

**SURVEYS OF THE FISH RESOURCES OF
THE WESTERN GULF OF GUINEA
(Benin, Togo, Ghana & Côte d'Ivoire)**

**Survey of the pelagic and demersal resources
19 May - 7 June 2006**

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Cotonou
Benin**

**Direction de l'Élevage et de la Pêche
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The programme has previously focused on the mid to western Gulf of Guinea, but from 2004 surveys have covered the area, Part I from Côte d'Ivoire to Benin, and Part II from Nigeria to Gabon. The following surveys have been conducted in the Gulf of Guinea:

| Area | Period |
|---|-------------------------|
| Cape Verga (Rep. of Guinea) to Cape St. Paul (Ghana) | 02 - 25 June 1981 |
| Togo to Cameroon | 07 - 20 August 1981 |
| Côte d'Ivoire and Ghana | 12 - 20 October 1989 |
| Benin, Togo, Ghana and Côte d'Ivoire | 19 April - 06 May 1999 |
| Benin, Togo, Ghana and Côte d'Ivoire | 29 Aug. - 17 Sept. 2000 |
| Benin, Togo, Ghana and Côte d'Ivoire | 6 July - 09 August 2002 |
| Benin, Togo, Ghana and Côte d'Ivoire (Gulf of Guinea Part I) | 14 May - 08 June 2004 |
| Nigeria, Cameroon, São Tomé & Príncipe (Gulf of Guinea Part II) | 11 June - 13 July 2004 |
| Benin, Togo, Ghana and Côte d'Ivoire (Gulf of Guinea Part I) | 03 May - 29 May 2005 |
| Nigeria, Cameroon, São Tomé & Príncipe, Gabon and Congo (GoG Part II) | 04 June - 15 July 2005 |
| Guinea Bissau, Guinea, Sierra Leone and Liberia (Gulf of Guinea Part I) | 29 April - 16 May 2006 |

CRUISE REPORTS "DR.FRIDTJOF NANSEN"

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by

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SUMMARY

A combined acoustic and bottom trawl survey was performed 19 May – 7 June in the Western Gulf of Guinea (Benin, Togo, Ghana and Côte d'Ivoire). This was the sixth survey in the time series starting in 1999. The main objectives were to map the distribution and estimate the abundance of the main pelagic and demersal resources by acoustic registration and a swept area bottom trawl programme. In addition hydrographical data, zooplankton and benthos were sampled.

In most of the area the temperature ranged between 28-29° C, and the thermocline was found between 25 and 50 m depth. The surface salinity ranged between 33.8 psu and 35.0 psu, and the salinity was in general lowest in coastal areas around river estuaries. Dissolved oxygen values ranged between 2 ml/l at the bottom and 4 ml/l at the surface in all areas. There was no sign of low bottom oxygen content on the shelf. A relatively flat structure was observed in most sections with no clear signs of vertical water displacement and upwelling.

In Benin the acoustic biomass of sardinellas was estimated to about 500 tonnes (60 % *Sardinella aurita*), anchovy to 500 tonnes and PEL 2 (carangids, scombrids, barracudas and hairtail) to about 4 000 tonnes. The corresponding biomass estimates in Togo were 900 tonnes sardinellas (100 % *S. aurita*), 100 tonnes anchovy and 700 tonnes PEL 2. In Ghana, with the largest shelf area, sardinellas was estimated to about 56 000 tonnes (90 % *S. aurita*), anchovy to 1 200 tonnes and PEL 2 to 37 000 tonnes. The highest biomass estimate of sardinellas was obtained in Côte d'Ivoire with 62 000 tonnes (70 % *S. aurita*), while anchovy was very scarce and no estimate was made and the PEL 2 group was estimated to 19 000 tonnes. In general most of the *S. maderensis* was juvenile (8-11 cm), while some of the *S. aurita* was larger (16-27 cm).

The total biomass estimate for the sardinellas-anchovy group in 2006 was higher than in 2005 and above the 1981-2005 average (including results from surveys in 1981 and 1989). The estimate for Benin was the lowest in the time series, in Togo the second lowest in the time series, in Ghana just above the 1981-2005 average, while the estimate for Côte d'Ivoire was the third highest in the time series and above the 1981-2005 average. The total biomass estimate of PEL 2 was the second lowest in the 1989-2005 time series. The estimate for Benin was the second highest in the time series, in Togo, Ghana and Côte d'Ivoire the estimates were all below the average in the time series 1999-2005.

The swept-area biomass of valuable demersal species/groups, including seabreams (*Sparidae* except *Boops boops*), snappers (*Lutjanidae*), groupers (*Serranidae*), grunts (*Haemulidae* except *Brachydeuterus auritus*) and croakers (*Sciaenidae*) was estimated to about 3 000 tonnes in Benin. Seabreams had the highest average catch rate (117 kg/h), while croakers,

snappers, groupers and grunts (except bigeye grunt) all had low catch rates (< 10 kg/h). Cephalopods had an average catch rate of 10.8 kg/h, while of the pelagic groups carangids and barracudas both had average catch rates of about 35 kg/h in the bottom trawl. In Togo the total biomass estimate of valuable demersal species was about 400 tonnes, and as in Benin Seabreams had the highest average catch rate (39 kg/h) and the four other groups had very low catch rates (< 2 kg/h). Cephalopods had an average catch rate of 24 kg/h, while of the pelagic groups carangids and barracudas had average catch rates of 43 and 13 kg/h, respectively. Ghana had the highest estimated biomass of valuable demersal species/groups with 18 000 tonnes, of which seabreams made up over 80 %, with an average catch rate of 64 kg/h. The four other groups had all low catch rates (< 6 kg/h). Cephalopods had an average catch rate of 14 kg/h, carangids 56 kg/h and barracudas 14 kg/h. The total swept-area biomass estimate of valuable demersal groups in Côte d'Ivoire was about 7 000 tonnes, and also here seabreams dominated with an average catch rate of almost 50 kg/h. Croakers had an average catch rate of 11.5 kg/h, and the three other groups much lower (< 4 kg/h). Cephalopods had an average catch rate of about 11 kg/h, carangids 58 kg/h and barracudas 18 kg/h.

For the whole region the seabreams estimate for the five last years are quite similar, and are all more than 60 % above the 1999 result. Most of the other valuable demersal groups had the highest estimated biomasses in 2000 and lowest in 1999. Cephalopods had highest biomass estimate in 2000 and only about the half of that in the three following surveys, while the 2006 estimate was somewhat higher. Among the pelagic groups, the estimated biomasses of carangids were lowest in 1999, 2004 and 2006, highest in 2000 and 2002, and intermediate in 2005. The estimated biomass of barracudas was highest in 2005, more than the double of what was estimated in most other years.

However, it should be noted that the 2000 and 2002 surveys were in the upwelling season, and this may have influenced the results of both the acoustic and swept-area biomass estimates compared to the results of the other years.

CHAPTER 1 INTRODUCTION

Following a request from the Government of Ghana, later supported by the Governments of Benin, Togo and Côte d'Ivoire, Institute of Marine Research (IMR) and Food and Agriculture Organisation of the United Nations (FAO) agreed to conduct a survey of fisheries resources in the western Gulf of Guinea in 1999, covering the waters of the above four countries. This was followed up by similar surveys in 2000, 2002, 2004 and 2005. The present survey with R/V "Dr. Fridtjof Nansen" was initiated by the GCLME (Guinea Current Large Marine Ecosystem) and forms part of the cooperation between GCLME, FAO and IMR. The first part of the survey covered Guinea Bissau, Guinea, Sierra Leone and Liberia, and will continue along the continental shelf to include also the remaining GCLME countries.

The survey was organised by FAO in cooperation with IMR and GCLME under the project GCP/INT/730/NOR: International cooperation with the Nansen Programme: Fisheries Management and Marine Environment and the agreement between GCLME and IMR. This project is the continuation of a series of projects and agreements between IMR, NORAD (Norwegian Agency for Development Cooperation) and FAO involving surveys with the research vessel "Dr. Fridtjof Nansen". The objectives of the survey was discussed and agreed upon during a pre-survey meeting held onboard "Dr. Fridtjof Nansen" in Tema, Ghana on 19th May 2006 where representatives from Côte d'Ivoire, Ghana, Togo, Benin, GCLME and IMR participated.

1.1 Objectives

The main objectives of the survey were:

- to map the distribution and estimate the acoustic abundance of the main pelagic species/groups
- to describe the distribution, composition and estimate the abundance of the main demersal species on the shelf by a swept-area trawl programme
- to collect stomach samples of commercial important fish species to increase knowledge on food and feeding habits
- to collect bottom sediment samples to map the benthic biodiversity in the region
- to collect zooplankton samples for distribution and abundance estimation
- to map the general hydrographic regime by using a CTD-sonde for temperature, salinity and oxygen at bottom trawl stations and in five hydrographical transects
- to do an in-survey training on the main fisheries research and sampling routines

1.2 Progress

Survey period

The vessel left Tema (Ghana) on the 19th May 2006 at 1250 hrs GMT and steamed eastwards to the eastern part of Benin where the survey started on the 20th May. The survey of the shelf off Benin was from 20th - 22nd May, Togo from 22nd - 23rd May, whilst the area off Ghana was covered from the 24th - 31st May. The shelf off Côte d'Ivoire was covered from the 31st May - 5th June. The survey was completed in the western part of Côte d'Ivoire on the 5th June at 1830 hrs and the vessel arrived in Tema on the 7th June at 1000 hrs.

Fisheries survey

The shelf was surveyed during daytime (0600 to 1800) by parallel course tracks about 25 NM (nautical miles) apart (Figures 1.1a-b). In Benin and Togo the inter-transect distance was 10-12 NM, allowing for 5 transects in Benin and 3 in Togo. Semi-random swept-area hauls were carried out on the shelf within the depth zones 0-30 m, 31-50 m and 51-100 m during daytime to determine the abundance of fisheries resources, most especially demersal species. For the estimation of pelagic resources, continuous acoustic registrations were done throughout the survey. To obtain a denser acoustic coverage, night time registrations were made in between the daytime course tracks. Pelagic trawling was mainly carried out during dark hours, either as random blind trawl hauls close to the surface with pelagic trawl or bottom trawl gear equipped with large floats, or on registrations.

Hydrography

CTD-stations were taken at most of the bottom trawl stations (Figures 1.2a-b). In addition, five hydrographical profiles were made with CTD from the surface down to the bottom or 500 m depth. One hydrographic transect was made in Benin (off Cotonou), two in Ghana (off Accra and Cape Three Points) and two in Côte d'Ivoire (off Grand Jacques on the central part and Grand Bérébi in the west).

Plankton

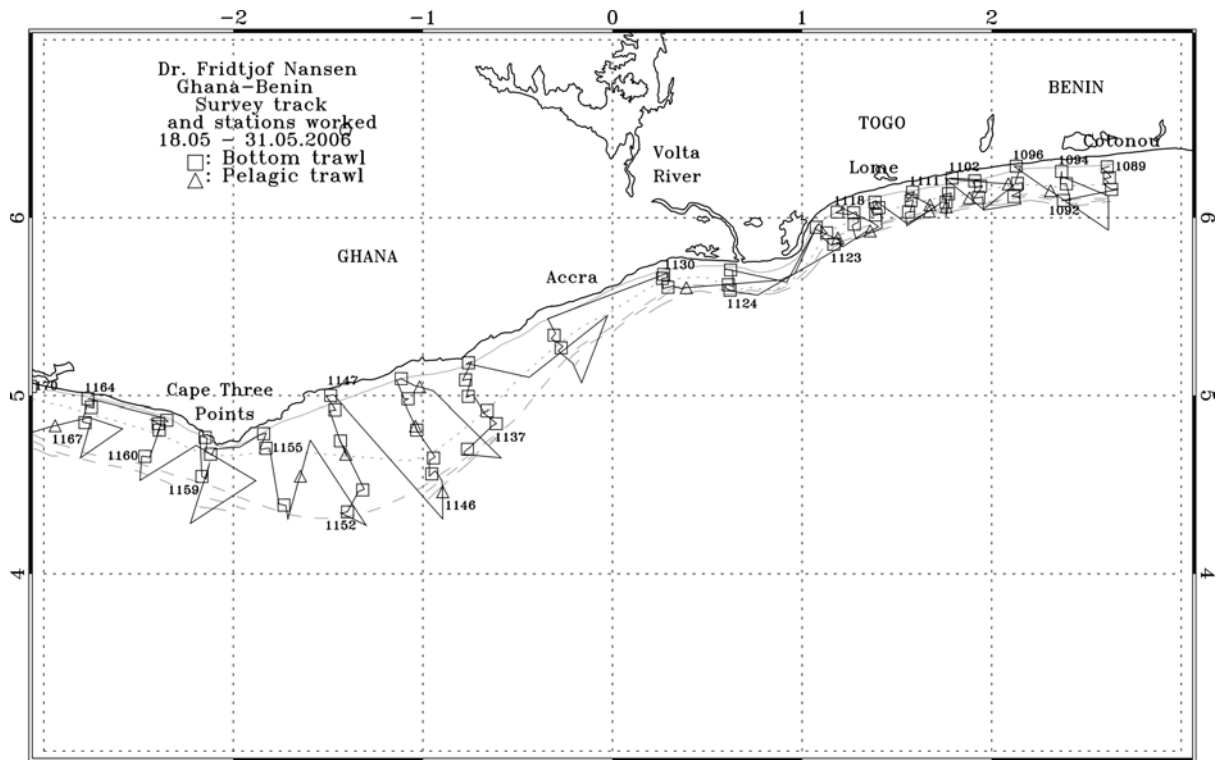
Zooplankton samples were taken at about 40-60 m depth at nine locations, one in Benin (off Cotonou) and Togo (off Kpeme) each, four in Ghana (off Keta/Ada, Accra, Saltpond and Cape Three Points) and three in Côte d'Ivoire (off Assini, Grand Lahou and Tabou) (Figures 1.3a-b).

Benthos

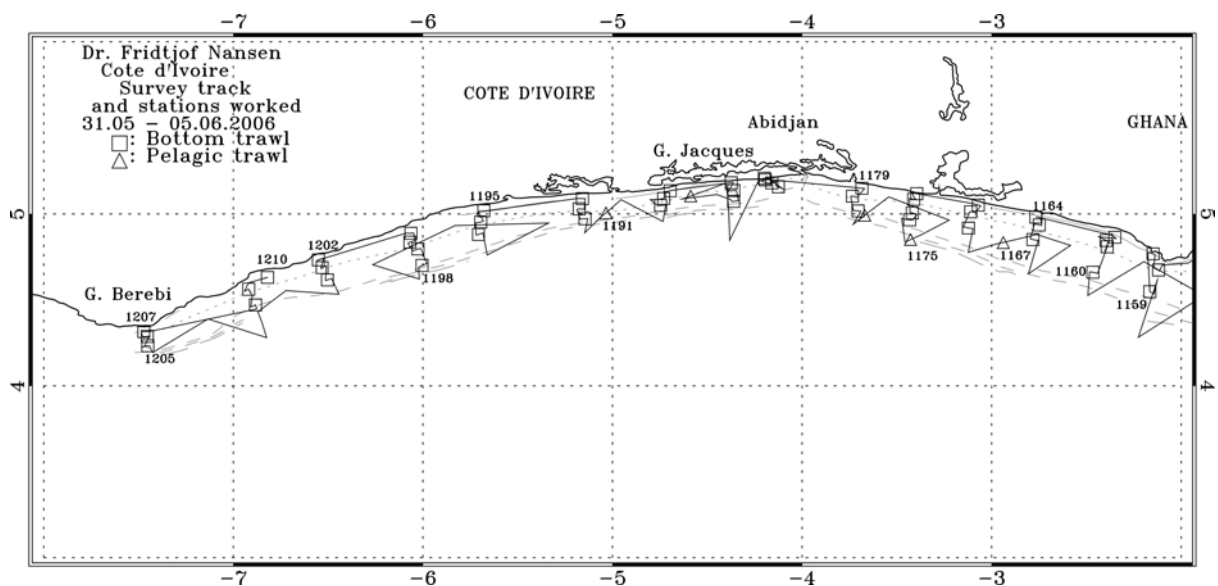
Benthos samples were taken at the same locations as the zooplankton samples (Figures 1.3a-b).

1.3 Survey effort

Figures 1.1a-b show cruise tracks and trawl stations, Figures 1.2a-b show hydrographic stations, while plankton and benthos stations are presented in Figures 1.3a-b. Table 1.1 summarises the survey effort in each sector.

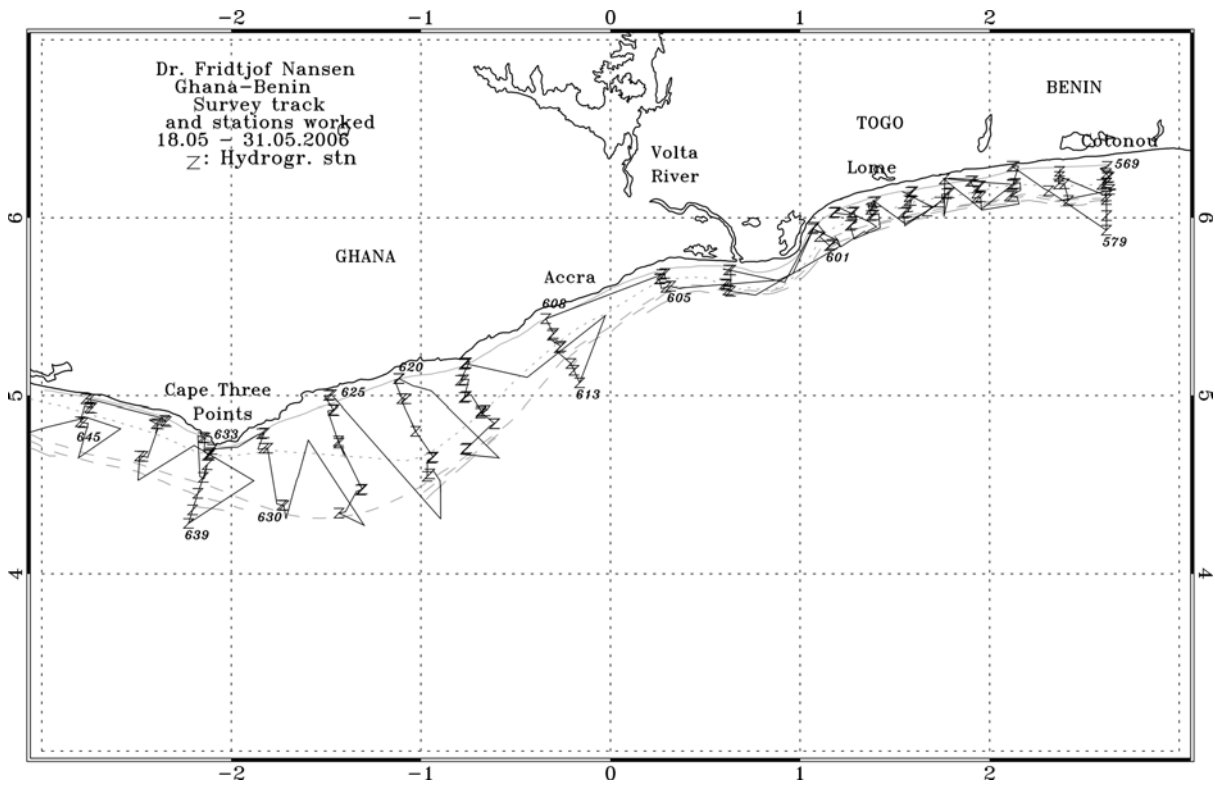


a) Benin - Ghana

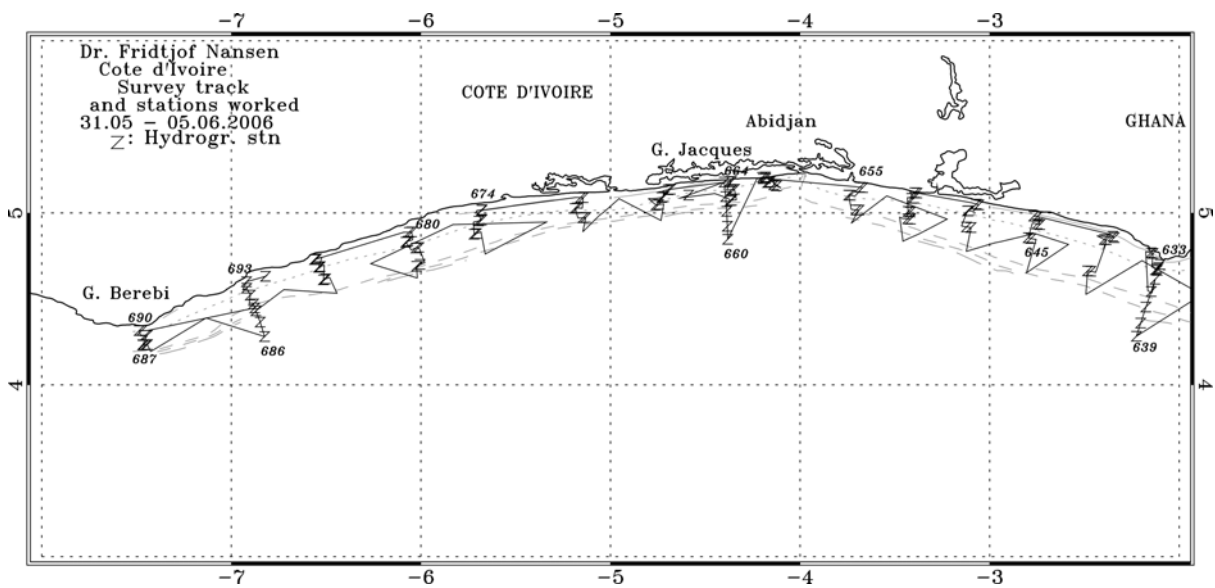


b) Ghana - Côte d'Ivoire

Figure 1.1 Course track with fishing stations for a) Benin - Ghana and b) Ghana - Côte d'Ivoire. Depth contours at 20 m, 50 m, 100 m, 200 m and 500 m are indicated.

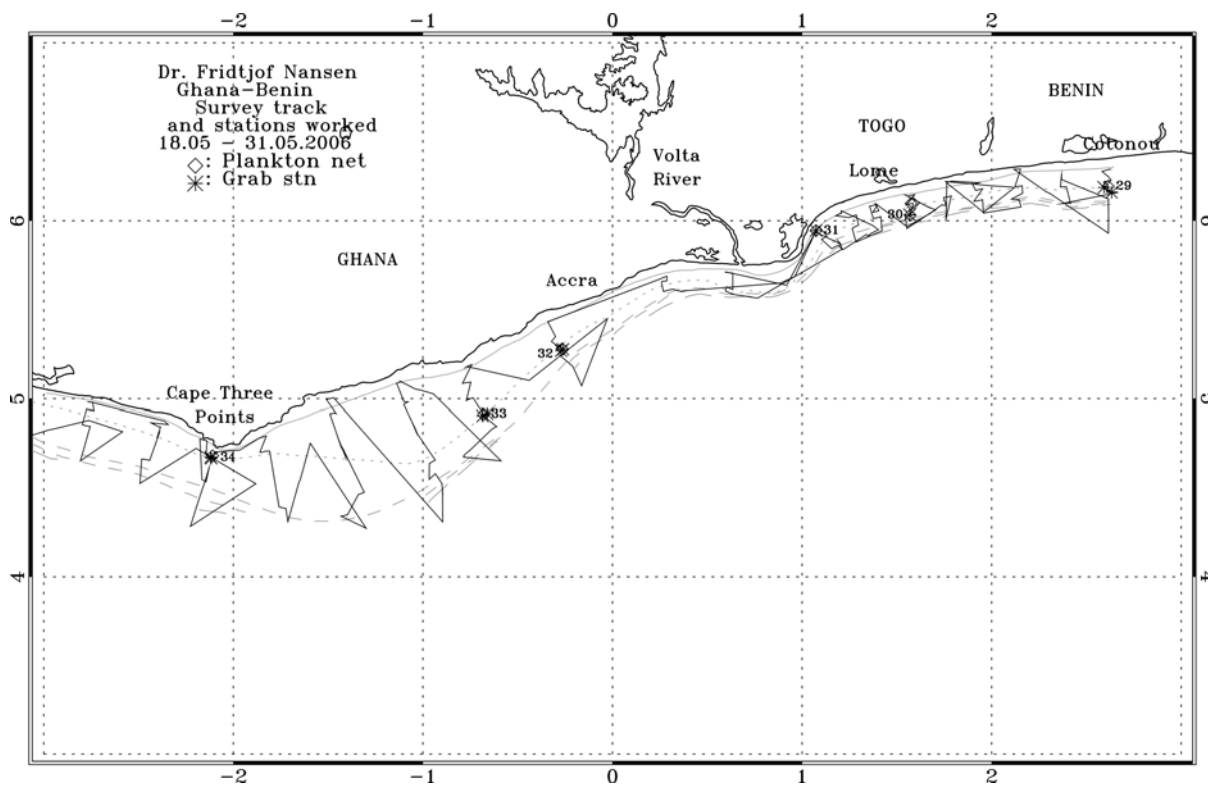


a) Benin - Ghana

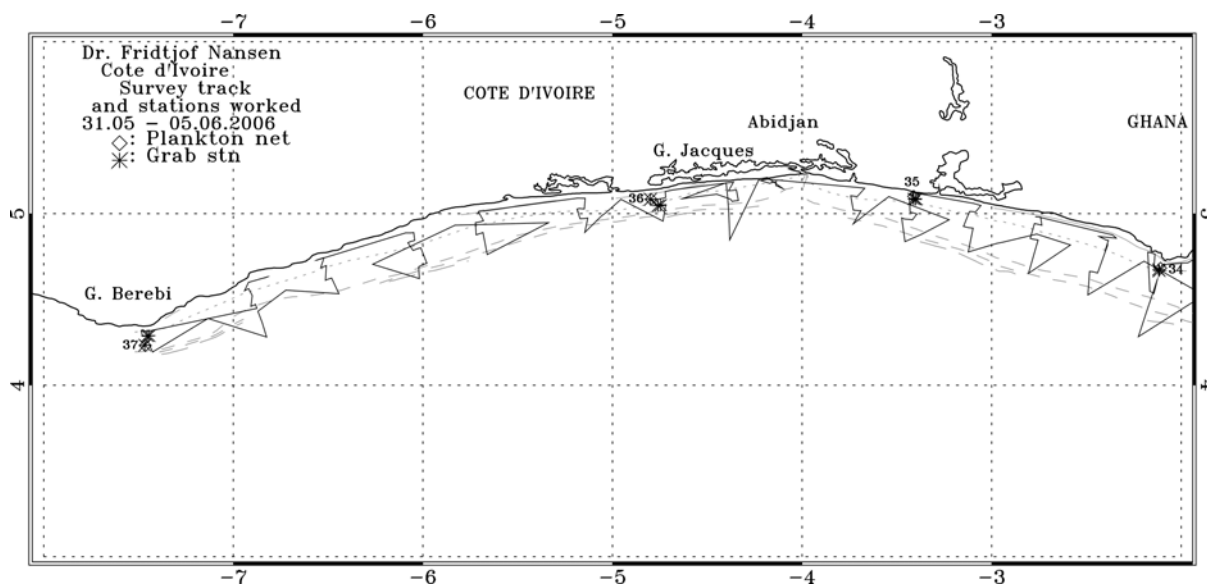


b) Ghana - Côte d'Ivoire

Figure 1.2 Course track with hydrographic stations for a) Benin - Ghana and b) Ghana - Côte d'Ivoire. Depth contours at 20 m, 50 m, 100 m, 200 m and 500 m are indicated.



a) Benin - Ghana



b) Ghana - Côte d'Ivoire

Figure 1.3 Course track with plankton and benthos (grab) stations for a) Benin - Ghana and b) Ghana - Côte d'Ivoire. Depth contours at 20 m, 50 m, 100 m, 200 m and 500 m are indicated.

Table 1.1 Number of hydrographic (CTD), plankton (P), benthos (B), pelagic trawl (PT) and bottom trawl (BT) stations, successful swept-area hauls, distance surveyed (NM) and size of survey area (NM²).

| Region | CTD | P | B | PT | BT | Swept-area hauls | | | Distance surveyed |
|-------------------------|-----|---|---|----|-----|------------------|--------|----------|-------------------|
| | | | | | | 0-30 m | 31-50m | 51-100 m | |
| Benin | 21 | 1 | 1 | 5 | 15 | 5 | 5 | 5 | 305 |
| Area (NM ²) | | | | | | 387 | 134 | 244 | |
| Togo | 9 | 1 | 1 | 2 | 9 | 3 | 3 | 3 | 175 |
| Area (NM ²) | | | | | | 149 | 78 | 100 | |
| Ghana | 50 | 4 | 4 | 8 | 43 | 13 | 14 | 15 | 1145 |
| Area (NM ²) | | | | | | 1412 | 2064 | 2751 | |
| Côte D'Ivoire | 45 | 3 | 3 | 4 | 36 | 11 | 10 | 15 | 765 |
| Area (NM ²) | | | | | | 563 | 701 | 2752 | |
| Total | 125 | 9 | 9 | 19 | 103 | 32 | 32 | 38 | 2390 |
| Area (NM ²) | | | | | | 2511 | 2977 | 4714 | |

CHAPTER 2 METHODS

2.1 Meteorological and hydrographical sampling

Temperature, salinity and oxygen

CTD stations were taken in connection with most bottom trawl stations and at five hydrographic transects. Annex VIIIa presents positions and depths for the CTD stations taken on the five transects. A Seabird 911 CTD plus was used to obtain vertical profiles of temperature, salinity and oxygen. Real time plotting and logging was done using the Seabird Seasave software installed on a PC. The profiles were usually taken down to a few metres above the bottom, but not deeper than 500 m. At some stations two Niskin bottles were triggered in stable water to collect samples for calibration of the salinity and oxygen sensors. The samples are normally analysed for salinity using a Guildline Portasal salinometer, and the oxygen content is determined using the Winkler method. For oxygen, 18 samples out of 24 from around the Accra transect were accepted for the calibration. A linear regression gave the following formula for correcting the oxygen values:

$$O_2 = 1.0374 \cdot O_{2ctd} + 0.1384$$

The average differences between the salinometer and CTD values were very small and the CTD values were accepted.

Thermosalinograph

The SBE 21 Seacat thermosalinograph was running routinely during the survey, obtaining samples of sea surface salinity and relative temperature (5 m depth) every 10 sec.

Current speed and direction measurements (ADCP)

The ship-born Acoustic Doppler Current Profiler (ADCP) from RD Instruments was run continuously during the survey in broadband mode shallower than about 500 m and in narrow band mode in deeper waters. All data were stored on files for post survey processing.

Meteorological observations

Wind direction and speed, air temperature, global radiation and sea surface temperature (5 m depth) were logged automatically every nautical mile on an Aanderaa meteorological station.

2.2 Zooplankton sampling

Zooplankton samples were taken at nine locations at about 40-60 m depth (Figures 1.3a-b) with a 1 m diameter ICITA net in step oblique hauls. The net was towed for six minutes at the surface at a speed of 1.5 knots, thereafter brought to 25 m depth and towed at this depth for 6 minutes. The net was finally brought near the bottom and towed for another six minutes. At

the end of the 18 minutes tow the net was retrieved onto the deck. Flow meter readings were done before and after the tow. The samples were then rinsed into the cod end and preserved in buffered formaldehyde and sent to the GCLME plankton laboratory at the Department of Oceanography & Fisheries, University of Ghana for analyses. Annex VIIIb presents the positions of the nine sampling locations.

2.3 Benthos grab sampling

The soft-bottom benthic macrofauna sampling was carried out using a Peterson grab with a surface area of 0.20 m² at the same locations as the zooplankton samples (Annex VIIIc). At each of the stations (Figures 1.3a-b), the Peterson grab was deployed from an operated winch onto the seafloor. Five replicate samples were taken to obtain representative samples at each station, and to assess the patchiness in the distribution of the organisms. Two sediment replicates each were screened through sieves of mesh sizes 0.5 mm and 1.0 mm, respectively, to obtain adequate samples for both taxonomy and molecular analyses. The residue of the sieved sediment samples were fixed and put into plastic containers. Two of the sediment replicates were fixed in 10% borax pre-buffered formaldehyde while the other three were preserved in 90% ethanol. The ethanol in the samples were decanted and refilled with fresh ethanol solution after two days to avoid sample deterioration.

The containers were labelled according to the station number, replicate type, date, mesh size, and the type of preservation used (e.g. N07A, 12/06/05, 0.5mm, Formaldehyde; C03D, 22/06/05, 1.0 mm, Ethanol). The samples were packed into boxes for sorting and taxonomic identification on land. Four replicate samples from all the stations were packed and sent to Department of Oceanography & Fisheries University of Ghana, while the other one was sent to the Bergen Museum in Norway.

2.4 Biological sampling

The trawl catches were sampled for species composition by weight and numbers. The deck sampling procedure is described by Strømme (1992). Length measurements (total length) were taken for target species. The length of each fish was recorded to the nearest 1 cm below. The carapace length was measured to the nearest 0.5 cm below for shrimp. The mantle length was measured to the nearest 1 cm below for *Sepia* spp. Biological samples of target species were taken at some trawl stations, preferably near the zooplankton/benthos locations, and included total length (cm), body weight (g), sex, reproductive stages and stomach samples. Reproductive stages were determined by means of macroscopic examination, scoring each fish according to a five-point classification scale. The stomach content samples were stored in 4 % formaldehyde solution and the bottle labelled with the station number and fish species code (Annex VIIIId). Other necessary information (e.g. station number, species code, date, sex and gonad stage) was written on a piece of acetate paper and inserted into each sample bottle.

The stomach content samples were sent to the Instituto Investigação Marinha, Luanda, Angola for further analyses. In addition, at a few stations total length and body weight (g) were recorded for the target species in the acoustic survey. Basic information recorded at each fishing stations, i.e. trawl hauls, is presented in Annex I. Pooled length frequency distributions, raised to catch per hour, of selected species by country are shown in Annex II. Groups/families included in the species composition and swept area analysis are given in Annex III. A description of the fishing gears used, acoustic instruments and their standard settings is given in Annex VII.

2.5 Biomass estimates

Acoustic abundance estimation

A SIMRAD EK500 Echo sounder was used and the echograms were stored on files. The acoustic biomass estimates were based on the integration technique. The Bergen Integrator (BEI, see Knudsen 1990) was used for analysis and allocation of the integrated s_A -values (average area back scattering coefficient in m^2/NM^2) The splitting and allocation of the integrator outputs (s_A -values) was based on a combination of a visual scrutiny of the behaviour pattern as deduced from echo diagrams, the BEI analysis and the catch composition. The mean integrator value in each sampling unit (s_A -values) was divided between the standard categories/groups of fish, as noted below, on the basis of trawl catches and characteristics of echo traces:

- plankton
- sardinella (*Sardinella aurita* and *S. maderensis*)
- anchovy (*Engraulis encrasicolus*)
- PEL 1 (other clupeids than sardinella and anchovy)
- PEL 2 (carangids, scombrids, barracudas, hairtail)
- mesopelagic fish
- demersal fish

The following target strength (TS) function was applied to convert s_A -values (mean integrator value for a given area) to number of fish (sardinella, anchovy, PEL 2):

$$TS = 20 \log L - 72 \text{ dB} \quad (1)$$

or in the form

$$C_F = 1.26 \cdot 10^6 \cdot L^{-2} \quad (2)$$

where L is total length and C_F is the reciprocal back scattering strength, or the so-called fish conversion factor. In order to split and convert the allocated s_A -values (m^2/NM^2) to fish densities (number per length group per NM^2) the following formula was used

$$N_i = A \cdot s_A \cdot \frac{P_i}{\sum_{i=1}^n \frac{P_i}{C_{Fi}}} \quad (3)$$

where N_i = number of fish in length group i

A = area (NM^2) of fish concentration

s_A = mean integrator value (echo density) in area A (m^2/NM^2)

p_i = proportion of fish in length group i in samples from the area

C_{Fi} = fish conversion factor for length group i

The number per length group (N_i) was then summed and the total number of fish obtained:

$$N = \sum_{i=1}^n N_i \quad (4)$$

The length distribution of a given species within an area was computed by simple adding of the length frequencies obtained in representative trawl samples within the area. In the case of co-occurrence of target species, the s_A value was split in accordance with length distribution and catch rate in numbers in the trawl catches. Biomass per length group (B_i) was estimated by applying measured weights by length (W_i) when available or theoretical weights (calculated by using condition factors), multiplied with number of fish in the same length group (N_i). The total biomass in each area was obtained by summing the biomass of each length group:

$$B = \sum_{i=1}^n N_i \bar{W}_i \quad (5)$$

The number and biomass per length group in each concentration were then added up to obtain totals for each region.

Biomass estimates based on swept-area method

In the bottom trawl survey, stock biomasses was estimated by the swept-area method with catch per haul as the index of abundance (see Strømme 1992). The general formula to estimate biomass B , using this method is:

$$B = \frac{A}{a} \cdot \frac{\bar{X}}{q} \quad (6)$$

A is the total area surveyed, a is the swept area of the net per haul, \bar{X} is the average catch per haul (the index of abundance) and q is the proportion of fish in the path of the net that are actually caught. The density of the resource is estimated as biomass per unit area. In a stratified survey of k non-overlapping strata, if the mean catch per haul in stratum i and its variance are denoted by \bar{X}_i and s_i^2 respectively, then an unbiased estimate of the population mean \bar{X} is the stratified mean \bar{X}_{st} , which is given by:

$$\bar{X}_{st} = \frac{1}{N} \sum_{i=1}^k N_i \bar{X}_i = \sum_{i=1}^k W_i \bar{X}_i \quad (7)$$

where $W_i = \frac{N_i}{N} = \frac{A_i}{A}$ is the relative size of the i^{th} stratum (A_i is the area of the i^{th} stratum and A is the total area surveyed). The variance of the stratified mean is given by

$$\text{var}(\bar{X}_{st}) = \sum_{i=1}^k W_i^2 \text{var} \bar{X}_i = \sum_{i=1}^k W_i^2 \frac{s_i^2}{n_i} \quad (8)$$

where n_i is number of hauls in the i^{th} stratum and n is the total number of hauls in the survey. Table 1.1 shows the areas used in the swept-area method to estimate biomasses for the different regions. A stratified semi-random design was used with depth and country as stratification factors. Estimated total biomass by species/group was obtained by summing estimates for each depth stratum.

For conversion of catch rates (kg/hour) to fish densities (t/NM²), the effective fishing area was considered as the product of the wing spread and the haul length, or distance over the bottom, as measured by means of the SCANMAR[®] equipment based on GPS readings. The area swept for each haul was thus 18.5 times the distance trawled, raised to NM²/hour. The catchability coefficient (q), i.e. the fraction of the fish encountered by the trawl that was actually caught, was conservatively (and for comparison with previous surveys) assumed equal to 1. Mean fish densities by species and strata were calculated by the swept-area module in NAN-SIS. The swept-area estimates are presented in Annex IV.

Total biomass estimates by species and their confidence intervals were obtained from a stratified mean density estimator (using equations 1, 2, and 4 in ANNEX V on a spread-sheet, ANNEX VI) and raised to total area. Since NAN-SIS does not produce variance estimates of the mean densities (ANNEX IV), the 95% confidence limits for the biomass estimates were calculated with the underlying assumption that the coefficient of variation ($CV = SD/\text{mean}$) is constant when catch rates in kg/hour are converted to densities (t/NM²). In other words the area swept (normalised per hour) was approximately constant for each haul. Coefficients of variation of the catch rates, by depth strata for each species or group, were obtained using the WinGrafer module of NAN-SIS. Variance of the densities were estimated from the mean and the CV, and equations 2, 3, 6 and 7 in ANNEX V were used to calculate standard error (SE) on the arithmetic mean and confidence intervals (see the spreadsheet BIOMASS.xls, and example in ANNEX VI). GRAFER was also used to produce the figures and tables with grouped catch-rates and time-series presented in this report. SE and confidence intervals in the figures are based on the arithmetic mean, but the lognormal based Pennington's estimator can also be calculated (equations 8 to 12 in ANNEX V).

CHAPTER 3 OCEANOGRAPHIC CONDITIONS

Surface distribution

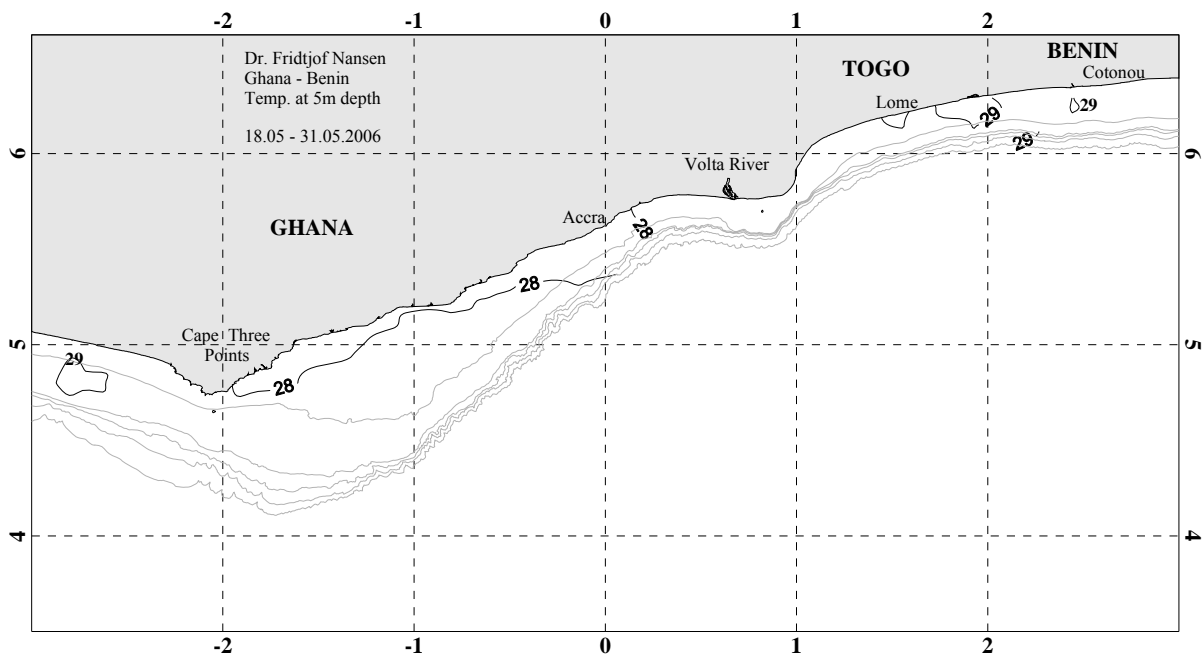
The surface layer temperature was continuously recorded during the cruise. Figures 3.1a and b show the horizontal distribution of sea surface temperature (SST) for the Benin - Ghana and the western Ghana - Côte d'Ivoire areas, respectively. In most of the area the temperature ranged between 28-29° C.

The surface salinity (Figures 3.2a and b) ranged between 33.8 psu and 35.0 psu in most of the survey area. The salinity was in general lowest in coastal areas around river estuaries.

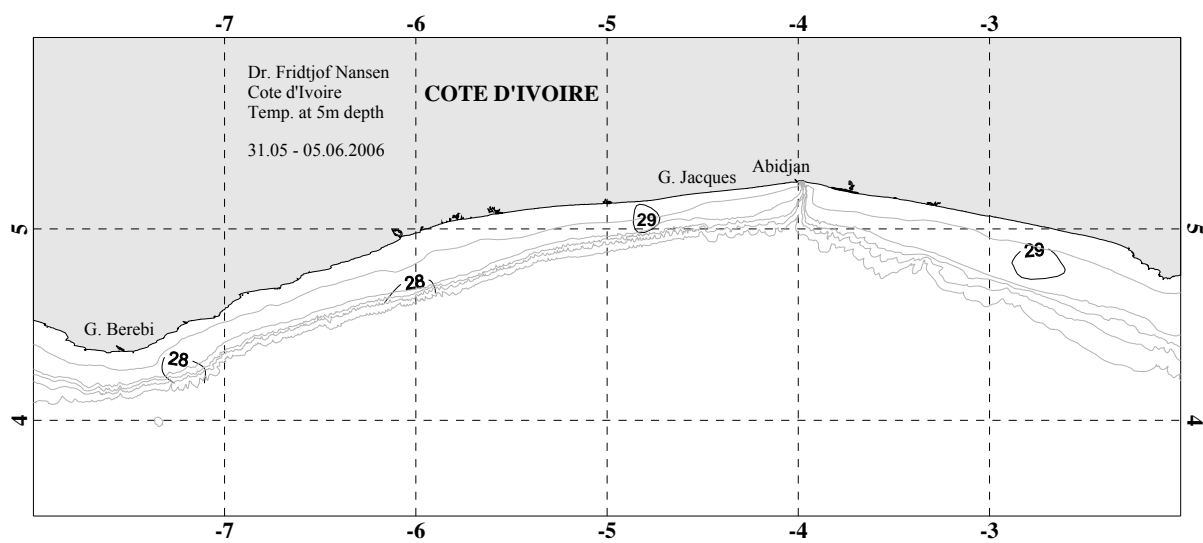
Vertical sections

Figures 2.3a-e show the vertical distribution of temperature, salinity and dissolved oxygen as recorded on the five hydrographic transects worked during the survey. There were only small differences between the profiles. The thermocline was found between 25 and 50 m depth. A relatively flat structure was observed in most sections with no clear signs of vertical water displacement and upwelling.

At the surface temperature ranged from 28.6 – 29.1° C off Cotonou, 27.3 – 28.9° C off Accra, 28.1 – 28.6° C off Cape Three Points, 28.4 – 28.6° C off Grand Jacques and 28.2 – 28.4° C off Grand Bérébi. In all areas temperature at 400-500 m depth was 8-9° C. Salinity ranged from 34.3 – 34.4 psu at the surface off Cotonou, 34.7 – 35.1 psu off Accra, 34.5 – 35.0 psu off Cape Three Points, 33.2 – 34.7 psu off Grand Jacques and 33.9 – 34.3 psu off Grand Bérébi. At 400-500 m depth the salinity was 34.8 psu. Dissolved oxygen values ranged between 2 ml/l at the bottom and 4 ml/l at the surface in all areas. There was no sign of low bottom oxygen content on the shelf.

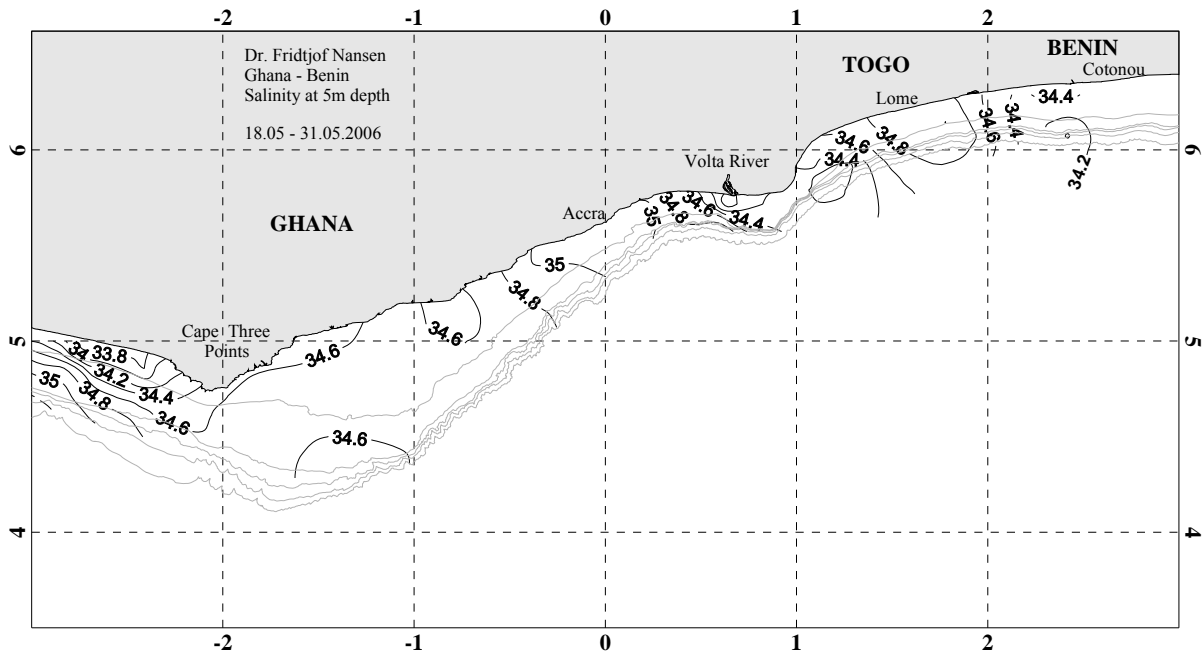


a) Benin - Ghana

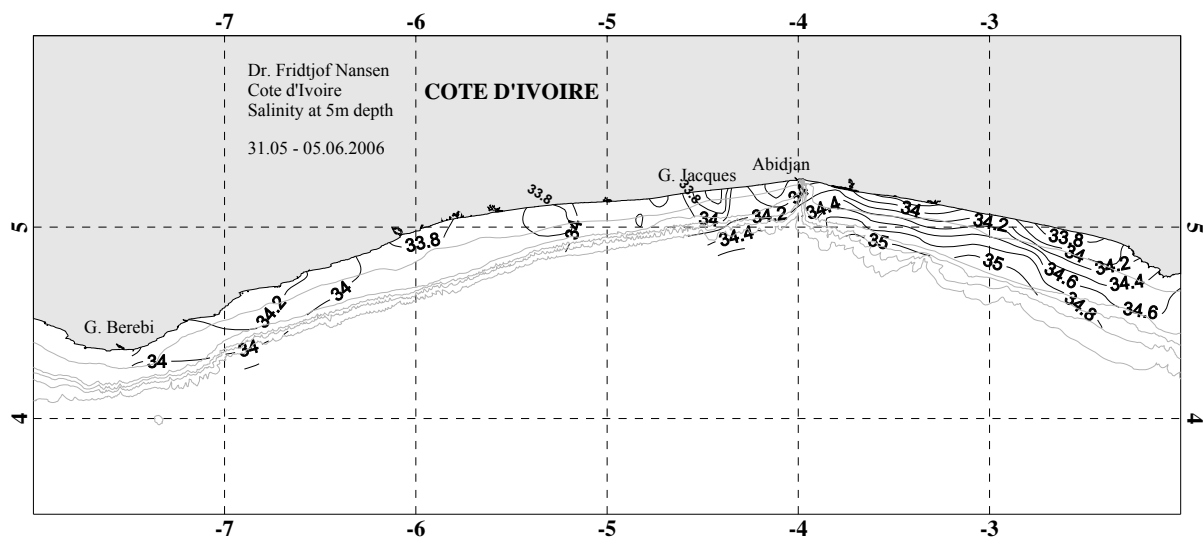


b) Ghana - Côte d'Ivoire

Figure 3.1 Horizontal distribution of surface temperature (5 m depth) at a) Benin - Ghana and b) Ghana - Côte d'Ivoire. Depth contours as in Fig. 1.

