 22.97 | 6038 |
| Merluccius capensis, female | 89.59 | 221 | 17.73 | 6036 |
| Trachurus capensis | 46.45 | 341 | 9.19 | 6039 |
| Helicolenus dactylopterus | 34.51 | 745 | 6.83 | |
| Merluccius capensis, male | 24.83 | 79 | 4.91 | 6037 |
| Synagrops microlepis | 20.23 | 1577 | 4.00 | |
| Todarodes sagittatus | 9.81 | 50 | 1.94 | |
| Pterothrissus belloci | 8.81 | 112 | 1.74 | |
| Coelorinchus coelorhinc. polli | 4.97 | 137 | 0.98 | |
| MYCTOPHIDAE | 4.10 | 1465 | 0.81 | |
| Merluccius polli | 3.85 | 124 | 0.76 | 6035 |
| Trigla lyra | 2.48 | 12 | 0.49 | |
| Plesionika sp. | 1.37 | 497 | 0.27 | |
| PORTUNIDAE | 0.74 | 50 | 0.15 | |
| Austroglossus microlepis | 0.25 | 12 | 0.05 | 6040 |
| Total | 505.23 | | 99.97 | |

Annex IV Instruments and fishing gear used

Acoustic instruments

The SIMRAD EK500/38 KHZ scientific sounder was used during the survey for estimation of fish density. The EK500 has a built- in digital echo integrator, but the Bergen Echo Integrator system (BEI) was used throughout the survey. The details of the instrument settings are as follows:

Transceiver settings:

| | |
|--------------------|----------------|
| Bandwidth | Wide (3.8 KHz) |
| Pulse length | Medium (1 ms) |
| Max Power | 2000 Watt |
| Sv Transducer gain | 27.8 dB |
| Ts Transducer gain | 28.1 dB |

Printer settings:

| | |
|---------------|----------------------|
| Range | 0 - 100 or 0 - 250 m |
| TVG | 20 log R |
| TS Colour min | - 50 dB |
| Sv Colour min | - 64 dB |

An ES38B with a 6.8° -3dB beamwidth transducer was used for integration.

A calibration experiment using a standard copper sphere, performed in Baia dos Tigres 23/2 1994 gave the following results: Sv Transducer gain 27.8 dB, Ts Transducer gain 28.1 dB.

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

Conductivity, temperature, density and oxygen were sampled regularly at CTD stations with a Seabird CTD-sonde. The salinity was calculated by a computer.

Fishing gear

The vessel has two different sized 'Åkrahamn' pelagic trawls and one Gisund super bottom trawl. Only the bottom trawl was used during the survey.

The bottom trawl has a headline of 31m, footrope 47m and 20mm meshsize in the codend with an innernet of 10mm meshsize. The estimated headline height is 5m and distance between the wings during towing about 18m. The trawl is equipped with a 12" rubber bobbins gear and 7.8m², 1670kg 'Tyborøn' trawl doors. The sweeps are 40m long.

The following drawings show the size of these trawls.