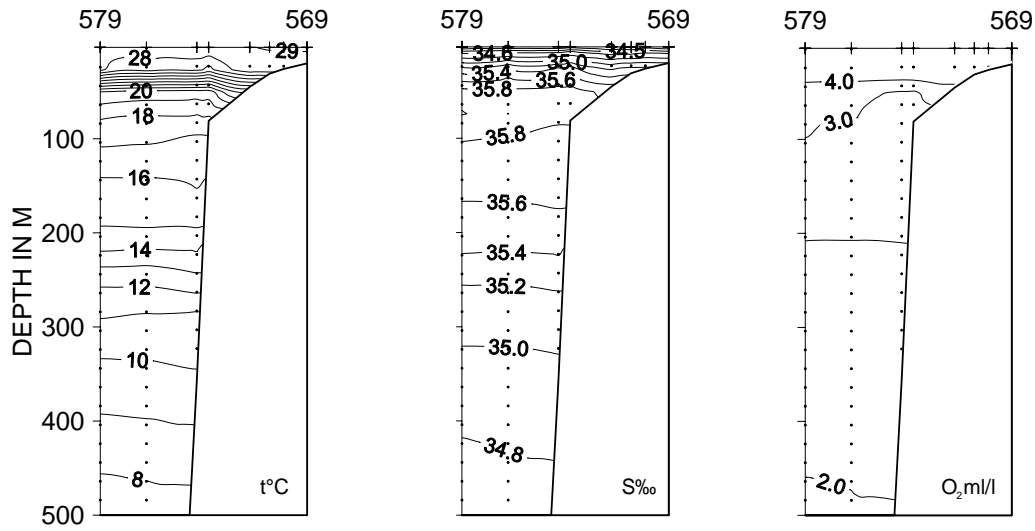


a) Benin - Ghana

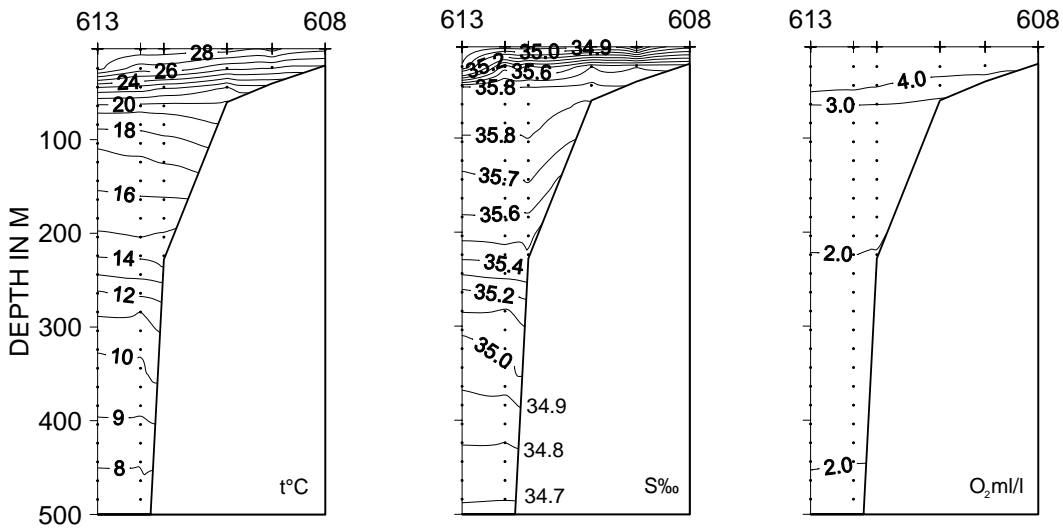


b) Ghana - Côte d'Ivoire

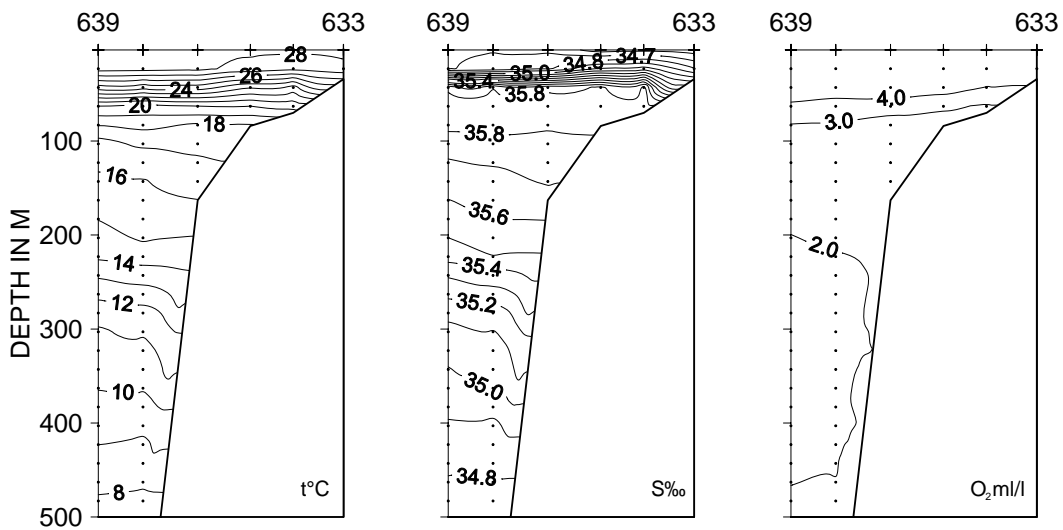
Figure 3.2 Horizontal distribution of salinity (5 m depth) at a) Benin - Ghana and b) Ghana - Côte d'Ivoire. Depth contours as in Fig. 1.



a) Cotonou – 20.05.2006

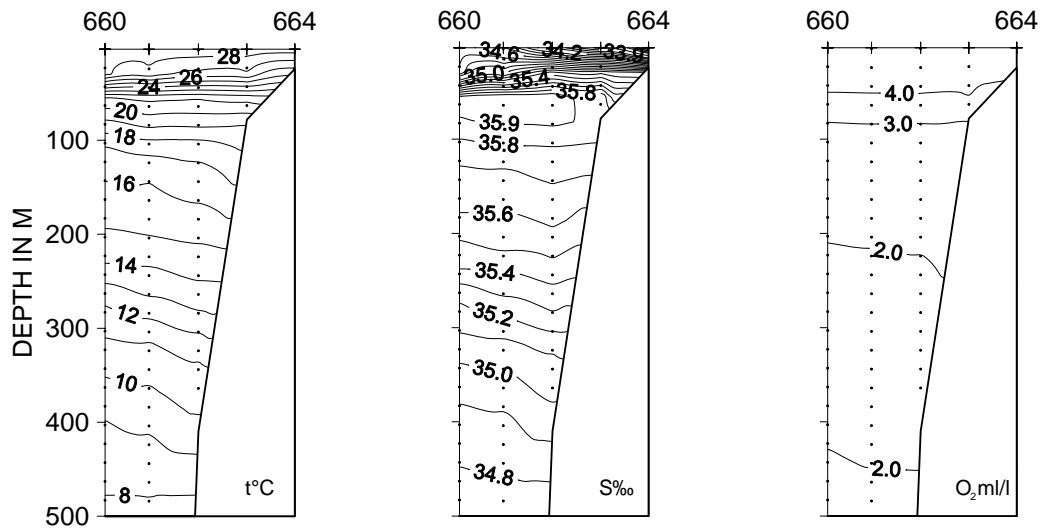


b) Accra – 24.05.2006

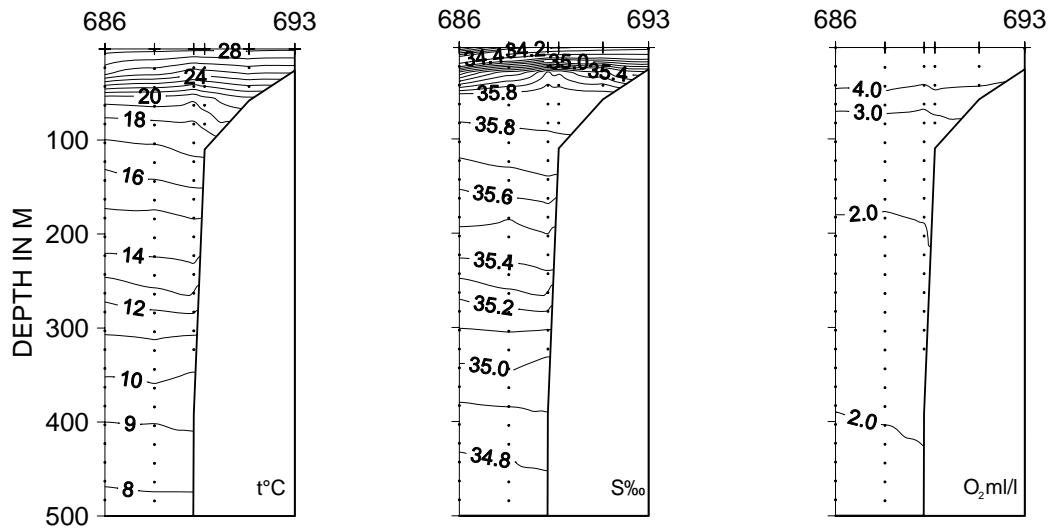


c) Cape Three Points – 29.05.2006

Figure 3.3 Vertical sections of temperature, salinity and oxygen at a) Cotonou, b) Accra, c) Cape Three Points, d) Grand Jacques and e) Grand-Bérébi.



d) Grand Jacques – 01.06.2006



e) Grand Bérébi – 04.06-05.06.2006

Figure 3.3 Continuation

CHAPTER 4 RESULTS OF THE ACOUSTIC SURVEY: FISH DISTRIBUTION AND ABUNDANCE ESTIMATE OF PELAGIC SPECIES

The next maps of the main groups of pelagic fish, i.e. sardinellas, anchovies and PEL 2 (mainly carangids), show the distribution as observed with the acoustic integration system. The acoustic densities (in m^2/NM^2) are illustrated by a scale used on acoustic surveys with “Dr. Fridtjof Nansen”.

4.1 Benin

Clupeids

Juvenile *Sardinella maderensis* (4-14 cm) was caught in small quantities on the inner shelf, while *S. aurita* (8-22 cm) mainly was found on the central and outer part of the shelf. Both species were caught in pelagic blind trawl hauls and bottom trawl hauls. Some low density and a few medium density schools were recorded, mainly on the western part of the shelf (Fig. 4.1). The biomass of sardinellas was estimated to be about 5 00 tonnes (60 % *S. aurita*), applying added and weighted length distributions from bottom and pelagic trawl hauls and an estimated condition factor of 0.80 for *S. aurita* and 1.00 for *S. maderensis*.

Ilisha africana was caught in some bottom trawl hauls and one pelagic blind trawl haul on the inner shelf area. No schools were allocated to this species.

Anchovy

Juvenile *Engraulis encrasicolus* (3-8 cm) was caught in the bottom trawl and pelagic trawl hauls over the whole shelf. A few medium density schools and one of high density were recorded (Fig. 4.2). The biomass of anchovy was estimated to be about 500 tonnes, applying length distributions from both bottom and pelagic trawl hauls and a measured condition factor of 0.77.

PEL 2 (carangids, scombrids, barracudas and hairtail)

This group consisted mainly of carangids with *Decapterus punctatus*, *Chloroscombrus chrysurus*, *Selene dorsalis*, *Selar crumenophthalmus* and *Alectis alexandrinus* the most abundant species caught in both bottom and pelagic trawl hauls over the entire shelf area. Most of the carangids were juveniles (7-25 cm). The scombrid *Scomberomorus tritor* and barracudas (*Sphyaena guachancho* and *S. sphyraena*) were mainly caught on the inner shelf while hairtail (*Trichiurus lepturus*) was more common on the outer shelf. Scattered schools of PEL 2 were recorded along the whole coast, all of low density (Fig. 4.3). Based on a pooled

length distribution of *D. punctatus* and *C. chrysurus* and an estimated condition factor of 0.85, the biomass of this group was estimated to be 3 900 tonnes.

4.2 Togo

Clupeids

Sardinella aurita (9-24 cm) was caught in some of the bottom trawl hauls on both the inner and outer shelf and in one pelagic blind trawl haul. Small amounts of juvenile *S. maderensis* occurred in just one catch. A few small low-density schools and a couple of medium-high density schools were recorded and allocated to sardinellas (Fig. 4.1). The acoustic biomass was estimated to be about 900 tonnes (100 % *S. aurita*), applying added and weighted length distributions and an estimated condition factor of 0.80.

Ilisha africana was not caught in bottom trawl or pelagic blind trawl hauls on the shelf of Togo and no schools were allocated to this species.

Anchovy

Juvenile *Engraulis encrasicolus* (5-7 cm) was caught in one bottom trawl haul on the inner shelf and one on the outer shelf. A couple of low-medium density schools were recorded (Fig. 4.2). The biomass of anchovy was estimated to be about 100 tonnes, applying a measured condition factor of 0.77.

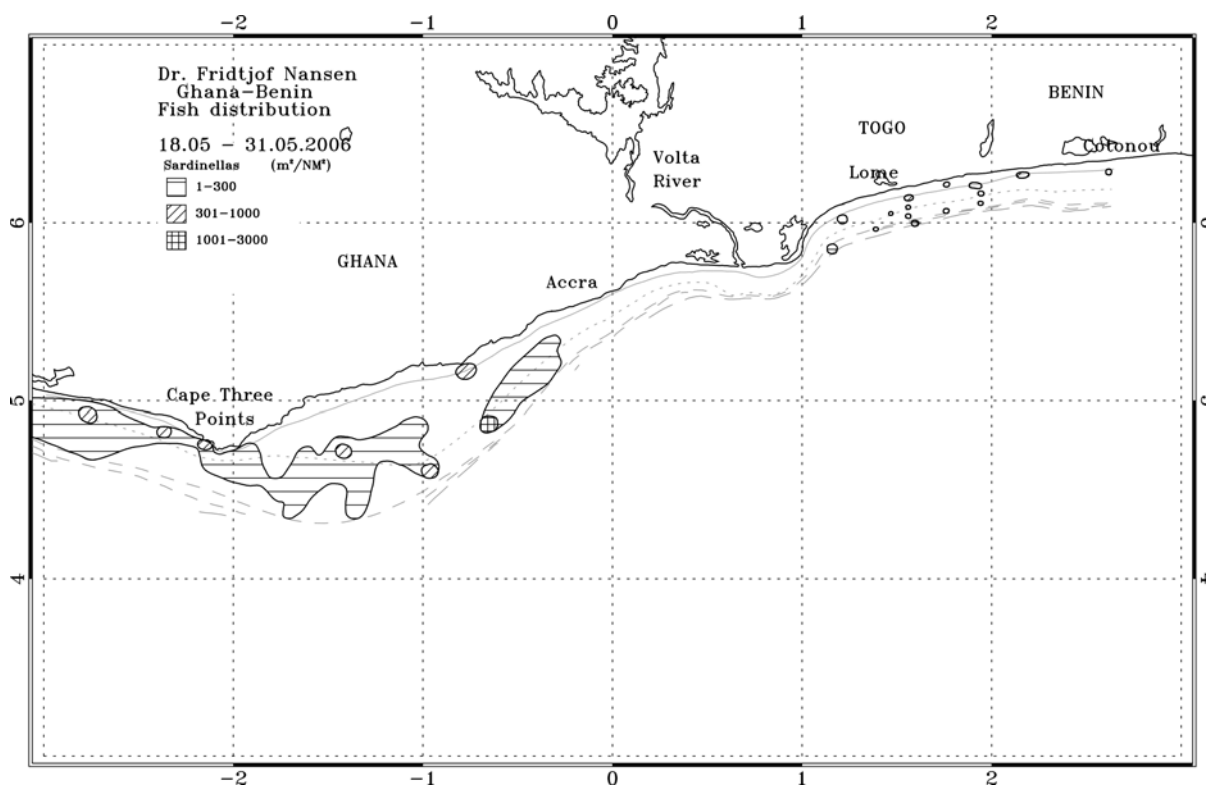


Figure 4.1 Distribution of *Sardinella* spp. Benin – Ghana and. Depth contours as in Fig. 1.

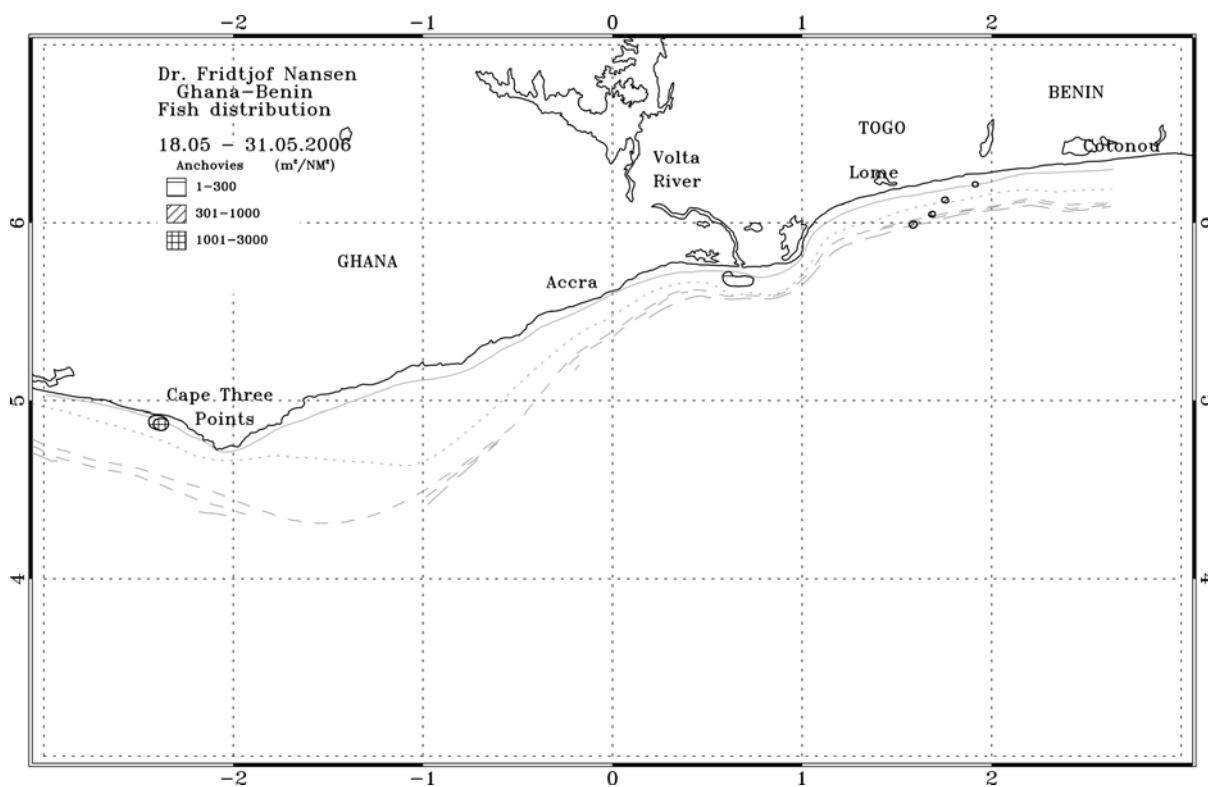


Figure 4.2 Distribution of anchovy (*Engraulis encrasicolus*) off Benin – Ghana. Depth contours as in Fig. 1.

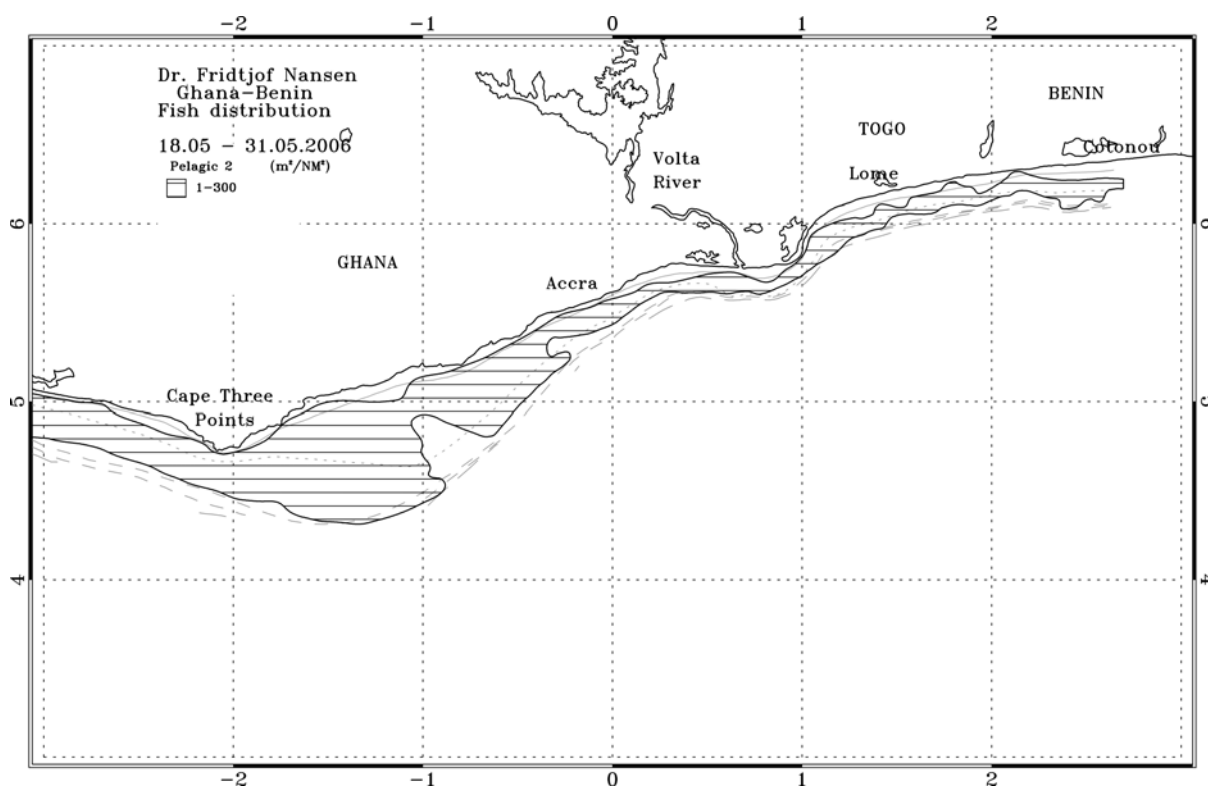


Figure 4.3 Distribution of PEL 2 (Carangids, scombrids, barracudas and hairtail) off Benin-Ghana. Depth contours as in Fig. 1.

PEL 2 (carangids, scombrids, barracudas and hairtail)

Carangids were caught in bottom trawl and pelagic blind trawl hauls over the entire shelf. *Alectis alexandrinus*, *Selene dorsalis* and juvenile *Decapterus punctatus* were the most abundant species. Scombrids (*Scomberomorus tritor*) were caught in some bottom trawl hauls on the inner shelf. Barracudas (*Sphyraena guachancho* and *S. sphyraena*) were caught in most of the bottom trawl hauls and in one of the pelagic blind trawl hauls. Hairtail (*Trichiurus lepturus*) was caught in one pelagic blind trawl haul on the outer shelf. Scattered schools of PEL 2 were recorded along most of the coast, all of low density (Fig. 4.3). Based on a pooled length distribution of *D. punctatus* (4-17 cm) and an estimated condition factor of 0.85, the biomass of this group was estimated to be 700 tonnes.

4.3 Ghana

Clupeids

Sardinellas were caught in both bottom trawl hauls and in pelagic blind trawl hauls. *Sardinella aurita* (10-25 cm) dominated and was found over most of the shelf area west of Accra, while juvenile *S. maderensis* (10-12 cm) only occurred a few places on the inner shelf at Cape Three Points (Fig. 4.4). Several small and some larger schools of low-medium density and a few of high density were allocated to sardinellas (Fig. 4.1). The highest concentrations were recorded west of Accra and around Cape Three Points. The total biomass of sardinellas was estimated to be about 56 000 tonnes, applying pooled and weighted length distributions from both bottom and pelagic trawl hauls and a measured condition factor of 0.83 for *S. aurita* and an estimated of 1.00 for *S. maderensis*. *S. aurita* contributed over 90 % to the estimated biomass.

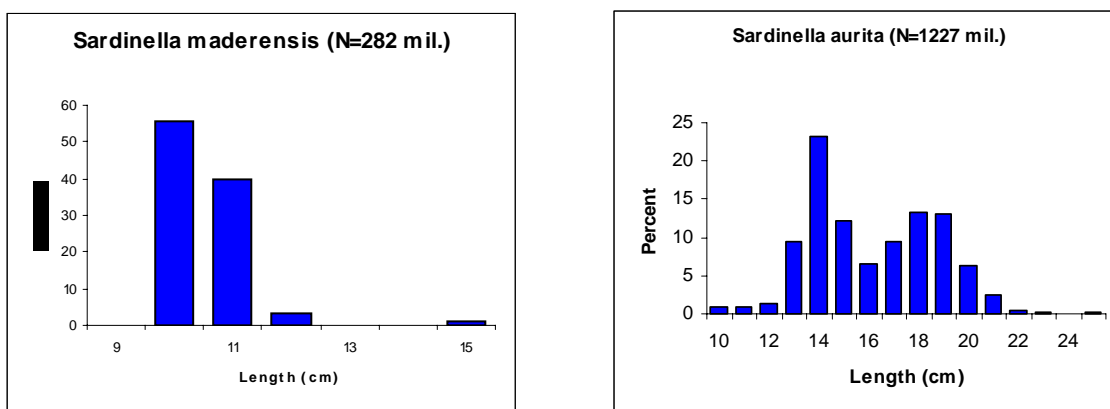


Figure 4.4 Length distribution of *Sardinella maderensis* and *S. aurita* in Ghana

Ilisha africana was caught in a few bottom trawl hauls in shallow waters in the western part of Ghana. No schools were allocated to this species.

Anchovy

Only a few schools of *Engraulis encrasicolus* were recorded on the inner shelf in Ghanaian waters; a couple of low density off Tema and a couple of medium-high density west of Cape Three Points (Fig. 4.2). Catches of anchovy (4 – 7 cm) were obtained in bottom trawl hauls in the areas of acoustic registrations and in one pelagic blind trawl haul. The biomass of anchovy was estimated to be about 1 200 tonnes, applying added length distributions from bottom trawl hauls and a measured condition factor of 0.71.

PEL 2 (carangids, scombrids, barracudas and hairtail)

This group consisted mainly of carangids. *Chloroscombrus chrysurus* (3-28 cm) and *Decapterus punctatus* (4-26 cm) were the most abundant species in the bottom trawl catches, and were caught over the whole shelf area. *Trachurus trecae* (12-23 cm) was somewhat less abundant. The carangids were also caught in pelagic blind trawl hauls. *Scomber japonicus* and *Scomberomorus tritor* were the most abundant scombrids in the bottom trawl hauls, and the former were also caught in a couple of pelagic blind trawl hauls. The barracudas, *Sphyraena guachancho* and *S. sphyraena*, were found in less than half of the bottom trawl hauls, mainly at the inner shelf, and in one pelagic blind trawl haul. The hairtail *Trichiurus lepturus* was caught at some bottom and pelagic trawl stations. Small low-density schools of PEL 2 species were detected all over the shelf, both the inner and outer part (Figures 4.3 and 4.7). The biomass of PEL 2 was estimated to be 37 000 tonnes, applying added length distributions of the most common carangids (*D. punctatus* and *C. chrysurus*) from both bottom and pelagic trawl hauls and a measured condition factor (*D. punctatus*) of 0.86 for fish less than 15cm and 0.92 for larger specimen.

4.4 Côte d'Ivoire

Clupeids

Sardinellas were recorded along most of the coast of Côte d'Ivoire (Fig. 4.6). Both *Sardinella aurita* (12-28 cm) and *S. maderensis* (7-28 cm) occurred frequently in the bottom trawl catches, and were also caught in a couple of pelagic trawl hauls. *S. aurita* was mainly found on the central-outer part of the shelf, while *S. maderensis* occurred frequently on the whole shelf, especially in the western part of Côte d'Ivoire. Many low-density and some medium-high density schools were allocated to sardinellas. The total biomass was estimated to be about 62 000 tonnes, applying pooled and weighted length distributions from both bottom and pelagic trawl hauls and a measured condition factor of 0.96 for *S. maderensis* and 0.76 for *S. aurita*. *S. aurita* contributed about 70 % to the acoustic estimate. Most of the *S. maderensis* was juvenile (8-11 cm), while some of the *S. aurita* was larger (16-27 cm, Fig. 4.5).

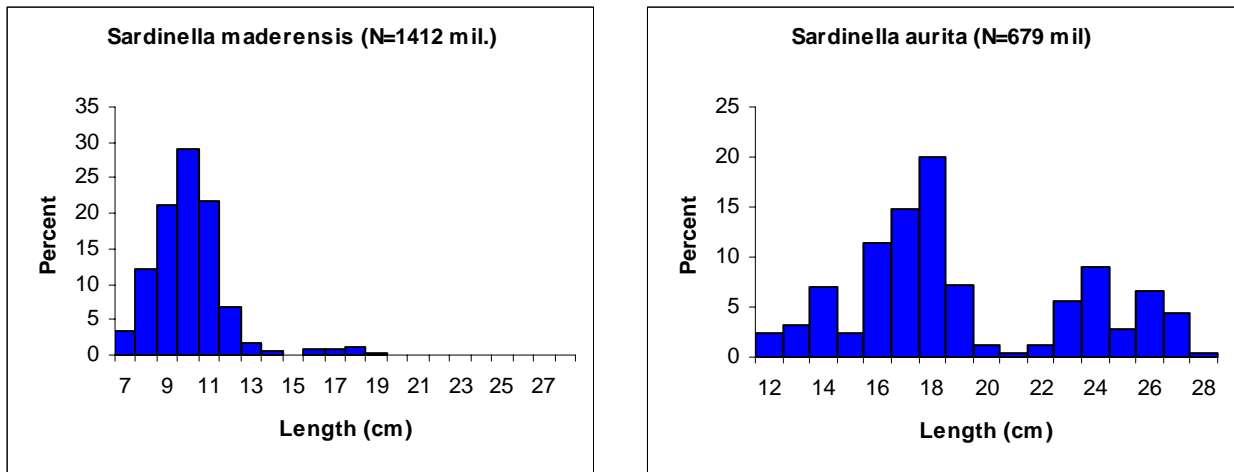


Figure 4.5. Length distribution of *Sardinella maderensis* and *S. aurita* in Côte d'Ivoire

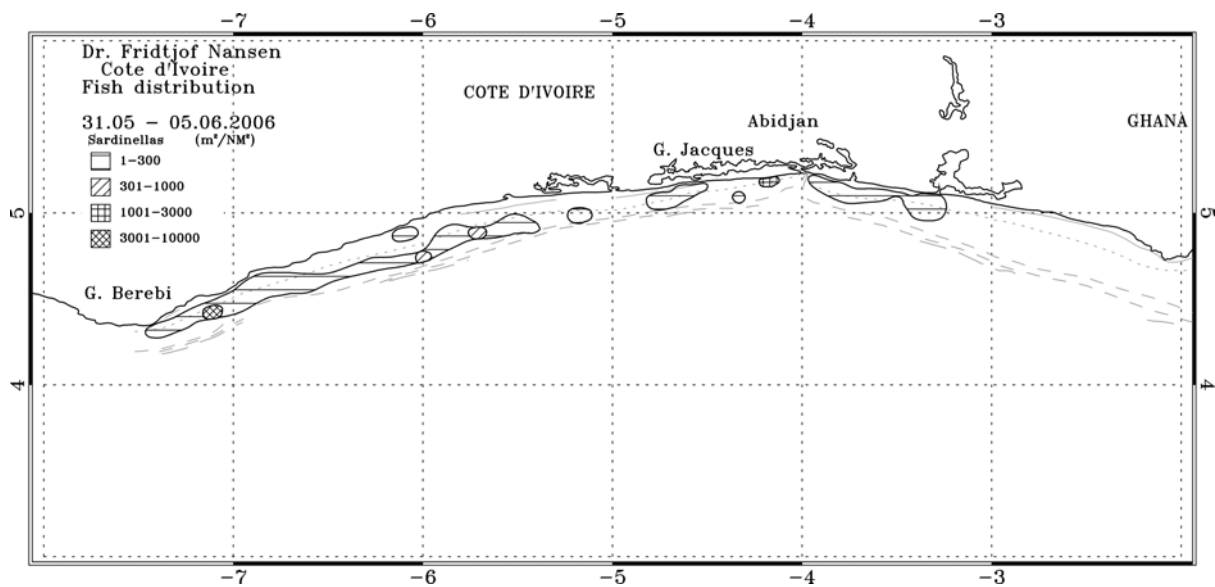


Figure 4.6 Distribution of *Sardinella* spp. off Ghana – Côte d'Ivoire. Depth contours as in Fig. 1.

Ilisha africana was caught in some bottom trawl hauls on the shallow part of the shelf in the western part of Côte d'Ivoire. No schools were allocated to this species.

Anchovy

Engraulis encrasicolus was caught in low numbers on two bottom trawl stations and a couple of low-density schools were allocated to anchovy in the central part of Côte d'Ivoire, but no abundance estimates were made.

PEL 2 (carangids, scombrids, barracudas and hairtail)

The species category PEL 2 consisted mostly of carangids. *Chloroscombrus chrysurus* (4-28 cm), *Decapterus punctatus* (9-28 cm), *Trachurus trecae* (12-23 cm) and *Selene dorsalis* (3-35 cm) were the dominant species in the bottom trawl catches. *C. chrysurus* and *S. dorsalis* were most abundant at the inner shelf while *T. trecae* mainly was found at the outer shelf. *C. chrysurus* and *S. dorsalis* were also caught in one pelagic blind trawl haul. Other carangids occurred in lower densities. The scombrids *Scomber japonicus* (20-22 cm) and *Scomberomorus tritor* (16-32 cm) were caught in a few bottom trawl hauls. Barracudas, dominated by *Sphyraena guachancho*, were common in bottom trawl hauls and were also caught in one pelagic blind trawl haul. Hairtail (*Trichiurus lepturus*) occurred regularly in bottom trawl hauls on both the inner and outer shelf. It was also found in a few pelagic blind trawl hauls.

Schools of PEL 2 species, mainly of low density, were found over most of the shelf along the whole coastline (Fig. 4.7). Applying added length distributions of the most common carangids (*T. trecae*, *D. punctatus* and *C. chrysurus*) from most bottom trawl hauls and one pelagic trawl haul and a measured condition factor (*D. punctatus*) of 0.86 for fish less than 15cm and 0.92 for larger specimen, the biomass of PEL 2 was estimated to about 19 000 tonnes.

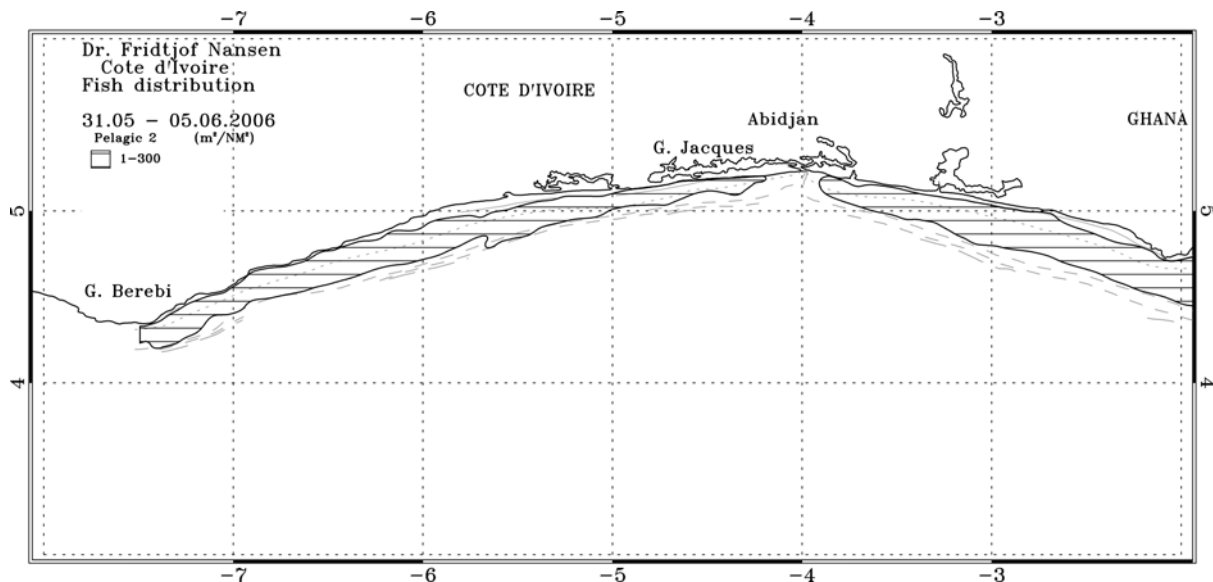


Figure 4.7 Distribution of PEL 2 (Carangids, scombrids, barracudas and hairtail) off Ghana- Côte d'Ivoire. Depth contours as in Fig. 1

4.5 Review of results

Estimated biomasses of PEL 1 species (sardinellas and anchovy) and PEL 2 species (carangids, scombrids, barracudas and hairtails) based on the Dr. Fridtjof Nansen surveys in 1981 (Strømme 1984), 1989 (Anon. 1989), 1999 (Mehl *et al.* 1999), 2000 (Torstensen *et al.* 2000), 2002 (Mehl *et al.* 2002), 2004 (Mehl *et al.* 2004) and 2005 (Mehl *et al.* 2005), are presented in Table 4.1 together with results from the 2006 survey. The Benin and Togo sectors were in earlier years covered as one area due to the narrow coastlines. During the last surveys the effort has been increased in this area, allowing for three transects in Togo and five-six in Benin. Still there are few stations and relatively small areas covered by acoustic registrations in this region, and the precision of the results are accordingly low.

As shown during the previous surveys, pelagic fish were present over large parts of the area, especially the central and western parts. Most pelagic hauls were taken as blind hauls as relatively few schools were seen on the echo sounder during night time. This was partly due to a dispersed distribution and partly due to high abundance of plankton that made acoustic detection and separation very difficult. During daytime it was sometimes difficult to catch schools of pelagic fish with the trawls. Sardinellas and anchovy dominated on the inner shelf, while carangids, scombrids, hairtails and barracudas were more widely distributed over the entire shelf. Schools shallower than 20 m, especially of anchovy, were not recorded.

The total biomass estimate for the sardinellas-anchovy group in 2006 was higher than in 2005 and above the 1981-2005 average. The estimate for Benin was the lowest in the time series, and much lower than the 2004 estimate. In Togo the 2006 estimate was the second lowest in the time series. In Ghana the estimated biomass was slightly higher than in 2005 and just above the 1981-2005 average. The estimate for Côte d'Ivoire was the third highest in the time series and above the 1981-2005 average.

The total biomass estimate of PEL 2 was the second lowest in the 1989-2005 time series. The estimate for Benin was the second highest in the time series 2000-2005 and just below the 2005 estimate. In Togo the PEL 2 estimate was higher than in 2002 – 2005, but much lower than in 2000 and below the average in the time series 1999-2005. The estimate for Ghana was below the 2005 estimate and similar to the 2004 estimate, but below the 1989-2005 average. The estimate for Côte d'Ivoire was also below the 2005 estimate and similar to the 2004 estimate and below the 1989-2005 average.

It should be noted that the 2000 and 2002 surveys were in the upwelling season, and this may have influenced the results of these years compared to the results of the other years.

Table 4.1 Acoustic biomass estimates of main pelagic groups (tonnes) a) Sardinellas and anchovies (PEL 1) and b) carangids, scombrids, barracudas and hairtails (PEL 2) from surveys with “Dr. Fridtjof Nansen” off Côte d’Ivoire, Ghana, and Benin-Togo in 1981, 1989, 1999, 2000, 2002, 2004, 2005 and 2006.

a) Sardinellas and anchovies (PEL 1)

| Survey Year | Survey period | Côte d’Ivoire | Ghana | Benin – Togo | Benin (765) | Togo (327) | Total |
|--------------------|---------------|---------------|--------|---------------------|-------------|------------|---------|
| 1981 | June | 39 000 | 40 000 | ¹⁾ | | | 79 000 |
| 1989 | 12.10 – 20.10 | 6 000 | 41 000 | not covered | | | 47 000 |
| 1999 | 19.4 – 8.5 | 42 000 | 40 000 | 5 000 ³⁾ | 3 500 | 1 500 | 87 000 |
| 2000 ²⁾ | 29.8 – 15.9 | 111 000 | 56 500 | | 1 700 | 6 500 | 175 700 |
| 2002 ²⁾ | 16.7 – 9.8 | 34 000 | 73 000 | | 1 500 | - | 108 500 |
| 2004 | 16.5 – 9.6 | 68 000 | 68 000 | | 18 600 | 3 200 | 157 800 |
| 2005 | 4.5 – 27.5 | 37 000 | 54 000 | | 3 300 | 500 | 94 800 |
| 2006 | 19.5 - 5.6 | 62 000 | 57 000 | | 1 000 | 1 000 | 121 000 |

Table 4.1cont.

b) Carangids, scombrids, barracudas and hairtails (PEL 2)

| Survey Year | Survey period | Côte d’Ivoire | Ghana | Benin – Togo | Benin (765) | Togo (327) | Total |
|--------------------|---------------|---------------|--------|---------------------|-------------|------------|--------|
| 1981 | June | 2 000 | 10 000 | ¹⁾ | | | 12 000 |
| 1989 | 12.10 - 20.10 | 33 000 | 57 000 | not covered | | | 90 000 |
| 1999 | 19.4 - 8.5 | 30 000 | 50 000 | 4 000 ³⁾ | 2 800 | 1 200 | 84 000 |
| 2000 ²⁾ | 29.8 - 15.9 | 18 000 | 61 000 | | 1 500 | 2 500 | 83 000 |
| 2002 ²⁾ | 16.7 - 12.8 | 10 500 | 52 000 | | 2 600 | 100 | 65 200 |
| 2004 | 16.5 - 9.6 | 19 000 | 37 000 | | 1 900 | 200 | 58 100 |
| 2005 | 4.5 - 27.5 | 30 000 | 46 000 | | 4 700 | 500 | 81 200 |
| 2006 | 19.5 - 5.6 | 19 000 | 37 000 | | 3 900 | 700 | 60 600 |

¹⁾The estimated biomass for pelagic species (PEL 1 + PEL 2) was 14 000 tonnes (Strømme, T., Føyn, L. and Sætersdal, G. 1983). ²⁾ Upwelling season. ³⁾ 1999 values are splitted proportional to the shelf area (in parenthesis in NM²).

CHAPTER 5 RESULTS FROM THE TRAWL SURVEY: CATCH DISTRIBUTION, COMPOSITION AND SWEEPED-AREA BIOMASS ESTIMATES OF DEMERSAL FISH

The composition of the fish fauna on the continental shelf and slope of the western Gulf of Guinea changes with depth (Williams 1968). The catch-distribution analyses were therefore performed for two depth strata on the shelf, 0-50 m (inner shelf) and 51-100 m (outer shelf). In the analyses the “Demersal” group includes commercially important families as Sciaenidae, Haemulidae/Pomadasyidae, Serranidae, Sparidae, Lutjanidae, Merlucciidae, Lethrinidae, Ophidiidae and Ariidae, while the “Pelagic” group includes Engraulidae, Clupeidae, Carangidae, Scombridae, Sphyraenidae and Trichiuridae (the latter family is actually mainly benthopelagic). For the different analysis the “other” group includes all species not accounted for in the groups listed. Therefore, the content of “other” will change from table to table.

The locations of the trawl stations are shown in Figures 1.1a-b. Records of fishing stations and catches are presented in Annex I and pooled length distributions (weighted by catch) of main species by area are shown in Annex II.

In the swept-area biomass estimates, only the shelf area down to depths of 100 m was included, divided into 0-30 m, 31-50 m and 51-100 m. Mean densities of the main demersal species by depth strata, occurrence and catch distributions are shown in Annex IV.

5.1 Benin

15 swept-area trawl stations (one in dark hours) were made on the shelf off Benin. Tables 5.1 a-b and Figures 5.1a-b show catch rates by main groups for the inner shelf (0-50 m) and outer shelf (51-100 m), respectively.

The group “other” dominated on the inner shelf with a relative contribution of 56 %, due to one large catch of jellyfish. Pelagic fish was the second most important, contributing 31 % to the catches, followed by the demersal group (10 %), cephalopods (1.6 %) and shrimps (0.6 %). No sharks were caught on the inner shelf. On the outer shelf the demersal group was the most important with 65 % of the average catch rate. The pelagic group made up 19 % of the catches and “other” fish 11 %. Cephalopods had higher mean catch rate than on the inner shelf and made up 3.0 % of the catches. *Sepia officinalis hierredda* was the dominant cephalopod. Sharks contributed 1.7 %, while no shrimps were caught on the outer shelf.

Table 5.1 Benin. Catch rates (kg/h) by main groups in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|--------|--------|
| 1089 | 21.0 | 113.7 | 244.9 | 0.0 | 0.2 | 0.0 | 60.7 | 419.5 |
| 1090 | 33.0 | 71.7 | 282.5 | 0.2 | 5.9 | 0.0 | 19.1 | 379.4 |
| 1093 | 45.0 | 178.6 | 8.4 | 24.8 | 20.3 | 0.0 | 212.8 | 444.9 |
| 1094 | 23.0 | 82.4 | 46.2 | 3.2 | 0.0 | 0.0 | 89.9 | 221.7 |
| 1096 | 17.0 | 4.0 | 74.7 | 0.0 | 15.9 | 0.0 | 55.0 | 149.5 |
| 1097 | 45.0 | 0.4 | 20.5 | 0.0 | 2.2 | 0.0 | 2190.9 | 2213.9 |
| 1100 | 32.0 | 7.6 | 0.4 | 0.0 | 1.5 | 0.0 | 37.5 | 47.0 |
| 1101 | 23.0 | 7.4 | 343.9 | 0.0 | 1.9 | 0.0 | 39.0 | 392.1 |
| 1102 | 19.0 | 43.5 | 378.3 | 0.0 | 0.0 | 0.0 | 114.9 | 536.7 |
| 1106 | 45.0 | 25.8 | 170.5 | 0.0 | 30.7 | 0.0 | 37.5 | 264.5 |
| Mean | 30 | 53.5 | 157.0 | 2.8 | 7.9 | 0.0 | 285.7 | 506.9 |
| SE | | 18.5 | 46.2 | 2.5 | 3.4 | 0.0 | 212.4 | 195.4 |
| % Catch | | 10.6 | 31.0 | 0.6 | 1.6 | 0.0 | 56.4 | |

b) Outer shelf, 51-100 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopod | Sharks | Other | Total |
|---------|-------|----------|---------|--------|------------|--------|-------|--------|
| 1091 | 66 | 6.5 | 277.8 | 0.0 | 11.1 | 0.0 | 62.7 | 358.2 |
| 1092 | 87 | 159.2 | 0.0 | 0.0 | 17.4 | 29.5 | 140.0 | 346.1 |
| 1098 | 82 | 1486.8 | 2.2 | 0.0 | 3.6 | 6.1 | 41.1 | 1539.8 |
| 1099 | 64 | 96.3 | 244.0 | 0.0 | 13.3 | 2.9 | 3.1 | 359.6 |
| 1107 | 63 | 65.3 | 6.2 | 0.0 | 38.1 | 8.1 | 57.4 | 175.1 |
| Mean | 72 | 362.8 | 106.0 | 0.0 | 16.7 | 9.3 | 60.9 | 555.7 |
| SE | | 282.1 | 63.5 | 0.0 | 5.8 | 5.2 | 22.4 | 248.5 |
| % Catch | | 65.3 | 19.1 | 0.0 | 3.0 | 1.7 | 11.0 | |

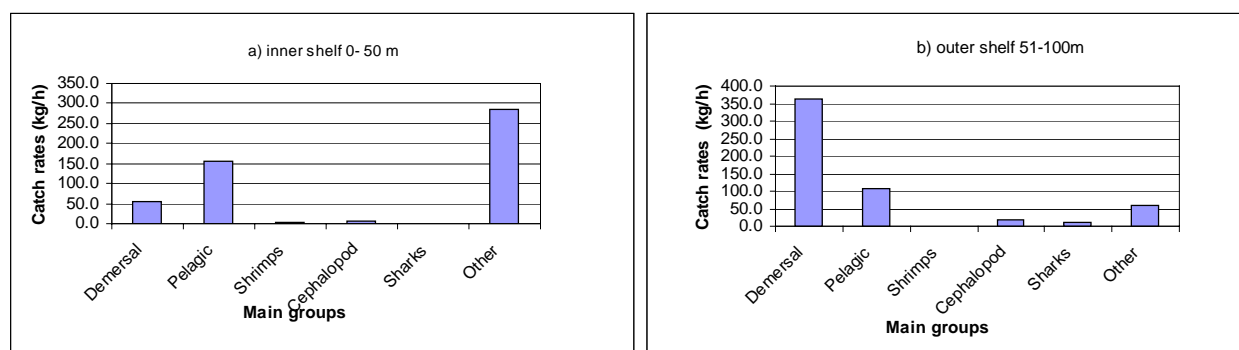


Figure 5.1 Mean catch rates (kg/h) by main groups in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Catch rates of the most important pelagic families, caught by bottom trawl in the swept-area survey, are presented in Tables 5.2a-b and Figures 5.2a-b. Clupeids were dominant species group on the inner shelf, with an average catch rate of 58 kg/h. *Ilisha africana*, *Sardinella*

maderensis and *S. aurita* were caught regularly with *S. aurita* being the most abundant and mainly found on the outer shelf, while the two others were found on the inner shelf. Barracudas (Sphyraenidae) had the second highest mean catch rate on the inner shelf (50 kg/h), while carangids came third (43 kg/h). *Selene dorsalis*, *Chloroscombrus chrysurus*, *Alectis alexandrinus* and *Decapterus punctatus* were the most common carangids. Scombrids and hairtails had both low catch rates on the inner shelf. On the outer shelf hairtails had the highest mean catch rate (55 kg/h) due to one large catch. Clupeids (26 kg/h) and carangids (21 kg/h) had both lower catch rates than on the inner shelf, while barracudas were scarce and no scombrids were caught here.

Table 5.2 Benin. Catch rates (kg/h) by main pelagic families in swept-area bottom-trawl hauls on the a) Inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|--------|--------|
| 1089 | 21 | 32.5 | 102.2 | 9.5 | 0.9 | 99.7 | 174.6 | 419.5 |
| 1090 | 33 | 2.0 | 48.3 | 0.0 | 0.0 | 232.2 | 96.9 | 379.4 |
| 1093 | 45 | 0.0 | 0.3 | 0.0 | 8.1 | 0.0 | 436.5 | 444.9 |
| 1094 | 23 | 7.8 | 29.8 | 2.1 | 0.8 | 5.6 | 175.6 | 221.7 |
| 1096 | 17 | 6.2 | 42.1 | 5.9 | 0.2 | 20.3 | 74.8 | 149.5 |
| 1097 | 45 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 2193.5 | 2213.9 |
| 1100 | 32 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 46.6 | 47.0 |
| 1101 | 23 | 298.9 | 24.1 | 0.8 | 0.0 | 20.2 | 48.2 | 392.1 |
| 1102 | 19 | 216.8 | 30.1 | 5.0 | 11.2 | 115.2 | 158.4 | 536.7 |
| 1106 | 45 | 20.6 | 137.1 | 0.0 | 0.0 | 12.8 | 94.0 | 264.5 |
| Mean | 30 | 58.5 | 43.5 | 2.3 | 2.1 | 50.7 | 349.9 | 506.9 |
| SE | | 34.0 | 13.9 | 1.1 | 1.3 | 24.2 | 208.0 | 195.4 |
| % Catch | | 11.5 | 8.6 | 0.5 | 0.4 | 10.0 | 69.0 | |

b) Outer shelf, 51-100 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|--------|--------|
| 1091 | 66 | 1.5 | 1.5 | 0.0 | 273.0 | 1.9 | 80.3 | 358.2 |
| 1092 | 87 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 346.1 | 346.1 |
| 1098 | 82 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 | 1537.6 | 1539.8 |
| 1099 | 64 | 128.3 | 102.9 | 0.0 | 2.6 | 10.2 | 115.6 | 359.6 |
| 1107 | 63 | 1.1 | 2.0 | 0.0 | 0.5 | 2.6 | 168.9 | 175.1 |
| Mean | 72 | 26.2 | 21.7 | 0.0 | 55.2 | 2.9 | 449.7 | 555.7 |
| SE | | 25.5 | 20.3 | 0.0 | 54.5 | 1.9 | 275.8 | 248.5 |
| % Catch | | 4.7 | 3.9 | 0.0 | 9.9 | 0.5 | 80.9 | |

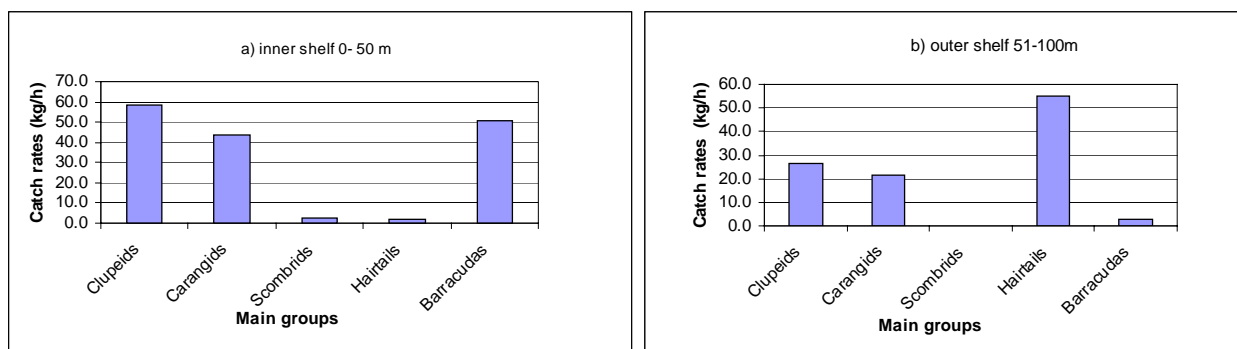


Figure 5.2 Mean catch rates (kg/h) by main pelagic families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Tables 5.3a-b and Figures 5.3a-b present catch rates of some of the most commercially important demersal species on the shelf down to 100 m, grouped as seabreams (Sparidae except *Boops boops*), snappers (Lutjanidae), groupers (Serranidae), grunts (Haemulidae except *Brachydeuterus auritus*) and croakers (Sciaenidae). All groups had low catch rates on the inner shelf, croakers the highest (10 kg/h). Seabreams dominated the outer shelf with an average catch rate of 344 kg/h or 62 % of the total average catch rate, due to one large catch (1462 kg/h at station 1098). The most commonly occurring species were *Pagrus caeruleostictus*, *Pagellus bellottii*, *Dentex canariensis* and *D. angolensis*. Groupers had somewhat higher catch rates than on the inner shelf (7 kg/h), while no snappers, croakers or grunts were caught here.

Table 5.3 Benin. Catch rates (kg/h) of commercially important demersal species grouped by families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Seabreams | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|-----------|----------|----------|--------|----------|--------|--------|
| 1089 | 21 | 7.9 | 28.4 | 0.0 | 4.3 | 60.7 | 318.2 | 419.5 |
| 1090 | 33 | 3.6 | 0.0 | 4.5 | 0.0 | 0.0 | 371.3 | 379.4 |
| 1093 | 45 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 441.1 | 444.9 |
| 1094 | 23 | 0.3 | 22.9 | 0.0 | 2.8 | 14.8 | 181.0 | 221.7 |
| 1096 | 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 149.3 | 149.5 |
| 1097 | 45 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 2213.7 | 2213.9 |
| 1100 | 32 | 7.6 | 0.0 | 0.0 | 0.0 | 0.0 | 39.4 | 47.0 |
| 1101 | 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 392.1 | 392.1 |
| 1102 | 19 | 0.0 | 0.0 | 0.0 | 0.0 | 24.3 | 512.4 | 536.7 |
| 1106 | 45 | 15.6 | 0.0 | 1.6 | 2.0 | 0.0 | 245.3 | 264.5 |
| Mean | 30 | 3.9 | 5.1 | 0.6 | 0.9 | 10.0 | 486.4 | 506.9 |
| SE | | 1.6 | 3.5 | 0.5 | 0.5 | 6.2 | 197.3 | 195.4 |
| % Catch | | 0.8 | 1.0 | 0.1 | 0.2 | 2.0 | 95.9 | |

Table 5.3 cont.

b) Outer shelf, 51-100 m

| Station | Depth | Seabreams | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|-----------|----------|----------|--------|----------|-------|--------|
| 1091 | 66 | 3.3 | 0.0 | 0.0 | 0.0 | 0.0 | 354.9 | 358.2 |
| 1092 | 87 | 137.2 | 0.0 | 0.0 | 0.0 | 0.0 | 208.9 | 346.1 |
| 1098 | 82 | 1461.9 | 0.0 | 24.9 | 0.0 | 0.0 | 53.0 | 1539.8 |
| 1099 | 64 | 82.9 | 0.0 | 13.4 | 0.0 | 0.0 | 263.3 | 359.6 |
| 1107 | 63 | 35.5 | 0.0 | 0.0 | 0.0 | 0.0 | 139.6 | 175.1 |
| Mean | 72 | 344.2 | 0.0 | 7.7 | 0.0 | 0.0 | 203.9 | 555.7 |
| SE | | 280.4 | 0.0 | 5.0 | 0.0 | 0.0 | 51.6 | 248.5 |
| % Catch | | 61.9 | 0.0 | 1.4 | 0.0 | 0.0 | 36.7 | |

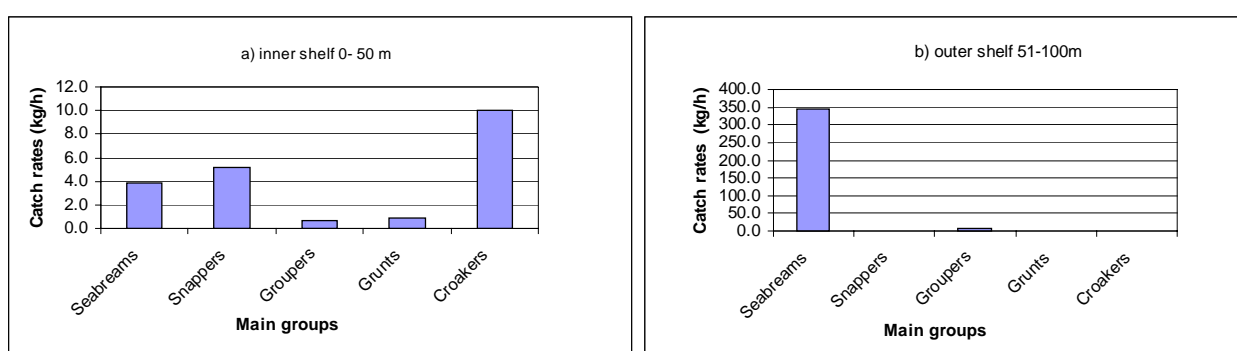


Figure 5.3 Mean catch rates (kg/h) of valuable demersal species by families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Annex IV gives swept-area estimates of mean densities (t/NM^2) for demersal species based on the 15 random bottom trawl stations on the shelf of Benin. *Galeoides decadactylus* and *Pseudotolithus senegalensis* had the highest mean density in the shallowest zone (≤ 30 m), *Brachydeuterus auritus* and *Sepia officinalis hierredda* in the 31-50 m zone, while *Dentex congoensis*, *D. angolensis* and *Pagellus bellottii* had the highest density in the 51-100 m zone. *D. congoensis* had the highest overall mean densities, mainly due to one large catch.

Table 5.4 presents swept-area biomass estimates for valuable demersal groups and some other groups that occurred in sizeable quantities. Estimated total biomass of valuable demersal groups was about 3 000 tonnes, slightly more than found in 2005. Seabreams had the highest biomass followed by croakers and snappers. The highest biomass of seabreams was found between 51-100 m depth, of croakers and snappers between 0-30 m. Grunts and groupers had the lowest biomass estimates. Of the pelagic and semi-pelagic groups, barracudas and carangids had the highest estimated biomasses.

Table 5.4 Benin. Biomass estimates (tonnes) by depth of important species/groups on the shelf.

| Group/species | 0-30 m | 31-50 m | 51-100 m | Sum | 95 % confidence limits | |
|---------------------|--------|---------|----------|-------|------------------------|-------|
| Seabreams | 23 | 27 | 2 647 | 2 697 | 0 | 7 007 |
| Grunts | 19 | 9 | 0 | 29 | 0 | 60 |
| Croakers | 244 | 0 | 0 | 244 | 0 | 516 |
| Groupers | 0 | 5 | 61 | 66 | 0 | 147 |
| Snappers | 124 | 0 | 0 | 124 | 0 | 277 |
| Sum dem.val. | 410 | 42 | 2 708 | 3 160 | 0 | 7 569 |
| Bigeye grunt | 108 | 212 | 54 | 374 | 58 | 690 |
| Carangids | 550 | 176 | 178 | 903 | 379 | 1 428 |
| Barracudas | 642 | 212 | 24 | 879 | 190 | 1 568 |
| Cephalopods | 43 | 54 | 134 | 230 | 101 | 360 |

5.2 Togo

9 swept-area trawl stations were made on the shelf off Togo. Tables 5.5a-b and Figures 5.4a-b present catch rates by main groups for the inner and outer shelf. On the inner shelf the pelagic group had the highest relative contribution with 35 % of the catch, demersal fish made up 33 % while the group “other” had a relative contribution of 19 %. The mean catch of cephalopods made up 13 % of the total catch on the inner shelf. No shrimps or sharks were caught. Also on the outer shelf the pelagic group had the highest contribution with 41 % of the total catch, followed by “other” (38 %), the demersal group (13 %), cephalopods (7 %) and sharks (0.7 %). No shrimps were caught on the outer shelf either.

Table 5.5 Togo. Catch rates (kg/h) by main groups in swept-area bottom trawl hauls on a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|-------|-------|
| 1110 | 40 | 84.6 | 71.6 | 0.0 | 18.1 | 0.0 | 13.6 | 188.0 |
| 1111 | 22 | 9.8 | 65.9 | 0.0 | 1.9 | 0.0 | 16.2 | 93.8 |
| 1113 | 44 | 149.5 | 191.3 | 0.0 | 60.8 | 0.0 | 80.7 | 482.3 |
| 1114 | 23 | 48.0 | 20.7 | 0.0 | 1.8 | 0.0 | 51.1 | 121.6 |
| 1117 | 36 | 67.4 | 8.0 | 0.0 | 43.1 | 0.0 | 20.2 | 138.7 |
| 1118 | 23 | 3.9 | 22.7 | 0.0 | 14.2 | 0.0 | 26.2 | 66.9 |
| Mean | 31 | 60.5 | 63.4 | 0.0 | 23.3 | 0.0 | 34.7 | 181.9 |
| SE | | 22.0 | 27.7 | 0.0 | 9.7 | 0.0 | 10.7 | 62.4 |
| % Catch | | 33.3 | 34.8 | 0.0 | 12.8 | 0.0 | 19.1 | |

Table 5.5 cont.

b) Outer shelf, 51-100 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|-------|-------|
| 1109 | 64 | 58.6 | 77.5 | 0.0 | 16.2 | 7.0 | 57.9 | 217.1 |
| 1115 | 53 | 61.6 | 220.2 | 0.0 | 28.1 | 0.0 | 74.6 | 384.5 |
| 1116 | 52 | 15.8 | 129.6 | 0.0 | 31.4 | 0.0 | 269.2 | 446.0 |
| Mean | 56 | 45.4 | 142.4 | 0.0 | 25.2 | 2.3 | 133.9 | 349.2 |
| SE | | 14.8 | 41.7 | 0.0 | 4.6 | 2.3 | 67.8 | 68.4 |
| % Catch | | 13.0 | 40.8 | 0.0 | 7.2 | 0.7 | 38.3 | |

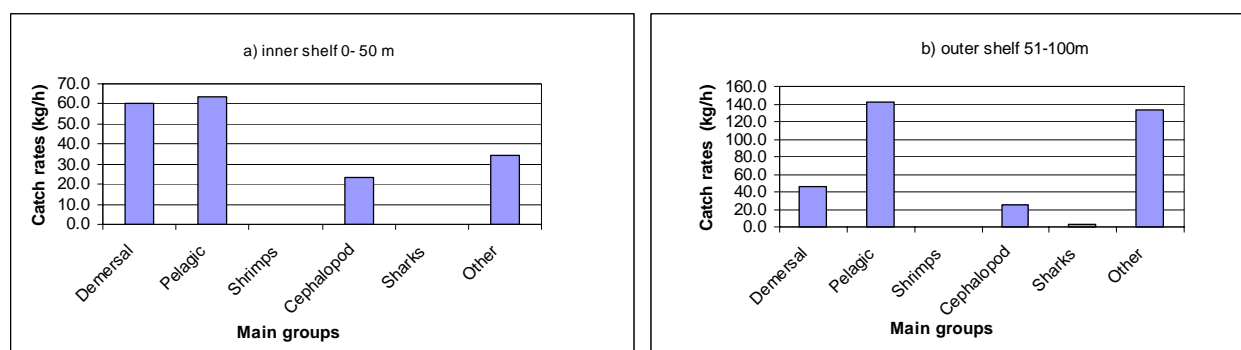


Figure 5.4 Mean catch rates (kg/h) by main groups in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Catch rates of the most important pelagic families are presented in Tables 5.6a-b and Figures 5.5a-b. Carangids were the dominant species group on the inner shelf (34 kg/h). *Alectis alexandrinus*, *Decapterus punctatus* and *Selene dorsalis* were the most common species. Barracudas (19 kg/h), Scombrids (6 kg/h) and Clupeids (4.5 kg/h) came next, while no hairtails were caught on the inner shelf. Clupeids were more abundant on the outer shelf (78 kg/h). *Sardinella aurita* was the only clupeid caught here, while *S. maderensis* was found on one station on the inner shelf. Carangids (63 kg/h) were the second most important group on the outer shelf, also more abundant than on the inner shelf. Barracudas and scombrids were scarce and no hairtails were caught here either.

Table 5.6 Togo. Catch rates (kg/h) by main pelagic families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|-------|-------|
| 1110 | 40 | 0.0 | 71.0 | 0.0 | 0.0 | 0.6 | 116.4 | 188.0 |
| 1111 | 22 | 25.6 | 2.7 | 9.2 | 0.0 | 28.4 | 27.9 | 93.8 |
| 1113 | 44 | 0.7 | 111.2 | 20.4 | 0.0 | 59.1 | 291.0 | 482.3 |
| 1114 | 23 | 0.0 | 9.2 | 4.7 | 0.0 | 6.7 | 100.9 | 121.6 |
| 1117 | 36 | 0.0 | 5.0 | 0.0 | 0.0 | 3.0 | 130.7 | 138.7 |
| 1118 | 23 | 0.7 | 3.0 | 1.7 | 0.0 | 17.3 | 44.2 | 66.9 |
| Mean | 31 | 4.5 | 33.7 | 6.0 | 0.0 | 19.2 | 118.5 | 181.9 |
| SE | | 4.2 | 18.9 | 3.2 | 0.0 | 9.0 | 38.3 | 62.4 |
| % Catch | | 2.5 | 18.5 | 3.3 | 0.0 | 10.6 | 65.2 | |

Table 5.6 cont.

b) Outer shelf, 50-100 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|-------|-------|
| 1109 | 64 | 61.2 | 15.1 | 0.0 | 0.0 | 1.1 | 139.7 | 217.1 |
| 1115 | 53 | 98.4 | 120.9 | 0.8 | 0.0 | 0.0 | 164.3 | 384.5 |
| 1116 | 52 | 76.4 | 52.7 | 0.0 | 0.0 | 0.5 | 316.4 | 446.0 |
| Mean | 56 | 78.7 | 62.9 | 0.3 | 0.0 | 0.5 | 206.8 | 349.2 |
| SE | | 10.8 | 31.0 | 0.3 | 0.0 | 0.3 | 55.3 | 68.4 |
| % Catch | | 22.5 | 18.0 | 0.1 | 0.0 | 0.2 | 59.2 | |

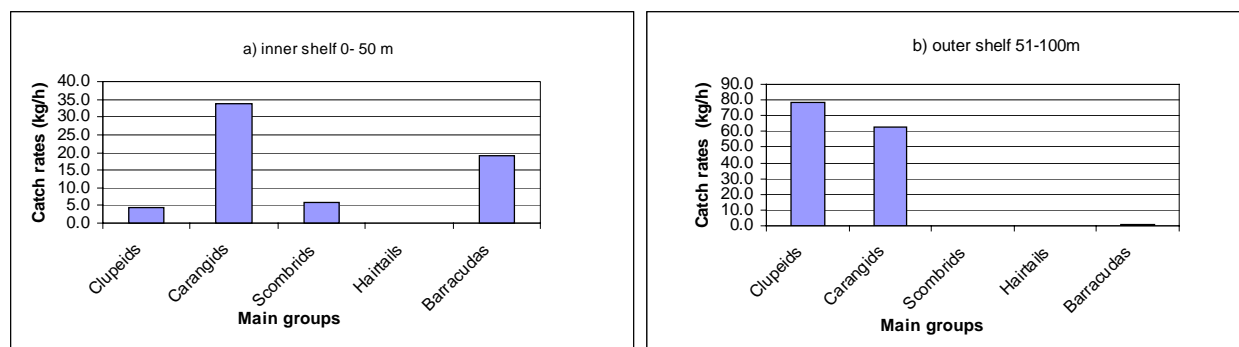


Figure 5.5 Mean catch rates (kg/h) by main pelagic families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Tables 5.7a-b and Figures 5.6a-b present catch rates of some of the most commercially important demersal species on the shelf down to 100 m, grouped as seabreams (Sparidae except *Boops boops*), snappers (Lutjanidae), groupers (Serranidae), grunts (Haemulidae except *Brachydeuterus auritus*) and croakers (Sciaenidae). The seabreams dominated both the inner and outer parts of the shelf with catch rates of 36 kg/h and 44 kg/h, respectively. *Dentex canariensis*, *Pagrus caeruleostictus* and *Pagellus bellottii* were the most common seabreams. Groupers were caught in low numbers on both parts of the shelf, grunts on the inner shelf and snappers on the outer shelf, while no croakers were caught on the shelf of Togo.

Table 5.7 Togo. Catch rates (kg/h) of commercially important demersal species grouped by families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (50-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Seabream | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|----------|----------|----------|--------|----------|-------|-------|
| 1110 | 40 | 72.7 | 0.0 | 8.5 | 0.0 | 0.0 | 106.7 | 188.0 |
| 1111 | 22 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 88.7 | 93.8 |
| 1113 | 44 | 25.8 | 0.0 | 0.0 | 9.3 | 0.0 | 447.2 | 482.3 |
| 1114 | 23 | 43.1 | 0.0 | 0.0 | 0.0 | 0.0 | 78.5 | 121.6 |
| 1117 | 36 | 67.4 | 0.0 | 0.0 | 0.0 | 0.0 | 71.3 | 138.7 |
| 1118 | 23 | 3.9 | 0.0 | 0.0 | 0.0 | 0.0 | 63.0 | 66.9 |
| Mean | 31 | 36.3 | 0.0 | 1.4 | 1.5 | 0.0 | 142.6 | 181.9 |
| SE | | 12.2 | 0.0 | 1.4 | 1.5 | 0.0 | 61.2 | 62.4 |
| % Catch | | 20.0 | 0.0 | 0.8 | 0.9 | 0.0 | 78.4 | |

Table 5.7 cont.

b) Outer shelf, 50-100 m

| Station | Depth | Seabream | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|----------|----------|----------|--------|----------|-------|-------|
| 1109 | 64 | 54.1 | 2.7 | 1.8 | 0.0 | 0.0 | 158.6 | 217.1 |
| 1115 | 53 | 61.6 | 0.0 | 0.0 | 0.0 | 0.0 | 322.9 | 384.5 |
| 1116 | 52 | 15.8 | 0.0 | 0.0 | 0.0 | 0.0 | 430.2 | 446.0 |
| Mean | 56 | 43.8 | 0.9 | 0.6 | 0.0 | 0.0 | 303.9 | 349.2 |
| SE | | 14.2 | 0.9 | 0.6 | 0.0 | 0.0 | 79.0 | 68.4 |
| % Catch | | 12.6 | 0.3 | 0.2 | 0.0 | 0.0 | 87.0 | |

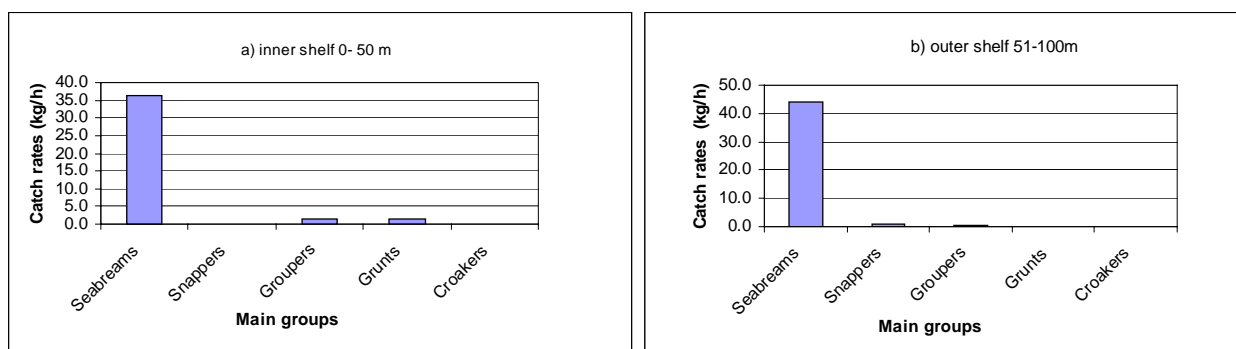


Figure 5.6 Mean catch rates (kg/h) of valuable demersal species by families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Annex IV gives swept-area estimates of mean densities (t/NM^2) for demersal species based on the 9 random bottom trawl stations on the shelf of Togo. *Dentex canariensis* and *Lagocephalus laevigatus* had the highest mean density in the shallowest zone (≤ 30 m), *Brachydeuterus auritus*, *Sepia officinalis hierredda*, and *P. bellottii* in the 31-50 m zone and *Priacanthus arenatus*, *S. officinalis hierredda* and *D. canariensis* in the 51-100 m zone. *S. officinalis hierredda*, *P. arenatus* and *P. bellottii* had the highest overall mean densities.

Table 5.8 presents swept-area biomass estimates for valuable demersal groups and other groups that occurred in sizeable quantities in the hauls taken off Togo. Estimated total biomass of valuable demersal groups averaged about 400 tonnes. Seabreams made up most of this, and were most abundant in the two deepest zones. Groupers, grunts and snappers had very low biomass estimates and no croakers were caught. Of the presented pelagic and semi-pelagic groups, carangids had the highest estimated biomass.

Table 5.8 Togo. Biomass estimates (tonnes) by depth of important species/groups on the shelf.

| Group/species | 0-30 m | 31-50 m | 51-100 m | Sum | 95 % confidence limits | |
|---------------------|--------|---------|----------|-----|------------------------|-----|
| Seabreams | 79 | 138 | 135 | 352 | 188 | 516 |
| Grunts | 0 | 8 | 0 | 8 | 0 | 23 |
| Croakers | 0 | 0 | 0 | 0 | 0 | 0 |
| Groupers | 0 | 7 | 2 | 9 | 0 | 24 |
| Snappers | 0 | 0 | 3 | 3 | 0 | 9 |
| Sum dem.val. | 79 | 153 | 140 | 372 | 208 | 535 |
| Bigeye grunt | 0 | 94 | 0 | 94 | 0 | 281 |
| Carangids | 24 | 155 | 202 | 381 | 129 | 633 |
| Barracudas | 83 | 51 | 2 | 137 | 26 | 248 |
| Cephalopods | 28 | 101 | 81 | 210 | 131 | 289 |

5.3 Ghana

A total of 42 swept-area trawl hauls were made on the shelf off Ghana. Tables 5.9a-b and Figures 5.7a-b present catch rates by main groups for the inner (0-50 m) and outer (51-100 m) shelf, respectively. The pelagic species group had the highest average catch rate on the inner shelf with a relative contribution of 37 %, closely followed by the demersal group (36 %). The group “other” contributed 22 %. Cephalopods made up 3.6 % of the catches, while no shrimps and sharks were caught. On the outer shelf the “other” group dominated the catches, contributing 50 % to the total. The demersal group had a relative contribution of 30 % and the pelagic group 16 %. Cephalopods had higher catch rates than on the inner shelf, and sharks were caught on about half of the stations. No shrimps were found on the outer shelf either.

Tables 5.10a-b and Figures 5.8a-b show catch rates of the most important pelagic families caught in the bottom-trawl hauls. Carangids dominated the inner shelf with a mean catch rate of 48 kg/h. The most frequently occurring species of carangids were *Decapterus punctatus*, *Chloroscombrus chrysurus*, *Alectis alexandrinus*, *Selene dorsalis*, *Selar crumenophthalmus*, and *Caranx crysos*. The second most important group was the Clupeids (22 kg/h) followed by the barracudas (18 kg/h). *Sardinella aurita* was the most common clupeid, found on both the inner and outer shelf, while *S. maderensis* was only observed in bottom trawl hauls on the inner shelf. Carangids were also the most abundant group on the outer shelf (72 kg/h) and Clupeids had the second highest catch rate here (38 kg/h). Barracudas had lower average catch rate on the outer shelf (7 kg/h), while Scombrids and hairtails (*Trichiurus lepturus*) were scarce on both the inner and outer shelf.

Table 5.9 Ghana. Catch rates (kg/h) by main groups in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|-------|-------|
| 1121 | 27 | 21.6 | 24.8 | 0.0 | 18.8 | 0.0 | 10.2 | 75.4 |
| 1122 | 46 | 27.2 | 91.4 | 0.0 | 78.9 | 0.0 | 10.5 | 207.9 |
| 1124 | 50 | 74.7 | 25.3 | 0.0 | 48.0 | 0.0 | 17.8 | 165.9 |
| 1125 | 38 | 45.5 | 103.7 | 0.0 | 4.2 | 0.0 | 9.0 | 162.4 |
| 1126 | 26 | 5.5 | 64.9 | 0.0 | 0.0 | 0.0 | 344.8 | 415.3 |
| 1129 | 40 | 134.3 | 56.5 | 0.0 | 14.2 | 0.0 | 42.1 | 247.1 |
| 1130 | 24 | 110.0 | 8.5 | 0.0 | 0.4 | 0.0 | 376.8 | 495.8 |
| 1131 | 42 | 12.0 | 5.8 | 0.0 | 16.1 | 0.0 | 43.3 | 77.1 |
| 1133 | 22 | 471.7 | 221.9 | 0.0 | 1.0 | 0.0 | 30.2 | 724.7 |
| 1134 | 30 | 18.8 | 10.5 | 0.0 | 0.7 | 0.0 | 35.2 | 65.1 |
| 1135 | 39 | 30.4 | 20.6 | 0.0 | 0.3 | 0.0 | 33.0 | 84.3 |
| 1140 | 22 | 7.2 | 34.3 | 0.0 | 0.0 | 0.0 | 50.4 | 92.0 |
| 1141 | 32 | 2.7 | 34.3 | 0.0 | 6.1 | 0.0 | 1.4 | 44.6 |
| 1143 | 42 | 4.2 | 2.0 | 0.0 | 11.3 | 0.0 | 2.3 | 19.8 |
| 1147 | 20 | 588.3 | 300.4 | 0.2 | 1.8 | 0.0 | 18.9 | 909.5 |
| 1148 | 30 | 6.3 | 4.8 | 0.0 | 1.7 | 0.0 | 41.3 | 54.1 |
| 1149 | 42 | 15.4 | 9.1 | 0.0 | 4.8 | 0.0 | 34.9 | 64.2 |
| 1155 | 47 | 43.1 | 80.7 | 0.0 | 3.8 | 0.0 | 16.4 | 144.0 |
| 1156 | 28 | 89.4 | 84.6 | 0.1 | 0.9 | 0.0 | 47.9 | 222.8 |
| 1157 | 46 | 239.9 | 153.5 | 0.0 | 1.5 | 0.0 | 23.0 | 418.0 |
| 1158 | 29 | 105.2 | 230.2 | 0.2 | 1.4 | 0.0 | 115.0 | 451.9 |
| 1162 | 39 | 137.9 | 476.8 | 0.0 | 18.5 | 0.0 | 42.9 | 676.1 |
| 1163 | 28 | 28.8 | 78.4 | 0.1 | 0.0 | 0.0 | 24.2 | 131.5 |
| 1164 | 26 | 81.8 | 35.7 | 0.0 | 0.1 | 0.0 | 37.0 | 154.6 |
| 1165 | 40 | 24.8 | 204.9 | 0.0 | 0.0 | 0.0 | 14.5 | 244.1 |
| 1169 | 44 | 24.6 | 52.5 | 0.0 | 0.2 | 0.0 | 8.1 | 85.4 |
| 1170 | 25 | 54.3 | 52.3 | 0.0 | 3.6 | 0.0 | 46.2 | 156.4 |
| Mean | 34 | 89.1 | 91.4 | 0.0 | 8.8 | 0.0 | 54.7 | 244.1 |
| SE | | 26.8 | 21.3 | 0.0 | 3.3 | 0.0 | 17.5 | 44.7 |
| % Catch | | 36.5 | 37.5 | 0.0 | 3.6 | 0.0 | 22.4 | |

b) Outer shelf, 51-100 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|--------|--------|
| 1123 | 87 | 1307.4 | 176.2 | 0.0 | 204.6 | 19.1 | 3047.9 | 4755.2 |
| 1128 | 70 | 463.0 | 317.1 | 0.0 | 32.7 | 14.6 | 50.5 | 877.8 |
| 1132 | 60 | 170.7 | 63.8 | 0.0 | 22.4 | 18.9 | 142.0 | 417.8 |
| 1136 | 54 | 46.9 | 12.8 | 0.0 | 9.8 | 0.0 | 99.7 | 169.2 |
| 1137 | 69 | 268.6 | 18.7 | 0.0 | 10.6 | 3.4 | 447.9 | 749.1 |
| 1138 | 99 | 252.5 | 0.0 | 0.0 | 8.7 | 7.1 | 76.4 | 344.8 |
| 1144 | 56 | 66.0 | 2.1 | 0.0 | 5.0 | 0.0 | 37.3 | 110.4 |
| 1145 | 77 | 39.8 | 147.6 | 0.0 | 1.5 | 4.4 | 946.5 | 1139.7 |
| 1151 | 59 | 89.3 | 68.3 | 0.0 | 5.8 | 0.0 | 153.0 | 316.4 |
| 1152 | 86 | 31.0 | 10.2 | 0.0 | 8.2 | 15.9 | 60.8 | 126.1 |
| 1154 | 80 | 39.7 | 39.2 | 0.0 | 14.4 | 0.0 | 42.8 | 136.2 |
| 1159 | 86 | 261.6 | 348.8 | 0.0 | 17.7 | 0.0 | 98.7 | 726.8 |
| 1160 | 79 | 104.1 | 57.1 | 0.0 | 2.8 | 0.0 | 37.0 | 201.0 |
| 1166 | 61 | 61.4 | 19.0 | 0.0 | 0.5 | 3.8 | 9.3 | 93.9 |
| 1168 | 71 | 48.2 | 545.4 | 0.0 | 11.0 | 0.0 | 175.4 | 779.9 |
| Mean | 73 | 216.7 | 121.8 | 0.0 | 23.7 | 5.8 | 361.7 | 729.6 |
| SE | | 84.2 | 41.7 | 0.0 | 13.1 | 1.9 | 201.6 | 300.1 |
| % Catch | | 29.7 | 16.7 | 0.0 | 3.3 | 0.8 | 49.6 | |

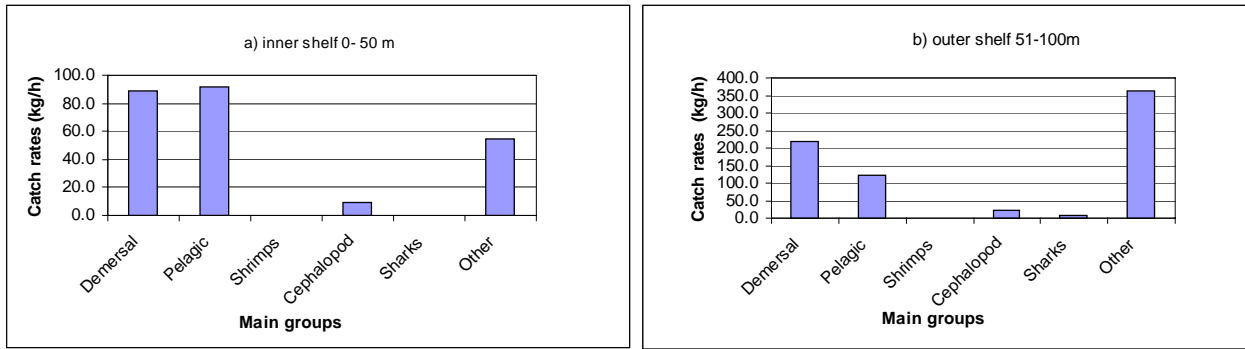


Figure 5.7 Mean catch rates (kg/h) by main groups in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Table 5.10 Ghana. Catch rates (kg/h) by main pelagic families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|-------|-------|
| 1121 | 27 | 0.3 | 17.5 | 4.8 | 0.0 | 2.1 | 50.6 | 75.4 |
| 1122 | 46 | 0.0 | 79.7 | 11.7 | 0.0 | 0.0 | 116.5 | 207.9 |
| 1124 | 50 | 0.9 | 19.5 | 5.0 | 0.0 | 0.0 | 140.5 | 165.9 |
| 1125 | 38 | 0.0 | 97.3 | 2.5 | 0.0 | 3.9 | 58.7 | 162.4 |
| 1126 | 26 | 3.1 | 21.4 | 5.1 | 0.0 | 35.3 | 350.4 | 415.3 |
| 1129 | 40 | 6.8 | 49.7 | 0.0 | 0.0 | 0.0 | 190.6 | 247.1 |
| 1130 | 24 | 1.1 | 0.4 | 7.0 | 0.0 | 0.0 | 487.3 | 495.8 |
| 1131 | 42 | 0.2 | 3.6 | 1.9 | 0.0 | 0.0 | 71.4 | 77.1 |
| 1133 | 22 | 4.1 | 168.5 | 0.0 | 3.0 | 46.4 | 502.8 | 724.7 |
| 1134 | 30 | 0.7 | 6.3 | 2.1 | 0.0 | 1.3 | 54.7 | 65.1 |
| 1135 | 39 | 0.0 | 20.6 | 0.0 | 0.0 | 0.0 | 63.7 | 84.3 |
| 1140 | 22 | 2.8 | 13.8 | 0.0 | 0.0 | 17.7 | 57.6 | 92.0 |
| 1141 | 32 | 6.6 | 7.1 | 0.0 | 0.0 | 20.6 | 10.3 | 44.6 |
| 1143 | 42 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 | 17.8 | 19.8 |
| 1147 | 20 | 123.6 | 117.8 | 5.8 | 3.2 | 50.1 | 609.1 | 909.5 |
| 1148 | 30 | 0.0 | 3.3 | 0.0 | 0.0 | 1.4 | 49.4 | 54.1 |
| 1149 | 42 | 0.0 | 9.1 | 0.0 | 0.0 | 0.0 | 55.1 | 64.2 |
| 1155 | 47 | 0.0 | 29.0 | 0.0 | 0.0 | 51.7 | 63.3 | 144.0 |
| 1156 | 28 | 31.5 | 39.6 | 0.0 | 11.0 | 2.5 | 138.2 | 222.8 |
| 1157 | 46 | 1.6 | 92.9 | 0.0 | 1.7 | 57.3 | 264.5 | 418.0 |
| 1158 | 29 | 69.5 | 91.4 | 5.8 | 1.0 | 62.6 | 221.7 | 451.9 |
| 1162 | 39 | 300.2 | 83.6 | 9.8 | 1.9 | 81.3 | 199.3 | 676.1 |
| 1163 | 28 | 17.1 | 20.2 | 1.5 | 1.8 | 37.8 | 53.1 | 131.5 |
| 1164 | 26 | 1.1 | 34.7 | 0.0 | 0.0 | 0.0 | 118.9 | 154.6 |
| 1165 | 40 | 0.6 | 197.8 | 0.0 | 0.0 | 6.6 | 39.2 | 244.1 |
| 1169 | 44 | 3.7 | 48.0 | 0.0 | 0.0 | 0.8 | 32.8 | 85.4 |
| 1170 | 25 | 31.5 | 17.0 | 0.0 | 0.0 | 3.8 | 104.1 | 156.4 |
| Mean | 34 | 22.5 | 47.8 | 2.3 | 0.9 | 17.9 | 152.7 | 244.1 |
| SE | | 11.9 | 10.0 | 0.7 | 0.4 | 4.8 | 30.8 | 44.7 |
| % Catch | | 9.2 | 19.6 | 1.0 | 0.4 | 7.3 | 62.5 | |

Table 5.10 cont.

b) Outer shelf, 51-100 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|--------|--------|
| 1123 | 87 | 53.5 | 114.8 | 7.9 | 0.0 | 0.0 | 4579.0 | 4755.2 |
| 1128 | 70 | 204.8 | 101.0 | 0.0 | 11.3 | 0.0 | 560.7 | 877.8 |
| 1132 | 60 | 1.7 | 57.1 | 0.0 | 0.0 | 5.0 | 354.0 | 417.8 |
| 1136 | 54 | 0.6 | 12.2 | 0.0 | 0.0 | 0.0 | 156.4 | 169.2 |
| 1137 | 69 | 12.5 | 6.3 | 0.0 | 0.0 | 0.0 | 730.4 | 749.1 |
| 1138 | 99 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 344.8 | 344.8 |
| 1144 | 56 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 108.2 | 110.4 |
| 1145 | 77 | 68.4 | 79.2 | 0.0 | 0.0 | 0.0 | 992.1 | 1139.7 |
| 1151 | 59 | 16.1 | 52.2 | 0.0 | 0.0 | 0.0 | 248.1 | 316.4 |
| 1152 | 86 | 5.3 | 5.0 | 0.0 | 0.0 | 0.0 | 115.9 | 126.1 |
| 1154 | 80 | 9.8 | 29.4 | 0.0 | 0.0 | 0.0 | 97.0 | 136.2 |
| 1159 | 86 | 94.2 | 203.0 | 18.6 | 0.0 | 33.0 | 378.0 | 726.8 |
| 1160 | 79 | 3.2 | 43.0 | 9.1 | 0.0 | 1.9 | 143.8 | 201.0 |
| 1166 | 61 | 0.6 | 11.0 | 0.0 | 0.0 | 7.5 | 74.9 | 93.9 |
| 1168 | 71 | 99.9 | 372.9 | 10.8 | 0.0 | 61.8 | 234.5 | 779.9 |
| Mean | 73 | 38.0 | 72.6 | 3.1 | 0.8 | 7.3 | 607.9 | 729.6 |
| SE | | 15.0 | 25.8 | 1.5 | 0.8 | 4.5 | 291.5 | 300.1 |
| % Catch | | 5.2 | 10.0 | 0.4 | 0.1 | 1.0 | 83.3 | |

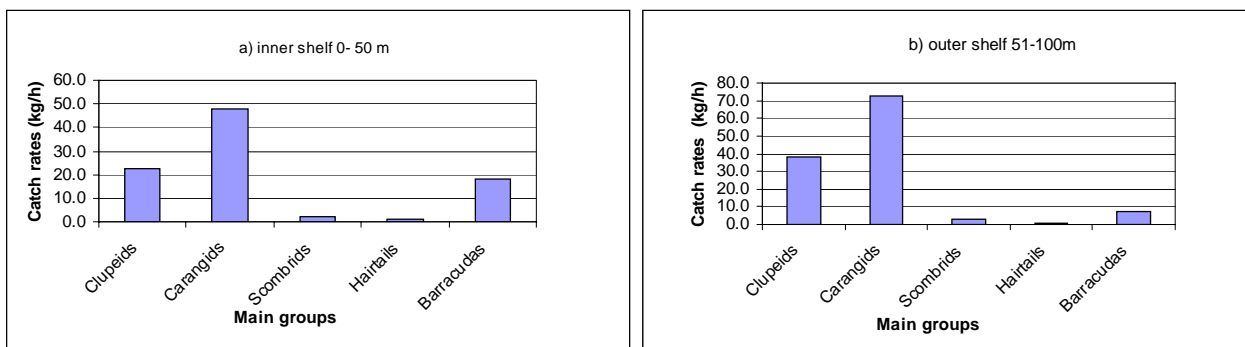


Figure 5.8 Mean catch rates (kg/h) by main pelagic families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Catch rates of some of the most commercially important demersal species on the shelf down to 100 m, grouped as seabreams (*Sparidae* except *Boops boops*), snappers (*Lutjanidae*), groupers (*Serranidae*), grunts (*Haemulidae* except *Brachydeuterus auritus*) and croakers (*Sciaenidae*) are presented in Tables 5.11a-b and Figures 5.9a-b. Seabreams had the highest catch rates both on the inner and outer shelf with average catch rates of 18 kg/h and 145 kg/h, respectively. The most common species of seabreams were *Pagellus bellottii*, *Dentex canariensis*, *Pagrus caeruleostictus*, *Dentex congouensis*, *D. angolensis* and *Dentex gibbosus*. The second most important group was the snappers with average catch rates of 1.7 and 12.7 kg/h, respectively. Then came groupers (2.1 and 4.7 kg/h), croakers (1.7 and 5.6 kg/h) and grunts (1.1 and 0.02 kg/h).

Table 5.11 Ghana. Catch rates (kg/h) of commercially important demersal species grouped by families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Seabreams | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|-----------|----------|----------|--------|----------|-------|-------|
| 1121 | 27 | 16.9 | 0.0 | 4.6 | 0.0 | 0.0 | 53.9 | 75.4 |
| 1122 | 46 | 20.6 | 0.0 | 4.4 | 0.0 | 0.0 | 182.9 | 207.9 |
| 1124 | 50 | 45.4 | 0.0 | 25.1 | 0.0 | 0.0 | 95.3 | 165.9 |
| 1125 | 38 | 28.9 | 0.0 | 2.7 | 0.0 | 0.0 | 130.7 | 162.4 |
| 1126 | 26 | 2.2 | 0.0 | 1.1 | 0.0 | 0.0 | 412.0 | 415.3 |
| 1129 | 40 | 98.4 | 0.0 | 0.0 | 0.0 | 0.0 | 148.7 | 247.1 |
| 1130 | 24 | 94.2 | 7.0 | 0.0 | 0.0 | 0.0 | 394.6 | 495.8 |
| 1131 | 42 | 9.4 | 0.0 | 2.0 | 0.0 | 0.0 | 65.7 | 77.1 |
| 1133 | 22 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 714.8 | 724.7 |
| 1134 | 30 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 47.6 | 65.1 |
| 1135 | 39 | 28.3 | 0.2 | 1.6 | 0.0 | 0.0 | 54.1 | 84.3 |
| 1140 | 22 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 88.6 | 92.0 |
| 1141 | 32 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 42.4 | 44.6 |
| 1143 | 42 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 15.6 | 19.8 |
| 1147 | 20 | 0.0 | 0.2 | 0.0 | 0.0 | 9.3 | 900.1 | 909.5 |
| 1148 | 30 | 6.3 | 0.0 | 0.0 | 0.0 | 0.0 | 47.8 | 54.1 |
| 1149 | 42 | 15.4 | 0.0 | 0.0 | 0.0 | 0.0 | 48.8 | 64.2 |
| 1155 | 47 | 28.6 | 0.0 | 14.2 | 0.0 | 0.0 | 101.2 | 144.0 |
| 1156 | 28 | 0.0 | 0.0 | 0.0 | 19.9 | 19.1 | 183.8 | 222.8 |
| 1157 | 46 | 11.6 | 0.0 | 0.0 | 1.8 | 0.0 | 404.5 | 418.0 |
| 1158 | 29 | 0.0 | 0.0 | 0.0 | 0.6 | 6.6 | 444.8 | 451.9 |
| 1162 | 39 | 1.1 | 0.0 | 0.0 | 4.0 | 7.2 | 663.8 | 676.1 |
| 1163 | 28 | 0.0 | 0.0 | 0.0 | 1.2 | 4.8 | 125.5 | 131.5 |
| 1164 | 26 | 13.1 | 35.8 | 0.0 | 0.6 | 0.0 | 105.1 | 154.6 |
| 1165 | 40 | 22.4 | 1.4 | 0.0 | 0.0 | 0.0 | 220.3 | 244.1 |
| 1169 | 44 | 21.0 | 0.0 | 0.0 | 1.7 | 0.0 | 62.6 | 85.4 |
| 1170 | 25 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 154.6 | 156.4 |
| Mean | 34 | 18.6 | 1.7 | 2.1 | 1.1 | 1.7 | 218.9 | 244.1 |
| SE | | 4.9 | 1.3 | 1.1 | 0.7 | 0.8 | 44.8 | 44.7 |
| % Catch | | 7.6 | 0.7 | 0.9 | 0.5 | 0.7 | 89.7 | |

b) Outer shelf, 51-100 m

| Station | Depth | Seabreams | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|-----------|----------|----------|--------|----------|--------|--------|
| 1123 | 87 | 1058.0 | 0.0 | 22.4 | 0.0 | 0.0 | 3674.8 | 4755.2 |
| 1128 | 70 | 309.1 | 0.0 | 0.0 | 0.0 | 32.4 | 536.3 | 877.8 |
| 1132 | 60 | 32.2 | 0.0 | 1.7 | 0.0 | 0.0 | 383.9 | 417.8 |
| 1136 | 54 | 45.5 | 1.1 | 0.0 | 0.0 | 0.0 | 122.6 | 169.2 |
| 1137 | 69 | 108.7 | 147.2 | 12.7 | 0.0 | 0.0 | 480.6 | 749.1 |
| 1138 | 99 | 206.6 | 0.0 | 0.0 | 0.0 | 45.9 | 92.2 | 344.8 |
| 1144 | 56 | 48.6 | 15.2 | 2.2 | 0.0 | 0.0 | 44.4 | 110.4 |
| 1145 | 77 | 35.2 | 3.5 | 1.1 | 0.0 | 0.0 | 1099.9 | 1139.7 |
| 1151 | 59 | 52.4 | 23.2 | 0.0 | 0.0 | 0.0 | 240.8 | 316.4 |
| 1152 | 86 | 26.1 | 0.0 | 0.0 | 0.0 | 4.7 | 95.4 | 126.1 |
| 1154 | 80 | 39.2 | 0.0 | 0.0 | 0.0 | 0.5 | 96.5 | 136.2 |
| 1159 | 86 | 44.2 | 0.0 | 30.4 | 0.0 | 0.0 | 652.2 | 726.8 |
| 1160 | 79 | 103.6 | 0.1 | 0.0 | 0.0 | 0.0 | 97.3 | 201.0 |
| 1166 | 61 | 60.9 | 0.0 | 0.0 | 0.4 | 0.0 | 32.7 | 93.9 |
| 1168 | 71 | 13.6 | 0.0 | 0.0 | 0.0 | 0.0 | 766.2 | 779.9 |
| Mean | 73 | 145.6 | 12.7 | 4.7 | 0.0 | 5.6 | 561.1 | 729.6 |
| SE | | 68.3 | 9.8 | 2.5 | 0.0 | 3.6 | 236.9 | 300.1 |
| % Catch | | 20.0 | 1.7 | 0.6 | 0.0 | 0.8 | 76.9 | |

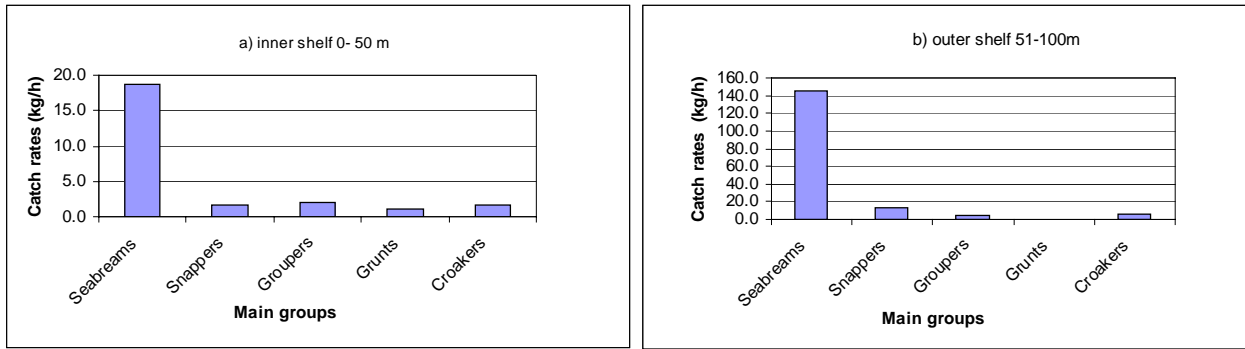


Figure 5.9 Mean catch rates (kg/h) of valuable demersal species by families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Annex IV gives swept-area estimates of mean densities (t/NM^2) for demersal species based on 42 random trawl stations on the shelf. *Brachydeuterus auritus* had the highest mean density in the shallowest depth zone. Also in the 31-50 m zone *B. auritus* had the highest densities, followed by *Pagellus bellottii*. In the deepest zone (51-100 m) the bentic-pelagic species *Ariomma bondi* had the highest mean density, followed by *Chromis cadenati* and *Priacanthus arenatus*. *C. cadenati* and *B. auritus* had the highest overall mean density. In 2000, the scallop *Chlamys purpuratus* had high density in both the shallowest zone ($2.96 t/NM^2$) and the 31-50 m zone ($2.25 t/NM^2$) and was caught on 30 % of the stations in Ghana, mainly from $0^{\circ}10'W$ to $1^{\circ}15'W$. During the 2002 survey it was only caught in low numbers on a few stations in the same area and many of the scallops were dead. The catch rate was found to be very much dependent on the performance of the trawl gear. During the 2004 survey *C. purpuratus* was caught on 9 % of the stations and had a density of $1.78 t/NM^2$ in the shallowest depth zone, while in 2005 it occurred on 7 % of the stations with a density of 0.12 and $1.13 t/NM^2$ in the ≤ 30 m and 31-50 m depth zones, respectively. In the present survey *C. purpuratus* was caught on 14 % of the stations with a density of 0.13 and $0.04 t/NM^2$ in the ≤ 30 m and 31-50 m depth zones, respectively.

Table 5.12 presents swept-area biomass estimates for the valuable demersal groups and some other groups that occur in sizeable quantities. The estimated total biomass of valuable demersal groups was about 18 000 tonnes, of which seabreams made up over 80 % (15 000 tonnes). The highest biomass of seabreams was found between depths of 51 and 100 m. Snappers had the second highest biomass with 1 300 tonnes. Groupers and croakers had the third highest biomasses with almost 700 tonnes each while grunts came last with about 100 tonnes. Of the pelagic and semi-pelagic groups, carangids had an estimated biomass of around 12 000 tonnes, bigeye grunt (*B. auritus*) 7 000 tonnes, cephalopods 3 000 tonnes and barracudas and 2 500 tonnes.

Table 5.12 Ghana. Biomass estimates (tonnes) by depth of important species/groups on the shelf.

| Group/species | 0-30 m | 31-50 m | 51-100m | Sum | 95 % confidence limits | |
|---------------------|--------|---------|---------|--------|------------------------|--------|
| Seabreams | 551 | 1 631 | 12 985 | 15 166 | 2 916 | 27 416 |
| Grunts | 99 | 41 | 0 | 140 | 0 | 329 |
| Croakers | 127 | 41 | 495 | 664 | 5 | 1 322 |
| Groupers | 14 | 248 | 413 | 674 | 166 | 1 182 |
| Snappers | 155 | 0 | 1 210 | 1 366 | 0 | 3 246 |
| Sum dem.val. | 946 | 1 961 | 15 103 | 18 010 | 5 397 | 30 622 |
| Bigeye grunt | 4 208 | 1 878 | 1 210 | 7 296 | 1 902 | 12 691 |
| Carangids | 1 878 | 3 488 | 6 465 | 11 831 | 6 690 | 16 972 |
| Barracudas | 890 | 1 032 | 633 | 2 554 | 1 207 | 3 902 |
| Cephalopods | 99 | 991 | 2 118 | 3 208 | 733 | 5 683 |

5.4 Côte d'Ivoire

A total of 36 swept-area trawl hauls were made on the Ivorian shelf. Tables 5.13a-b and Figures 5.10a-b show catch rates by main groups for the inner (0-50 m) and outer (51-100 m) shelf, respectively. The pelagic group had the highest average catch rate on the inner shelf with a relative contribution of 47 %. The demersal group was the second most important contributing 27 % of the catches, followed by the “other” group (24 %). There were low catch rates and contributions of shrimps (0.6 %) and cephalopods (1.0 %), while no sharks were caught on this part of the shelf. The demersal group dominated the catches on the outer shelf (62 %), followed by the pelagic group (27 %) and “others (6 %). Cephalopods had higher catch rates than on the inner shelf and contributed 4 %, shrimps and sharks were scarce. *Sepia officinalis hierredda* was the dominating cephalopod.

Tables 5.14a-b and Figures 5.11a-b show the catch rates of the most important pelagic families caught in the bottom trawl. The carangids were the most abundant pelagic group on the inner shelf with an average catch rate of about 61 kg/h, constituting 26 % of the catch. The most frequently caught species were *Chloroscombrus chrysurus*, *Selene dorsalis*, *Alectis alexandrinus*, *Decapterus punctatus* and *Trachurus trecae*. The second most important group was clupeids with an average catch rate of 29 kg/h, constituting 12% of the catch. *Sardinella aurita* and *S. maderensis* occurred frequently in the catches, while *Ilisha africana* was less abundant. Barracudas were third (15 kg/h) and contributed about 6 % to the total. Hairtails (*Trichiurus lepturus*) and scombrids were less abundant.

Table 5.13 Côte d'Ivoire. Catch rates (kg/h) by main groups in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|-------|-------|
| 1171 | 24 | 136.0 | 218.3 | 0.0 | 1.0 | 0.0 | 45.3 | 400.6 |
| 1172 | 41 | 53.7 | 19.6 | 0.0 | 4.1 | 0.0 | 6.6 | 83.9 |
| 1178 | 46 | 78.1 | 176.7 | 0.0 | 11.2 | 0.0 | 31.4 | 297.4 |
| 1179 | 26 | 89.3 | 89.5 | 0.0 | 0.3 | 0.0 | 22.6 | 201.8 |
| 1180 | 33 | 47.5 | 51.2 | 0.0 | 2.3 | 0.0 | 72.9 | 173.9 |
| 1183 | 24 | 42.4 | 107.6 | 0.0 | 7.8 | 0.0 | 139.2 | 296.9 |
| 1187 | 25 | 6.5 | 25.6 | 0.0 | 6.7 | 0.0 | 2.2 | 41.0 |
| 1188 | 22 | 96.0 | 80.6 | 1.2 | 0.0 | 0.0 | 44.8 | 222.6 |
| 1189 | 40 | 4.5 | 79.3 | 0.0 | 0.0 | 0.0 | 2.5 | 86.3 |
| 1193 | 44 | 13.4 | 12.7 | 0.1 | 1.6 | 0.0 | 5.3 | 33.1 |
| 1194 | 26 | 11.0 | 19.3 | 0.1 | 0.9 | 0.0 | 18.9 | 50.3 |
| 1195 | 21 | 111.3 | 212.6 | 1.9 | 2.3 | 0.0 | 41.7 | 369.7 |
| 1196 | 45 | 3.4 | 4.4 | 0.0 | 3.1 | 0.0 | 11.7 | 22.6 |
| 1200 | 41 | 4.1 | 50.3 | 0.0 | 1.7 | 0.0 | 7.2 | 63.3 |
| 1201 | 24 | 57.9 | 170.8 | 0.0 | 0.0 | 0.0 | 175.5 | 404.2 |
| 1202 | 27 | 17.7 | 85.8 | 0.0 | 0.0 | 0.0 | 91.1 | 194.6 |
| 1203 | 46 | 119.2 | 148.9 | 0.2 | 2.2 | 0.0 | 70.2 | 340.6 |
| 1206 | 41 | 122.2 | 219.8 | 0.0 | 1.4 | 0.0 | 67.8 | 411.2 |
| 1207 | 29 | 87.0 | 251.5 | 0.0 | 0.0 | 0.0 | 28.2 | 366.7 |
| 1209 | 44 | 50.9 | 212.9 | 0.1 | 3.1 | 0.0 | 106.8 | 373.8 |
| 1210 | 30 | 165.8 | 75.2 | 26.2 | 0.0 | 0.0 | 194.0 | 461.2 |
| Mean | 33 | 62.8 | 110.1 | 1.4 | 2.4 | 0.0 | 56.5 | 233.1 |
| SE | | 10.8 | 17.6 | 1.2 | 0.6 | 0.0 | 12.4 | 32.8 |
| % Catch | | 26.9 | 47.2 | 0.6 | 1.0 | 0.0 | 24.2 | |

b) Outer shelf, 51-100 m

| Station | Depth | Demersal | Pelagic | Shrimp | Cephalopods | Sharks | Other | Total |
|---------|-------|----------|---------|--------|-------------|--------|-------|--------|
| 1173 | 71 | 533.0 | 558.4 | 0.0 | 0.0 | 0.0 | 14.7 | 1106.2 |
| 1174 | 84 | 83.4 | 26.8 | 0.0 | 16.6 | 0.0 | 3.7 | 130.5 |
| 1177 | 89 | 243.3 | 79.1 | 0.0 | 126.1 | 0.0 | 43.5 | 492.1 |
| 1181 | 57 | 1091.8 | 124.1 | 0.0 | 6.9 | 0.0 | 56.1 | 1278.9 |
| 1182 | 88 | 25.3 | 8.2 | 1.2 | 32.1 | 4.8 | 16.0 | 87.6 |
| 1185 | 85 | 32.9 | 6.4 | 0.0 | 26.1 | 15.0 | 7.9 | 88.3 |
| 1186 | 60 | 103.9 | 105.2 | 0.0 | 102.5 | 0.0 | 180.2 | 491.7 |
| 1190 | 71 | 873.8 | 231.5 | 0.0 | 0.0 | 2.2 | 1.3 | 1108.8 |
| 1192 | 83 | 758.3 | 108.5 | 0.0 | 2.0 | 4.8 | 46.0 | 919.5 |
| 1197 | 65 | 101.3 | 372.0 | 0.0 | 0.0 | 0.0 | 12.1 | 485.4 |
| 1198 | 95 | 11.7 | 334.4 | 0.0 | 2.2 | 0.0 | 4.3 | 352.5 |
| 1199 | 59 | 35.3 | 13.0 | 0.1 | 3.0 | 0.0 | 14.3 | 65.6 |
| 1204 | 74 | 688.7 | 107.4 | 0.0 | 6.3 | 0.0 | 19.3 | 821.7 |
| 1205 | 74 | 423.4 | 145.0 | 3.6 | 3.9 | 0.0 | 64.3 | 640.2 |
| 1208 | 83 | 161.1 | 24.8 | 0.0 | 6.1 | 0.0 | 8.7 | 200.6 |
| Mean | 76 | 344.5 | 149.6 | 0.3 | 22.3 | 1.8 | 32.8 | 551.3 |
| SE | | 92.7 | 41.3 | 0.3 | 10.0 | 1.0 | 11.7 | 106.5 |
| % Catch | | 62.5 | 27.1 | 0.1 | 4.0 | 0.3 | 6.0 | |

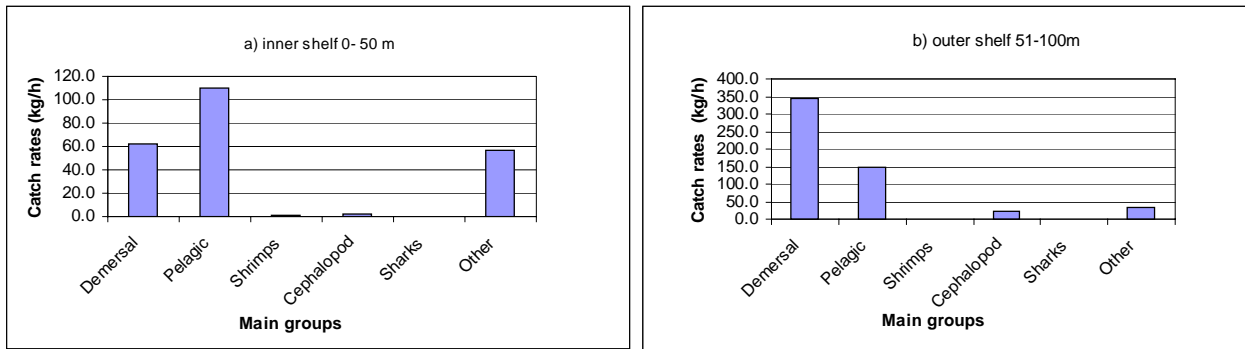


Figure 5.10 Mean catch rates (kg/h) by main groups in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Table 5.14 Côte d'Ivoire. Catch rates (kg/h) by main pelagic families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|-------|-------|
| 1171 | 24 | 66.5 | 95.0 | 19.6 | 0.0 | 37.3 | 182.2 | 400.6 |
| 1172 | 41 | 0.0 | 17.4 | 0.3 | 0.0 | 1.9 | 64.4 | 83.9 |
| 1178 | 46 | 50.7 | 126.0 | 0.0 | 0.0 | 0.0 | 120.6 | 297.4 |
| 1179 | 26 | 1.1 | 80.3 | 6.5 | 0.0 | 1.6 | 112.3 | 201.8 |
| 1180 | 33 | 22.5 | 28.7 | 0.0 | 0.0 | 0.0 | 122.7 | 173.9 |
| 1183 | 24 | 5.2 | 86.5 | 16.0 | 0.0 | 0.0 | 189.3 | 296.9 |
| 1187 | 25 | 2.1 | 21.7 | 1.5 | 0.0 | 0.3 | 15.4 | 41.0 |
| 1188 | 22 | 1.1 | 61.0 | 0.4 | 0.0 | 18.1 | 142.0 | 222.6 |
| 1189 | 40 | 16.1 | 60.8 | 0.0 | 0.5 | 1.9 | 7.0 | 86.3 |
| 1193 | 44 | 5.5 | 7.0 | 0.0 | 0.0 | 0.2 | 20.4 | 33.1 |
| 1194 | 26 | 3.1 | 14.8 | 0.0 | 0.2 | 1.2 | 31.0 | 50.3 |
| 1195 | 21 | 68.9 | 57.9 | 4.2 | 10.5 | 71.2 | 157.1 | 369.7 |
| 1196 | 45 | 1.1 | 2.0 | 0.0 | 0.0 | 1.3 | 18.2 | 22.6 |
| 1200 | 41 | 0.0 | 50.3 | 0.0 | 0.0 | 0.0 | 13.0 | 63.3 |
| 1201 | 24 | 37.3 | 98.1 | 2.0 | 0.0 | 33.5 | 233.4 | 404.2 |
| 1202 | 27 | 36.2 | 31.4 | 0.8 | 5.5 | 11.9 | 108.8 | 194.6 |
| 1203 | 46 | 11.0 | 58.3 | 0.0 | 0.7 | 78.9 | 191.7 | 340.6 |
| 1206 | 41 | 92.3 | 122.9 | 3.8 | 0.8 | 0.0 | 191.4 | 411.2 |
| 1207 | 29 | 126.0 | 97.0 | 0.0 | 0.2 | 28.3 | 115.2 | 366.7 |
| 1209 | 44 | 27.9 | 147.0 | 0.0 | 8.9 | 29.2 | 160.9 | 373.8 |
| 1210 | 30 | 34.2 | 27.4 | 0.0 | 13.6 | 0.0 | 386.0 | 461.2 |
| Mean | 33 | 29.0 | 61.5 | 2.6 | 2.0 | 15.1 | 123.0 | 233.1 |
| SE | | 7.6 | 9.2 | 1.2 | 0.9 | 5.2 | 20.3 | 32.8 |
| % Catch | | 12.4 | 26.4 | 1.1 | 0.8 | 6.5 | 52.8 | |

Table 5.14 cont.

b) Outer shelf, 51-100 m

| Station | Depth | Clupeids | Carangids | Scombrids | Hairtails | Barracudas | Other | Total |
|---------|-------|----------|-----------|-----------|-----------|------------|--------|--------|
| 1173 | 71 | 14.3 | 489.3 | 1.5 | 48.5 | 4.9 | 547.8 | 1106.2 |
| 1174 | 84 | 4.8 | 8.9 | 10.6 | 0.0 | 2.5 | 103.7 | 130.5 |
| 1177 | 89 | 0.0 | 76.3 | 0.0 | 0.0 | 2.8 | 413.0 | 492.1 |
| 1181 | 57 | 116.9 | 4.8 | 0.0 | 0.0 | 2.5 | 1154.7 | 1278.9 |
| 1182 | 88 | 2.6 | 0.1 | 0.0 | 2.8 | 2.7 | 79.5 | 87.6 |
| 1185 | 85 | 1.9 | 3.8 | 0.0 | 0.0 | 0.7 | 81.9 | 88.3 |
| 1186 | 60 | 51.7 | 52.8 | 0.0 | 0.7 | 0.0 | 386.5 | 491.7 |
| 1190 | 71 | 2.4 | 18.0 | 0.0 | 104.0 | 107.1 | 877.2 | 1108.8 |
| 1192 | 83 | 13.7 | 42.0 | 0.0 | 5.7 | 47.0 | 811.1 | 919.5 |
| 1197 | 65 | 323.5 | 25.6 | 0.0 | 0.0 | 22.8 | 113.4 | 485.4 |
| 1198 | 95 | 255.5 | 0.1 | 78.8 | 0.0 | 0.0 | 18.1 | 352.5 |
| 1199 | 59 | 7.4 | 1.8 | 0.7 | 0.1 | 2.9 | 52.6 | 65.6 |
| 1204 | 74 | 0.0 | 29.1 | 0.0 | 0.0 | 78.3 | 714.3 | 821.7 |
| 1205 | 74 | 34.8 | 44.2 | 0.0 | 1.2 | 64.8 | 495.2 | 640.2 |
| 1208 | 83 | 1.9 | 11.3 | 0.0 | 0.0 | 11.6 | 175.8 | 200.6 |
| Mean | 76 | 55.4 | 53.9 | 6.1 | 10.9 | 23.4 | 401.7 | 551.3 |
| SE | | 26.0 | 31.6 | 5.2 | 7.4 | 8.9 | 92.3 | 106.5 |
| % Catch | | 10.1 | 9.8 | 1.1 | 2.0 | 4.2 | 72.9 | |

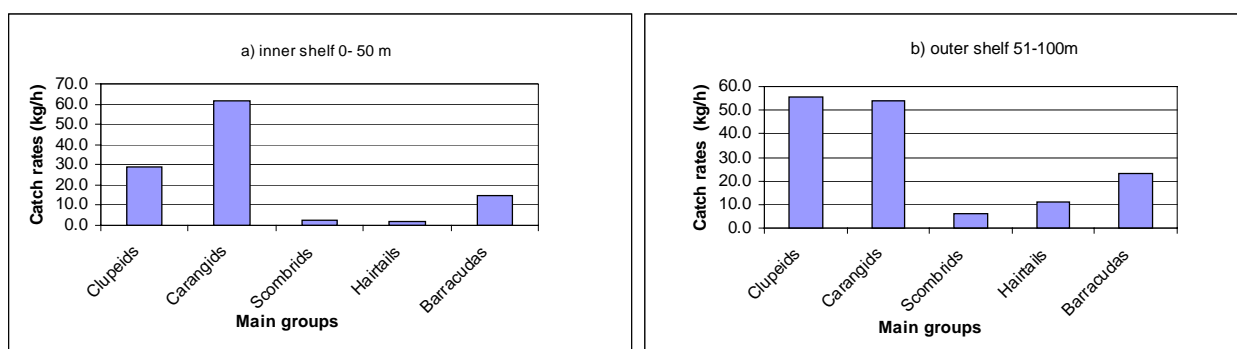


Figure 5.11 Mean catch rates (kg/h) by main pelagic families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Clupeids had the highest average catch rate on the outer shelf (55 kg/h), closely followed by carangids (54 kg/h). The most frequently caught carangid on the outer shelf was *T. trecae*, while of the clupeids both *S. aurita* and *S. maderensis* were caught regularly. Barracudas were the third most important pelagic group and had higher average catch rate than on the inner shelf (23 kg/h). Hairtails (11 kg/h) and Scombrids (mainly *Scomberomorus tritor*) (6 kg/h) were also more abundant than on the inner shelf.

Catch rates of some of the most commercially important demersal species on the shelf down to 100 m, grouped as seabreams (Sparidae except *Boops boops*), snappers (Lutjanidae), groupers (Serranidae), grunts (Haemulidae except *Brachydeuterus auritus*) and croakers (Sciaenidae) are presented in Tables 5.15a-b and Figures 5.12a-b. Croakers had the highest

mean catch rate (17 kg/h) on the inner shelf, and the most common species were *Pseudotolithus senegalensis* and *Pteroscion peli*. Seabreams (10 kg/h) were the second most important group, with *Pagellus bellottii* as the most common species. Grunt came third (4.2 kg/h), and *Pomadasy peroteti* and *P. jubelini* were the most abundant species. Groupers and snappers were less common, with catch rates of 0.4 kg/h and 0.5 kg/h, respectively. *Epinephelus aeneus* was the most abundant grouper, while *Lutjanus fulgens* was the only snapper found on one station only.

On the outer shelf, seabreams dominated the valuable demersal species with an average catch rate of 103 kg/h. *Dentex angolensis*, *D. canariensis*, *Pagellus bellottii* and *Pagrus caeruleostictus* were the most frequently occurring seabreams. Croakers (4 kg/h) constituted the second most important group, *Umbrina canariensis* being the dominant species. Grunts had similar catch rates as on the inner shelf (3.4 kg/h), but with only one relatively large catch of *P. incisus* (50 kg/h). Groupers had higher average catch rate than on the inner shelf (2.7 kg/h) and *Epinephelus aeneus* was the most abundant grouper also here. No snappers were caught on the outer shelf.

Table 5.15 Côte d'Ivoire. Catch rates (kg/h) of valuable demersal species grouped by families in swept-area bottom-trawl hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

a) Inner shelf, 0-50 m

| Station | Depth | Seabreams | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|-----------|----------|----------|--------|----------|-------|-------|
| 1171 | 24 | 7.3 | 0.0 | 0.0 | 0.5 | 6.2 | 386.5 | 400.6 |
| 1172 | 41 | 52.7 | 0.0 | 0.9 | 0.0 | 0.0 | 30.3 | 83.9 |
| 1178 | 46 | 69.0 | 0.0 | 0.0 | 8.8 | 0.0 | 219.6 | 297.4 |
| 1179 | 26 | 0.3 | 0.0 | 1.9 | 2.1 | 0.0 | 197.5 | 201.8 |
| 1180 | 33 | 25.4 | 10.5 | 4.6 | 6.4 | 0.0 | 127.0 | 173.9 |
| 1183 | 24 | 29.8 | 0.0 | 0.0 | 0.0 | 0.0 | 267.2 | 296.9 |
| 1187 | 25 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 40.7 | 41.0 |
| 1188 | 22 | 0.0 | 0.0 | 0.0 | 4.8 | 4.3 | 213.6 | 222.6 |
| 1189 | 40 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 86.3 | 86.3 |
| 1193 | 44 | 12.1 | 0.0 | 0.0 | 0.0 | 0.0 | 21.0 | 33.1 |
| 1194 | 26 | 0.8 | 0.0 | 0.0 | 4.6 | 2.1 | 42.9 | 50.3 |
| 1195 | 21 | 0.0 | 0.0 | 0.0 | 0.0 | 70.4 | 299.3 | 369.7 |
| 1196 | 45 | 0.2 | 0.0 | 0.0 | 2.3 | 0.0 | 20.1 | 22.6 |
| 1200 | 41 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 59.2 | 63.3 |
| 1201 | 24 | 0.0 | 0.0 | 0.0 | 2.9 | 21.0 | 380.3 | 404.2 |
| 1202 | 27 | 0.0 | 0.0 | 0.0 | 6.2 | 10.7 | 177.7 | 194.6 |
| 1203 | 46 | 0.4 | 0.0 | 0.7 | 5.1 | 0.1 | 334.3 | 340.6 |
| 1206 | 41 | 0.0 | 0.0 | 0.0 | 0.0 | 32.6 | 378.5 | 411.2 |
| 1207 | 29 | 0.0 | 0.0 | 0.0 | 7.2 | 69.8 | 289.6 | 366.7 |
| 1209 | 44 | 4.0 | 0.0 | 0.5 | 4.7 | 6.2 | 358.4 | 373.8 |
| 1210 | 30 | 0.0 | 0.0 | 0.0 | 31.4 | 129.5 | 300.4 | 461.2 |
| Mean | 33 | 9.8 | 0.5 | 0.4 | 4.2 | 16.8 | 201.5 | 233.1 |
| SE | | 4.2 | 0.5 | 0.2 | 1.5 | 7.3 | 29.2 | 32.8 |
| % Catch | | 4.2 | 0.2 | 0.2 | 1.8 | 7.2 | 86.4 | |

Table 5.15
b) Outer shelf, 51-100 m

| Station | Depth | Seabreams | Snappers | Groupers | Grunts | Croakers | Other | Total |
|---------|-------|-----------|----------|----------|--------|----------|--------|--------|
| 1173 | 71 | 31.9 | 0.0 | 0.0 | 0.0 | 2.6 | 1071.8 | 1106.2 |
| 1174 | 84 | 20.3 | 0.0 | 29.7 | 0.0 | 0.0 | 80.5 | 130.5 |
| 1177 | 89 | 18.2 | 0.0 | 0.0 | 0.0 | 3.2 | 470.6 | 492.1 |
| 1181 | 57 | 954.6 | 0.0 | 8.3 | 50.3 | 21.7 | 244.0 | 1278.9 |
| 1182 | 88 | 19.6 | 0.0 | 0.0 | 0.0 | 4.4 | 63.6 | 87.6 |
| 1185 | 85 | 32.5 | 0.0 | 0.0 | 0.0 | 0.4 | 55.4 | 88.3 |
| 1186 | 60 | 89.9 | 0.0 | 0.0 | 0.0 | 0.0 | 401.8 | 491.7 |
| 1190 | 71 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1108.8 | 1108.8 |
| 1192 | 83 | 21.8 | 0.0 | 1.7 | 0.0 | 6.7 | 889.3 | 919.5 |
| 1197 | 65 | 25.6 | 0.0 | 0.0 | 0.0 | 0.0 | 459.8 | 485.4 |
| 1198 | 95 | 7.4 | 0.0 | 0.0 | 0.0 | 4.3 | 340.9 | 352.5 |
| 1199 | 59 | 32.8 | 0.0 | 0.0 | 0.0 | 0.0 | 32.8 | 65.6 |
| 1204 | 74 | 123.2 | 0.0 | 0.0 | 0.0 | 0.0 | 698.5 | 821.7 |
| 1205 | 74 | 10.2 | 0.0 | 1.2 | 0.0 | 16.1 | 612.7 | 640.2 |
| 1208 | 83 | 159.4 | 0.0 | 0.0 | 0.0 | 0.6 | 40.6 | 200.6 |
| Mean | 76 | 103.2 | 0.0 | 2.7 | 3.4 | 4.0 | 438.1 | 551.3 |
| SE | | 62.0 | 0.0 | 2.0 | 3.4 | 1.7 | 96.1 | 106.5 |
| % Catch | | 18.7 | 0.0 | 0.5 | 0.6 | 0.7 | 79.5 | |

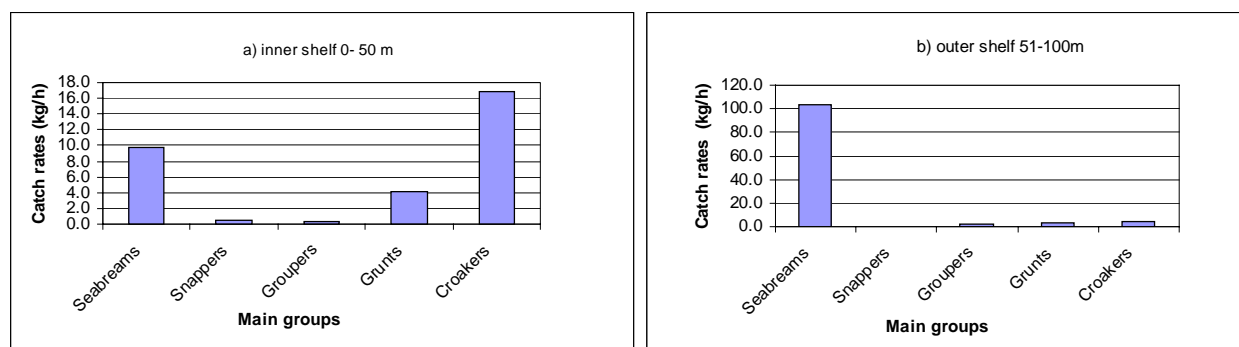


Figure 5.12 Mean catch rates (kg/h) of valuable demersal species by families in swept area bottom hauls on the a) inner shelf (0-50 m) and b) outer shelf (51-100 m).

Appendix IV gives swept-area estimates of mean densities (t/NM^2) for demersal species based on 36 random trawl stations on the shelf. *Brachydeuterus auritus* had the highest mean densities in all three depth zones on the inner shelf (0-30 m, 31-50 m and 51-100 m). It was followed by *Drepane africana* and *Pseudotolithus senegalensis* in the shallowest depth zone, *Pagellus bellottii* and *Galeoides decadactylus* in the 31-50 m zone and *P. bellottii* in the 51-100 m depth zone. *B. auritus* had the highest all over mean density, followed by *P. bellottii*.

Table 5.16 presents the swept-area biomass estimates for the valuable demersal groups and other groups that occur in sizeable quantities. The estimated total biomass of valuable demersal groups was about 7 000 tonnes, of which seabreams made up over 80 %. The

highest biomass of seabreams was found in the deepest zone. Croakers were the second most important group with 800 tonnes and were most abundant in the shallowest depth zone. Grunts had the third highest biomass estimate with about 350 tonnes, while groupers and snappers had the lowest estimated biomasses.

Of the pelagic and semi-pelagic species, bigeye grunt (*B. auritus*) and carangids had the highest biomass estimates with about 12 000 and 5 400 tonnes, respectively. Barracudas had an estimated biomass of about 2 000 tonnes and cephalopods 1 200 tonnes.

Table 5.16 Côte d'Ivoire. Biomass estimates (tonnes) by depth of important species/groups on the shelf.

| Group/species | 0-30 m | 31-50 m | 51-100m | Sum | 95 % Confidence limits | |
|----------------------|---------------|----------------|----------------|------------|-------------------------------|--------|
| Seabreams | 56 | 386 | 5 440 | 5 882 | 0 | 12 177 |
| Grunts | 107 | 77 | 178 | 362 | 0 | 739 |
| Croakers | 529 | 91 | 210 | 831 | 279 | 1 382 |
| Groupers | 6 | 14 | 130 | 149 | 0 | 341 |
| Snappers | 0 | 21 | 0 | 21 | 0 | 61 |
| Sum dem. val. | 698 | 589 | 5 958 | 7 245 | 198 | 14 292 |
| Bigeye grunt | 659 | 582 | 11 058 | 12 298 | 3 756 | 20 841 |
| Carangids | 1092 | 1444 | 2 882 | 5 418 | 1 940 | 8 896 |
| Barracudas | 327 | 280 | 1 247 | 1 854 | 804 | 2 904 |
| Cephalopods | 28 | 63 | 1 149 | 1 241 | 201 | 2 281 |

5.5 Review of results

Some of the 1999 and 2000 catch rate and biomass estimates were corrected in 2002. The new values are included in revised editions of the 1999 and 2000 reports and in the time series of later reports.

Togo - Benin

Figures 5.13 and 5.14 show the mean catch rates of the main groups “Demersal” and “Pelagic” for the whole shelf area from 0 to 100 m in the six last surveys. The mean catch rates of the demersal group were highest in 2000, 2005 and 2006, mainly due to a few large catch of Seabreams, and the mean catch rates are not within the 95% confidence intervals of the 1999, 2002 and 2004 estimates. Except for 1999, the mean catch rates of the pelagic group have been less variable over the time series.

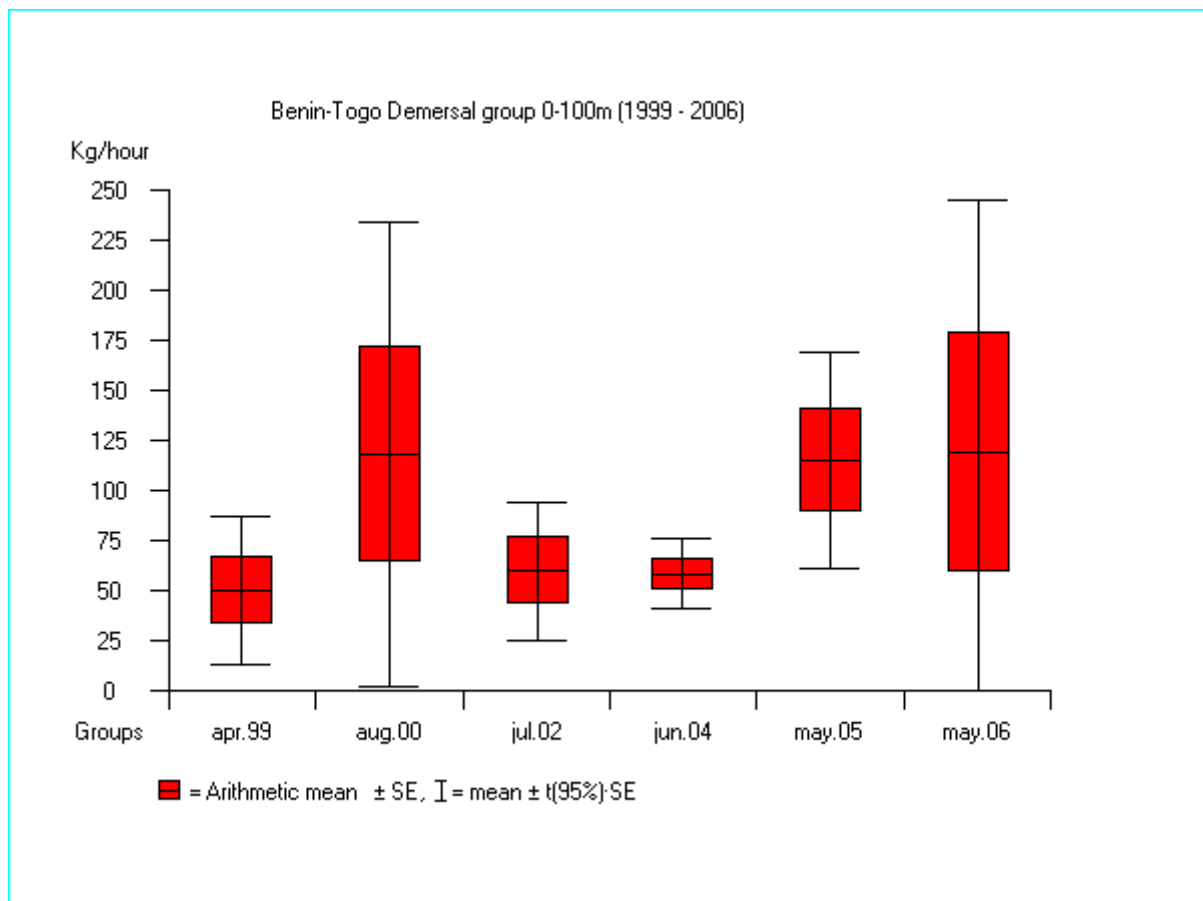


Figure 5.13 Mean catch rates of the main group “demersal” from 0 to 100 m in Togo - Benin 1999-2006.

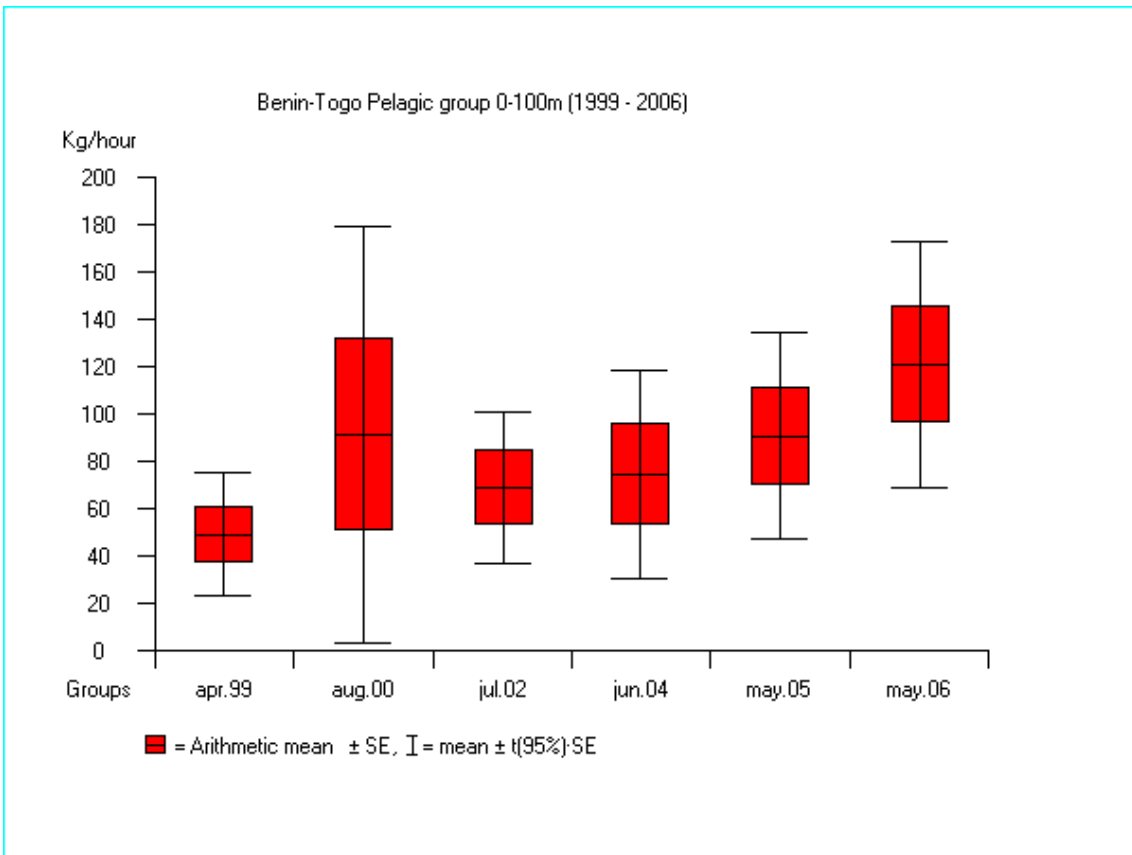


Figure 5.14 Mean catch rates of the main group “pelagic” from 0 to100 m in Togo - Benin 1999-2006.

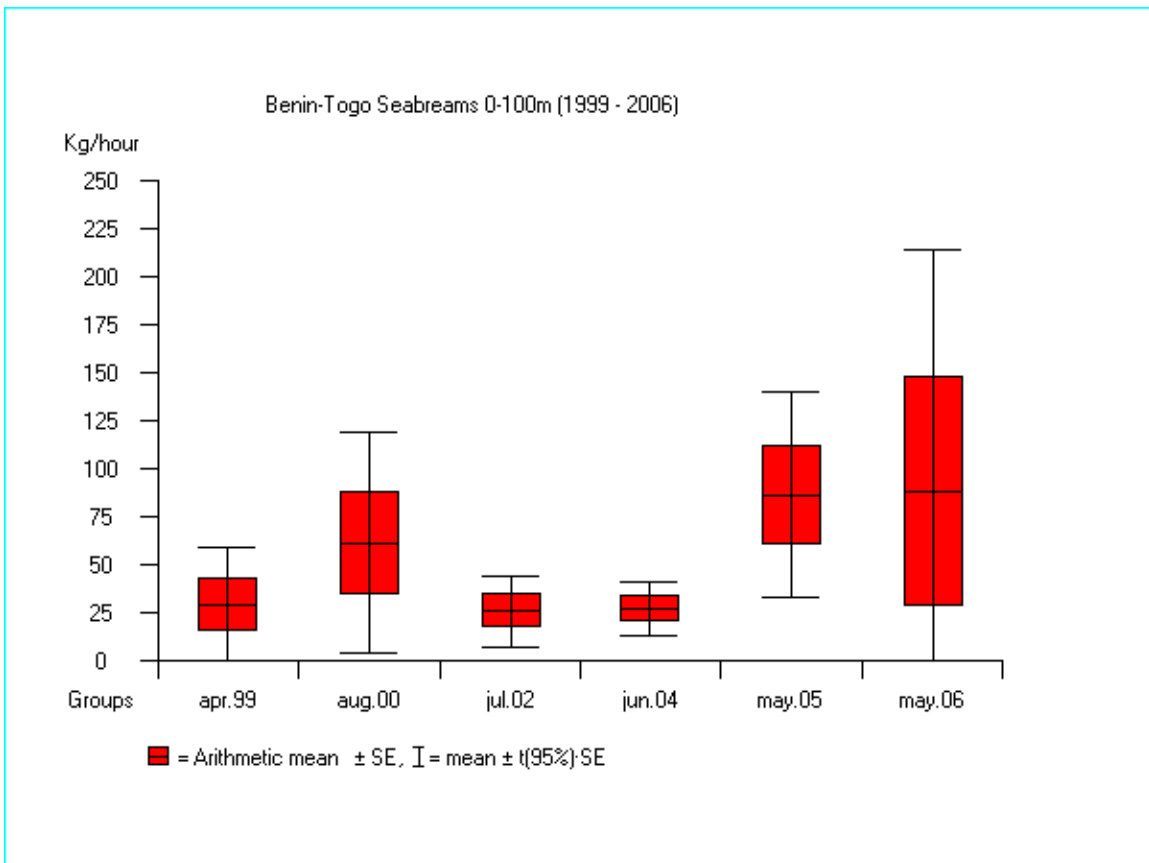


Figure 5.15 Mean catch rates of seabreams from 0 to100 m in Togo - Benin 1999-2006.

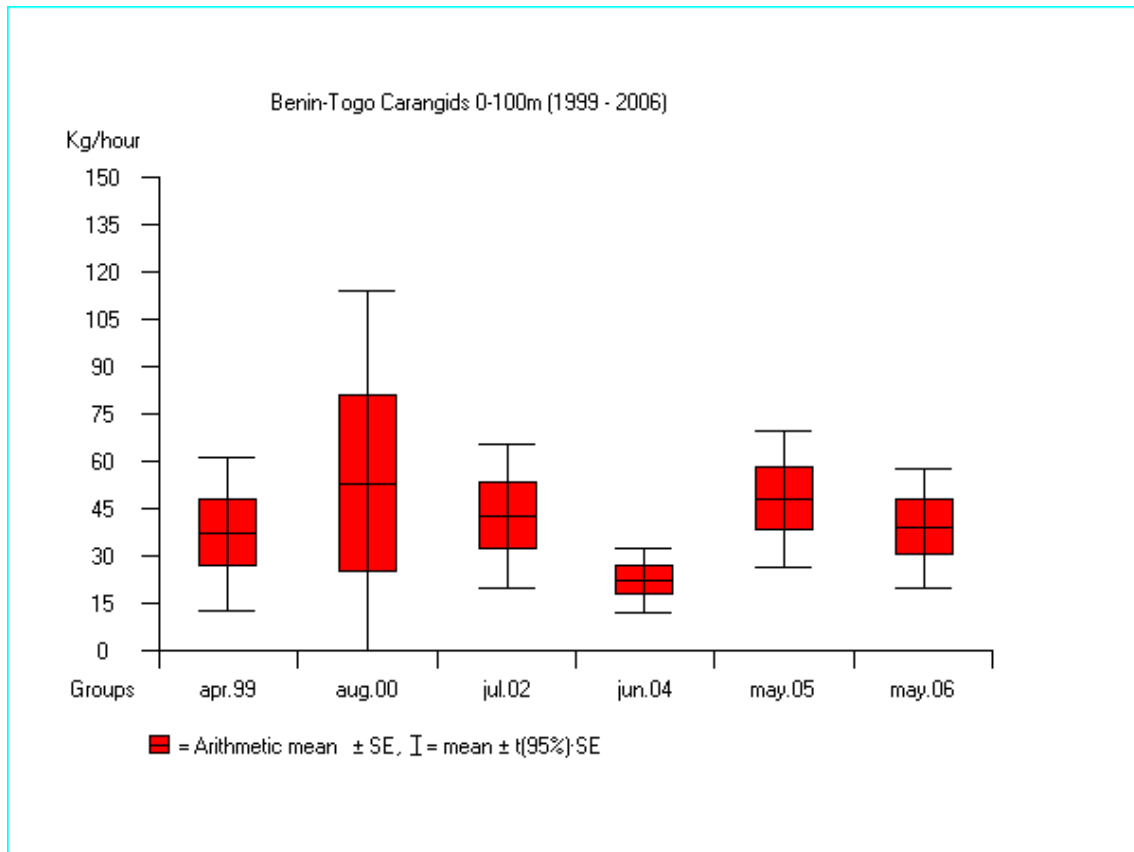


Figure 5.16 Mean catch rates of carangids from 0 to 100 m in Togo - Benin 1999-2006.

Figures 5.15 and 5.16 show the mean catch rates of Seabreams and Carangids, normally the most abundant families in the “Demersal” and “Pelagic” groups. The 1999, 2002 and 2004 seabreams estimates are quite similar, while a few large catches of *Dentex congoensis* in Togo in 2000 (292 kg/h) and Benin in 2005 (514 kg/h) and 2006 (1461 kg/h) gave high means outside the 95% confidence intervals of the other years. The 2000 carangids estimate had the highest mean and confidence intervals, mainly due to one catch of *Decapterus punctatus* in Benin (419 kg/h). The 2004 estimate is the lowest and outside within the 95% confidence intervals of the 2005 estimate.

Tables 5.17-5.18 summarize more details on mean catch rates of valuable demersal groups and a few other common groups covered during the present and the five previous surveys in the Benin and Togo waters. The mean catch rates of seabreams in Benin in 2005 and 2006 and in Togo in 2000 and 2005 were all very high compared to the other years. The results for the other species are also variable and with few clear trends, except for an increase in the sum of valuable demersal species in the last two years. The time series of biomass estimates (Tables 5.19-5.20) show the same picture. Some of these results are influenced by a few large catches in some years. When comparing the results one should keep in mind that the surveys were conducted in two different seasons.

Table 5.17 Benin. Mean catch rates (kg/h) of valuable demersal species and some other groups from swept-area bottom-trawl hauls on the shelf (0 - 100 m) from the 1999-2006 surveys. 2000 and 2002 surveys are in the upwelling season.

| Group/species | Togo-Benin | Benin | | | | |
|----------------------|--------------------------|-------------|-------------|-------------|--------------|--------------|
| | 1999 | 2000 | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 28.6 ¹⁾ | 29.9 | 28.7 | 28.9 | 97.9 | 117.3 |
| Grunts | 0.9 | 3.5 | 1.2 | 3.2 | 1.5 | 0.6 |
| Croakers | 4.6 | 2.9 | 7.6 | 5.2 | 6.6 | 6.7 |
| Groupers | 10.3 | 2.3 | 1.2 | 1.6 | 8.0 | 3.0 |
| Snappers | 0.3 | 1.3 | 1.4 | 1.5 | 0.9 | 3.4 |
| Sum dem. val. | 44.7¹⁾ | 39.9 | 40.0 | 40.4 | 114.8 | 131.0 |
| Bigeye grunt | 5.5 | 10.1 | 12.1 | 21.5 | 9.3 | 21.3 |
| Carangids | 37.0 | 64.2 | 54.8 | 20.6 | 60.2 | 36.2 |
| Barracudas | 6.3 | 4.7 | 18.0 | 11.1 | 19.3 | 34.7 |
| Cephalopods | 14.7 | 13.2 | 15.6 | 9.9 | 18.6 | 10.8 |

¹⁾ 1999 estimate corrected

Table 5.18 Togo. Mean catch rates (kg/h) of valuable demersal species and some other groups from swept-area bottom-trawl hauls on the shelf (0 - 100 m) from the 1999-2006 surveys. 2000 and 2002 surveys are in the upwelling season.

| Group/species | Togo | | | | |
|----------------------|--------------|-------------|-------------|-------------|-------------|
| | 2000 | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 108.7 | 19.9 | 23.0 | 62.4 | 38.8 |
| Grunts | 0.0 | 2.2 | 2.1 | - | 1.0 |
| Croakers | 1.5 | - | 0.6 | 0.2 | - |
| Groupers | 4.1 | 1.0 | 0.7 | 1.1 | 1.2 |
| Snappers | 1.0 | 13.6 | 4.5 | 0.2 | 0.3 |
| Sum dem. val. | 115.3 | 36.7 | 30.9 | 63.9 | 41.3 |
| Bigeye grunt | 0.6 | - | 9.8 | 2.4 | 12.7 |
| Carangids | 35.9 | 19.9 | 25.6 | 22.3 | 43.4 |
| Barracudas | 2.0 | 5.4 | 4.4 | 3.2 | 13.0 |
| Cephalopods | 22.8 | 23.0 | 19.0 | 47.5 | 24.0 |

Table 5.19 Benin. Biomass estimates (tonnes) of valuable demersal species and some other groups from swept-area bottom-trawl hauls on the shelf (0 - 100 m) from the 1999-2006 surveys. 1999 values are splitted proportional to the shelf area (in parenthesis in NM²). 2000 and 2002 surveys are in the upwelling season.

| Group/Species | Benin (765 NM ²) | | | | | |
|----------------------|------------------------------|--------------------|--------------|------------|--------------|--------------|
| | 1999 | 2000 ¹⁾ | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 568 | 700 | 734 | 638 | 2 014 | 2 697 |
| Grunts | 41 | 66 | 35 | 57 | 28 | 29 |
| Croakers | 193 | 83 | 265 | 187 | 218 | 244 |
| Groupers | 215 | 59 | 26 | 31 | 154 | 66 |
| Snappers | 15 | 34 | 39 | 40 | 27 | 124 |
| Sum dem. val. | 1 032 | 942 | 1 098 | 953 | 2 411 | 3 160 |
| Bigeye grunt | 118 | 222 | 237 | 402 | 243 | 374 |
| Carangids | 788 | 1 490 | 1 306 | 500 | 1 152 | 903 |
| Barracudas | 170 | 102 | 485 | 361 | 400 | 879 |
| Cephalopods | 320 | 300 | 400 | 210 | 379 | 230 |

¹⁾2000 estimates corrected

Table 5.20 Togo. Biomass estimates (tonnes) of valuable demersal species and some other groups from swept-area bottom-trawl hauls on the shelf (0 - 100 m) from the 1999-2006 surveys. 1999 values are splitted proportional to the shelf area (in parenthesis in NM²). 2000 and 2002 surveys are in the upwelling season.

| Group/Species | Togo (327 NM ²) | | | | | |
|----------------------|-----------------------------|--------------|------------|------------|------------|------------|
| | 1999 | 2000 | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 255 | 1 102 | 215 | 243 | 616 | 352 |
| Grunts | 18 | 5 | 25 | 23 | 0 | 8 |
| Croakers | 87 | 11 | 0 | 9 | 2 | 0 |
| Groupers | 97 | 33 | 9 | 6 | 11 | 9 |
| Snappers | 7 | 8 | 198 | 64 | 4 | 3 |
| Sum dem. val. | 464 | 1 159 | 447 | 343 | 633 | 372 |
| Bigeye grunt | 53 | 0 | 0 | 99 | 20 | 94 |
| Carangids | 354 | 339 | 171 | 267 | 197 | 381 |
| Barracudas | 76 | 25 | 79 | 57 | 37 | 137 |
| Cephalopods | 140 | 260 | 300 | 190 | 434 | 210 |

Ghana

Figures 5.17 and 5.18 show the mean catch rates of the main groups “Demersal” and “Pelagic” for the whole shelf area from 0 to 100 m in the six last surveys. The “Demersal” group had quite similar mean catch rates in all surveys, but slightly higher and with much larger confidence intervals in 1999 due to one large catch of *B. auritus* (>5 t/h). Pelagic fish had similar high mean catch rates in 2000 and 2002, but much lower in the four other years, especially in 1999 when the estimate was outside the 95% confidence intervals of the two former.

Figures 5.19 and 5.20 show the mean catch rates of Seabreams and Carangids, the most abundant families in the “Demersal” and “Pelagic” groups. The 2000, 2002, 2004, 2005 and 2006 seabreams estimates are quite similar, while the 1999 estimate is much lower and just within the 95% confidence intervals of the other years. The carangids show the same picture as the whole “Pelagic” group; high mean catch rates in 2000 and 2002 and very low in 1999, 2004 and 2006 and outside the 95% confidence intervals of the 2000 and 2002 estimates. The 2005 estimate is somewhere between these extremes.

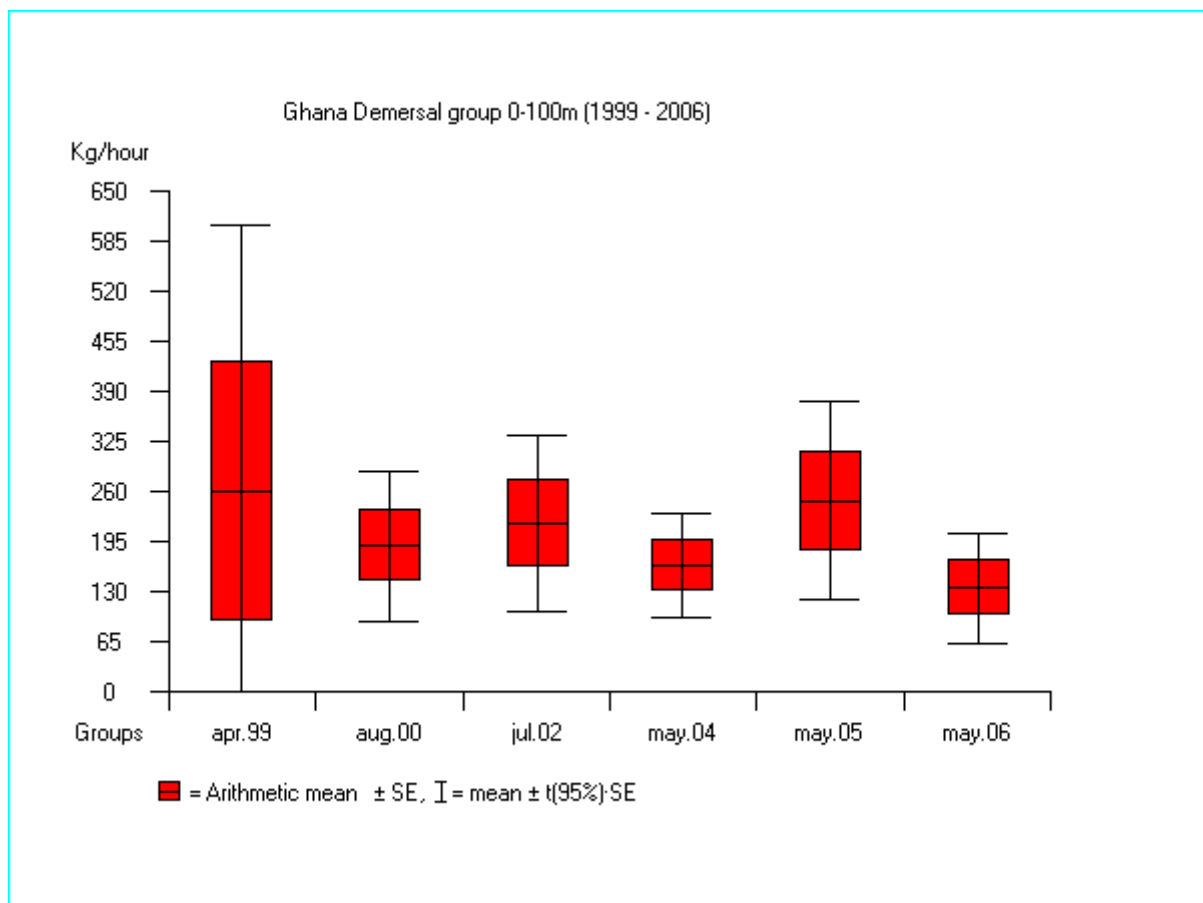


Figure 5.17 Mean catch rates of the main group “demersal” from 0 to 100 m in Ghana 1999-2006.

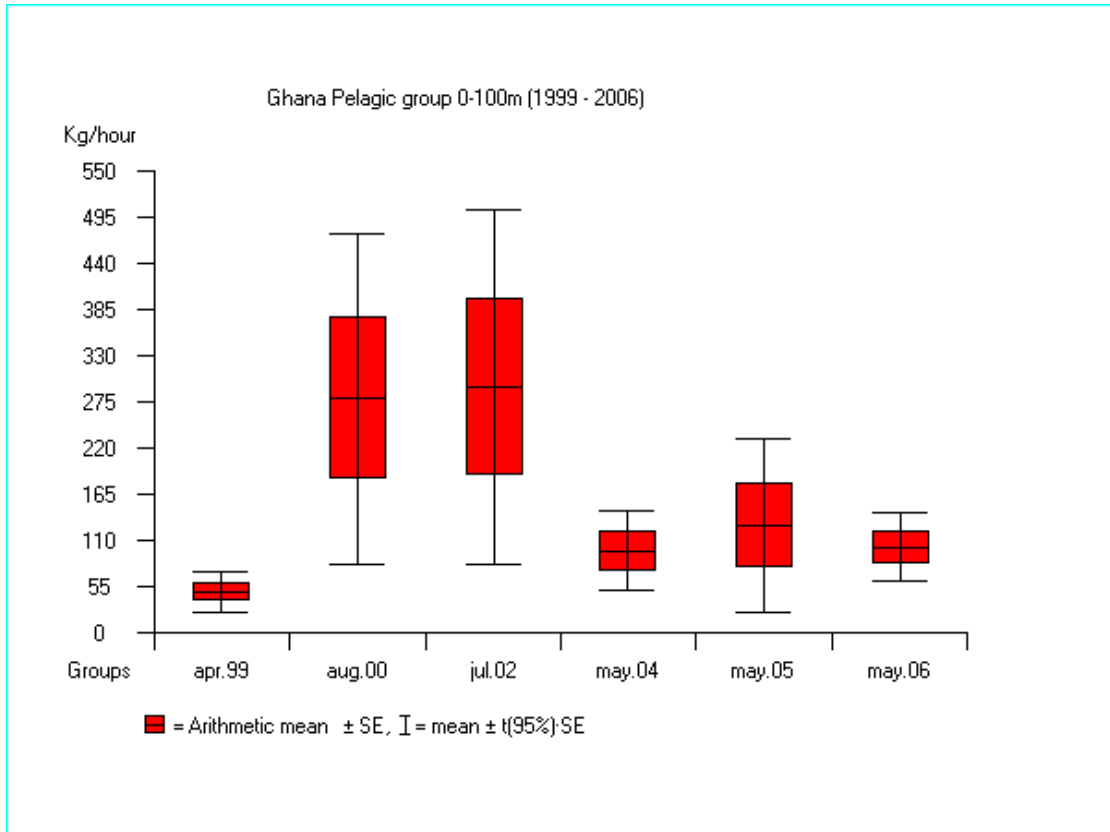


Figure 5.18 Mean catch rates of the main group “pelagic” from 0 to100 m in Ghana 1999-2006

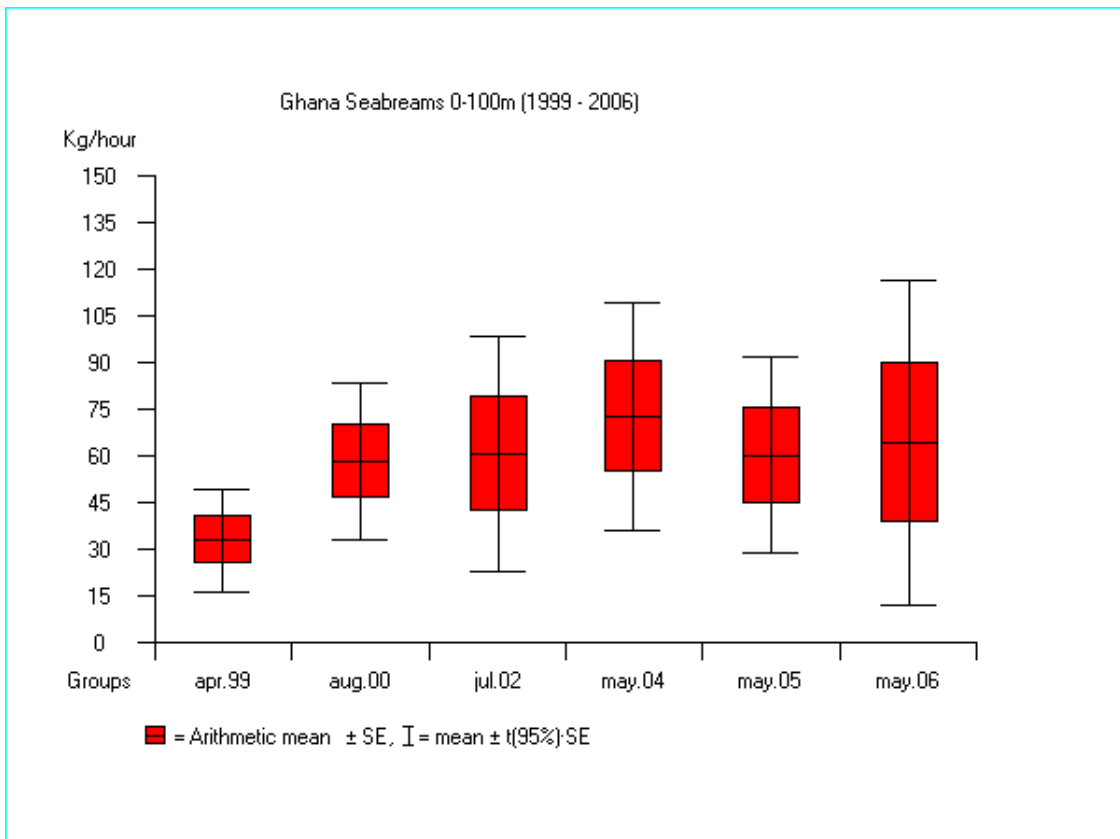


Figure 5.19 Mean catch rates of seabreams from 0 to100 m in Ghana 1999-2006

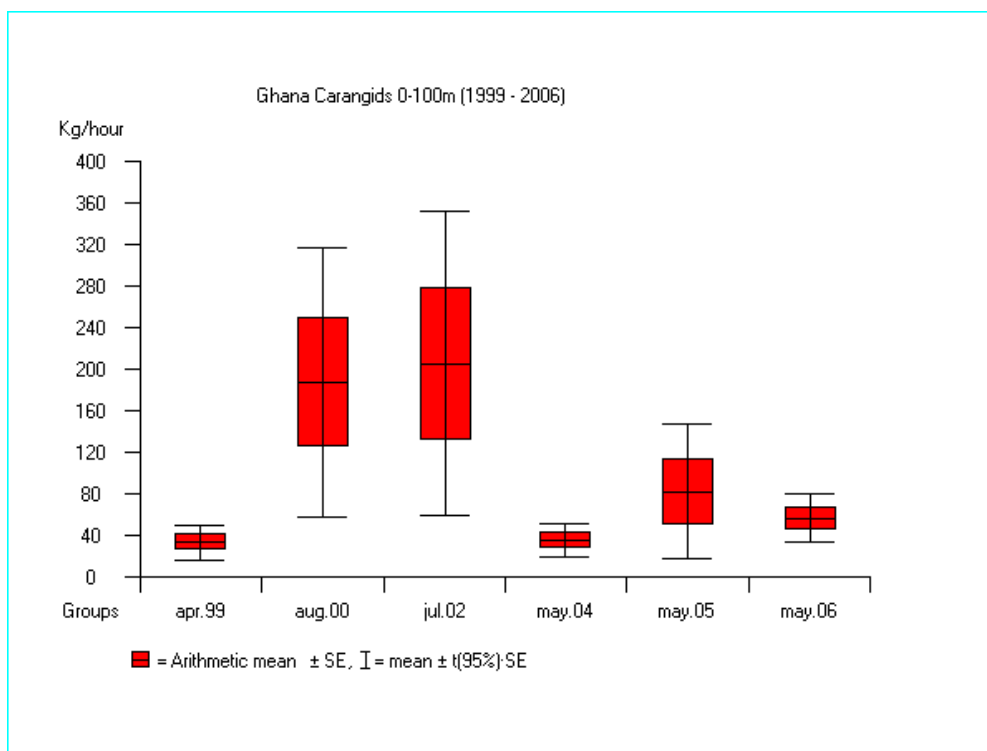


Figure 5.20 Mean catch rates of carangids from 0 to 100 m in Ghana 1999-2006.

Tables 5.21-5.22 summarize more details on mean catch rates and swept area biomass estimates of valuable demersal groups and a few other common groups covered during the present and five previous surveys in the Ghanaian waters. Seabreams had the highest average catch rate in 2004, while most of the other valuable demersal species had high average catch rates in 2000 and in general low in 1999. The time series of biomass estimates show the same trend. The estimated biomass of seabreams has been quite stable in the five last surveys. Bigeye grunt had much higher catch rate and estimated biomass in 1999 due to one large catch. Carangids were most abundant in 2000 and 2002.

Table 5.21 Ghana. Mean catch rates (kg/h) of valuable demersal species and some other groups from swept-area bottom trawl hauls on the shelf (0 – 100 m) from the 1999-2006 surveys. 2000 and 2002 surveys are in the upwelling season.

| Group/Species | Mean catch rates (kg/h) | | | | | |
|----------------------|--------------------------|--------------|-------------|-------------|-------------|-------------|
| | 1999 | 2000 | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 32.8 ¹⁾ | 58.3 | 60.7 | 72.5 | 60.7 | 64.0 |
| Grunts | 7.1 | 14.6 | 6.5 | 1.7 | 10.3 | 0.7 |
| Croakers | 0.7 | 3.2 | 4.4 | 1.7 | 4.4 | 3.1 |
| Groupers | 2.5 | 7.6 | 1.0 | 1.1 | 1.1 | 3.0 |
| Snappers | 0.7 | 22.5 | 1.9 | 0.9 | 1.8 | 5.6 |
| Sum dem. val. | 43.8¹⁾ | 106.2 | 74.5 | 77.9 | 77.7 | 76.4 |
| Bigeye grunt | 213.4 | 39.1 | 110.3 | 69.1 | 112.7 | 44.7 |
| Carangids | 33.3 | 187.7 | 205.4 | 35.3 | 81.8 | 56.7 |
| Barracudas | 5.9 | 5.6 | 11.1 | 8.9 | 11.6 | 14.1 |
| Cephalopods | 18.0 | 28.1 | 9.8 | 11.6 | 9.4 | 14.1 |

¹⁾ 1999 estimate corrected

Table 5.21 Ghana. Biomass estimates (tonnes) of valuable demersal species and some other groups from swept-area bottom trawl hauls on the shelf (0 – 100 m) from the 1999-2006 surveys. 2000 and 2002 surveys are in the upwelling season

| Group/ Species | Biomass (tonnes) | | | | | |
|----------------------|------------------|--------------------|---------------|---------------|---------------|---------------|
| | 1999 | 2000 ¹⁾ | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 8 478 | 13 346 | 14 181 | 16 187 | 15 690 | 15 166 |
| Grunts | 1 431 | 4 397 | 1 168 | 326 | 2 261 | 140 |
| Croakers | 125 | 1 046 | 850 | 286 | 821 | 664 |
| Groupers | 557 | 1 921 | 254 | 220 | 235 | 674 |
| Snappers | 151 | 5 322 | 422 | 200 | 413 | 1 366 |
| Sum dem. val. | 10 743 | 26 032 | 16 876 | 17 219 | 19 420 | 18 010 |
| Bigeye grunt | 70 314 | 9 120 | 21 182 | 13 866 | 27 896 | 7 296 |
| Carangids | 6 860 | 47 054 | 45 332 | 7 405 | 19 226 | 11 831 |
| Barracudas | 1 084 | 915 | 1 999 | 1 589 | 2 201 | 2 554 |
| Cephalopods | 4 400 | 4 900 | 2 000 | 2 600 | 2 181 | 3 208 |

¹⁾ 2000 estimates corrected

Côte d'Ivoire

Figures 5.21 and 5.22 show the mean catch rates of the main groups “Demersal” and “Pelagic” for the whole shelf area from 0 to 100 m in the six last surveys. The “Demersal” group had highest average catch rate and largest confidence intervals in 2000 due to one large catch of *B. auritus* (> 4/h). The average catch rate was lowest in 1999, and outside the 95 % confidence limits of the 2002-2005 estimates. The pelagic group also had the highest mean catch rate in 2000, outside the 95% confidence intervals of the 1999, 2004, 2005 and 2006 estimates. The average catch rate was lowest in 2006, with an average outside the 95% confidence intervals of the 2000-2004 estimates.

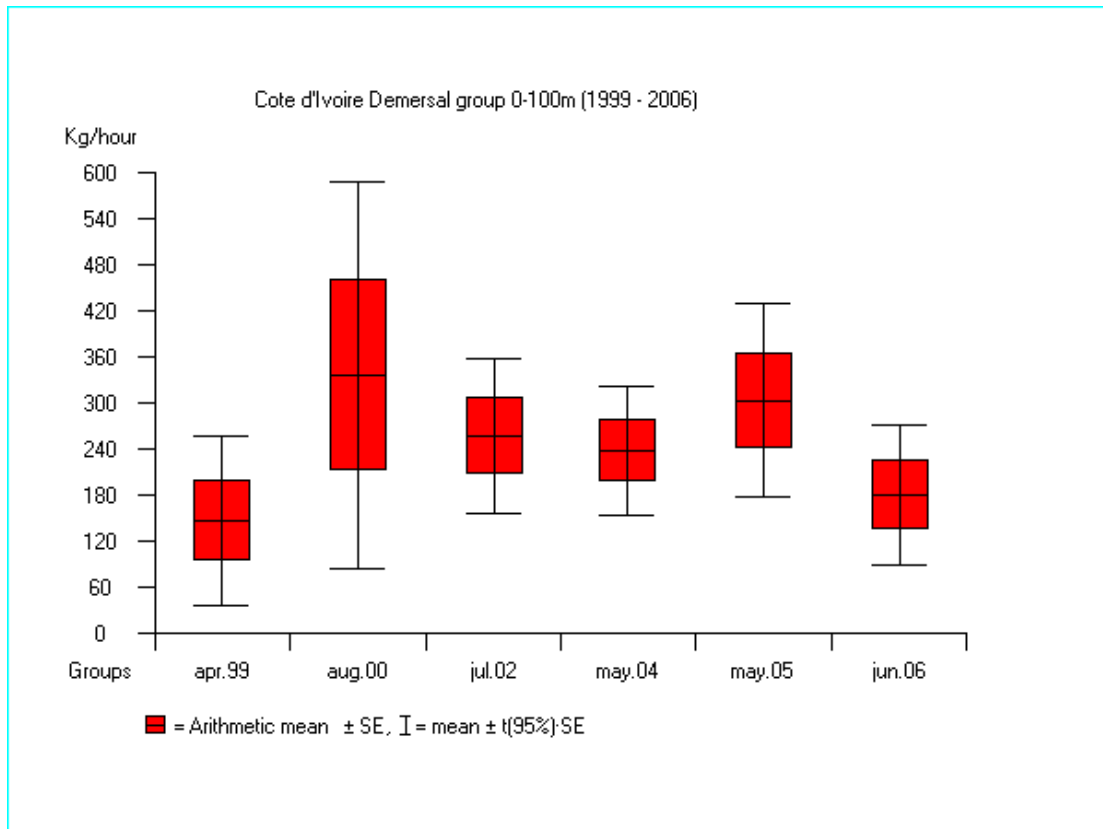


Figure 5.21 Mean catch rates of the main group “demersal” from 0 to 100 m in Côte d’Ivoire 1999-2006.

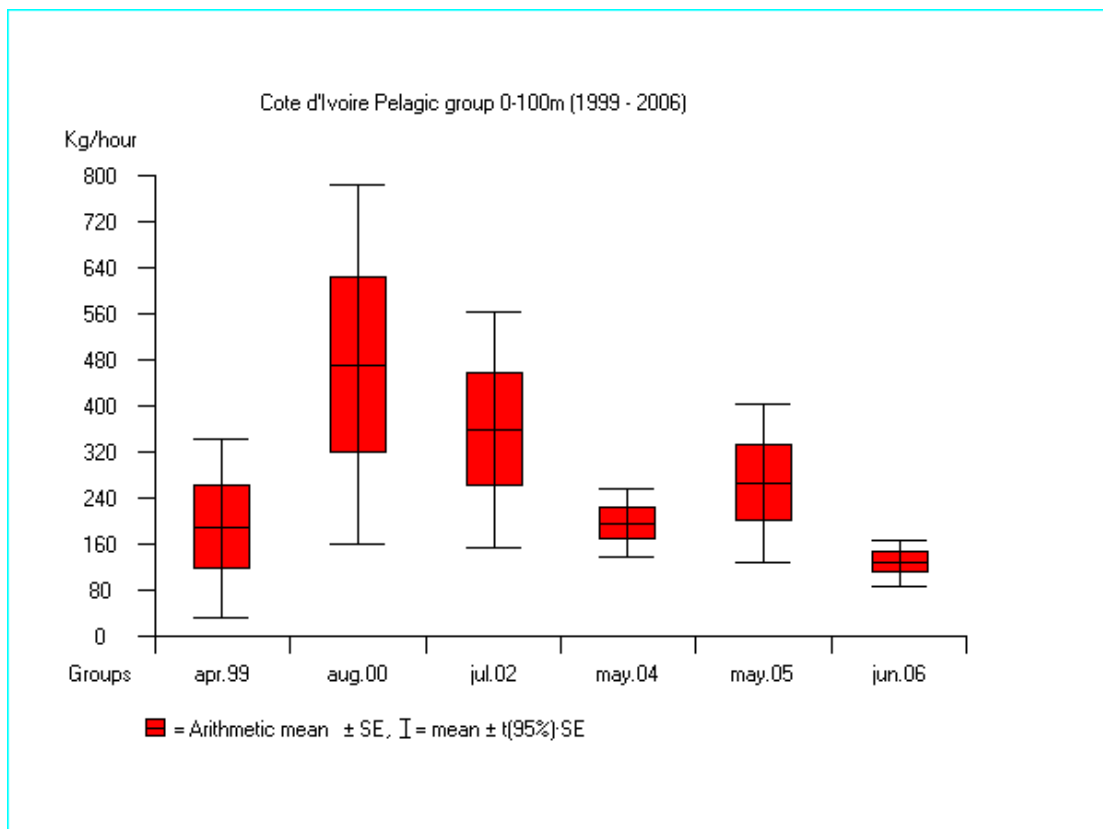


Figure 5.22 Mean catch rates of the main group “pelagic” from 0 to 100 m in Côte d’Ivoire 1999-2006.

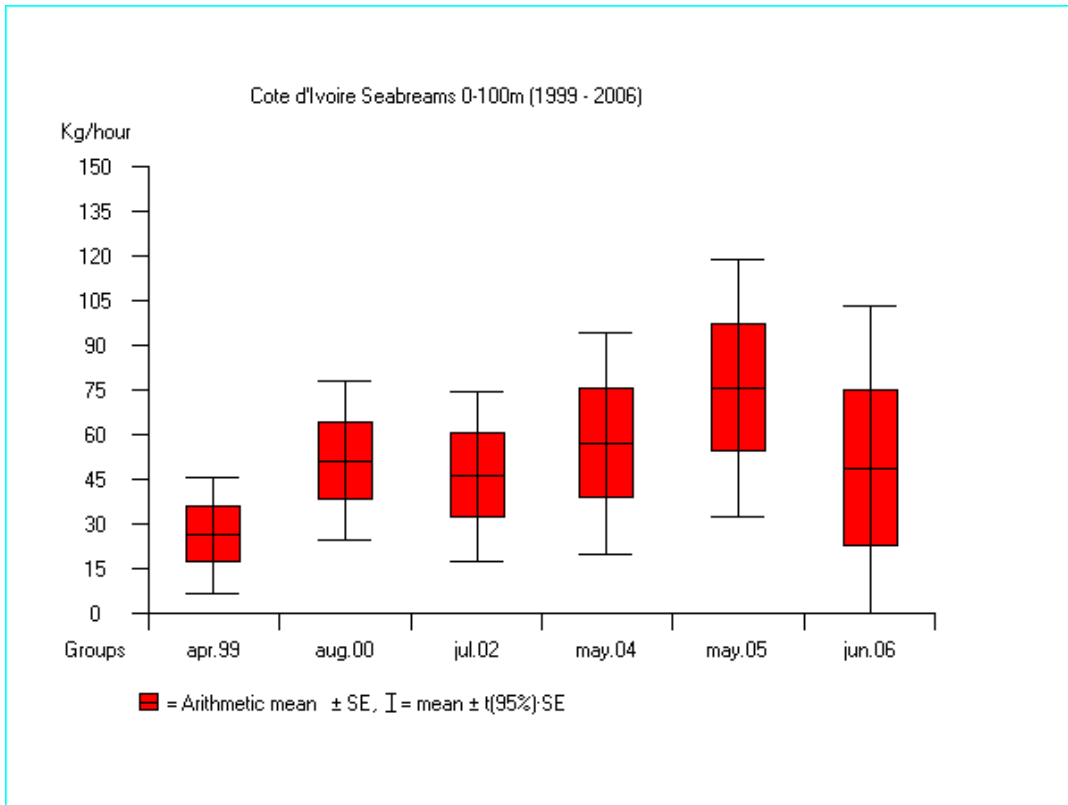


Figure 5.23 Mean catch rates of seabreams from 0 to 100 m in Côte d'Ivoire 1999-2006.

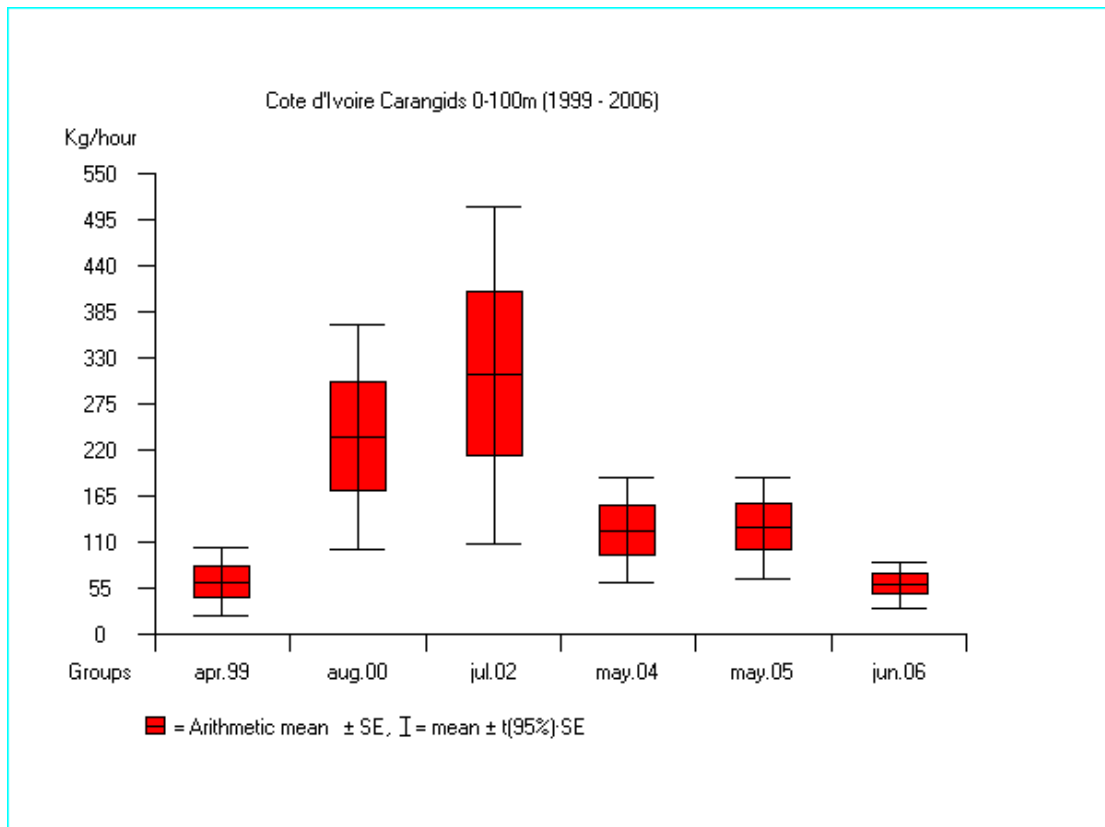


Figure 5.24 Mean catch rates of carangids from 0 to 100 m in Côte d'Ivoire 1999-2006.

Figures 5.23 and 5.24 show the mean catch rates of Seabreams and Carangids, the most abundant families in the “demersal” and “pelagic” groups. The 2000, 2002, 2004 and 2006 seabreams estimates are quite similar. There was an increasing trend towards 2005 and then a decrease in 2006. All estimates are outside the 95% confidence intervals of the much lower 1999 estimate. The carangids had the highest average catch rate in 2000 and 2002, outside the 95% confidence intervals of the much lower 1999, 2004, 2005 and 2006 estimates. The latter was the lowest in the time series, with an average outside the 95% confidence intervals of the others except 1999.

Tables 5.23-5.24 summarize more details on mean catch rates and swept area biomass estimates of valuable demersal groups and a few other common groups covered during the present and five previous surveys in the Côte d’Ivoire waters. The valuable demersal species had in general low average catch rates in 1999 and 2006. It should be noted that the high 2002 estimate of snappers is based on one large catch of *Aspilus fuscus*, which is commercially less important than the other snappers. The time series of biomass estimates show the same picture, low in 1999 and 2006 and higher and somewhat more stable in the other years. Bigeye grunt was most abundant in 2000 and 2005, carangids in 2002 and barracudas in 2005.

Table 5.23 Côte d’Ivoire. Mean catch rates (kg/h) of valuable demersal species and some other groups from swept-area bottom trawl hauls on the shelf (0 – 100 m) off from the 1999-2006 surveys. 2000 and 2002 surveys are in the upwelling season.

| Group/Species | Mean catch rates (kg/h) | | | | | |
|----------------------|--------------------------|-------------|--------------|-------------|--------------|-------------|
| | 1999 | 2000 | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 26.1 ¹⁾ | 51.2 | 46.1 | 57.2 | 75.5 | 48.7 |
| Grunts | 6.0 | 15.7 | 8.5 | 15.7 | 10.4 | 3.8 |
| Croakers | 9.5 | 22.5 | 31.8 | 15.5 | 16.7 | 11.5 |
| Groupers | 2.5 | 2.1 | 2.7 | 2.6 | 3.0 | 1.4 |
| Snappers | 2.3 | 0.3 | 12.8 | 0.1 | + | 0.3 |
| Sum dem. val. | 47.0¹⁾ | 91.8 | 101.9 | 91.0 | 105.7 | 65.7 |
| Bigeye grunt | 91.9 | 216.3 | 108.4 | 138.6 | 157.8 | 104.8 |
| Carangids | 62.2 | 235.5 | 309.7 | 105.2 | 144.2 | 58.3 |
| Barracudas | 13.2 | 3.5 | 7.3 | 14.9 | 61.8 | 18.5 |
| Cephalopods | 4.3 | 21.0 | 10.2 | 6.1 | 8.8 | 10.7 |

¹⁾ 1999 estimate corrected

Table 5.24 Côte d'Ivoire. Biomass estimates (tonnes) of valuable demersal species and some other groups from swept-area bottom trawl hauls on the shelf (0 – 100 m) off from the 1999-2006 surveys. 2000 and 2002 surveys are in the upwelling season.

| Group/Species | Biomass (tonnes) | | | | | |
|----------------------|------------------|--------------------|---------------|--------------|---------------|--------------|
| | 1999 | 2000 ²⁾ | 2002 | 2004 | 2005 | 2006 |
| Seabreams | 3 457 | 6 666 | 5 307 | 6 841 | 8 868 | 5 882 |
| Grunts | 417 | 1 667 | 695 | 1 216 | 851 | 362 |
| Croakers | 941 | 2 731 | 3 108 | 1 485 | 1 586 | 831 |
| Groupers | 305 | 283 | 311 | 268 | 312 | 149 |
| Snappers | 145 | 38 | 1 566 | 13 | 30 | 21 |
| Sum dem. Val. | 5 265 | 11 385 | 10 987 | 9 823 | 11 646 | 7 245 |
| Bigeye grunt | 9 913 | 14 245 | 8 530 | 11 959 | 15 583 | 12 298 |
| Carangids | 5 477 | 26 369 | 36 554 | 10 668 | 15 344 | 5 418 |
| Barracudas | 811 | 259 | 569 | 1 176 | 5 973 | 1 854 |
| Cephalopods | 450 | 1 900 | 900 | 650 | 1 045 | 1 241 |

²⁾ 2000 estimates corrected

Gulf of Guinea

Table 5.25 summarises the swept-area biomass estimates from the six last surveys for the whole region. The seabreams estimate for the five last years are quite similar, and are all more than 60 % above the 1999 result. Most of the other valuable demersal groups had the highest estimated biomasses in 2000 and lowest in 1999. The sum of valuable demersal groups in 1999 was less than 50% of the corresponding 2000 estimate, while the 2002 - 2006 estimates are about 70-85 % of the 2000 one. Among the other groups, the estimated biomasses of carangids were lowest in 1999, 2004 and 2006, highest in 2000 and 2002, and intermediate in 2005. Bigeye grunt had the highest estimate in 1999, lower and more similar in 2000, 2002, 2004 and 2006 and intermediate in 2005. It should, however, be noted that the 1999 estimate of bigeye grunt is very much driven by one large catch. The estimated biomass of barracudas was highest in 2005, more than the double of what was estimated in most other years. Cephalopods had highest biomass estimate in 2000 and only about the half of that in the three following surveys, while the 2006 estimate was somewhat higher.

It should be noted that the 2000 and 2002 surveys were in the upwelling season, and this may have influenced the results of these years compared to the results of the other years.

Table 5.25 Biomass estimates (tonnes) of valuable demersal species and some other groups from swept-area bottom trawl hauls on the shelf (0 – 100 m) from surveys with “Dr. Fridtjof Nansen” off Benin, Togo, Ghana and Côte d’Ivoire in 1999 - 2006.

| Group/Species | Biomass (tonnes) | | | | | |
|----------------------|------------------|-----------------------|--------------------|---------------|---------------|---------------|
| | 1999 | 2000 ^{1),2)} | 2002 ²⁾ | 2004 | 2005 | 2006 |
| Seabreams | 12 757 | 21 814 | 20 437 | 23 909 | 27 188 | 24 097 |
| Grunts | 1 907 | 6 135 | 1 922 | 1 621 | 3 139 | 539 |
| Croakers | 1 346 | 3 871 | 4 223 | 1 967 | 2 626 | 1738 |
| Groupers | 1 174 | 2 296 | 600 | 525 | 712 | 899 |
| Snappers | 318 | 5 402 | 2 225 | 317 | 474 | 1 514 |
| Sum dem. val. | 17 502 | 39 518 | 29 407 | 28 339 | 34 140 | 28 787 |
| Bigeye grunt | 80 398 | 23 587 | 29 949 | 26 327 | 43 741 | 20 062 |
| Carangids | 13 480 | 75 252 | 83 364 | 18 839 | 35 920 | 18 533 |
| Barracudas | 2 141 | 1 301 | 3 133 | 3 183 | 8 611 | 5 423 |
| Cephalopods | 5 300 | 7 360 | 3 600 | 3 650 | 4 038 | 4 889 |

¹⁾ 2000 estimates corrected ²⁾ Upwelling season

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RÉSUMÉ

Une campagne combinée acoustique et chalutage de fond a été effectuée du 19 mai au 7 juin dans le Golfe de Guinée occidentale (Bénin, Togo, Ghana et Côte d'Ivoire). Il s'agissait de la sixième campagne de la série commencée en 1999. Les objectifs principaux étaient de cartographier la distribution et estimer l'abondance des principales espèces pélagiques et des ressources démersales par enregistrement acoustique et un programme de chalutage de la surface balayée. De plus, des données hydrographiques, du zooplankton et du benthos ont été échantillonnées.

Dans la plus grande partie de la zone la température variait de 28 à 29° C et la thermocline se situait entre 25 et 50 m de profondeur. La salinité de surface se situait entre 33.8 et 35.0 psu et la salinité était en général la plus basse dans les zones côtières autour des estuaires des fleuves. Les valeurs d'oxygène dissous se situaient entre 2 ml/l sur le fond et 4 ml/l à la surface dans toutes les zones. Il n'y avait aucun signe de faible teneur en oxygène sur le fond du plateau. Une structure relativement plate était observée dans la plupart des sections sans aucune indication de déplacement vertical d'eau et d'upwelling.

Au Bénin la biomasse acoustique de la sardinelle a été estimée à environ 500 tonnes (60 % *S. aurita*), celle de l'anchois à 500 tonnes et celle des PEL 2 (carangidés, scombridés, barracudas et poissons-sabres) à environ 4 000 tonnes. Les estimations de la biomasse correspondante au Togo étaient de 900 tonnes pour la sardinelle (100 % *S. aurita*), 100 tonnes pour l'anchois et 700 tonnes pour les PEL 2. Au Ghana, avec la zone des plateaux la plus étendue, la sardinelle a été estimée à environ 56 000 tonnes (90 % *S. aurita*), l'anchois à 1 200 tonnes et PEL 2 à 37 000 tonnes. L'estimation la plus élevée pour la biomasse de la sardinelle revient à la Côte d'Ivoire avec 62 000 tonnes (70 % *S. aurita*), tandis que l'anchois était très rare et qu'aucune estimation n'a été faite et le groupe PEL 2 a été estimé à 19 000 tonnes. En général, la plus grande proportion de *S. maderensis* était juvénile (8–11 cm), tandis qu'une partie de *S. aurita* était plus grande (16–27 cm).

L'estimation totale de la biomasse pour le groupe sardinelles-anchois en 2006 était plus élevée qu'en 2005 et supérieure à la moyenne 1981-2005 (y compris les résultats des campagnes 1981 et 1989). L'estimation pour le Bénin était la plus basse de la série, celle du Togo la deuxième plus basse de la série, le Ghana juste au-dessus de la moyenne 1981–2005, tandis que l'estimation pour la Côte d'Ivoire était la troisième plus élevée de la série et au-dessus de la moyenne 1981–2005. L'estimation de la biomasse totale pour le groupe PEL 2 était la deuxième plus basse de la série 1989–2005. L'estimation pour le Bénin était la deuxième plus élevée de la série, et pour le Togo, le Ghana et la Côte d'Ivoire les estimations étaient toutes au-dessous de la moyenne 1999-2005 de la série.

La biomasse de la surface balayée des espèces/groupes démersaux valables a été estimée à environ 3 000 tonnes au Bénin. Les dorades avaient le taux de capture moyen le plus élevé (117 kg/h), tandis que les courbines, vivaneaux, mérours et grondeurs (sauf les pelons lippus) tous avaient des taux de capture faibles (< 10 kg/h). Les céphalopodes avaient un taux de capture moyen de 10,8 kg/h, tandis que les groupes pélagiques des carangidés et barracudas avaient tous deux des taux de capture moyens d'environ 35 kg/h dans le chalutage de fond. Au Togo, l'estimation de la biomasse totale des espèces démersales valables était d'environ 400 tonnes et, comme au Bénin, les dorades avaient le taux de capture moyen le plus élevé (39 kg/h) et les quatre autres groupes avaient des taux de capture moyens très faibles (< 2 kg/h). Les céphalopodes avaient un taux de capture moyen de 24 kg/h, tandis que les groupes pélagiques des carangidés et barracudas avaient des taux de capture moyens de 43 et 13 kg/h, respectivement. Le Ghana avait la biomasse estimée des espèces/groupes démersaux valables la plus élevée avec 18 000 tonnes, dont les dorades constituaient plus de 80 %, avec un taux de capture moyen de 64 kg/h. Les quatre autres groupes avaient tous des taux de capture faibles (< 6 kg/h). Les céphalopodes avaient un taux de capture moyen de 14 kg/h, les carangidés de 56 kg/h et les barracudas de 14 kg/h. L'estimation de la biomasse totale de la surface balayée des groupes démersaux valables en Côte d'Ivoire était d'environ 7 000 tonnes, et ici aussi les dorades dominaient avec un taux de capture moyen de presque 50 kg/h. Les courbines avaient avec un taux de capture moyen de 11.5 kg/h, les trois autres groupes un taux beaucoup plus faible (< 4 kg/h). Les céphalopodes avaient un taux de capture moyen d'environ 11 kg/h, les carangidés de 58 kg/h et les barracudas de 18 kg/h.

Pour toute la région les estimations de dorade pour les cinq dernières années sont tout à fait semblables, et supérieures à 60 % au-dessus du résultat 1999. La plupart des autres groupes démersaux valables avaient les biomasses estimées les plus élevées en 2000 et les plus basses en 1999. Les céphalopodes avaient la biomasse estimée la plus élevée en 2000 et seulement environ la moitié dans les trois campagnes suivantes, tandis que l'estimation 2006 était un peu plus élevée. Pour les groupes pélagiques, les biomasses estimées des carangidés étaient les plus basses en 1999, 2004 et 2006, les plus hautes en 2000 et 2002, et intermédiaires en 2005. La biomasse estimée pour les barracudas était plus élevée en 2005, plus du double de ce qui était estimé au cours de la plupart des autres années.

Les campagnes 2000 et 2002 étaient dans la saison de l'upwelling, ce qui peut avoir influencé les résultats des estimations de biomasse acoustiques et de la surface balayée comparés aux résultats des autres années.

Annex I Records of fishing stations

PROJECT STATION:1089
 DATE:20/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 617
 start stop duration Long E 237
 TIME :07:33:12 08:03:10 30 (min) Purpose code: 3
 LOG :9430.45 9432.08 1.63 Area code : 4
 FDEPTH: 20 22 GearCond.code:
 BDEPTH: 20 22 Validity code:
 Towing dir: 250ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 70 Kg Total catch: 210.00 CATCH/HOUR: 420.00

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|--------------|------|
| | weight | numbers | | |
| Sphyræna guachancho | 91.50 | 540 | 21.79 | |
| Chloroscombrus chrysurus | 67.80 | 496 | 16.14 | |
| Pseudolithus senegalensis | 53.70 | 96 | 12.79 | 4765 |
| Caranx hippos | 30.90 | 156 | 7.36 | |
| Galeoides decadactylus | 30.36 | 444 | 7.23 | 4763 |
| Ilisha africana | 25.50 | 4812 | 6.07 | |
| Elops lacerta | 18.00 | 78 | 4.29 | |
| Lutjanus dentatus | 14.58 | 6 | 3.47 | |
| Lutjanus gorenensis | 13.86 | 42 | 3.30 | |
| Scomberomorus tritor | 9.54 | 216 | 2.27 | |
| Sphyræna-juveniles | 8.22 | 1068 | 1.96 | 4766 |
| Brachydeuterus auritus | 7.38 | 294 | 1.76 | 4764 |
| Sardinella maderensis | 6.96 | 324 | 1.66 | 4767 |
| Pteroscion peli | 6.96 | 174 | 1.66 | |
| Dasyatis margarita | 6.42 | 6 | 1.53 | |
| Drepane africana | 5.88 | 78 | 1.40 | |
| Pagrus caeruleostictus | 5.64 | 6 | 1.34 | |
| Lethrinus atlanticus | 5.04 | 12 | 1.20 | |
| Pomadasy peroteti | 4.32 | 12 | 1.03 | |
| Selar crumenophthalmus | 3.54 | 84 | 0.84 | |
| Dentex canariensis | 2.22 | 12 | 0.53 | |
| Trichiurus lepturus | 0.90 | 12 | 0.21 | |
| Sepia officinalis hierredda | 0.24 | 6 | 0.06 | |
| Total | 419.46 | | 99.89 | |

PROJECT STATION:1091
 DATE:20/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 610
 start stop duration Long E 238
 TIME :12:35:32 13:05:47 30 (min) Purpose code: 3
 LOG :9447.22 9448.82 1.58 Area code : 4
 FDEPTH: 65 66 GearCond.code:
 BDEPTH: 65 66 Validity code:
 Towing dir: 90ø Wire out: 170 m Speed: 30 kn*10
 Sorted: 58 Kg Total catch: 179.08 CATCH/HOUR: 358.16

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-------------------------------|---------------|---------|--------------|------|
| | weight | numbers | | |
| Trichiurus lepturus | 273.00 | 942 | 76.22 | 4773 |
| J E L Y F I S H | 61.20 | 216 | 17.09 | |
| Alloteuthis africana | 8.94 | 1464 | 2.50 | |
| Brachydeuterus auritus | 3.24 | 160 | 0.90 | 4772 |
| Sepia officinalis hierredda | 2.14 | 2 | 0.60 | |
| Sphyræna guachancho | 1.86 | 26 | 0.52 | |
| Pagellus bellottii | 1.62 | 12 | 0.45 | |
| Decapterus punctatus juv. | 1.48 | 8 | 0.41 | |
| Sardinella aurita - Juveniles | 1.48 | 10 | 0.41 | |
| Dentex gibbosus | 0.88 | 2 | 0.25 | |
| Pseudupeneus prayensis | 0.80 | 6 | 0.22 | |
| Dentex angolensis | 0.80 | 2 | 0.22 | |
| Ariomma bondi juv. | 0.72 | 4 | 0.20 | |
| Total | 358.16 | | 99.99 | |

PROJECT STATION:1090
 DATE:20/ 5/06 GEAR TYPE: BT No: 9 POSITION:Lat N 614
 start stop duration Long E 237
 TIME :09:07:00 09:37:03 30 (min) Purpose code: 3
 LOG :9437.65 9439.22 1.55 Area code : 4
 FDEPTH: 32 34 GearCond.code:
 BDEPTH: 32 34 Validity code:
 Towing dir: 260ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 37 Kg Total catch: 189.71 CATCH/HOUR: 379.42

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|---------------|------|
| | weight | numbers | | |
| Sphyræna guachancho | 209.50 | 410 | 55.22 | 4768 |
| Brachydeuterus auritus | 53.80 | 1180 | 14.18 | 4769 |
| Alectis alexandrinus | 28.10 | 50 | 7.41 | |
| Sphyræna-juveniles | 22.74 | 2610 | 5.99 | 4770 |
| Selene dorsalis | 15.00 | 150 | 3.95 | |
| Galeoides decadactylus | 11.10 | 140 | 2.93 | |
| Brachydeuterus auritus Juv. | 9.70 | 4630 | 2.56 | 4771 |
| Sepia officinalis hierredda | 5.90 | 1000 | 1.56 | |
| Chloroscombrus chrysurus | 5.20 | 50 | 1.37 | |
| Epinephelus aeneus | 4.54 | 2 | 1.20 | |
| Pagrus caeruleostictus | 3.62 | 12 | 0.95 | |
| Aluterus monoceros | 3.22 | 4 | 0.85 | |
| Drepane africana | 3.20 | 20 | 0.84 | |
| Sardinella maderensis | 2.00 | 60 | 0.53 | |
| Lagocephalus laevigatus | 1.02 | 2 | 0.27 | |
| Portunus validus | 0.56 | 2 | 0.15 | |
| Penaeus notialis | 0.22 | 8 | 0.06 | |
| Total | 379.42 | | 100.02 | |

PROJECT STATION:1092
 DATE:20/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 606
 start stop duration Long E 223
 TIME :15:32:49 16:03:09 30 (min) Purpose code: 3
 LOG :9470.29 9471.92 1.61 Area code : 4
 FDEPTH: 86 88 GearCond.code:
 BDEPTH: 86 88 Validity code:
 Towing dir: 90ø Wire out: 225 m Speed: 30 kn*10
 Sorted: 34 Kg Total catch: 173.05 CATCH/HOUR: 346.10

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|---------------|---------|---------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 108.10 | 2300 | 31.23 | |
| Ariomma bondi | 93.50 | 2730 | 27.02 | |
| Squatina oculata | 29.50 | 40 | 8.52 | |
| Boops boops | 22.00 | 360 | 6.36 | |
| Priacanthus arenatus | 21.00 | 420 | 6.07 | |
| Fistularia petimba | 18.50 | 70 | 5.35 | |
| Sepia officinalis hierredda | 17.40 | 30 | 5.03 | |
| Dentex angolensis | 13.50 | 190 | 3.90 | |
| Pagrus caeruleostictus | 11.40 | 50 | 3.29 | |
| Dentex canariensis | 4.20 | 10 | 1.21 | |
| Lepidotrigla cadmani | 3.00 | 10 | 0.87 | |
| Raja miraletus | 2.60 | 10 | 0.75 | |
| Pseudupeneus prayensis | 1.40 | 10 | 0.40 | |
| Total | 346.10 | | 100.00 | |

PROJECT STATION:1093
 DATE:20/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 611
 start stop duration Long E 224
 TIME :17:42:41 18:12:32 30 (min) Purpose code: 3
 LOG :9483.51 9484.99 1.45 Area code : 4
 FDEPTH: 44 45 GearCond.code:
 BDEPTH: 44 45 Validity code:
 Towing dir: 270ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 31 Kg Total catch: 222.47 CATCH/HOUR: 444.94

PROJECT STATION:1095
 DATE:21/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 609
 start stop duration Long E 219
 TIME :02:20:12 02:50:25 30 (min) Purpose code: 1
 LOG :9545.10 9546.71 1.59 Area code : 4
 FDEPTH: 14 20 GearCond.code:
 BDEPTH: 61 57 Validity code:
 Towing dir: 306ø Wire out: 130 m Speed: 30 kn*10
 Sorted: 17 Kg Total catch: 17.76 CATCH/HOUR: 35.52

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L L Y F I S H | 179.90 | 476 | 40.43 | |
| Brachydeuterus auritus | 172.90 | 11158 | 38.86 | 4774 |
| Penaeus notialis | 24.08 | 1386 | 5.41 | |
| Sepia officinalis hierredda | 20.30 | 140 | 4.56 | |
| Syacium micrurum | 11.06 | 602 | 2.49 | |
| Trichiurus lepturus | 8.12 | 392 | 1.82 | |
| Scyllarides herklotsii | 5.04 | 1176 | 1.13 | |
| Aluterus monoceros | 4.48 | 14 | 1.01 | |
| Pagellus bellottii | 3.78 | 28 | 0.85 | |
| Priacanthus arenatus | 2.94 | 28 | 0.66 | |
| Raja miralestus | 2.40 | 6 | 0.54 | |
| OPHIDIIDAE | 1.68 | 84 | 0.38 | |
| Grammolites gruveli | 1.40 | 126 | 0.31 | |
| Fistularia petimba | 1.24 | 42 | 0.28 | |
| Pisodonophis semicinctus | 0.90 | 4 | 0.20 | |
| Microchirus frechkopi | 0.84 | 70 | 0.19 | |
| Cynoponticus ferox | 0.78 | 4 | 0.18 | |
| Sicyonia galeata | 0.70 | 322 | 0.16 | |
| Antennarius sp. | 0.70 | 28 | 0.16 | |
| NETTASTOMATIDAE | 0.56 | 14 | 0.13 | |
| Selene dorsalis | 0.28 | 224 | 0.06 | |
| Brotula barbata | 0.28 | 14 | 0.06 | |
| Scorpaena normani | 0.28 | 112 | 0.06 | |
| Uroconger lepturus | 0.14 | 14 | 0.03 | |
| Microchirus wittei | 0.14 | 14 | 0.03 | |
| Total | 444.92 | | 99.99 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Engraulis encrasicolus | 17.30 | 5574 | 48.70 | 4779 |
| J E L L Y F I S H | 10.04 | 18 | 28.27 | |
| Sardinella aurita | 2.40 | 118 | 6.76 | 4778 |
| Ariomma bondi | 1.28 | 18 | 3.60 | |
| Decapterus punctatus | 0.82 | 36 | 2.31 | 4780 |
| Sepia juveniles | 0.76 | 136 | 2.14 | |
| Saurida brasiliensis | 0.74 | 210 | 2.08 | |
| Sphyraena guanchancho | 0.58 | 12 | 1.63 | |
| Alloteuthis africana | 0.44 | 126 | 1.24 | |
| Auxis thazard | 0.28 | 10 | 0.79 | |
| Selar crumenophthalmus | 0.24 | 2 | 0.68 | |
| Sardinella maderensis | 0.22 | 24 | 0.62 | |
| Cubiceps sp. | 0.14 | 12 | 0.39 | |
| Grammolites gruveli | 0.12 | 2 | 0.34 | |
| Hypoclydonia bella | 0.08 | 2 | 0.23 | |
| Parexocoetus brachypterus | 0.08 | 8 | 0.23 | |
| Total | 35.52 | | 100.01 | |

PROJECT STATION:1096
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 617
 start stop duration Long E 208
 TIME :05:56:24 06:22:51 26 (min) Purpose code: 3
 LOG :9560.68 9562.11 1.42 Area code : 4
 FDEPTH: 17 17 GearCond.code:
 BDEPTH: 17 17 Validity code:
 Towing dir: 87ø Wire out: 130 m Speed: 30 kn*10
 Sorted: 20 Kg Total catch: 64.79 CATCH/HOUR: 149.52

PROJECT STATION:1094
 DATE:20/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 616
 start stop duration Long E 222
 TIME :19:17:37 19:43:08 26 (min) Purpose code: 3
 LOG :9491.63 9492.98 1.33 Area code : 4
 FDEPTH: 21 24 GearCond.code:
 BDEPTH: 21 24 Validity code:
 Towing dir: 180ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 16 Kg Total catch: 96.07 CATCH/HOUR: 221.70

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L L Y F I S H | 46.04 | 215 | 30.79 | |
| Chloroscombrus Juvenile | 26.24 | 24092 | 17.55 | |
| Sepia officinalis hierredda | 15.85 | 1163 | 10.60 | |
| Sphyraena guanchancho | 12.46 | 762 | 8.33 | 4781 |
| Chloroscombrus chrysurus | 9.48 | 118 | 6.34 | |
| Sphyraena sphyraena | 7.87 | 5 | 5.26 | |
| Scomberomorus tritor | 5.88 | 145 | 3.93 | |
| Selene dorsalis | 4.92 | 42 | 3.29 | |
| Brachydeuterus auritus | 3.67 | 69 | 2.45 | |
| Drepane africana | 3.53 | 7 | 2.36 | |
| Sardinella aurita | 3.12 | 48 | 2.09 | |
| Sardinella maderensis | 3.05 | 138 | 2.04 | |
| Galeoides decadactylus | 2.70 | 76 | 1.81 | 4782 |
| Lagocephalus laevigatus | 2.42 | 125 | 1.62 | |
| Alectis alexandrinus | 1.04 | 42 | 0.70 | |
| Pteroscion peli | 0.28 | 7 | 0.19 | |
| Trichiurus lepturus | 0.21 | 7 | 0.14 | |
| Decapterus rhonchus | 0.21 | 7 | 0.14 | |
| Decapterus punctatus | 0.21 | 21 | 0.14 | |
| Trachinocephalus myops | 0.21 | 7 | 0.14 | |
| Eucinostomus melanopterus | 0.14 | 7 | 0.09 | |
| Total | 149.53 | | 100.00 | |

PROJECT STATION:1097
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 612
 start stop duration Long E 208
 TIME :07:54:03 08:23:58 30 (min) Purpose code: 3
 LOG :9571.37 9572.93 1.53 Area code : 4
 FDEPTH: 45 45 GearCond.code:
 BDEPTH: 45 45 Validity code:
 Towing dir: 85ø Wire out: 160 m Speed: 30 kn*10
 Sorted: 44 Kg Total catch: 1106.97 CATCH/HOUR: 2213.94

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Lethrinus atlanticus | 28.96 | 62 | 13.06 | |
| Panulirus argus | 24.35 | 51 | 10.98 | |
| Lutjanus goreensis | 22.64 | 48 | 10.21 | |
| Chloroscombrus chrysurus | 21.18 | 318 | 9.55 | 4777 |
| Galeoides decadactylus | 17.65 | 395 | 7.96 | 4775 |
| Dasyatis margarita | 14.86 | 32 | 6.70 | |
| Brachydeuterus auritus | 12.74 | 540 | 5.75 | 4776 |
| Ephippion guttifer | 12.21 | 5 | 5.51 | |
| Pteroscion peli | 10.25 | 381 | 4.62 | |
| Ilisha africana | 7.82 | 602 | 3.53 | |
| Sphyraena guanchancho | 5.61 | 374 | 2.53 | |
| Selene dorsalis | 4.64 | 298 | 2.09 | |
| Pseudotolithus senegalensis | 4.50 | 35 | 2.03 | |
| Caranx hippos | 4.02 | 28 | 1.81 | |
| Eucinostomus melanopterus | 3.18 | 118 | 1.43 | |
| Chaetodipterus goreensis | 3.12 | 35 | 1.41 | |
| Penaeus kerathurus | 2.84 | 152 | 1.28 | |
| Pomadourus peroteti | 2.75 | 5 | 1.24 | |
| Aluterus heudelotii | 2.68 | 5 | 1.21 | |
| Drepane africana | 2.15 | 42 | 0.97 | |
| Scomberomorus tritor | 2.08 | 111 | 0.94 | |
| Sphoeroides marmoratus | 1.87 | 48 | 0.84 | |
| Acanthurus monroviae | 1.59 | 2 | 0.72 | |
| Scorpaena scrofa | 1.52 | 5 | 0.69 | |
| Trachinocephalus myops | 1.25 | 55 | 0.56 | |
| Pseudupeneus prayensis | 1.18 | 118 | 0.53 | |
| Chilomycterus spinosus mauret. | 0.97 | 7 | 0.44 | |
| Trichiurus lepturus | 0.83 | 76 | 0.37 | |
| Uranoscopus polli | 0.76 | 7 | 0.34 | |
| Penaeus monodon | 0.37 | 2 | 0.17 | |
| Syacium micrurum | 0.35 | 7 | 0.16 | |
| Dentex canariensis | 0.32 | 2 | 0.14 | |
| Lutjanus fulgens | 0.28 | 28 | 0.13 | |
| Bothus podas africanus | 0.21 | 14 | 0.09 | |
| Total | 221.73 | | 99.99 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L L Y F I S H | 2185.00 | 1350 | 98.69 | |
| Alectis alexandrinus | 16.20 | 12 | 0.73 | |
| Balistes caprisicus | 2.44 | 2 | 0.11 | |
| Selene dorsalis | 2.24 | 8 | 0.10 | |
| Sepia officinalis hierredda | 2.16 | 2 | 0.10 | |
| Psettodes belcheri | 1.96 | 2 | 0.09 | |
| Caranx hippos | 1.82 | 2 | 0.08 | |
| Torpedo torpedo | 1.50 | 2 | 0.07 | |
| Pagellus bellottii | 0.26 | 2 | 0.01 | |
| Chloroscombrus chrysurus | 0.22 | 2 | 0.01 | |
| Brachydeuterus auritus | 0.14 | 2 | 0.01 | |
| Total | 2213.94 | | 100.00 | |

PROJECT STATION:1098
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 607
 start stop duration Long E 207
 TIME :09:36:22 10:06:19 30 (min) Purpose code: 3
 LOG :9581.26 9582.89 1.59 Area code : 4
 FDEPTH: 82 82 GearCond.code:
 BDEPTH: 82 82 Validity code:
 Towing dir: 90ø Wire out: 250 m Speed: 30 kn*10
 Sorted: 67 Kg Total catch: 769.90 CATCH/HOUR: 1539.80

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Dentex congoensis | 931.70 | 14608 | 60.51 | 4786 |
| Dentex canariensis | 280.50 | 374 | 18.22 | 4783 |
| Dentex angolensis | 118.36 | 792 | 7.69 | 4784 |
| Pagellus bellottii | 69.96 | 1276 | 4.54 | 4785 |
| Pagrus caeruleostictus | 33.00 | 88 | 2.14 | |
| Dentex gibbosus | 28.38 | 22 | 1.84 | |
| Epinephelus aeneus | 24.90 | 6 | 1.62 | |
| Fistularia petimba | 20.60 | 52 | 1.34 | |
| Priacanthus arenatus | 10.12 | 44 | 0.66 | |
| Pseudupeneus prayensis | 5.50 | 22 | 0.36 | |
| Sepia officinalis hierredda | 3.62 | 14 | 0.24 | |
| Squatina oculata | 3.50 | 4 | 0.23 | |
| Zeus faber | 2.64 | 2 | 0.17 | |
| Mustelus mustelus | 2.60 | 2 | 0.17 | |
| Raja miraletus | 2.22 | 4 | 0.14 | |
| Trachurus trecae | 2.20 | 88 | 0.14 | |
| Total | 1539.80 | | 100.01 | |

PROJECT STATION:1099
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 607
 start stop duration Long E 156
 TIME :13:00:14 13:30:20 30 (min) Purpose code: 3
 LOG :9603.82 9605.36 1.50 Area code : 4
 FDEPTH: 65 63 GearCond.code:
 BDEPTH: 65 63 Validity code:
 Towing dir: 260ø Wire out: 170 m Speed: 30 kn*10
 Sorted: 34 Kg Total catch: 179.80 CATCH/HOUR: 359.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sardinella aurita | 128.30 | 2880 | 35.68 | 4787 |
| Decapterus punctatus | 102.00 | 1416 | 28.36 | 4788 |
| Pagellus bellottii | 53.90 | 770 | 14.99 | 4789 |
| Dentex angolensis | 29.00 | 180 | 8.06 | |
| Epinephelus aeneus | 13.40 | 4 | 3.73 | |
| Sepia officinalis hierredda | 12.60 | 20 | 3.50 | |
| Sphyraena sphyraena | 10.20 | 60 | 2.84 | |
| Mustelus mustelus | 2.90 | 2 | 0.81 | |
| Trichiurus lepturus | 2.60 | 10 | 0.72 | |
| Fistularia petimba | 1.30 | 10 | 0.36 | |
| Chaetodon robustus | 1.20 | 10 | 0.33 | |
| Selar crumenophthalmus | 0.90 | 10 | 0.25 | |
| Illex coindetii | 0.70 | 70 | 0.19 | |
| Pseudupeneus prayensis | 0.60 | 10 | 0.17 | |
| Total | 359.60 | | 99.99 | |

PROJECT STATION:1100
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 611
 start stop duration Long E 156
 TIME :14:32:12 15:02:03 30 (min) Purpose code: 3
 LOG :9611.73 9613.31 1.56 Area code : 4
 FDEPTH: 32 31 GearCond.code:
 BDEPTH: 32 31 Validity code:
 Towing dir: 267ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 23 Kg Total catch: 23.48 CATCH/HOUR: 46.96

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Fistularia petimba | 15.90 | 106 | 33.86 | |
| Lagocephalus laevigatus | 13.32 | 36 | 28.36 | |
| Aluterus heudelotii | 4.68 | 14 | 9.97 | |
| Pagrus caeruleostictus | 4.38 | 10 | 9.33 | |
| Dentex canariensis | 3.06 | 6 | 6.52 | |
| J E L L Y F I S H | 1.44 | 100 | 3.07 | |
| Sepia officinalis hierredda | 1.44 | 2 | 3.07 | |
| Dactylopterus volitans | 0.72 | 2 | 1.53 | |
| Balistes capriscus | 0.66 | 2 | 1.41 | |
| Aluterus monoceros | 0.56 | 2 | 1.19 | |
| Sphyraena sphyraena | 0.38 | 2 | 0.81 | |
| Pagellus bellottii | 0.16 | 2 | 0.34 | |
| Remora remora | 0.16 | 2 | 0.34 | |
| Xyrichtys novacula | 0.06 | 2 | 0.13 | |
| Illex coindetii | 0.04 | 8 | 0.09 | |
| Total | 46.96 | | 100.02 | |

PROJECT STATION:1101
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 612
 start stop duration Long E 155
 TIME :15:41:35 16:11:03 29 (min) Purpose code: 3
 LOG :9616.44 9617.98 1.52 Area code : 4
 FDEPTH: 23 22 GearCond.code:
 BDEPTH: 23 22 Validity code:
 Towing dir: 75ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 36 Kg Total catch: 189.73 CATCH/HOUR: 392.54

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Engraulis encrasicolus | 233.21 | 204062 | 59.41 | 4792 |
| Sardinella maderensis - Juv. | 65.30 | 25928 | 16.64 | 4790 |
| J E L L Y F I S H | 23.17 | 10 | 5.90 | |
| Sphyraena sphyraena | 20.17 | 72 | 5.14 | 4791 |
| Alectis alexandrinus | 13.76 | 64 | 3.51 | 4794 |
| Dasyatis margarita | 8.59 | 2 | 2.19 | |
| Arius latiscutatus | 5.69 | 2 | 1.45 | |
| Drepane africana | 2.88 | 14 | 0.73 | |
| Caranx senegalensis | 2.88 | 14 | 0.73 | |
| Chloroscombrus chrysurus | 2.57 | 37 | 0.65 | 4793 |
| Decapterus punctatus | 1.86 | 182 | 0.47 | |
| Sepiella ornata | 1.86 | 182 | 0.47 | |
| Chloroscombrus Juvenile | 1.86 | 372 | 0.47 | |
| Lethrinus atlanticus | 1.41 | 2 | 0.36 | |
| Selene dorsalis | 1.12 | 19 | 0.29 | |
| Elops lacerta | 1.08 | 2 | 0.28 | |
| Albula vulpes | 0.95 | 2 | 0.24 | |
| Fistularia petimba | 0.87 | 4 | 0.22 | |
| Balistes capriscus | 0.85 | 2 | 0.22 | |
| Scomberomorus tritor | 0.79 | 14 | 0.20 | |
| Galeoides decadactylus | 0.52 | 4 | 0.13 | |
| Ilisha africana | 0.37 | 8 | 0.09 | |
| Brachydeuterus auritus | 0.27 | 2 | 0.07 | |
| Trachiocephalus myops | 0.08 | 2 | 0.02 | |
| Total | 392.11 | | 99.88 | |

PROJECT STATION:1102
 DATE:21/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 613
 start stop duration Long E 147
 TIME :17:19:52 17:49:53 30 (min) Purpose code: 3
 LOG :9627.31 9628.86 1.53 Area code : 4
 FDEPTH: 19 18 GearCond.code:
 BDEPTH: 19 18 Validity code:
 Towing dir: 257ø Wire out: 130 m Speed: 30 kn*10
 Sorted: 29 Kg Total catch: 268.34 CATCH/HOUR: 536.68

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Ilisha africana | 201.60 | 13056 | 37.56 | |
| Sphyraena guachancho | 115.20 | 1616 | 21.47 | 4795 |
| Polydactylus quadrifilis | 53.80 | 6 | 10.02 | |
| Galeoides decadactylus | 32.16 | 720 | 5.99 | 4799 |
| Brachydeuterus auritus | 19.20 | 592 | 3.58 | 4796 |
| Drepane africana | 19.04 | 160 | 3.55 | |
| Pseudolithothus senegalensis | 16.64 | 160 | 3.10 | |
| Sardinella maderensis | 15.20 | 1248 | 2.83 | 4797 |
| Selene dorsalis | 12.48 | 1248 | 2.33 | |
| Trichiurus lepturus | 11.20 | 1296 | 2.09 | |
| Trachinotus teraia | 8.20 | 2 | 1.53 | |
| Pteroscion peli | 7.68 | 256 | 1.43 | |
| Chloroscombrus chrysurus | 5.92 | 784 | 1.10 | 4798 |
| Lagocephalus laevigatus | 5.76 | 64 | 1.07 | |
| Scomberomorus tritor | 4.96 | 80 | 0.92 | |
| Dasyatis margarita | 2.84 | 4 | 0.53 | |
| Caranx hippos | 2.40 | 16 | 0.45 | |
| Pseudupeneus prayensis | 1.28 | 48 | 0.24 | |
| Decapterus rhonchus | 1.12 | 64 | 0.21 | |
| Total | 536.68 | | 100.00 | |

PROJECT STATION:1103
 DATE:21/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 611
 start stop duration Long E 205
 TIME :20:33:54 20:54:23 20 (min) Purpose code: 1
 LOG :9649.44 9650.74 1.29 Area code : 4
 FDEPTH: 15 20 GearCond.code:
 BDEPTH: 40 47 Validity code:
 Towing dir: 95ø Wire out: 130 m Speed: 38 kn*10
 Sorted: Kg Total catch: 53.10 CATCH/HOUR: 159.30

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L L Y F I S H | 139.20 | 150 | 87.38 | |
| Engraulis encrasicolus | 3.72 | 2583 | 2.34 | 4801 |
| Caranx hippos | 3.69 | 18 | 2.32 | |
| Uraspis helvola | 2.31 | 3 | 1.45 | |
| Ilisha africana | 1.80 | 9 | 1.13 | |
| Sardinella maderensis | 1.77 | 288 | 1.11 | 4800 |
| Saurida brasiliensis | 1.14 | 375 | 0.72 | |
| Sphyraena guachancho | 1.05 | 9 | 0.66 | |
| Trichiurus lepturus | 0.90 | 69 | 0.56 | |
| Galeoides decadactylus | 0.84 | 27 | 0.53 | |
| Sepia officinalis hierredda | 0.81 | 267 | 0.51 | |
| Selar crumenophthalmus | 0.57 | 15 | 0.36 | |
| Brachydeuterus auritus | 0.45 | 45 | 0.28 | |
| Decapterus punctatus | 0.45 | 93 | 0.28 | |
| Alloteuthis africana | 0.33 | 147 | 0.21 | |
| Euthynnus alletteratus | 0.18 | 6 | 0.11 | |
| Scomberomorus tritor | 0.09 | 3 | 0.06 | |
| Total | 159.30 | | 100.01 | |

PROJECT STATION:1104
 DATE:21/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 607
 start stop duration Long E 153
 TIME :23:23:40 23:52:33 29 (min) Purpose code: 1
 LOG :9670.20 9671.94 1.72 Area code : 4
 FDEPTH: 20 15 GearCond.code:
 BDEPTH: 59 49 Validity code:
 Towing dir: 311ø Wire out: 140 m Speed: 36 kn*10
 Sorted: 62 Kg Total catch: 62.36 CATCH/HOUR: 129.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L L Y F I S H | 86.48 | 66 | 67.03 | |
| Engraulis encrasicolus | 9.99 | 1926 | 7.74 | |
| Ariomma bondi juv. | 4.45 | 273 | 3.45 | |
| Selar crumenophthalmus | 3.89 | 31 | 3.02 | |
| Parexocoetus brachypterus | 3.64 | 21 | 2.82 | |
| Decapterus punctatus juv. | 3.64 | 81 | 2.82 | |
| Decapterus punctatus | 3.19 | 41 | 2.47 | |
| Ariomma bondi | 2.96 | 66 | 2.29 | |
| Ommastrephes pteropus | 2.71 | 6 | 2.10 | |
| Scomberomorus tritor | 2.09 | 4 | 1.62 | |
| Sardinella aurita - Juveniles | 1.20 | 37 | 0.93 | |
| Sphyraena sphyraena | 1.14 | 4 | 0.88 | |
| Brachydeuterus auritus | 0.97 | 23 | 0.75 | |
| Saurida brasiliensis | 0.85 | 33 | 0.66 | |
| Sardinella maderensis - Juv. | 0.83 | 8 | 0.64 | |
| Promethichthys prometheus | 0.74 | 2 | 0.57 | |
| Auxis thazard | 0.25 | 10 | 0.19 | |
| Total | 129.02 | | 99.98 | |

PROJECT STATION:1105
 DATE:22/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 653
 start stop duration Long E 145
 TIME :03:10:40 03:40:33 30 (min) Purpose code: 1
 LOG :9691.16 9692.66 1.50 Area code : 4
 FDEPTH: 30 40 GearCond.code:
 BDEPTH: 60 62 Validity code:
 Towing dir: 311ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 7 Kg Total catch: 7.62 CATCH/HOUR: 15.24

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Hypoclydonia bella | 5.18 | 636 | 33.99 | |
| Selar crumenophthalmus | 2.48 | 16 | 16.27 | |
| Decapterus punctatus | 2.42 | 36 | 15.88 | |
| Ariomma bondi | 2.02 | 50 | 13.25 | |
| J E L L Y F I S H | 1.94 | 2 | 12.73 | |
| Priacanthus arenatus | 0.54 | 22 | 3.54 | |
| Promethichthys prometheus | 0.26 | 8 | 1.71 | |
| Sardinella aurita | 0.16 | 2 | 1.05 | |
| Sepia juveniles | 0.12 | 6 | 0.79 | |
| Parexocoetus brachypterus | 0.10 | 4 | 0.66 | |
| Auxis thazard | 0.02 | 2 | 0.13 | |
| Total | 15.24 | | 100.00 | |

PROJECT STATION:1106
 DATE:22/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 608
 start stop duration Long E 146
 TIME :05:56:45 06:26:41 30 (min) Purpose code: 3
 LOG :9708.52 9710.13 1.59 Area code : 4
 FDEPTH: 44 45 GearCond.code:
 BDEPTH: 44 45 Validity code:
 Towing dir: 260ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 22 Kg Total catch: 132.31 CATCH/HOUR: 264.62

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Selene dorsalis | 126.50 | 370 | 47.80 | 4804 |
| Alloteuthis africana | 29.70 | 11260 | 11.22 | |
| Cymbium cymbium | 23.80 | 4 | 8.99 | |
| Engraulis encrasicolus | 17.60 | 6890 | 6.65 | |
| Pagrus caeruleostictus | 8.00 | 20 | 3.02 | |
| Pagellus bellottii | 7.60 | 80 | 2.87 | |
| Sphyraena juveniles | 6.90 | 890 | 2.61 | 4803 |
| Alectis alexandrinus | 6.88 | 4 | 2.60 | |
| Brachydeuterus auritus | 6.60 | 850 | 2.49 | 4802 |
| J E L L Y F I S H | 6.30 | 570 | 2.38 | |
| Sphyraena guachancho | 5.94 | 22 | 2.24 | |
| Fistularia petimba | 3.30 | 16 | 1.25 | |
| Decapterus rhonchus | 2.30 | 50 | 0.87 | |
| Pomadourus jubelini | 1.96 | 2 | 0.74 | |
| Epinephelus aeneus | 1.62 | 2 | 0.61 | |
| Sardinella maderensis | 1.60 | 40 | 0.60 | |
| Balistes caprisicus | 1.54 | 2 | 0.58 | |
| Decapterus punctatus | 1.40 | 120 | 0.53 | |
| Sardinella aurita | 1.40 | 20 | 0.53 | |
| Stromateus fiatola | 1.34 | 2 | 0.51 | |
| Raja miraletus | 1.10 | 2 | 0.42 | |
| Sepia officinalis hierredda | 1.04 | 2 | 0.39 | |
| Lagocephalus lagocephalus | 0.10 | 30 | 0.04 | |
| Total | 264.52 | | 99.94 | |

PROJECT STATION:1107
 DATE:22/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 605
 start stop duration Long E 146
 TIME :07:09:20 07:29:01 20 (min) Purpose code: 3
 LOG :9714.79 9715.81 1.00 Area code : 4
 FDEPTH: 63 62 GearCond.code:
 BDEPTH: 63 62 Validity code:
 Towing dir: 270ø Wire out: 180 m Speed: 30 kn*10
 Sorted: 58 Kg Total catch: 58.35 CATCH/HOUR: 175.05

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sepia officinalis hierredda | 38.10 | 69 | 21.77 | |
| J E L L Y F I S H | 37.95 | 24 | 21.68 | |
| Brachydeuterus auritus | 29.85 | 519 | 17.05 | 4806 |
| Pagellus bellottii | 26.10 | 246 | 14.91 | 4805 |
| Fistularia petimba | 10.92 | 84 | 6.24 | |
| Squatina oculata | 8.07 | 6 | 4.61 | |
| Torpedo marmorata | 5.61 | 3 | 3.20 | |
| Dentex angolensis | 4.74 | 42 | 2.71 | 4808 |
| Pagrus caeruleostictus | 3.48 | 15 | 1.99 | |
| Sphyraena guachancho | 2.58 | 12 | 1.47 | |
| Priacanthus arenatus | 1.41 | 63 | 0.81 | |
| Decapterus punctatus | 1.08 | 78 | 0.62 | 4809 |
| Selene dorsalis | 0.93 | 3 | 0.53 | |
| Lagocephalus laevigatus | 0.75 | 3 | 0.43 | |
| Sardinella aurita | 0.69 | 39 | 0.39 | |
| Dentex congoensis | 0.63 | 30 | 0.36 | |
| Trichiurus lepturus | 0.54 | 3 | 0.31 | |
| Dentex canariensis | 0.51 | 9 | 0.29 | |
| Pseudupeneus prayensis | 0.48 | 6 | 0.27 | |
| Engraulis encrasicolus | 0.36 | 102 | 0.21 | 4807 |
| Chelidonicthys gabonensis | 0.27 | 6 | 0.15 | |
| Total | 175.05 | | 100.00 | |

PROJECT STATION:1108
 DATE:22/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 602
 start stop duration Long E 140
 TIME :09:03:25 09:25:08 22 (min) Purpose code: 1
 LOG :9724.02 9725.48 1.46 Area code : 4
 FDEPTH: 30 17 GearCond.code:
 BDEPTH: 119 90 Validity code:
 Towing dir: 50ø Wire out: 150 m Speed: 43 kn*10
 Sorted: Kg Total catch: 0.29 CATCH/HOUR: 0.79

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Engraulis encrasicolus | 0.57 | 1503 | 72.15 | |
| J E L L Y F I S H | 0.08 | 145 | 10.13 | |
| Sepiella ornata | 0.05 | 8 | 6.33 | |
| Decapterus punctatus | 0.05 | 3 | 6.33 | |
| Selene dorsalis | 0.03 | 14 | 3.80 | |
| Total | 0.78 | | 98.74 | |

PROJECT STATION:1109
 DATE:22/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 602
 start stop duration Long E 134
 TIME :11:30:32 12:00:37 30 (min) Purpose code: 3
 LOG :9742.66 9744.42 1.74 Area code : 3
 FDEPTH: 61 67 GearCond.code:
 BDEPTH: 61 67 Validity code:
 Towing dir: 85ø Wire out: 180 m Speed: 30 kn*10
 Sorted: 108 Kg Total catch: 108.57 CATCH/HOUR: 217.14

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sardinella aurita | 61.20 | 834 | 28.18 | 4810 |
| Aluterus monoceros | 30.30 | 20 | 13.95 | |
| Dentex canariensis | 21.00 | 36 | 9.67 | 4815 |
| Dentex angolensis | 20.68 | 170 | 9.52 | 4812 |
| Sepia officinalis hierredda | 15.50 | 28 | 7.14 | 4814 |
| Decapterus punctatus | 14.64 | 776 | 6.74 | 4813 |
| Fistularia petimba | 9.90 | 38 | 4.56 | |
| J E L L Y F I S H | 8.40 | 12 | 3.87 | |
| Priacanthus arenatus | 7.86 | 230 | 3.62 | 4811 |
| Squatina oculata | 7.00 | 2 | 3.22 | |
| Pagellus bellottii | 6.70 | 144 | 3.09 | |
| Pagrus caeruleostictus | 5.12 | 34 | 2.36 | 4816 |
| Lutjanus fulgens | 2.72 | 4 | 1.25 | |
| Epinephelus aeneus | 1.80 | 2 | 0.83 | |
| Bodianus speciosus | 1.14 | 2 | 0.53 | |
| Sphyraena sphyraena | 1.12 | 4 | 0.52 | |
| Alloteuthis africana | 0.70 | 162 | 0.32 | |
| Dentex congoensis | 0.56 | 6 | 0.26 | |
| Selar crumenophthalmus | 0.44 | 2 | 0.20 | |
| Pseudupeneus prayensis | 0.12 | 8 | 0.06 | |
| Sphaeroides marmoratus | 0.12 | 2 | 0.06 | |
| Trachurus trecae | 0.06 | 2 | 0.03 | |
| Chaetodon robustus | 0.06 | 2 | 0.03 | |
| Total | 217.14 | | 100.01 | |

PROJECT STATION:1110
 DATE:22/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 606
 start stop duration Long E 134
 TIME :14:51:38 15:21:13 30 (min) Purpose code: 3
 LOG :9757.50 9759.08 1.55 Area code : 3
 FDEPTH: 40 39 GearCond.code:
 BDEPTH: 40 39 Validity code:
 Towing dir: 260ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 94 Kg Total catch: 94.01 CATCH/HOUR: 188.02

PROJECT STATION:1113
 DATE:23/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 603
 start stop duration Long E 124
 TIME :06:14:26 06:44:08 30 (min) Purpose code: 3
 LOG :9822.60 9824.21 1.59 Area code : 3
 FDEPTH: 43 44 GearCond.code:
 BDEPTH: 43 44 Validity code:
 Towing dir: 250ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 16 Kg Total catch: 241.08 CATCH/HOUR: 482.16

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Decapterus punctatus | 55.22 21114 | 29.37 | 4820 |
| Pagrus caeruleostictus | 38.60 82 | 20.53 | 4817 |
| Dentex canariensis | 27.30 54 | 14.52 | 4819 |
| Alectis alexandrinus | 11.56 16 | 6.15 | |
| Alloteuthis africana | 11.10 4636 | 5.90 | |
| Epinephelus aeneus | 8.54 10 | 4.54 | |
| Aluterus monoceros | 8.26 10 | 4.39 | |
| Sepia officinalis hierredda | 7.04 14 | 3.74 | |
| Pagellus bellottii | 5.08 44 | 2.70 | 4818 |
| Selene dorsalis | 4.22 14 | 2.24 | |
| Lethrinus atlanticus | 3.34 6 | 1.78 | |
| Fistularia petimba | 2.34 10 | 1.24 | |
| Dactylopterus volitans | 1.68 6 | 0.89 | |
| Dentex gibbosus | 1.44 4 | 0.77 | |
| Balistes caprisicus | 0.80 4 | 0.43 | |
| Sphyræna sphyraena | 0.62 2 | 0.33 | |
| Lepidotrigla carolae | 0.34 2 | 0.18 | |
| Dentex angolensis | 0.32 2 | 0.17 | |
| Pseudupeneus prayensis | 0.22 2 | 0.12 | |
| Total | 188.02 | 99.99 | |

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Brachydeuterus auritus Juv. | 114.38 37086 | 23.72 | |
| Alectis alexandrinus | 92.80 78 | 19.25 | |
| Sphyræna sp. | 52.22 6076 | 10.83 | |
| Sepia officinalis hierredda | 43.00 56 | 8.92 | |
| J E L Y F I S H | 31.78 1568 | 6.59 | |
| Fistularia petimba | 24.40 122 | 5.06 | |
| Scomberomorus tritor | 20.40 16 | 4.23 | |
| Alloteuthis africana | 17.78 84 | 3.69 | |
| Pagellus bellottii | 17.42 190 | 3.61 | 4826 |
| Selene dorsalis | 11.22 54 | 2.33 | |
| Stromateus fiatola | 10.88 16 | 2.26 | |
| Pomadasys peroteti | 9.26 14 | 1.92 | |
| Pagrus caeruleostictus | 8.42 70 | 1.75 | 4827 |
| Decapterus punctatus juv. | 7.14 1960 | 1.48 | |
| Sphyræna guachancho | 5.14 14 | 1.07 | |
| Saurida brasiliensis | 3.08 812 | 0.64 | |
| Psettodes belcheri | 2.90 4 | 0.60 | |
| Balistes caprisicus | 2.46 2 | 0.51 | |
| Aluterus monoceros | 2.18 4 | 0.45 | |
| Sphyræna sphyraena | 1.70 6 | 0.35 | |
| Torpedo torpedo | 1.20 4 | 0.25 | |
| Lagocephalus laevigatus | 0.98 2 | 0.20 | |
| Sardinella aurita | 0.70 112 | 0.15 | |
| Dactylopterus volitans | 0.50 2 | 0.10 | |
| Priacanthus arenatus | 0.34 6 | 0.07 | |
| Total | 482.28 | 100.03 | |

PROJECT STATION:1111
 DATE:22/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 609
 start stop duration Long E 135
 TIME :17:02:26 17:32:09 30 (min) Purpose code: 3
 LOG :9766.98 9768.60 1.59 Area code : 3
 FDEPTH: 22 21 GearCond.code:
 BDEPTH: 22 21 Validity code:
 Towing dir: 255ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 46 Kg Total catch: 46.88 CATCH/HOUR: 93.76

PROJECT STATION:1114
 DATE:23/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 605
 start stop duration Long E 123
 TIME :08:00:56 08:30:54 30 (min) Purpose code: 3
 LOG :9829.71 9831.41 1.68 Area code : 3
 FDEPTH: 23 23 GearCond.code:
 BDEPTH: 23 23 Validity code:
 Towing dir: 250ø Wire out: 140 m Speed: 33 kn*10
 Sorted: Kg Total catch: 60.75 CATCH/HOUR: 121.50

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Sphyræna sphyraena | 28.40 128 | 30.29 | 4821 |
| Engraulis encrasicolus | 25.56 20660 | 27.26 | 4822 |
| Scomberomorus tritor | 9.20 8 | 9.81 | |
| Ephippion guttifer | 5.98 4 | 6.38 | |
| Lethrinus atlanticus | 4.74 10 | 5.06 | |
| Pagrus caeruleostictus | 3.54 8 | 3.78 | |
| Aluterus monoceros | 3.24 10 | 3.46 | |
| Dactylopterus volitans | 2.80 10 | 2.99 | |
| Elops lacerta | 2.78 6 | 2.97 | |
| Sepia officinalis hierredda | 1.88 2 | 2.01 | |
| Alectis alexandrinus | 1.76 4 | 1.88 | |
| Dentex gibbosus | 1.50 6 | 1.60 | |
| Caranx crysos | 0.96 2 | 1.02 | |
| Acanthostracion quadricornis | 0.58 2 | 0.62 | |
| Fistularia petimba | 0.56 2 | 0.60 | |
| Xyrichtys novacula | 0.28 4 | 0.30 | |
| Total | 93.76 | 100.03 | |

PROJECT STATION:1112
 DATE:22/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 604
 start stop duration Long E 140
 TIME :20:10:32 20:24:36 14 (min) Purpose code: 1
 LOG :9780.14 9781.12 0.96 Area code : 3
 FDEPTH: 30 25 GearCond.code:
 BDEPTH: 61 57 Validity code:
 Towing dir: 295ø Wire out: 150 m Speed: 42 kn*10
 Sorted: Kg Total catch: 19.38 CATCH/HOUR: 83.06

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Dentex canariensis | 33.00 62 | 27.16 | 4828 |
| Balistes punctatus | 14.70 30 | 12.10 | |
| Lagocephalus laevigatus | 9.98 20 | 8.21 | |
| Pagrus caeruleostictus | 9.52 38 | 7.84 | 4829 |
| Fistularia petimba | 8.60 50 | 7.08 | |
| Fistularia tabacaria | 7.30 14 | 6.01 | |
| Decapterus punctatus juv. | 6.62 6620 | 5.45 | |
| Sphyræna guachancho | 4.96 12 | 4.08 | |
| Lethrinus atlanticus | 4.76 10 | 3.92 | |
| Scomberomorus tritor | 4.72 2 | 3.88 | |
| J E L Y F I S H | 2.88 10 | 2.37 | |
| Bodianus speciosus | 2.62 4 | 2.16 | |
| Caranx crysos | 1.88 6 | 1.55 | |
| Sphyræna sphyraena | 1.78 6 | 1.47 | |
| Acanthostracion quadricornis | 1.74 10 | 1.43 | |
| Alloteuthis africana | 1.26 232 | 1.04 | |
| Aluterus heudelotii | 0.78 2 | 0.64 | |
| Zanobatus shoeneleini | 0.72 2 | 0.59 | |
| Scorpaena laevis | 0.72 2 | 0.59 | |
| Alectis alexandrinus | 0.70 6 | 0.58 | |
| Dactylopterus volitans | 0.70 2 | 0.58 | |
| Pagellus bellottii | 0.58 6 | 0.48 | |
| Sepia officinalis hierredda | 0.58 2 | 0.48 | |
| Brachydeuterus auritus | 0.16 4 | 0.13 | |
| Chaetodon hoefleri | 0.12 2 | 0.10 | |
| Xyrichtys novacula | 0.12 2 | 0.10 | |
| Bothus podas africanus | 0.06 2 | 0.05 | |
| Paronchelius stauchi | 0.02 12 | 0.02 | |
| Total | 121.58 | 100.09 | |

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| J E L Y F I S H | 29.96 30 | 36.07 | |
| Apsilus fuscus | 23.49 60 | 28.28 | |
| Ariomma bondi | 9.77 154 | 11.76 | |
| Decapterus punctatus | 9.56 437 | 11.51 | 4824 |
| Sardinella aurita | 2.74 69 | 3.30 | 4825 |
| Illex coindetii | 1.71 146 | 2.06 | |
| Hypoclydonia bella | 1.50 214 | 1.81 | |
| Priacanthus arenatus | 1.20 64 | 1.44 | 4823 |
| Sphyræna sphyraena | 1.11 4 | 1.34 | |
| Aulopus cadenati | 0.56 124 | 0.67 | |
| Sepia officinalis hierredda | 0.56 73 | 0.67 | |
| Cypselurus cyanopterus | 0.30 39 | 0.36 | |
| Promethichthys prometheus | 0.21 17 | 0.25 | |
| Trichiurus lepturus | 0.17 9 | 0.20 | |
| Selene dorsalis | 0.13 60 | 0.16 | |
| Saurida brasiliensis | 0.09 21 | 0.11 | |
| Total | 83.06 | 99.99 | |

PROJECT STATION:1115
 DATE:23/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 601
 start stop duration Long E 123
 TIME :09:33:41 10:03:43 30 (min) Purpose code: 3
 LOG :9837.56 9839.17 1.59 Area code : 3
 FDEPTH: 53 53 GearCond.code:
 BDEPTH: 53 53 Validity code:
 Towing dir: 80ø Wire out: 160 m Speed: 30 kn*10
 Sorted: 17 Kg Total catch: 192.24 CATCH/HOUR: 384.48

PROJECT STATION:1117
 DATE:23/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 602
 start stop duration Long E 116
 TIME :14:17:27 14:47:20 30 (min) Purpose code: 3
 LOG :9866.21 9867.80 1.56 Area code : 3
 FDEPTH: 35 36 GearCond.code:
 BDEPTH: 35 36 Validity code:
 Towing dir: 247ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 69 Kg Total catch: 69.33 CATCH/HOUR: 138.66

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Decapterus punctatus juv. | 104.16 | 8092 | 27.09 | 4832 |
| Sardinella aurita - Juveniles | 98.42 | 7168 | 25.60 | 4830 |
| Dentex canariensis | 31.70 | 66 | 8.24 | 4834 |
| Sepia officinalis hierredda | 25.40 | 38 | 6.61 | |
| J E L L Y F I S H | 25.34 | 56 | 6.59 | |
| Pagrus caeruleostictus | 22.84 | 64 | 5.94 | 4833 |
| Fistularia petimba | 18.90 | 94 | 4.92 | |
| Stromateus fiatola | 12.40 | 16 | 3.23 | |
| Selene dorsalis | 7.30 | 22 | 1.90 | |
| Pagellus bellottii | 7.08 | 78 | 1.84 | 4831 |
| Priacanthus arenatus | 6.44 | 116 | 1.67 | |
| Caranx crysos | 6.36 | 6 | 1.65 | |
| Balistes caprisicus | 4.30 | 6 | 1.12 | |
| Alectis alexandrinus | 3.12 | 2 | 0.81 | |
| Alloteuthis africana | 2.68 | 1038 | 0.70 | |
| Lagocephalus laevisgatus | 2.66 | 6 | 0.69 | |
| Dactylopterus volitans | 2.30 | 6 | 0.60 | |
| Pseudupeneus prayensis | 2.24 | 28 | 0.58 | |
| Euthynnus alletteratus | 0.84 | 14 | 0.22 | |
| Total | 384.48 | | 100.00 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 63.10 | 678 | 45.51 | 4841 |
| Sepia officinalis hierredda | 35.90 | 72 | 25.89 | 4842 |
| Alloteuthis africana | 7.22 | 532 | 5.21 | |
| Pseudupeneus prayensis | 6.00 | 106 | 4.33 | 4843 |
| Pagrus caeruleostictus | 4.30 | 38 | 3.10 | 4844 |
| Alectis alexandrinus | 3.74 | 2 | 2.70 | |
| Sphyræna afra | 2.50 | 2 | 1.80 | |
| J E L L Y F I S H | 2.34 | 2 | 1.69 | |
| Dactylopterus volitans | 2.06 | 6 | 1.49 | |
| Balistes caprisicus | 1.84 | 2 | 1.33 | |
| Aluterus punctata | 1.68 | 2 | 1.21 | |
| Fistularia petimba | 1.60 | 16 | 1.15 | |
| Aluterus heudelotii | 1.56 | 6 | 1.13 | |
| Lagocephalus laevisgatus | 1.38 | 8 | 1.00 | |
| Decapterus punctatus | 1.24 | 126 | 0.89 | 4845 |
| Diodon holocanthus | 0.68 | 2 | 0.49 | |
| Sphyræna sphyraena | 0.50 | 2 | 0.36 | |
| Syacium micrurum | 0.48 | 4 | 0.35 | |
| Chilomycterus spinosus mauret. | 0.46 | 4 | 0.33 | |
| Trachinocephalus myops | 0.06 | 2 | 0.04 | |
| Torpedo torpedo | 0.02 | 2 | 0.01 | |
| Total | 138.66 | | 100.01 | |

PROJECT STATION:1116
 DATE:23/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 558
 start stop duration Long E 117
 TIME :12:57:31 13:27:23 30 (min) Purpose code: 3
 LOG :9860.13 9861.63 1.47 Area code : 3
 FDEPTH: 52 52 GearCond.code:
 BDEPTH: 52 52 Validity code:
 Towing dir: 65ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 49 Kg Total catch: 223.00 CATCH/HOUR: 446.00

PROJECT STATION:1118
 DATE:23/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 602
 start stop duration Long E 111
 TIME :16:21:56 16:52:06 30 (min) Purpose code: 3
 LOG :9874.54 9876.07 1.52 Area code : 3
 FDEPTH: 23 22 GearCond.code:
 BDEPTH: 23 22 Validity code:
 Towing dir: 63ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 33.45 CATCH/HOUR: 66.90

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L L Y F I S H | 130.80 | 228 | 29.33 | |
| Priacanthus arenatus | 125.40 | 6180 | 28.12 | 4838 |
| Sardinella aurita | 71.88 | 3240 | 16.12 | 4836 |
| Decapterus punctatus | 48.00 | 4032 | 10.76 | 4835 |
| Sepia officinalis hierredda | 17.80 | 20 | 3.99 | 4840 |
| Pagellus bellottii | 15.12 | 204 | 3.39 | 4839 |
| Alloteuthis africana | 13.56 | 4284 | 3.04 | |
| Fistularia petimba | 6.96 | 60 | 1.56 | |
| Alectis alexandrinus | 4.68 | 4 | 1.05 | |
| Engraulis encrasicolus | 4.56 | 912 | 1.02 | 4837 |
| Lagocephalus laevisgatus | 2.48 | 2 | 0.56 | |
| Balistes caprisicus | 2.06 | 2 | 0.46 | |
| Pseudupeneus prayensis | 0.96 | 36 | 0.22 | |
| Pagrus caeruleostictus | 0.72 | 36 | 0.16 | |
| Dactylopterus volitans | 0.54 | 2 | 0.12 | |
| Sphyræna sphyraena | 0.48 | 2 | 0.11 | |
| Total | 446.00 | | 100.01 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sepia officinalis hierredda | 13.36 | 32 | 19.97 | 4847 |
| Lagocephalus laevisgatus | 11.56 | 14 | 17.28 | |
| Sphyræna sphyraena | 10.90 | 34 | 16.29 | 4846 |
| Fistularia petimba | 8.60 | 60 | 12.86 | |
| Sphyræna afra | 6.40 | 2 | 9.57 | |
| Alectis alexandrinus | 2.98 | 8 | 4.45 | |
| Pagrus caeruleostictus | 2.50 | 8 | 3.74 | |
| Balistes caprisicus | 2.06 | 2 | 3.08 | |
| Dactylopterus volitans | 1.96 | 10 | 2.93 | |
| Scomberomorus tritor | 1.72 | 2 | 2.57 | |
| Pagellus bellottii | 1.40 | 16 | 2.09 | |
| Alloteuthis africana | 0.80 | 260 | 1.20 | |
| Albula vulpes | 0.66 | 2 | 0.99 | |
| Sardinella maderensis | 0.66 | 10 | 0.99 | |
| Aluterus heudelotii | 0.52 | 2 | 0.78 | |
| Pseudupeneus prayensis | 0.44 | 4 | 0.66 | |
| Stephanolepis hispidus | 0.38 | 2 | 0.57 | |
| Total | 66.90 | | 100.02 | |

PROJECT STATION:1119
 DATE:23/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 556
 start stop duration Long E 122
 TIME :20:40:55 21:10:43 30 (min) Purpose code: 1
 LOG :9895.55 9897.72 0.81 Area code : 3
 FDEPTH: 15 20 GearCond.code:
 BDEPTH: 507 668 Validity code:
 Towing dir: 65ø Wire out: 160 m Speed: 36 kn*10
 Sorted: Kg Total catch: 17.31 CATCH/HOUR: 34.62

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Cubiceps sp. | 13.60 | 822 | 39.28 | |
| Ommastrephes pteropus | 9.54 | 60 | 27.56 | |
| Gempylus serpens | 6.22 | 436 | 17.97 | |
| Psenes sp. | 4.24 | 36 | 12.25 | |
| Selar crumenophthalmus | 0.60 | 2 | 1.73 | |
| NOMEIDAE | 0.36 | 4 | 1.04 | |
| Unidentified fish | 0.06 | 8 | 0.17 | |
| Total | 34.62 | | 100.00 | |

PROJECT STATION:1120
 DATE:24/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 553
 start stop duration Long E 111
 TIME :00:54:13 01:24:12 30 (min) Purpose code: 1
 LOG :9913.20 9914.66 1.44 Area code : 2
 FDEPTH: 14 14 GearCond.code:
 BDEPTH: 62 102 Validity code:
 Towing dir: 140ø Wire out: 130 m Speed: 30 kn*10
 Sorted: Kg Total catch: 8.00 CATCH/HOUR: 16.00

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trichiurus lepturus | 4.44 | 18 | 27.75 | |
| Hypoclydonia bella | 4.00 | 838 | 25.00 | |
| J E L Y F I S H | 3.72 | 4 | 23.25 | |
| Engraulis encrasicolus | 1.38 | 768 | 8.63 | 4848 |
| Ariomma bondi | 0.86 | 20 | 5.38 | |
| Selar crumenophthalmus | 0.74 | 4 | 4.63 | |
| Fistularia petimba | 0.56 | 4 | 3.50 | |
| Scomber japonicus | 0.16 | 2 | 1.00 | |
| Auxis thazard | 0.08 | 20 | 0.50 | |
| Promethichthys prometheus | 0.02 | 2 | 0.13 | |
| Saurida brasiliensis | 0.02 | 4 | 0.13 | |
| Decapterus punctatus | 0.02 | 12 | 0.13 | |
| Total | 16.00 | | 100.03 | |

PROJECT STATION:1123
 DATE:24/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 551
 start stop duration Long E 110
 TIME :08:56:44 09:26:43 30 (min) Purpose code: 3
 LOG :9940.89 9942.48 1.58 Area code : 2
 FDEPTH: 82 92 GearCond.code:
 BDEPTH: 82 92 Validity code:
 Towing dir: 60ø Wire out: 240 m Speed: 32 kn*10
 Sorted: 83 Kg Total catch: 2377.61 CATCH/HOUR: 4755.22

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Ariomma bondi | 2049.30 | 54120 | 43.10 | 4859 |
| Priacanthus arenatus | 844.80 | 33594 | 17.77 | |
| Pagellus bellottii | 452.76 | 6270 | 9.52 | 4856 |
| Dentex congoensis | 367.62 | 10758 | 7.73 | 4860 |
| Boops boops | 227.04 | 3564 | 4.77 | 4861 |
| Sepia officinalis hierredda | 199.98 | 396 | 4.21 | |
| Dentex canariensis | 195.36 | 2442 | 4.11 | |
| Decapterus punctatus | 93.72 | 2376 | 1.97 | 4857 |
| Scorpaena scrofa | 75.24 | 132 | 1.58 | |
| Fistularia petimba | 53.46 | 198 | 1.12 | |
| Sardinella aurita | 53.46 | 1914 | 1.12 | 4858 |
| Pagrus caeruleostictus | 25.08 | 132 | 0.53 | |
| Pseudupeneus prayensis | 25.08 | 132 | 0.53 | |
| Epinephelus aeneus | 22.40 | 2 | 0.47 | |
| Decapterus rhonchus | 21.12 | 528 | 0.44 | |
| Squatina oculata | 19.10 | 10 | 0.40 | |
| Dentex angolensis | 17.16 | 726 | 0.36 | |
| Scomber japonicus | 7.92 | 66 | 0.17 | |
| Alloteuthis africana | 4.62 | 330 | 0.10 | |
| Total | 4755.22 | | 100.00 | |

PROJECT STATION:1121
 DATE:24/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 557
 start stop duration Long E 104
 TIME :05:59:50 06:29:44 30 (min) Purpose code: 3
 LOG :9926.75 9928.32 1.56 Area code : 2
 FDEPTH: 27 27 GearCond.code:
 BDEPTH: 27 27 Validity code:
 Towing dir: 37ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 37.70 CATCH/HOUR: 75.40

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagrus caeruleostictus | 16.46 | 254 | 21.83 | 4852 |
| Sepia officinalis hierredda | 14.90 | 28 | 19.76 | |
| Alectis alexandrinus | 6.76 | 36 | 8.97 | 4850 |
| Scomberomorus tritor | 4.82 | 2 | 6.39 | |
| Epinephelus aeneus | 4.60 | 8 | 6.10 | |
| Chloroscombrus chrysurus | 3.92 | 74 | 5.20 | 4849 |
| Alloteuthis africana | 3.90 | 1046 | 5.17 | |
| Decapterus punctatus juv. | 3.62 | 1744 | 4.80 | 4851 |
| Fistularia petimba | 3.50 | 26 | 4.64 | |
| Selar crumenophthalmus | 3.20 | 22 | 4.24 | |
| Ariomma bondi | 2.54 | 72 | 3.37 | |
| Sphyræna sphyraena | 2.14 | 6 | 2.84 | |
| Lagocephalus laevigatus | 1.86 | 20 | 2.47 | |
| Priacanthus arenatus | 1.10 | 12 | 1.46 | |
| Balistes capriscus | 0.70 | 2 | 0.93 | |
| Dentex canariensis | 0.46 | 4 | 0.61 | |
| Sardinella aurita | 0.34 | 14 | 0.45 | |
| Chlamys purpuratus | 0.28 | 16 | 0.37 | |
| Pseudupeneus prayensis | 0.18 | 2 | 0.24 | |
| Brachydeuterus auritus | 0.10 | 30 | 0.13 | |
| Selene dorsalis, juveniles | 0.02 | 4 | 0.03 | |
| Total | 75.40 | | 100.00 | |

PROJECT STATION:1124
 DATE:24/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 536
 start stop duration Long E 37
 TIME :14:21:31 14:51:19 30 (min) Purpose code: 3
 LOG :9988.43 9989.98 1.53 Area code : 2
 FDEPTH: 51 48 GearCond.code:
 BDEPTH: 51 48 Validity code:
 Towing dir: 295ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 82.92 CATCH/HOUR: 165.84

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sepia officinalis hierredda | 46.40 | 56 | 27.98 | 4867 |
| Pagellus bellottii | 36.20 | 498 | 21.83 | 4862 |
| Epinephelus aeneus | 23.62 | 4 | 14.24 | |
| Fistularia petimba | 16.60 | 70 | 10.01 | |
| Decapterus punctatus | 15.40 | 686 | 9.29 | 4864 |
| Pagrus caeruleostictus | 8.54 | 116 | 5.15 | 4863 |
| Scomberomorus tritor | 4.98 | 2 | 3.00 | |
| Brachydeuterus auritus | 4.14 | 142 | 2.50 | 4865 |
| Selene dorsalis | 2.54 | 10 | 1.53 | |
| Alloteuthis africana | 1.64 | 514 | 0.99 | |
| Epinephelus aeneus | 1.52 | 2 | 0.92 | |
| Alectis alexandrinus | 1.52 | 2 | 0.92 | |
| Sardinella aurita | 0.90 | 36 | 0.54 | 4866 |
| Dentex canariensis | 0.64 | 2 | 0.39 | |
| Lagocephalus laevigatus | 0.48 | 2 | 0.29 | |
| Dactylopterus volitans | 0.40 | 2 | 0.24 | |
| Pseudupeneus prayensis | 0.22 | 10 | 0.13 | |
| Lepidotrigla carolae | 0.06 | 4 | 0.04 | |
| Citharus linguatula | 0.04 | 2 | 0.02 | |
| Grammolites gruvelli | 0.02 | 2 | 0.01 | |
| Total | 165.86 | | 100.02 | |

PROJECT STATION:1122
 DATE:24/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 555
 start stop duration Long E 108
 TIME :06:41:12 06:41:14 30 (min) Purpose code: 3
 LOG :9933.36 9934.93 1.56 Area code : 2
 FDEPTH: 46 45 GearCond.code:
 BDEPTH: 46 45 Validity code:
 Towing dir: 135ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 103.95 CATCH/HOUR: 207.90

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sepia officinalis hierredda | 52.30 | 86 | 25.16 | |
| Alectis alexandrinus | 33.20 | 36 | 15.97 | |
| Alloteuthis africana | 26.60 | 7620 | 12.79 | |
| Decapterus punctatus juv. | 24.90 | 2662 | 11.98 | 4853 |
| Selene dorsalis | 21.40 | 54 | 10.29 | |
| Pagellus bellottii | 13.26 | 146 | 6.38 | 4854 |
| Scomberomorus tritor | 11.70 | 6 | 5.63 | |
| Fistularia petimba | 9.80 | 82 | 4.71 | |
| Epinephelus aeneus | 4.40 | 2 | 2.12 | |
| Dentex canariensis | 3.78 | 10 | 1.82 | |
| Pagrus caeruleostictus | 3.58 | 52 | 1.72 | 4855 |
| Brachydeuterus auritus | 2.14 | 220 | 1.03 | |
| Priacanthus arenatus | 0.32 | 10 | 0.15 | |
| Chilomycterus spinosus mauret. | 0.28 | 2 | 0.13 | |
| Chloroscombrus chrysurus | 0.18 | 2 | 0.09 | |
| Monolene microstoma | 0.04 | 4 | 0.02 | |
| Grammolites gruvelli | 0.02 | 2 | 0.01 | |
| Total | 207.90 | | 100.00 | |

PROJECT STATION:1125
 DATE:24/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 537
 start stop duration Long E 37
 TIME :15:31:12 16:01:03 30 (min) Purpose code: 3
 LOG :9992.48 9994.02 1.52 Area code : 2
 FDEPTH: 38 37 GearCond.code:
 BDEPTH: 38 37 Validity code:
 Towing dir: 113ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 81.16 CATCH/HOUR: 162.32

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Alectis alexandrinus | 67.60 | 66 | 41.65 | |
| Selene dorsalis | 23.90 | 108 | 14.72 | |
| Pagrus caeruleostictus | 17.28 | 62 | 10.65 | 4870 |
| Brachydeuterus auritus | 13.76 | 656 | 8.48 | 4871 |
| Pagellus bellottii | 9.52 | 88 | 5.86 | 4869 |
| Decapterus punctatus | 5.78 | 794 | 3.56 | 4868 |
| Balistes capriscus | 4.56 | 4 | 2.81 | |
| Sphyræna sphyraena | 3.90 | 6 | 2.40 | |
| Epinephelus aeneus | 2.72 | 2 | 1.68 | |
| Scomberomorus tritor | 2.48 | 2 | 1.53 | |
| Dentex canariensis | 2.12 | 4 | 1.31 | |
| Sepia officinalis hierredda | 2.08 | 2 | 1.28 | |
| Alloteuthis africana | 2.08 | 540 | 1.28 | |
| Raja miraletus | 1.46 | 2 | 0.90 | |
| J E L Y F I S H | 1.22 | 38 | 0.75 | |
| Fistularia petimba | 0.90 | 4 | 0.55 | |
| Lagocephalus laevigatus | 0.88 | 2 | 0.54 | |
| Boops boops | 0.08 | 2 | 0.05 | |
| Engraulis encrasicolus | 0.02 | 4 | 0.01 | |
| Sardinella aurita | 0.02 | 4 | 0.01 | |
| Total | 162.36 | | 100.02 | |

PROJECT STATION:1126
 DATE:24/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 542
 start stop duration Long E 37
 TIME :17:05:13 17:35:07 30 (min) Purpose code: 3
 LOG : 0.76 2.41 1.64 Area code : 2
 FDEPTH: 26 26 GearCond.code:
 BDEPTH: 26 26 Validity code:
 Towing dir: 280ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 207.63 CATCH/HOUR: 415.26

PROJECT STATION:1129
 DATE:25/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 540
 start stop duration Long E 16
 TIME :07:14:20 07:44:10 30 (min) Purpose code: 3
 LOG : 109.17 110.66 1.48 Area code : 2
 FDEPTH: 40 40 GearCond.code:
 BDEPTH: 40 40 Validity code:
 Towing dir: 80ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 35 Kg Total catch: 123.57 CATCH/HOUR: 247.14

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| J E L Y F I S H | 238.80 | 108 | 57.51 | |
| Elops senegalensis | 87.54 | 146 | 21.08 | |
| Sphyræna sphyræna | 35.30 | 86 | 8.50 | 4872 |
| Alectis alexandrinus | 13.20 | 108 | 3.18 | |
| Drepane africana | 6.44 | 16 | 1.55 | |
| Scorpaenomorbus tritor | 5.08 | 16 | 1.22 | |
| Chloroscombrus chrysurus | 4.54 | 280 | 1.09 | 4874 |
| Ephippion guttifer | 3.64 | 2 | 0.88 | |
| Torpedo sp. | 3.24 | 2 | 0.78 | |
| Engraulis encrasicolus | 2.96 | 1198 | 0.71 | 4875 |
| Brachydeuterus auritus | 2.22 | 280 | 0.53 | 4873 |
| Pagrus caeruleostictus | 2.16 | 10 | 0.52 | |
| Psettodes belcheri | 2.10 | 2 | 0.51 | |
| Caranx crysos | 1.92 | 2 | 0.46 | |
| Selene dorsalis | 1.48 | 16 | 0.36 | |
| Chaetodipterus goreensis | 1.32 | 2 | 0.32 | |
| Epinephelus aeneus | 1.14 | 2 | 0.27 | |
| Aluterus heudelotii | 0.92 | 2 | 0.22 | |
| Galeoides decadactylus | 0.62 | 4 | 0.15 | |
| Decapterus punctatus | 0.26 | 10 | 0.06 | |
| Calappa rubroguttata | 0.22 | 2 | 0.05 | |
| Sardinella maderensis | 0.16 | 2 | 0.04 | |
| Total | 415.26 | | 99.99 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 77.10 | 828 | 31.20 | 4885 |
| Decapterus punctatus | 37.68 | 4374 | 15.25 | 4883 |
| Brachydeuterus auritus | 35.88 | 810 | 14.52 | |
| Pseudupeneus prayensis | 24.24 | 888 | 9.81 | 4884 |
| Pagrus caeruleostictus | 16.26 | 198 | 6.58 | 4882 |
| Sepia officinalis hierredda | 11.60 | 18 | 4.69 | |
| Alectis alexandrinus | 9.10 | 4 | 3.68 | |
| Fistularia petimba | 6.80 | 36 | 2.75 | |
| Sardinella aurita | 6.78 | 186 | 2.74 | |
| Lagocephalus laevigatus | 5.78 | 12 | 2.34 | |
| Dentex canariensis | 5.04 | 12 | 2.04 | |
| Alloteuthis africana | 2.64 | 774 | 1.07 | |
| Selene dorsalis | 2.28 | 6 | 0.92 | |
| Aluterus monoceros | 1.92 | 2 | 0.78 | |
| Aluterus heudelotii | 1.70 | 2 | 0.69 | |
| Priacanthus arenatus | 1.14 | 6 | 0.46 | |
| Chloroscombrus chrysurus | 0.66 | 12 | 0.27 | |
| Balistes capriscus | 0.54 | 2 | 0.22 | |
| Total | 247.14 | | 100.01 | |

PROJECT STATION:1127
 DATE:25/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 536
 start stop duration Long E 23
 TIME :04:04:01 04:32:55 29 (min) Purpose code: 1
 LOG : 97.00 98.57 1.55 Area code : 2
 FDEPTH: 45 55 GearCond.code:
 BDEPTH: 91 209 Validity code:
 Towing dir: 250ø Wire out: 180 m Speed: 30 kn*10
 Sorted: 20 Kg Total catch: 20.24 CATCH/HOUR: 41.88

PROJECT STATION:1130
 DATE:25/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 541
 start stop duration Long E 16
 TIME :08:20:16 08:40:23 20 (min) Purpose code: 3
 LOG : 113.58 114.72 1.14 Area code : 2
 FDEPTH: 26 22 GearCond.code:
 BDEPTH: 26 22 Validity code:
 Towing dir: 240ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 165.26 CATCH/HOUR: 495.78

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trichiurus lepturus | 40.86 | 300 | 97.56 | 4876 |
| Hypoclydonia bella | 0.62 | 238 | 1.48 | |
| Loligo vulgaris | 0.17 | 17 | 0.41 | |
| Synagrops microlepis | 0.14 | 8 | 0.33 | |
| Saurida brasiliensis | 0.08 | 43 | 0.19 | |
| Total | 41.87 | | 99.97 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chelonia mydas | 360.00 | 6 | 72.61 | |
| Dentex canariensis | 90.00 | 156 | 18.15 | 4886 |
| Lethrinus atlanticus | 8.85 | 108 | 1.79 | 4887 |
| Scorpaenomorbus tritor | 7.02 | 3 | 1.42 | |
| Lutjanus goreensis | 6.54 | 3 | 1.32 | |
| Pagrus caeruleostictus | 4.20 | 12 | 0.85 | |
| Scarus hoefleri | 4.20 | 6 | 0.85 | |
| Lagocephalus laevigatus | 3.36 | 3 | 0.68 | |
| Acanthostracion quadricornis | 2.40 | 15 | 0.48 | |
| Bodianus speciosus | 1.71 | 6 | 0.34 | |
| Fistularia tabacaria | 1.59 | 3 | 0.32 | |
| Pseudupeneus prayensis | 1.20 | 15 | 0.24 | |
| Sardinella maderensis | 1.11 | 18 | 0.22 | |
| Diodon maculatus | 1.05 | 3 | 0.21 | |
| Fistularia petimba | 0.66 | 3 | 0.13 | |
| Aulostomus strigosus | 0.42 | 3 | 0.08 | |
| Apsilus fuscus | 0.42 | 3 | 0.08 | |
| Sepia officinalis hierredda | 0.42 | 3 | 0.08 | |
| Chloroscombrus chrysurus | 0.39 | 3 | 0.08 | |
| Acanthurus monroviae | 0.24 | 3 | 0.05 | |
| Total | 495.78 | | 99.98 | |

PROJECT STATION:1128
 DATE:25/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 537
 start stop duration Long E 18
 TIME :05:56:48 06:26:49 30 (min) Purpose code: 3
 LOG : 103.17 104.72 1.54 Area code : 2
 FDEPTH: 71 69 GearCond.code:
 BDEPTH: 71 69 Validity code:
 Towing dir: 255ø Wire out: 200 m Speed: 30 kn*10
 Sorted: 27 Kg Total catch: 438.91 CATCH/HOUR: 877.82

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sardinella aurita | 204.76 | 5928 | 23.33 | 4878 |
| Dentex congoensis | 156.48 | 4872 | 17.83 | 4880 |
| Pagellus bellottii | 101.76 | 1728 | 11.59 | 4879 |
| Boops boops | 66.72 | 1152 | 7.60 | 4877 |
| Decapterus punctatus | 56.88 | 1104 | 6.48 | |
| Brachydeuterus auritus | 54.72 | 720 | 6.23 | 4881 |
| Pagrus caeruleostictus | 44.40 | 168 | 5.06 | |
| Umbrina canariensis | 32.40 | 144 | 3.69 | |
| Sepia officinalis hierredda | 29.80 | 36 | 3.39 | |
| Decapterus rhonchus | 23.28 | 624 | 2.65 | |
| Selar crumenophthalmus | 20.88 | 72 | 2.38 | |
| Raja miraletus | 20.16 | 48 | 2.30 | |
| Priacanthus arenatus | 12.96 | 240 | 1.48 | |
| Trichiurus lepturus | 11.28 | 48 | 1.29 | |
| Fistularia petimba | 10.90 | 30 | 1.24 | |
| Mustelus mustelus | 9.00 | 4 | 1.03 | |
| Dentex angolensis | 6.00 | 216 | 0.68 | |
| Squatina oculata | 5.60 | 4 | 0.64 | |
| Pseudupeneus prayensis | 3.36 | 24 | 0.38 | |
| Trigla lyra | 3.12 | 48 | 0.36 | |
| Illex coindetii | 2.88 | 24 | 0.33 | |
| Dentex gibbosus | 0.48 | 24 | 0.05 | |
| Total | 877.82 | | 100.01 | |

PROJECT STATION:1131
 DATE:25/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 520
 start stop duration Long W 18
 TIME :13:43:24 14:13:30 30 (min) Purpose code: 3
 LOG : 162.00 163.46 1.45 Area code : 2
 FDEPTH: 41 42 GearCond.code:
 BDEPTH: 41 42 Validity code:
 Towing dir: 220ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 38.57 CATCH/HOUR: 77.14

PROJECT STATION:1133
 DATE:26/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 511
 start stop duration Long W 46
 TIME :06:14:27 06:34:05 20 (min) Purpose code: 3
 LOG : 275.14 276.24 1.09 Area code : 2
 FDEPTH: 22 22 GearCond.code:
 BDEPTH: 22 22 Validity code:
 Towing dir: 60ø Wire out: 140 m Speed: 33 kn*10
 Sorted: 33 Kg Total catch: 241.58 CATCH/HOUR: 724.74

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Lagocephalus laevisgatus | 14.38 42 | 18.64 | |
| Fistularia petimba | 13.10 34 | 16.98 | |
| Sepia officinalis hierredda | 9.40 14 | 12.19 | |
| Alloteuthis africana | 6.68 3172 | 8.66 | |
| Pagrus caeruleostictus | 5.88 68 | 7.62 | 4889 |
| J E L L Y F I S H | 5.40 8 | 7.00 | |
| Priacanthus arenatus | 4.24 100 | 5.50 | 4891 |
| Decapterus punctatus | 3.02 392 | 3.91 | 4888 |
| Pseudupeneus prayensis | 2.98 64 | 3.86 | 4890 |
| Dentex canariensis | 2.70 8 | 3.50 | |
| Epinephelus aeneus | 2.00 4 | 2.59 | |
| Balistes capriscus | 1.96 6 | 2.54 | |
| Scomberomorus tritor | 1.90 2 | 2.46 | |
| Pagellus bellottii | 0.82 8 | 1.06 | |
| Alectis alexandrinus | 0.60 2 | 0.78 | |
| Lethrinus atlanticus | 0.58 6 | 0.75 | |
| Dactylopterus volitans | 0.40 2 | 0.52 | |
| Syacium micrurum | 0.38 6 | 0.49 | |
| Sardinella aurita | 0.24 20 | 0.31 | |
| Chromis cadenati | 0.18 54 | 0.23 | |
| Stephanolepis hispidus | 0.10 2 | 0.13 | |
| Coris julis | 0.08 2 | 0.10 | |
| Sphoeroides marmoratus | 0.06 2 | 0.08 | |
| Bothus podas africanus | 0.04 2 | 0.05 | |
| Paronchellius stauchi | 0.02 4 | 0.03 | |
| Total | 77.14 | 99.98 | |

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Brachydeuterus auritus | 461.70 50841 | 63.71 | 4897 |
| Selene dorsalis | 76.95 621 | 10.62 | |
| Chloroscombrus chrysurus | 46.44 783 | 6.41 | 4899 |
| Sphyraena guachancho | 28.08 81 | 3.87 | |
| Selar crumenophthalmus | 27.54 540 | 3.80 | |
| Sphyraena-juveniles | 18.36 23436 | 2.53 | 4898 |
| Caranx crysos | 12.42 81 | 1.71 | |
| Galeoides decadactylus | 11.34 108 | 1.56 | |
| J E L L Y F I S H | 9.18 459 | 1.27 | |
| Pagrus caeruleostictus | 8.64 135 | 1.19 | |
| Drepane africana | 5.67 27 | 0.78 | |
| Decapterus punctatus | 5.13 189 | 0.71 | |
| Fistularia petimba | 3.69 15 | 0.51 | |
| Trichiurus lepturus | 2.97 108 | 0.41 | |
| Sardinella aurita | 2.97 108 | 0.41 | |
| Dentex canariensis | 1.35 27 | 0.19 | |
| Sardinella maderensis | 1.08 27 | 0.15 | |
| Sepia officinalis hierredda | 0.96 3 | 0.13 | |
| Chlamys purpuratus | 0.27 54 | 0.04 | |
| Total | 724.74 | 100.00 | |

PROJECT STATION:1132
 DATE:25/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 516
 start stop duration Long W 16
 TIME :16:25:34 16:55:17 30 (min) Purpose code: 3
 LOG : 171.28 172.69 1.40 Area code : 2
 FDEPTH: 60 60 GearCond.code:
 BDEPTH: 60 60 Validity code:
 Towing dir: 220ø Wire out: 150 m Speed: 32 kn*10
 Sorted: 29 Kg Total catch: 208.92 CATCH/HOUR: 417.84

PROJECT STATION:1134
 DATE:26/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 505
 start stop duration Long W 47
 TIME :07:59:47 08:29:39 30 (min) Purpose code: 3
 LOG : 286.16 287.85 1.68 Area code : 2
 FDEPTH: 29 31 GearCond.code:
 BDEPTH: 29 31 Validity code:
 Towing dir: 80ø Wire out: 32 m Speed: 30 kn*10
 Sorted: Kg Total catch: 32.57 CATCH/HOUR: 65.14

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Brachydeuterus auritus | 136.20 500 | 32.60 | 4892 |
| J E L L Y F I S H | 61.56 60 | 14.73 | |
| Trachurus trecae | 56.04 1164 | 13.41 | 4894 |
| Fistularia petimba | 33.60 84 | 8.04 | |
| Pseudupeneus prayensis | 27.96 276 | 6.69 | 4893 |
| Pagellus bellottii | 21.96 1404 | 5.26 | 4896 |
| Sepia officinalis hierredda | 17.20 20 | 4.12 | |
| Squatina oculata | 14.40 4 | 3.45 | |
| Balistes capriscus | 6.36 12 | 1.52 | |
| Pagrus caeruleostictus | 6.02 30 | 1.44 | 4895 |
| Alloteuthis africana | 5.16 2148 | 1.23 | |
| Sphyraena sphyraena | 5.04 14 | 1.21 | |
| Mustelus mustelus | 4.50 2 | 1.08 | |
| Dentex barnardi | 4.00 14 | 0.96 | |
| Zeus faber | 3.12 12 | 0.75 | |
| Lycondontis afer | 2.90 2 | 0.69 | |
| Sardinella aurita | 1.68 24 | 0.40 | |
| Cynoponticus ferox | 1.66 2 | 0.40 | |
| Lepidotrigla carolae | 1.56 48 | 0.37 | |
| Priacanthus arenatus | 1.44 36 | 0.34 | |
| Epinephelus aeneus | 1.34 2 | 0.32 | |
| Chaetodon robustus | 1.32 24 | 0.32 | |
| Decapterus punctatus | 1.08 132 | 0.26 | |
| Boops boops | 0.60 24 | 0.14 | |
| Epinephelus guaza ? | 0.34 2 | 0.08 | |
| Holacanthus africanus | 0.32 2 | 0.08 | |
| Chaetodon marcellae | 0.24 12 | 0.06 | |
| Dentex gibbosus | 0.24 2 | 0.06 | |
| Total | 417.84 | 100.01 | |

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|------------------------------|----------------|-------------|------|
| | weight numbers | | |
| Fistularia petimba | 11.10 54 | 17.04 | |
| Dentex canariensis | 8.80 64 | 13.51 | 4901 |
| Pagrus caeruleostictus | 8.04 160 | 12.34 | 4900 |
| Pseudupeneus prayensis | 6.46 130 | 9.92 | 4904 |
| Aluterus monoceros | 5.80 4 | 8.90 | |
| Lagocephalus laevisgatus | 5.38 10 | 8.26 | |
| Decapterus punctatus | 2.60 314 | 3.99 | 4903 |
| Ephippion guttifer | 2.20 2 | 3.38 | |
| Scomberomorus tritor | 2.12 2 | 3.25 | |
| Alectis alexandrinus | 1.80 6 | 2.76 | |
| Sphyraena sphyraena | 1.34 2 | 2.06 | |
| Acanthurus monroviae | 1.32 4 | 2.03 | |
| Brachydeuterus auritus | 1.24 62 | 1.90 | 4902 |
| Caranx crysos | 0.90 8 | 1.38 | |
| Priacanthus arenatus | 0.86 4 | 1.32 | |
| Selar crumenophthalmus | 0.84 8 | 1.29 | |
| Pagellus bellottii | 0.72 10 | 1.11 | |
| Acanthostracion quadricornis | 0.66 4 | 1.01 | |
| Sepia officinalis hierredda | 0.66 2 | 1.01 | |
| Bodianus speciosus | 0.62 2 | 0.95 | |
| Balistes punctatus | 0.52 2 | 0.80 | |
| Sardinella maderensis | 0.40 4 | 0.61 | |
| Sardinella aurita | 0.32 16 | 0.49 | |
| Aluterus heudelotii | 0.30 2 | 0.46 | |
| Chloroscombrus chrysurus | 0.14 2 | 0.21 | |
| Total | 65.14 | 99.98 | |

PROJECT STATION:1135
 DATE:26/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 500
 start stop duration Long W 46
 TIME :09:47:06 10:17:02 30 (min) Purpose code: 3
 LOG : 297.13 298.75 1.54 Area code : 2
 FDEPTH: 38 39 GearCond.code:
 BDEPTH: 38 39 Validity code:
 Towing dir: 60ø Wire out: 160 m Speed: 31 kn*10
 Sorted: Kg Total catch: 42.13 CATCH/HOUR: 84.26

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Decapterus punctatus | 12.86 | 924 | 15.26 | 4909 |
| Fistularia petimba | 12.80 | 104 | 15.19 | |
| Pagellus bellottii | 12.62 | 74 | 14.98 | 4907 |
| Pseudupeneus prayensis | 9.06 | 84 | 10.75 | 4910 |
| Dentex canariensis | 7.88 | 30 | 9.35 | 4906 |
| Pagrus caeruleostictus | 7.84 | 114 | 9.30 | 4908 |
| Caranx crysos | 7.10 | 42 | 8.43 | 4905 |
| Priacanthus arenatus | 6.02 | 34 | 7.14 | |
| Aluterus monoceros | 2.48 | 2 | 2.94 | |
| Epinephelus aeneus | 1.64 | 2 | 1.95 | |
| Lagocephalus laevigatus | 1.46 | 4 | 1.73 | |
| Balistes punctatus | 0.78 | 2 | 0.93 | |
| Selar crumenophthalmus | 0.64 | 2 | 0.76 | |
| Chaetodon hoefleri | 0.34 | 4 | 0.40 | |
| Alloteuthis africana | 0.26 | 148 | 0.31 | |
| Lethrinus atlanticus | 0.24 | 2 | 0.28 | |
| Apsilus fuscus | 0.22 | 2 | 0.26 | |
| Chromis cadenati | 0.02 | 2 | 0.02 | |
| Total | 84.26 | | 99.98 | |

PROJECT STATION:1137
 DATE:26/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 451
 start stop duration Long W 37
 TIME :13:21:32 15:01:04 31 (min) Purpose code: 3
 LOG : 321.86 323.31 1.46 Area code : 2
 FDEPTH: 69 68 GearCond.code:
 BDEPTH: 69 68 Validity code:
 Towing dir: 240ø Wire out: 180 m Speed: 30 kn*10
 Sorted: 61 Kg Total catch: 387.06 CATCH/HOUR: 749.15

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chromis cadenati | 280.49 | 4502 | 37.44 | |
| Apsilus fuscus | 127.20 | 1341 | 16.98 | |
| Dactylopterus volitans | 78.56 | 735 | 10.49 | |
| Pseudupeneus prayensis | 39.60 | 447 | 5.29 | 4913 |
| Pagrus caeruleostictus | 31.94 | 128 | 4.26 | 4914 |
| Pagellus bellottii | 29.90 | 383 | 3.99 | 4915 |
| Dentex canariensis | 21.77 | 31 | 2.91 | 4916 |
| Fistularia petimba | 21.72 | 52 | 2.90 | |
| Lutjanus gorensis | 20.01 | 33 | 2.67 | 4917 |
| Dentex gibbosus | 18.29 | 29 | 2.44 | 4918 |
| Bodianus speciosus | 14.90 | 21 | 1.99 | |
| Epinephelus aeneus | 12.70 | 4 | 1.70 | |
| Sardinella aurita | 12.45 | 213 | 1.66 | |
| Sepia officinalis hierredda | 8.32 | 10 | 1.11 | |
| Dentex barnardi | 6.75 | 10 | 0.90 | |
| Decapterus punctatus | 6.27 | 75 | 0.84 | |
| Zeus faber | 4.61 | 6 | 0.62 | |
| Priacanthus arenatus | 3.50 | 21 | 0.47 | |
| Mustelus mustelus | 3.37 | 2 | 0.45 | |
| Lagocephalus laevigatus | 2.86 | 12 | 0.38 | |
| Alloteuthis africana | 2.23 | 1095 | 0.30 | |
| Anthias anthias | 1.70 | 31 | 0.23 | |
| Total | 749.14 | | 100.02 | |

PROJECT STATION:1136
 DATE:26/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 455
 start stop duration Long W 40
 TIME :11:40:39 11:41:19 31 (min) Purpose code: 3
 LOG : 309.81 311.13 1.31 Area code : 2
 FDEPTH: 54 54 GearCond.code:
 BDEPTH: 54 54 Validity code:
 Towing dir: 237ø Wire out: 160 m Speed: 30 kn*10
 Sorted: Kg Total catch: 87.40 CATCH/HOUR: 169.16

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Dactylopterus volitans | 61.82 | 1843 | 36.55 | |
| Pagellus bellottii | 41.57 | 648 | 24.57 | |
| Pseudupeneus prayensis | 24.87 | 213 | 14.70 | 4911 |
| Sepia officinalis hierredda | 8.65 | 29 | 5.11 | |
| Decapterus rhonchus | 5.79 | 14 | 3.42 | |
| Fistularia petimba | 5.03 | 50 | 2.97 | |
| Decapterus punctatus | 3.77 | 223 | 2.23 | 4912 |
| Balistes capriscus | 2.61 | 4 | 1.54 | |
| Pagrus caeruleostictus | 2.48 | 23 | 1.47 | |
| Caranx crysos | 2.28 | 10 | 1.35 | |
| Torpedo torpedo | 1.92 | 2 | 1.14 | |
| Dentex barnardi | 1.49 | 6 | 0.88 | |
| Alloteuthis africana | 1.14 | 780 | 0.67 | |
| Apsilus fuscus | 1.05 | 2 | 0.62 | |
| Lepidotrigla carolae | 0.97 | 10 | 0.57 | |
| Aluterus punctata | 0.95 | 2 | 0.56 | |
| Priacanthus arenatus | 0.60 | 17 | 0.35 | |
| Sardinella aurita | 0.58 | 15 | 0.34 | |
| Chaetodon robustus | 0.45 | 6 | 0.27 | |
| Syacium micrum | 0.43 | 8 | 0.25 | |
| Chloroscombrus chrysurus | 0.33 | 4 | 0.20 | |
| Boops boops | 0.33 | 21 | 0.20 | |
| Citharus linguatula | 0.06 | 2 | 0.04 | |
| Total | 169.17 | | 100.00 | |

PROJECT STATION:1138
 DATE:26/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 442
 start stop duration Long W 46
 TIME :17:08:46 17:39:09 30 (min) Purpose code: 3
 LOG : 335.20 336.74 1.53 Area code : 2
 FDEPTH: 98 100 GearCond.code:
 BDEPTH: 98 100 Validity code:
 Towing dir: 225ø Wire out: 250 m Speed: 30 kn*10
 Sorted: 20 Kg Total catch: 172.38 CATCH/HOUR: 344.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Dentex angolensis | 115.20 | 552 | 33.41 | 4920 |
| Dentex congolensis | 90.60 | 1428 | 26.28 | 4921 |
| Umbrina canariensis | 45.90 | 134 | 13.31 | 4919 |
| Sepia officinalis hierredda | 37.32 | 504 | 10.82 | |
| Fistularia petimba | 20.50 | 100 | 5.95 | |
| Zeus faber | 9.00 | 24 | 2.61 | |
| Sepia officinalis hierredda | 8.70 | 10 | 2.52 | |
| Squatina oculata | 7.10 | 4 | 2.06 | |
| Lagocephalus laevigatus | 4.98 | 6 | 1.44 | |
| Sphoeroides pachgaster | 4.36 | 22 | 1.26 | |
| Pagellus bellottii | 0.84 | 24 | 0.24 | |
| Chaetodon hoefleri | 0.26 | 2 | 0.08 | |
| Total | 344.76 | | 99.98 | |

PROJECT STATION:1139
 DATE:27/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 503
 start stop duration Long W 101
 TIME :00:52:00 01:22:05 30 (min) Purpose code: 1
 LOG : 385.30 386.72 1.40 Area code : 2
 FDEPTH: 21 14 GearCond.code:
 BDEPTH: 27 27 Validity code:
 Towing dir: 286ø Wire out: 130 m Speed: 30 kn*10
 Sorted: 7 Kg Total catch: 7.96 CATCH/HOUR: 15.92

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Decapterus punctatus | 13.90 | 270 | 87.31 | 4922 |
| Selar crumenophthalmus | 1.34 | 8 | 8.42 | |
| Sardinella aurita | 0.66 | 32 | 4.15 | 4923 |
| Dactylopterus volitans | 0.02 | 2 | 0.13 | |
| Total | 15.92 | | 100.01 | |

PROJECT STATION:1140
 DATE:27/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 506
 start stop duration Long W 107
 TIME :05:56:36 06:26:51 30 (min) Purpose code: 3
 LOG : 396.49 398.03 1.53 Area code : 2
 FDEPTH: 21 22 GearCond.code:
 BDEPTH: 21 22 Validity code:
 Towing dir: 250ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 45.99 CATCH/HOUR: 91.98

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlamys purpuratus | 44.30 | 3178 | 48.16 | |
| Sphyræna guanchcho | 17.70 | 48 | 19.24 | 4924 |
| Decapterus punctatus | 13.06 | 1218 | 14.20 | |
| J E L L Y F I S H | 3.94 | 10 | 4.28 | |
| Brachydeuterus auritus Juv. | 3.84 | 6464 | 4.17 | |
| Pagrus caeruleostictus | 3.38 | 66 | 3.67 | 4925 |
| Engraulis encrasicolus | 2.20 | 16540 | 2.39 | |
| Elops lacerta | 0.90 | 2 | 0.98 | |
| Sardinella aurita | 0.62 | 26 | 0.67 | |
| Fistularia petimba | 0.58 | 2 | 0.63 | |
| Psettodes belcheri | 0.56 | 2 | 0.61 | |
| Chloroscombrus chrysurus | 0.50 | 6 | 0.54 | |
| Alectis alexandrinus | 0.24 | 2 | 0.26 | |
| Trachinocephalus myops | 0.14 | 4 | 0.15 | |
| Total | 91.96 | | 99.95 | |

PROJECT STATION:1141
 DATE:27/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 459
 start stop duration Long W 105
 TIME :07:58:05 08:27:48 30 (min) Purpose code: 3
 LOG : 407.65 409.23 1.57 Area code : 2
 FDEPTH: 31 32 GearCond.code:
 BDEPTH: 31 32 Validity code:
 Towing dir: 250ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 22.30 CATCH/HOUR: 44.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sphyræna afra | 18.30 | 2 | 41.03 | |
| Decapterus punctatus | 6.88 | 128 | 15.43 | 4927 |
| Sardinella aurita | 6.62 | 106 | 14.84 | 4928 |
| Sepia officinalis hierredda | 6.14 | 12 | 13.77 | |
| Sphyræna guanchcho | 2.28 | 4 | 5.11 | |
| Pagrus caeruleostictus | 1.68 | 28 | 3.77 | 4926 |
| Chlamys purpuratus | 0.94 | 68 | 2.11 | |
| Lethrinus atlanticus | 0.50 | 2 | 1.12 | |
| Dentex canariensis | 0.48 | 8 | 1.08 | |
| Fistularia petimba | 0.28 | 2 | 0.63 | |
| Alectis alexandrinus | 0.24 | 2 | 0.54 | |
| Xyrichtys novacula | 0.08 | 2 | 0.18 | |
| Priacanthus arenatus | 0.06 | 2 | 0.13 | |
| Bothus podas africanus | 0.04 | 2 | 0.09 | |
| Brachydeuterus auritus | 0.04 | 2 | 0.09 | |
| Syacium micrum | 0.02 | 2 | 0.04 | |
| Dactylopterus volitans | 0.02 | 2 | 0.04 | |
| Total | 44.60 | | 100.00 | |

PROJECT STATION:1142
 DATE:27/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 450
 start stop duration Long W 102
 TIME :10:03:01 10:32:33 30 (min) Purpose code: 1
 LOG : 420.58 422.63 2.05 Area code : 2
 FDEPTH: 25 10 GearCond.code:
 BDEPTH: 41 39 Validity code:
 Towing dir: 340ø Wire out: 160 m Speed: 35 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:1143
 DATE:27/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 449
 start stop duration Long W 102
 TIME :11:23:40 11:53:36 30 (min) Purpose code: 3
 LOG : 428.63 430.15 1.51 Area code : 2
 FDEPTH: 43 41 GearCond.code:
 BDEPTH: 43 41 Validity code:
 Towing dir: 320ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 9.88 CATCH/HOUR: 19.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sepia officinalis hierredda | 11.28 | 20 | 57.09 | |
| Pagrus caeruleostictus | 3.50 | 16 | 17.71 | |
| Lagocephalus laevigatus | 2.04 | 6 | 10.32 | |
| Caranx crysos | 2.00 | 4 | 10.12 | |
| Pagellus bellottii | 0.66 | 4 | 3.34 | |
| Fistularia petimba | 0.28 | 4 | 1.42 | |
| Total | 19.76 | | 100.00 | |

PROJECT STATION:1144
 DATE:27/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 439
 start stop duration Long W 57
 TIME :14:00:44 14:31:06 30 (min) Purpose code: 3
 LOG : 446.78 448.32 1.52 Area code : 2
 FDEPTH: 56 55 GearCond.code:
 BDEPTH: 56 55 Validity code:
 Towing dir: 238ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 55 Kg Total catch: 55.18 CATCH/HOUR: 110.36

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pseudupeneus prayensis | 27.20 | 234 | 24.65 | 4930 |
| Dentex canariensis | 19.00 | 40 | 17.22 | 4932 |
| Pagrus caeruleostictus | 16.64 | 86 | 15.08 | 4931 |
| Pagellus bellottii | 12.10 | 172 | 10.96 | 4929 |
| Apsilus fuscus | 8.86 | 30 | 8.03 | |
| Lutjanus fulgens | 6.36 | 24 | 5.76 | |
| Sepia officinalis hierredda | 4.10 | 6 | 3.72 | |
| Torpedo torpedo | 3.46 | 2 | 3.14 | |
| Fistularia petimba | 3.20 | 28 | 2.90 | |
| Epinephelus aeneus | 2.16 | 2 | 1.96 | |
| Caranx crysos | 1.74 | 4 | 1.58 | |
| Alloteuthis africana | 0.92 | 746 | 0.83 | |
| Dentex gibbosus | 0.84 | 2 | 0.76 | |
| Lepidotrigla cadmani | 0.78 | 8 | 0.71 | |
| Trachinocephalus myops | 0.70 | 2 | 0.63 | |
| Dactylopterus volitans | 0.58 | 2 | 0.53 | |
| Syacium micrum | 0.54 | 6 | 0.49 | |
| Priacanthus arenatus | 0.42 | 2 | 0.38 | |
| Lophiodes kempii | 0.38 | 2 | 0.34 | |
| Decapterus rhonchus | 0.38 | 2 | 0.34 | |
| Total | 110.36 | | 100.01 | |

PROJECT STATION:1145
 DATE:27/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 434
 start stop duration Long W 57
 TIME :15:43:23 16:13:11 30 (min) Purpose code: 3
 LOG : 456.17 457.74 1.56 Area code : 2
 FDEPTH: 76 78 GearCond.code:
 BDEPTH: 76 78 Validity code:
 Towing dir: 45ø Wire out: 220 m Speed: 30 kn*10
 Sorted: 30 Kg Total catch: 569.86 CATCH/HOUR: 1139.72

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chromis cadenati | 936.00 | 14220 | 82.13 | |
| Decapterus punctatus | 79.20 | 1764 | 6.95 | 4933 |
| Sardinella aurita | 68.40 | 1368 | 6.00 | 4934 |
| Dentex gibbosus | 19.70 | 28 | 1.73 | 4936 |
| Dentex canariensis | 13.02 | 22 | 1.14 | 4935 |
| Fistularia petimba | 5.10 | 8 | 0.45 | |
| Squatina oculata | 4.38 | 2 | 0.38 | |
| Lutjanus fulgens | 3.50 | 8 | 0.31 | |
| Pagrus caeruleostictus | 2.10 | 8 | 0.18 | |
| Zeus faber | 1.82 | 2 | 0.16 | |
| Sepia officinalis hierredda | 1.46 | 2 | 0.13 | |
| Pseudupeneus prayensis | 1.42 | 16 | 0.12 | |
| Epinephelus aeneus | 1.10 | 2 | 0.10 | |
| Raja miraletus | 1.08 | 2 | 0.09 | |
| Sargocentron hastatus | 0.54 | 4 | 0.05 | |
| Dactylopterus volitans | 0.52 | 2 | 0.05 | |
| Pagellus bellottii | 0.38 | 4 | 0.03 | |
| Total | 1139.72 | | 100.00 | |

PROJECT STATION:1146
 DATE:27/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 428
 start stop duration Long W 54
 TIME :19:12:13 19:51:19 39 (min) Purpose code: 1
 LOG : 470.22 472.42 2.16 Area code : 2
 FDEPTH: 80 45 GearCond.code:
 BDEPTH: 1657 1362 Validity code:
 Towing dir: 350ø Wire out: 250 m Speed: 38 kn*10
 Sorted: Kg Total catch: 172.78 CATCH/HOUR: 265.82

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|---------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Alopias superciliosus | 230.77 | 2 | 86.81 | |
| Priacanthus arenatus | 20.77 | 2252 | 7.81 | |
| MYCTOPHIDAE | 7.38 | 3446 | 2.78 | |
| Cubiceps sp. | 1.31 | 48 | 0.49 | |
| Psenes sp. | 1.05 | 3 | 0.40 | |
| Macroparalepis affinis | 0.49 | 94 | 0.18 | |
| Ommastrephes pteropus | 0.48 | 5 | 0.18 | |
| Photichthys sp. | 0.46 | 72 | 0.17 | |
| Trichiurus lepturus | 0.45 | 11 | 0.17 | |
| Gempylus serpens | 0.40 | 5 | 0.15 | |
| GONOSTOMATIDAE | 0.35 | 165 | 0.13 | |
| NOMEIDAE | 0.35 | 6 | 0.13 | |
| ARIOMMIDAE | 0.31 | 8 | 0.12 | |
| Gempylus sp. | 0.28 | 18 | 0.11 | |
| PARALEPIDIDAE | 0.23 | 11 | 0.09 | |
| OMMASTREPHIDAE | 0.20 | 17 | 0.08 | |
| Lagocephalus lagocephalus | 0.15 | 3 | 0.06 | |
| Chromis cadenati | 0.14 | 2 | 0.05 | |
| Caranx crysos | 0.12 | 3 | 0.05 | |
| Unidentified fish | 0.08 | 3 | 0.03 | |
| Shrimps, small, non comm. | 0.03 | 38 | 0.01 | |
| Antigonia capros | 0.02 | 2 | 0.01 | |
| Total | 265.82 | | 100.01 | |

PROJECT STATION:1147
 DATE:28/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 500
 start stop duration Long W 129
 TIME :05:57:54 06:22:47 25 (min) Purpose code: 3
 LOG : 544.64 546.06 1.38 Area code : 2
 FDEPTH: 20 19 GearCond.code:
 BDEPTH: 20 19 Validity code:
 Towing dir: 260ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 33 Kg Total catch: 378.97 CATCH/HOUR: 909.53

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 578.83 | 5414 | 63.64 | 4937 |
| Ilisha africana | 114.91 | 17050 | 12.63 | |
| Chloroscombrus chrysurus | 114.62 | 6422 | 12.60 | 4940 |
| Sphyraena guachancho | 50.11 | 403 | 5.51 | 4939 |
| J E L L Y F I S H | 12.67 | 86 | 1.39 | |
| Sardinella maderensis | 8.64 | 173 | 0.95 | |
| Pseudotolithus senegalensis | 6.41 | 34 | 0.70 | 4938 |
| Scomberomorus tritor | 5.76 | 86 | 0.63 | |
| Selene dorsalis | 3.17 | 115 | 0.35 | |
| Trichurus lepturus | 3.17 | 86 | 0.35 | |
| Pteroscion peli | 2.88 | 86 | 0.32 | |
| Stromateus fiatola | 2.42 | 5 | 0.27 | |
| Galeoides decadactylus | 1.82 | 24 | 0.20 | |
| Sepia officinalis hierredda | 1.80 | 2 | 0.20 | |
| Panulirus regius | 0.84 | 2 | 0.09 | |
| Acanthurus monroviae | 0.34 | 2 | 0.04 | |
| Drepane africana | 0.29 | 2 | 0.03 | |
| Lagocephalus laevigatus | 0.26 | 2 | 0.03 | |
| Pisodonophis semicinctus | 0.24 | 2 | 0.03 | |
| Lutjanus goreensis | 0.17 | 2 | 0.02 | |
| Penaeus notialis | 0.17 | 5 | 0.02 | |
| Total | 909.52 | | 100.00 | |

PROJECT STATION:1148
 DATE:28/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 455
 start stop duration Long W 128
 TIME :07:51:51 08:23:16 31 (min) Purpose code: 3
 LOG : 554.67 556.31 1.63 Area code : 2
 FDEPTH: 30 30 GearCond.code:
 BDEPTH: 30 30 Validity code:
 Towing dir: 260ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 27.97 CATCH/HOUR: 54.14

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Lagocephalus laevigatus | 33.68 | 68 | 62.21 | |
| Chlamys purpuratus | 5.28 | 405 | 9.75 | |
| Caranx crysos | 3.33 | 8 | 6.15 | |
| Pagrus caeruleostictus | 2.92 | 54 | 5.39 | 4942 |
| Aluterus monoceros | 1.86 | 2 | 3.44 | |
| Pagellus bellottii | 1.78 | 14 | 3.29 | |
| Sepia officinalis hierredda | 1.72 | 2 | 3.18 | |
| Dentex canariensis | 1.63 | 35 | 3.01 | 4941 |
| Sphyraena guachancho | 1.43 | 2 | 2.64 | |
| Fistularia petimba | 0.50 | 4 | 0.92 | |
| Total | 54.13 | | 99.98 | |

PROJECT STATION:1149
 DATE:28/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 445
 start stop duration Long W 126
 TIME :10:02:23 10:32:19 30 (min) Purpose code: 3
 LOG : 569.00 570.57 1.56 Area code : 2
 FDEPTH: 42 41 GearCond.code:
 BDEPTH: 42 41 Validity code:
 Towing dir: 340ø Wire out: 155 m Speed: 30 kn*10
 Sorted: Kg Total catch: 32.17 CATCH/HOUR: 64.34

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chlamys purpuratus | 17.22 | 812 | 26.76 | |
| Pagellus bellottii | 15.20 | 196 | 23.62 | 4943 |
| Chloroscombrus chrysurus | 6.12 | 78 | 9.51 | 4944 |
| Fistularia petimba | 6.00 | 42 | 9.33 | |
| Sepia officinalis hierredda | 4.80 | 10 | 7.46 | |
| Balistes caprisicus | 4.10 | 18 | 6.37 | |
| Trachinocephalus myops | 3.06 | 14 | 4.76 | |
| Caranx crysos | 3.02 | 22 | 4.69 | |
| Lycondontis afer | 2.60 | 2 | 4.04 | |
| Pseudupeneus prayensis | 1.00 | 6 | 1.55 | |
| Priacanthus arenatus | 0.88 | 6 | 1.37 | |
| Dentex angolensis | 0.22 | 2 | 0.34 | |
| Total | 64.22 | | 99.80 | |

PROJECT STATION:1150
 DATE:28/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 440
 start stop duration Long W 124
 TIME :11:48:30 12:20:26 32 (min) Purpose code: 1
 LOG : 580.10 582.46 2.36 Area code : 2
 FDEPTH: 33 28 GearCond.code:
 BDEPTH: 48 46 Validity code:
 Towing dir: 340ø Wire out: 200 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:1151
 DATE:28/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 428
 start stop duration Long W 119
 TIME :14:56:04 15:26:05 30 (min) Purpose code: 3
 LOG : 602.55 604.01 1.45 Area code : 2
 FDEPTH: 59 59 GearCond.code:
 BDEPTH: 59 59 Validity code:
 Towing dir: 250ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 31 Kg Total catch: 158.20 CATCH/HOUR: 316.40

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pseudupeneus prayensis | 63.50 | 560 | 20.07 | 4945 |
| Decapterus punctatus | 48.20 | 690 | 15.23 | 4950 |
| Pagellus bellottii | 28.80 | 270 | 9.10 | 4946 |
| Dactylopterus volitans | 28.00 | 200 | 8.85 | 4948 |
| Pagrus caeruleostictus | 19.90 | 80 | 6.29 | |
| Acanthurus monroviae | 18.50 | 40 | 5.85 | |
| Apsilus fuscus | 18.10 | 300 | 5.72 | |
| Sardinella aurita | 16.10 | 210 | 5.09 | 4947 |
| Balistes caprisicus | 13.70 | 40 | 4.33 | |
| Boops boops | 13.70 | 640 | 4.33 | 4949 |
| Chromis cadenati | 12.70 | 170 | 4.01 | |
| Fistularia petimba | 7.80 | 50 | 2.47 | |
| Sepia officinalis hierredda | 5.80 | 10 | 1.83 | |
| Lutjanus fulgens | 5.10 | 20 | 1.61 | |
| Dentex canariensis | 3.70 | 10 | 1.17 | |
| Priacanthus arenatus | 3.60 | 20 | 1.14 | |
| Decapterus rhonchus | 3.10 | 20 | 0.98 | |
| Lagocephalus laevigatus | 2.70 | 10 | 0.85 | |
| Trachinocephalus myops | 2.50 | 2 | 0.79 | |
| Chloroscombrus chrysurus | 0.90 | 10 | 0.28 | |
| Total | 316.40 | | 99.99 | |

PROJECT STATION:1152
 DATE:28/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 421
 start stop duration Long W 124
 TIME :17:28:57 17:58:54 30 (min) Purpose code: 3
 LOG : 621.15 622.73 1.56 Area code : 2
 FDEPTH: 86 86 GearCond.code:
 BDEPTH: 86 86 Validity code:
 Towing dir: 250ø Wire out: 225 m Speed: 30 kn*10
 Sorted: Kg Total catch: 63.05 CATCH/HOUR: 126.10

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sphoeroides pachgaster | 27.00 | 114 | 21.41 | |
| Fistularia petimba | 18.20 | 44 | 14.43 | |
| Pagellus bellottii | 14.20 | 442 | 11.26 | 4953 |
| Squatina oculata | 12.40 | 4 | 9.83 | |
| Sepia officinalis hierredda | 8.20 | 12 | 6.50 | |
| Chelidonichthys gabonensis | 5.78 | 158 | 4.58 | |
| Sardinella aurita | 5.26 | 88 | 4.17 | 4951 |
| Decapterus punctatus | 4.96 | 70 | 3.93 | 4952 |
| Dentex angolensis | 4.94 | 12 | 3.92 | |
| Umbrina canariensis | 4.68 | 18 | 3.71 | |
| Pagrus caeruleostictus | 4.08 | 14 | 3.24 | |
| Mustelus mustelus | 3.50 | 2 | 2.78 | |
| Priacanthus arenatus | 2.76 | 26 | 2.19 | |
| Raja miraletus | 2.02 | 4 | 1.60 | |
| Dentex gibbosus | 1.72 | 8 | 1.36 | |
| Dactylopterus volitans | 1.40 | 8 | 1.11 | |
| Dentex congopensis | 1.12 | 16 | 0.89 | |
| Zeus faber | 1.10 | 2 | 0.87 | |
| Acanthurus monroviae | 0.88 | 2 | 0.70 | |
| Lagocephalus laevigatus | 0.50 | 4 | 0.40 | |
| Pseudupeneus prayensis | 0.46 | 2 | 0.36 | |
| Echelus myrus | 0.36 | 2 | 0.29 | |
| Chromis chromis | 0.36 | 4 | 0.29 | |
| Brotula barbata | 0.22 | 2 | 0.17 | |
| Total | 126.10 | | 99.99 | |

PROJECT STATION:1153
 DATE:29/ 5/06 GEAR TYPE: PT No: 7 POSITION:Lat N 433
 start stop duration Long W 139
 TIME :00:33:55 01:04:21 30 (min) Purpose code: 1
 LOG : 678.94 680.42 1.39 Area code : 2
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 57 60 Validity code:
 Towing dir: 194° Wire out: 130 m Speed: 30 kn*10
 Sorted: 5 Kg Total catch: 5.37 CATCH/HOUR: 10.74

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|----------------------|----------------|-------------|------|
| | weight numbers | | |
| Sardinella aurita | 5.90 104 | 54.93 | 4954 |
| Zeus faber | 2.54 2 | 23.65 | |
| Raja miraletus | 1.28 4 | 11.92 | |
| J E L Y F I S H | 0.44 2 | 4.10 | |
| Pagellus bellottii | 0.28 2 | 2.61 | |
| Priacanthus arenatus | 0.26 2 | 2.42 | |
| Fodiator acutus | 0.04 2 | 0.37 | |
| Total | 10.74 | 100.00 | |

PROJECT STATION:1154
 DATE:29/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 423
 start stop duration Long W 144
 TIME :05:59:44 06:29:37 30 (min) Purpose code: 3
 LOG : 700.07 701.68 1.61 Area code : 2
 FDEPTH: 80 80 GearCond.code:
 BDEPTH: 80 80 Validity code:
 Towing dir: 275° Wire out: 200 m Speed: 32 kn*10
 Sorted: Kg Total catch: 68.11 CATCH/HOUR: 136.22

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Fistularia petimba | 24.90 180 | 18.28 | |
| Dentex gibbosus | 21.60 40 | 15.86 | 4955 |
| Decapterus punctatus | 21.50 462 | 15.78 | 4957 |
| Sepia officinalis hierredda | 14.40 12 | 10.57 | |
| Sardinella aurita | 9.82 180 | 7.21 | 4959 |
| Sphoeroides pachgaster | 9.38 76 | 6.89 | |
| Dentex canariensis | 6.80 20 | 4.99 | |
| Pagrus caeruleostictus | 6.24 12 | 4.58 | |
| Decapterus rhonchus | 6.16 58 | 4.52 | 4958 |
| Raja miraletus | 4.86 4 | 3.57 | |
| Pagellus bellottii | 4.58 74 | 3.36 | 4956 |
| Pseudupeneus prayensis | 2.08 18 | 1.53 | |
| Caranx crysos | 1.76 2 | 1.29 | |
| Dactylopterus volitans | 1.02 4 | 0.75 | |
| Chelidonichthys gabonensis | 0.54 6 | 0.40 | |
| Umbrina canariensis | 0.52 2 | 0.38 | |
| Chaetodon marcellae | 0.06 2 | 0.04 | |
| Total | 136.22 | 100.00 | |

PROJECT STATION:1155
 DATE:29/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 442
 start stop duration Long W 150
 TIME :08:49:33 09:19:48 30 (min) Purpose code: 3
 LOG : 722.34 723.92 1.56 Area code : 2
 FDEPTH: 47 47 GearCond.code:
 BDEPTH: 47 47 Validity code:
 Towing dir: 255° Wire out: 150 m Speed: 31 kn*10
 Sorted: Kg Total catch: 72.00 CATCH/HOUR: 144.00

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Sphyræna guanchancho | 51.70 90 | 35.90 | 4964 |
| Pagellus bellottii | 18.48 184 | 12.83 | 4961 |
| Selene dorsalis | 17.52 46 | 12.17 | 4963 |
| Epinephelus aeneus | 14.20 8 | 9.86 | |
| Pagrus caeruleostictus | 8.78 88 | 6.10 | 4962 |
| Lagocephalus laevigatus | 6.64 10 | 4.61 | |
| Chloroscombrus chrysurus | 4.84 44 | 3.36 | |
| Fistularia petimba | 4.80 22 | 3.33 | |
| Uraspis helvola | 3.40 2 | 2.36 | |
| Decapterus punctatus | 3.22 114 | 2.24 | 4960 |
| Aluterus monoceros | 2.42 2 | 1.68 | |
| Sepia officinalis hierredda | 1.90 2 | 1.32 | |
| Chaetodipterus goreensis | 1.60 2 | 1.11 | |
| Octopus vulgaris | 1.50 2 | 1.04 | |
| Dentex gibbosus | 0.92 2 | 0.64 | |
| Dactylopterus volitans | 0.86 4 | 0.60 | |
| Alloteuthis africana | 0.42 204 | 0.29 | |
| Dentex canariensis | 0.40 2 | 0.28 | |
| Brachydeuterus auritus | 0.30 14 | 0.21 | |
| Citharus linguatula | 0.10 4 | 0.07 | |
| Total | 144.00 | 100.00 | |

PROJECT STATION:1156
 DATE:29/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 447
 start stop duration Long W 150
 TIME :10:21:05 10:51:00 30 (min) Purpose code: 3
 LOG : 731.12 732.69 1.56 Area code : 2
 FDEPTH: 28 28 GearCond.code:
 BDEPTH: 28 28 Validity code:
 Towing dir: 250° Wire out: 140 m Speed: 31 kn*10
 Sorted: 13 Kg Total catch: 111.41 CATCH/HOUR: 222.82

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Brachydeuterus auritus | 50.40 4570 | 22.62 | 4969 |
| Ilisha africana | 26.10 2690 | 11.71 | |
| Selene dorsalis | 23.70 760 | 10.64 | 4967 |
| Pomadasy peroteti | 19.60 12 | 8.80 | |
| Pseudotolithus senegalensis | 18.00 84 | 8.08 | 4965 |
| J E L Y F I S H | 17.90 150 | 8.03 | |
| Chloroscombrus chrysurus | 15.90 1590 | 7.14 | 4966 |
| Galeoides decadactylus | 14.78 58 | 6.63 | |
| Trichurus lepturus | 11.02 162 | 4.95 | |
| Elops lacerta | 5.04 14 | 2.26 | |
| Ethmalosa fimbriata | 4.24 38 | 1.90 | |
| Lagocephalus laevigatus | 3.30 4 | 1.48 | |
| Sphyræna guanchancho | 2.48 12 | 1.11 | |
| Drepane africana | 1.86 12 | 0.83 | |
| Stromateus fiatola | 1.24 4 | 0.56 | |
| Sardinella maderensis | 1.14 80 | 0.51 | 4968 |
| Pteroscion peli | 1.10 200 | 0.49 | |
| Cynoponticus ferox | 1.10 4 | 0.49 | |
| Ephippion guttifer | 0.94 2 | 0.42 | |
| Sepia officinalis hierredda | 0.90 6 | 0.40 | |
| Raja miraletus | 0.72 4 | 0.32 | |
| Balistes capriscus | 0.56 2 | 0.25 | |
| Batrachoides liberiensis | 0.44 2 | 0.20 | |
| Pomadasy incisus | 0.30 2 | 0.13 | |
| Penaeus notialis | 0.06 6 | 0.03 | |
| Total | 222.82 | 99.98 | |

PROJECT STATION:1157
 DATE:29/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 440
 start stop duration Long W 207
 TIME :14:08:51 14:39:14 30 (min) Purpose code: 3
 LOG : 752.16 753.80 1.63 Area code : 2
 FDEPTH: 46 45 GearCond.code:
 BDEPTH: 46 45 Validity code:
 Towing dir: 296° Wire out: 150 m Speed: 30 kn*10
 Sorted: 24 Kg Total catch: 208.98 CATCH/HOUR: 417.96

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Brachydeuterus auritus | 226.50 17170 | 54.19 | 4971 |
| Selene dorsalis | 81.30 1064 | 19.45 | 4973 |
| Sphyræna guanchancho | 57.30 314 | 13.71 | 4972 |
| Galeoides decadactylus | 12.96 62 | 3.10 | 4970 |
| Pagellus bellottii | 11.62 46 | 2.78 | |
| Chloroscombrus chrysurus | 11.60 140 | 2.78 | |
| Ephippion guttifer | 7.32 2 | 1.75 | |
| Pomadasy jubelini | 1.80 2 | 0.43 | |
| Trichurus lepturus | 1.70 60 | 0.41 | |
| Sepia officinalis hierredda | 1.50 2 | 0.36 | |
| J E L Y F I S H | 1.40 30 | 0.33 | |
| Ilisha africana | 1.10 50 | 0.26 | |
| Stromateus fiatola | 0.64 2 | 0.15 | |
| Drepane africana | 0.52 2 | 0.12 | |
| Engraulis encrasicolus | 0.30 40 | 0.07 | |
| Blennius normani | 0.20 10 | 0.05 | |
| Sardinella maderensis | 0.20 10 | 0.05 | |
| Total | 417.96 | 99.99 | |

PROJECT STATION:1158
 DATE:29/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 446
 start stop duration Long W 209
 TIME :15:36:17 16:08:17 32 (min) Purpose code: 3
 LOG : 759.52 761.29 1.75 Area code : 2
 FDEPTH: 28 29 GearCond.code:
 BDEPTH: 28 29 Validity code:
 Towing dir: 286ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 34 Kg Total catch: 241.00 CATCH/HOUR: 451.88

PROJECT STATION:1160
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 440
 start stop duration Long W 228
 TIME :06:09:24 06:38:50 29 (min) Purpose code: 3
 LOG : 886.59 888.14 1.54 Area code : 2
 FDEPTH: 77 81 GearCond.code:
 BDEPTH: 77 81 Validity code:
 Towing dir: 110ø Wire out: 250 m Speed: 30 kn*10
 Sorted: Kg Total catch: 97.14 CATCH/HOUR: 200.98

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 98.03 | 9075 | 21.69 | 4974 |
| Chloroscombrus Juvenile | 61.95 | 7335 | 13.71 | |
| Sardinella maderensis - Juv. | 55.65 | 3810 | 12.32 | 4979 |
| Sphyraena guachancho | 48.00 | 163 | 10.62 | 4981 |
| Drepane africana | 44.72 | 94 | 10.56 | 4980 |
| Elops lacerta | 44.06 | 88 | 9.75 | |
| Chloroscombrus chrysurus | 17.06 | 105 | 3.78 | 4975 |
| Sphyraena-juveniles | 14.63 | 735 | 3.24 | |
| Galeoides decadactylus | 10.69 | 58 | 2.37 | 4982 |
| Ilisha africana | 10.58 | 893 | 2.34 | 4977 |
| Selene dorsalis | 6.28 | 26 | 1.39 | 4978 |
| Scomberomorus tritor | 5.78 | 188 | 1.28 | 4983 |
| Pseudotolithus typus | 5.72 | 11 | 1.27 | |
| J E L Y F I S H | 4.88 | 30 | 1.08 | |
| Selene dorsalis, juveniles | 4.80 | 908 | 1.06 | 4976 |
| Dasyatis margarita | 3.47 | 4 | 0.77 | |
| Ethmalosa fimbriata | 3.23 | 30 | 0.71 | |
| Cynoglossus senegalensis | 2.06 | 2 | 0.46 | |
| Sepia officinalis hierredda | 1.39 | 2 | 0.31 | |
| Raja miraletus | 1.31 | 2 | 0.29 | |
| Trichiurus lepturus | 0.99 | 4 | 0.22 | |
| Pteroscion peli | 0.83 | 30 | 0.18 | |
| Pomadasy rogeri | 0.60 | 8 | 0.13 | |
| Ephippion guttifer | 0.53 | 2 | 0.12 | |
| Caranx crysos | 0.49 | 2 | 0.11 | |
| Decapterus punctatus | 0.45 | 8 | 0.10 | |
| Trachinotus maxilloso | 0.34 | 2 | 0.08 | |
| Penaeus notialis | 0.17 | 2 | 0.04 | |
| Euclinostomus melanopterus | 0.15 | 8 | 0.03 | |
| Lagocephalus laevigatus | 0.08 | 8 | 0.02 | |
| Total | 451.92 | | 100.03 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus trecae | 42.00 | 112 | 20.90 | 4990 |
| Dentex gibbosus | 32.90 | 46 | 16.37 | |
| Dentex canariensis | 26.69 | 62 | 13.28 | 4989 |
| Fistularia petimba | 26.07 | 99 | 12.97 | |
| Pagellus bellottii | 21.52 | 366 | 10.71 | 4991 |
| Dentex congoensis | 18.93 | 544 | 9.42 | 4992 |
| Scomber japonicus | 9.06 | 147 | 4.51 | 4995 |
| Sphoeroides pachgaster | 5.61 | 29 | 2.79 | |
| Priacanthus arenatus | 3.97 | 149 | 1.98 | |
| Sardinella aurita | 3.17 | 68 | 1.58 | 4994 |
| Ommastrephes pteropus | 2.79 | 27 | 1.39 | |
| Pagrus caeruleostictus | 1.94 | 8 | 0.97 | |
| Dentex angolensis | 1.59 | 48 | 0.79 | 4993 |
| Sphyraena guachancho | 1.03 | 2 | 0.51 | |
| Decapterus punctatus | 0.99 | 31 | 0.49 | |
| Sphyraena sphyraena | 0.87 | 4 | 0.43 | |
| Chelidonichthys gabonensis | 0.74 | 17 | 0.37 | |
| Pseudupeneus prayensis | 0.56 | 8 | 0.28 | |
| Boops boops | 0.39 | 12 | 0.19 | |
| Lutjanus sp. | 0.14 | 25 | 0.07 | |
| Total | 200.96 | | 100.00 | |

PROJECT STATION:1159
 DATE:29/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 433
 start stop duration Long W 210
 TIME :17:52:13 18:21:43 30 (min) Purpose code: 3
 LOG : 776.42 777.97 1.55 Area code : 2
 FDEPTH: 85 87 GearCond.code:
 BDEPTH: 85 87 Validity code:
 Towing dir: 125ø Wire out: 250 m Speed: 30 kn*10
 Sorted: 30 Kg Total catch: 363.39 CATCH/HOUR: 726.78

PROJECT STATION:1161
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 449
 start stop duration Long W 223
 TIME :08:06:09 08:28:26 22 (min) Purpose code: 1
 LOG : 900.11 901.27 1.15 Area code : 2
 FDEPTH: 48 52 GearCond.code:
 BDEPTH: 48 52 Validity code:
 Towing dir: 200ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 30 Kg Total catch: 440.91 CATCH/HOUR: 1202.48

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus trecae | 203.00 | 3700 | 27.93 | 4987 |
| Boops boops | 187.00 | 5580 | 25.73 | 4985 |
| Sardinella aurita | 94.20 | 2540 | 12.96 | 4984 |
| Fistularia petimba | 66.20 | 194 | 9.11 | |
| Sphyraena guachancho | 33.00 | 140 | 4.54 | |
| Epinephelus aeneus | 30.40 | 2 | 4.18 | |
| Dentex congoensis | 22.80 | 760 | 3.14 | |
| Scomber japonicus | 18.60 | 240 | 2.56 | 4986 |
| Sepia officinalis hierredda | 17.00 | 20 | 2.34 | |
| Priacanthus arenatus | 15.40 | 1200 | 2.12 | |
| Dentex canariensis | 11.20 | 20 | 1.54 | |
| Pagellus bellottii | 10.20 | 200 | 1.40 | 4988 |
| Sphoeroides pachgaster | 7.00 | 40 | 0.96 | |
| Pseudupeneus prayensis | 4.00 | 20 | 0.55 | |
| Raja miraletus | 2.46 | 4 | 0.34 | |
| Zeus faber | 2.04 | 8 | 0.28 | |
| Branchiostegus semifasciatus | 0.98 | 2 | 0.13 | |
| Ommastrephes bartrami | 0.70 | 6 | 0.10 | |
| Chelidonichthys gabonensis | 0.60 | 20 | 0.08 | |
| Total | 726.78 | | 99.99 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 1040.45 | 25085 | 86.53 | 4996 |
| Pagellus bellottii | 27.11 | 344 | 2.25 | |
| Chloroscombrus chrysurus | 23.29 | 305 | 1.94 | |
| Selene dorsalis | 22.91 | 382 | 1.91 | |
| Sardinella maderensis | 17.18 | 229 | 1.43 | |
| Lagocephalus laevigatus | 11.56 | 41 | 0.96 | |
| Trachurus trecae | 11.45 | 382 | 0.95 | |
| Pagrus caeruleostictus | 6.87 | 153 | 0.57 | |
| Sardinella aurita | 6.87 | 191 | 0.57 | |
| Pseudupeneus prayensis | 6.49 | 38 | 0.54 | |
| Epinephelus aeneus | 6.27 | 5 | 0.52 | |
| Sphyraena guachancho | 6.25 | 27 | 0.52 | |
| Caranx crysos | 4.50 | 22 | 0.37 | |
| Sphyraena sphyraena | 3.11 | 16 | 0.26 | |
| Raja miraletus | 2.95 | 8 | 0.25 | |
| Octopus vulgaris | 2.02 | 3 | 0.17 | |
| Priacanthus arenatus | 1.64 | 218 | 0.14 | |
| Uraspis helvola | 0.79 | 3 | 0.07 | |
| Trichiurus lepturus | 0.76 | 5 | 0.06 | |
| Total | 1202.47 | | 100.01 | |

PROJECT STATION:1162
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 451
 start stop duration Long W 224
 TIME :09:16:37 09:46:39 30 (min) Purpose code: 3
 LOG : 906.19 907.79 1.61 Area code : 2
 FDEPTH: 39 38 GearCond.code:
 BDEPTH: 39 38 Validity code:
 Towing dir: 290° Wire out: 140 m Speed: 30 kn*10
 Sorted: 39 Kg Total catch: 338.06 CATCH/HOUR: 676.12

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Engraulis encrasicolus | 296.80 186176 | 43.90 | 4999 |
| Brachydeuterus auritus | 125.60 10320 | 18.58 | 4997 |
| Selene dorsalis | 66.08 752 | 9.77 | |
| Sphyraena guachancho | 47.04 176 | 6.96 | |
| Sphyraena juveniles | 34.24 2768 | 5.06 | 4998 |
| Galeoides decadactylus | 33.00 102 | 4.88 | |
| Sepia officinalis hierredda | 18.50 20 | 2.74 | |
| Chloroscombrus chrysurus | 14.40 256 | 2.13 | |
| Scomberomorus tritor | 9.84 30 | 1.46 | |
| Pseudolithus senegalensis | 7.20 14 | 1.06 | |
| Drepane africana | 4.66 22 | 0.69 | |
| Ilisha africana | 3.36 144 | 0.50 | |
| Elops lacerta | 3.32 6 | 0.49 | |
| Pomadasy peroteti | 2.28 8 | 0.34 | |
| Alectis alexandrinus | 1.96 2 | 0.29 | |
| J E L Y F I S H | 1.92 32 | 0.28 | |
| Trichiurus lepturus | 1.92 96 | 0.28 | |
| Pomadasy jubelini | 1.74 4 | 0.26 | |
| Caranx crysos | 1.14 8 | 0.17 | |
| Pagrus caeruleostictus | 1.12 16 | 0.17 | |
| Total | 676.12 | 100.01 | |

PROJECT STATION:1163
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 452
 start stop duration Long W 221
 TIME :10:52:13 11:12:18 20 (min) Purpose code: 3
 LOG : 915.25 916.25 1.00 Area code : 2
 FDEPTH: 28 27 GearCond.code:
 BDEPTH: 28 27 Validity code:
 Towing dir: 315° Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 43.82 CATCH/HOUR: 131.46

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|---------------------------|----------------|-------------|------|
| | weight numbers | | |
| Sphyraena guachancho | 37.80 1650 | 28.75 | 5000 |
| Brachydeuterus auritus | 22.80 1248 | 17.34 | 5002 |
| Chloroscombrus chrysurus | 16.53 1653 | 12.57 | |
| Sardinella maderensis | 13.50 912 | 10.27 | 5001 |
| Drepane africana | 12.15 69 | 9.24 | 5003 |
| Galeoides decadactylus | 8.67 60 | 6.60 | |
| Pseudolithus senegalensis | 4.80 9 | 3.65 | |
| Ilisha africana | 3.60 183 | 2.74 | |
| Selene dorsalis | 3.39 96 | 2.58 | |
| Elops lacerta | 3.03 9 | 2.30 | |
| Trichiurus lepturus | 1.80 9 | 1.37 | |
| Scomberomorus tritor | 1.50 48 | 1.14 | |
| Pomadasy peroteti | 1.20 3 | 0.91 | |
| Eucinostomus melanopterus | 0.33 6 | 0.25 | |
| Alectis alexandrinus | 0.27 3 | 0.21 | |
| Penaeus notialis | 0.09 3 | 0.07 | |
| Total | 131.46 | 99.99 | |

PROJECT STATION:1164
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 459
 start stop duration Long W 246
 TIME :14:02:26 14:32:07 30 (min) Purpose code: 3
 LOG : 943.04 944.57 1.52 Area code : 2
 FDEPTH: 26 26 GearCond.code:
 BDEPTH: 26 26 Validity code:
 Towing dir: 100° Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 77.31 CATCH/HOUR: 154.62

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Decapterus punctatus | 31.50 1396 | 20.37 | 5006 |
| Lethrinus atlanticus | 29.50 80 | 19.08 | |
| Lutjanus dentatus | 28.80 2 | 18.63 | |
| Chaetodipterus lippei | 16.20 38 | 10.48 | 5004 |
| Dentex canariensis | 8.76 68 | 5.67 | 5005 |
| Lutjanus fulgens | 7.02 18 | 4.54 | |
| Lagocephalus laevigatus | 6.58 12 | 4.26 | |
| Drepane africana | 4.96 16 | 3.21 | |
| Pagrus caeruleostictus | 4.36 16 | 2.82 | |
| Chaetodipterus goreensis | 3.96 12 | 2.56 | |
| Brachydeuterus auritus Juv. | 2.80 700 | 1.81 | 5007 |
| Alectis alexandrinus | 2.74 8 | 1.77 | |
| Ballistes punctatus | 2.38 4 | 1.54 | |
| Zanobatus shoeneleini | 1.36 2 | 0.88 | |
| Pseudupeneus prayensis | 1.24 6 | 0.80 | |
| Sardinella maderensis | 0.70 18 | 0.45 | |
| Pomadasy incisus | 0.56 2 | 0.36 | |
| Chloroscombrus chrysurus | 0.42 18 | 0.27 | |
| Sardinella aurita | 0.38 16 | 0.25 | |
| Spicara nigricauda | 0.32 4 | 0.21 | |
| Sepiella ornata | 0.08 16 | 0.05 | |
| Total | 154.62 | 100.01 | |

PROJECT STATION:1165
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 456
 start stop duration Long W 245
 TIME :15:19:15 15:49:08 30 (min) Purpose code: 3
 LOG : 948.60 950.21 1.59 Area code : 2
 FDEPTH: 40 40 GearCond.code:
 BDEPTH: 40 40 Validity code:
 Towing dir: 285° Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 122.06 CATCH/HOUR: 244.12

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|---------------------------|----------------|-------------|------|
| | weight numbers | | |
| Caranx crysos | 74.10 580 | 30.35 | 5008 |
| Chloroscombrus chrysurus | 71.90 692 | 29.45 | 5010 |
| Alectis alexandrinus | 31.50 28 | 12.90 | 5009 |
| Pagellus bellottii | 20.40 216 | 8.36 | 5012 |
| Selene dorsalis | 14.50 50 | 5.94 | 5011 |
| Sphyraena guachancho | 6.56 18 | 2.69 | |
| Lagocephalus laevigatus | 5.12 14 | 2.10 | |
| Fistularia petimba | 3.12 24 | 1.28 | |
| Decapterus punctatus | 2.78 118 | 1.14 | 5014 |
| Chaetodipterus lippei | 2.48 4 | 1.02 | |
| Decapterus rhonchus | 2.22 22 | 0.91 | 5013 |
| Balistes capricus | 1.76 24 | 0.72 | |
| Dentex canariensis | 1.46 22 | 0.60 | |
| Lutjanus fulgens | 1.38 2 | 0.57 | |
| Priacanthus arenatus | 0.96 6 | 0.39 | |
| Lethrinus atlanticus | 0.94 2 | 0.39 | |
| Selar crumenophthalmus | 0.76 22 | 0.31 | |
| Pagrus caeruleostictus | 0.58 10 | 0.24 | |
| Eucinostomus melanopterus | 0.52 10 | 0.21 | |
| Pseudupeneus prayensis | 0.50 10 | 0.20 | |
| Sardinella maderensis | 0.42 14 | 0.17 | |
| Sardinella aurita | 0.16 4 | 0.07 | |
| Total | 244.12 | 100.01 | |

PROJECT STATION:1166
 DATE:30/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 447
 start stop duration Long W 247
 TIME :16:52:48 17:21:32 29 (min) Purpose code: 3
 LOG : 957.00 958.44 1.43 Area code : 2
 FDEPTH: 61 61 GearCond.code:
 BDEPTH: 61 61 Validity code:
 Towing dir: 110° Wire out: 160 m Speed: 30 kn*10
 Sorted: Kg Total catch: 45.39 CATCH/HOUR: 93.91

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Pagellus bellottii | 59.28 904 | 63.12 | 5015 |
| Sphyraena guachancho | 7.49 19 | 7.98 | 5017 |
| Chloroscombrus chrysurus | 7.12 74 | 7.58 | 5018 |
| Priacanthus arenatus | 4.78 66 | 5.09 | 5019 |
| Mustelus mustelus | 3.77 2 | 4.01 | |
| Pseudupeneus prayensis | 3.12 33 | 3.32 | 5016 |
| Selene dorsalis | 1.86 14 | 1.98 | |
| Selar crumenophthalmus | 1.37 8 | 1.46 | |
| Dentex gibbosus | 1.16 8 | 1.24 | |
| Sardinella aurita | 0.58 6 | 0.62 | |
| Fistularia petimba | 0.58 8 | 0.62 | |
| Caranx crysos | 0.54 4 | 0.58 | |
| Dactylopterus volitans | 0.54 19 | 0.58 | |
| Pagrus caeruleostictus | 0.41 2 | 0.44 | |
| Pomadasy incisus | 0.35 2 | 0.37 | |
| Lagocephalus laevigatus | 0.25 2 | 0.27 | |
| Illex coindetii | 0.25 2 | 0.27 | |
| Sepia officinalis hierredda | 0.21 2 | 0.22 | |
| Brachydeuterus auritus | 0.19 6 | 0.20 | |
| Trachurus trecae | 0.08 2 | 0.09 | |
| Total | 93.93 | 100.04 | |

PROJECT STATION:1167
 DATE:30/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 450
 start stop duration Long W 256
 TIME :23:14:27 23:43:40 29 (min) Purpose code: 1
 LOG :1010.11 1012.25 2.13 Area code : 2
 FDEPTH: 30 15 GearCond.code:
 BDEPTH: 77 80 Validity code:
 Towing dir: 253° Wire out: 200 m Speed: 45 kn*10
 Sorted: 135 Kg Total catch: 135.44 CATCH/HOUR: 280.22

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|---------------------------|----------------|-------------|------|
| | weight numbers | | |
| Trichiurus lepturus | 98.48 265 | 35.14 | 5020 |
| Scomber japonicus | 61.45 701 | 21.93 | 5023 |
| Sardinella aurita | 55.45 861 | 19.79 | 5021 |
| Brachydeuterus auritus | 55.03 1055 | 19.64 | 5022 |
| Sphyraena sphyraena | 5.65 25 | 2.02 | 5024 |
| Auxis thazard | 1.53 6 | 0.55 | |
| Dactylopterus volitans | 0.72 54 | 0.26 | |
| Saurida brasiliensis | 0.68 176 | 0.24 | |
| Sardinella maderensis | 0.66 4 | 0.24 | |
| Selar crumenophthalmus | 0.46 2 | 0.16 | |
| Parexocoetus brachypterus | 0.10 4 | 0.04 | |
| Total | 280.21 | 100.01 | |

PROJECT STATION:1168
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 455
 start stop duration Long W 307
 TIME :05:59:53 06:29:44 30 (min) Purpose code: 3
 LOG :1032.37 1033.98 1.60 Area code : 2
 FDEPTH: 70 71 GearCond.code:
 BDEPTH: 70 71 Validity code:
 Towing dir: 280ø Wire out: 200 m Speed: 32 kn*10

Sorted: 34 Kg Total catch: 389.96 CATCH/HOUR: 779.92

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trachurus trecae | 341.00 | 5676 | 43.72 | 5025 |
| Priacanthus arenatus | 127.16 | 8866 | 16.30 | |
| Sardinella aurita | 99.88 | 1056 | 12.81 | 5027 |
| Sphyraena sphyraena | 61.82 | 308 | 7.93 | 5028 |
| Boops boops | 34.54 | 704 | 4.43 | 5026 |
| J E L Y F I S H | 15.80 | 44 | 2.03 | |
| Decapterus punctatus | 15.62 | 22 | 2.00 | |
| Fistularia petimba | 15.40 | 50 | 1.97 | |
| Scomber japonicus | 10.78 | 132 | 1.38 | |
| Pagellus bellottii | 8.80 | 154 | 1.13 | |
| Selar crumenophthalmus | 8.58 | 44 | 1.10 | |
| Chloroscombrus chrysurus | 7.70 | 88 | 0.99 | |
| Sphoeroides pachgaster | 7.26 | 22 | 0.93 | |
| Ommastrephes pteropus | 6.16 | 66 | 0.79 | |
| Sepia officinalis hierredda | 4.80 | 10 | 0.62 | |
| Dactylopterus volitans | 3.30 | 176 | 0.42 | |
| Pseudupeneus prayensis | 3.08 | 44 | 0.39 | |
| Dentex canariensis | 2.42 | 22 | 0.31 | |
| Dentex angolensis | 2.42 | 88 | 0.31 | |
| Chelidonichthys gabonensis | 1.76 | 22 | 0.23 | |
| Raja miraletus | 0.82 | 2 | 0.11 | |
| Zeus faber | 0.78 | 2 | 0.10 | |
| Total | | 779.88 | 100.00 | |

PROJECT STATION:1169
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 501
 start stop duration Long W 307
 TIME :07:47:54 08:17:49 30 (min) Purpose code: 3
 LOG :1040.80 1042.39 1.58 Area code : 2
 FDEPTH: 44 43 GearCond.code:
 BDEPTH: 44 43 Validity code:
 Towing dir: 100ø Wire out: 145 m Speed: 30 kn*10

Sorted: Kg Total catch: 42.69 CATCH/HOUR: 85.38

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 19.64 | 338 | 23.00 | 5034 |
| Chloroscombrus chrysurus | 13.14 | 152 | 15.39 | 5032 |
| Selar crumenophthalmus | 11.82 | 142 | 13.84 | |
| Decapterus punctatus | 10.72 | 186 | 12.56 | 5033 |
| Lagocephalus laevigatus | 5.00 | 20 | 5.86 | |
| Selene dorsalis | 4.16 | 16 | 4.87 | |
| Decapterus rhonchus | 3.88 | 40 | 4.54 | 5029 |
| Sardinella aurita | 3.74 | 102 | 4.38 | 5035 |
| Caranx crysos | 3.30 | 22 | 3.87 | 5031 |
| Brachydeuterus auritus | 1.82 | 26 | 2.13 | |
| Pomadasyus peroteti | 1.18 | 4 | 1.38 | |
| Fistularia petimba | 1.16 | 4 | 1.36 | |
| Trachurus trecae | 1.00 | 14 | 1.17 | |
| Sphyraena sphyraena | 0.78 | 4 | 0.91 | |
| Pagrus caeruleostictus | 0.72 | 22 | 0.84 | |
| Dentex canariensis | 0.66 | 8 | 0.77 | |
| Raja miraletus | 0.64 | 2 | 0.75 | |
| Pomadasyus jubelini | 0.54 | 2 | 0.63 | |
| Balistes capriscus | 0.50 | 4 | 0.59 | |
| Pseudupeneus prayensis | 0.36 | 4 | 0.42 | |
| J E L Y F I S H | 0.34 | 12 | 0.40 | |
| Sepia officinalis hierredda | 0.18 | 38 | 0.21 | |
| Priacanthus arenatus | 0.10 | 2 | 0.12 | |
| Total | | 85.38 | 99.99 | |

PROJECT STATION:1170
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 503
 start stop duration Long W 304
 TIME :09:02:59 09:33:00 30 (min) Purpose code: 3
 LOG :1046.35 1047.89 1.53 Area code : 2
 FDEPTH: 26 24 GearCond.code:
 BDEPTH: 26 24 Validity code:
 Towing dir: 280ø Wire out: 140 m Speed: 30 kn*10

Sorted: 9 Kg Total catch: 78.21 CATCH/HOUR: 156.42

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 52.50 | 10980 | 33.56 | 5030 |
| Drepane africana | 42.80 | 138 | 27.36 | 5037 |
| Sardinella maderensis | 31.50 | 2020 | 20.14 | 5036 |
| Alectis alexandrinus | 8.04 | 22 | 5.14 | |
| Chloroscombrus chrysurus | 7.80 | 70 | 4.99 | |
| Sphyraena sphyraena | 3.80 | 260 | 2.43 | |
| Sepia officinalis hierredda | 3.62 | 8 | 2.31 | |
| Galeoides decadactylus | 2.10 | 10 | 1.34 | |
| Pagrus caeruleostictus | 1.78 | 4 | 1.14 | |
| Decapterus punctatus | 1.20 | 70 | 0.77 | |
| Elops lacerta | 0.88 | 2 | 0.56 | |
| Eucinostomus melanopterus | 0.40 | 10 | 0.26 | |
| Total | | 156.42 | 100.00 | |

PROJECT STATION:1171
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 507
 start stop duration Long W 324
 TIME :11:38:34 12:09:15 31 (min) Purpose code: 3
 LOG :1066.31 1067.92 1.59 Area code : 1
 FDEPTH: 25 23 GearCond.code:
 BDEPTH: 25 23 Validity code:
 Towing dir: 280ø Wire out: 140 m Speed: 30 kn*10

Sorted: 29 Kg Total catch: 206.95 CATCH/HOUR: 400.55

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 121.94 | 14013 | 30.44 | 5038 |
| Sardinella maderensis | 65.81 | 465 | 16.43 | |
| Chloroscombrus chrysurus | 50.32 | 1694 | 12.56 | |
| Caranx crysos | 23.13 | 126 | 5.77 | |
| Elops lacerta | 23.07 | 46 | 5.76 | |
| Sphyraena-juveniles | 22.35 | 1606 | 5.58 | |
| Scomberomorus tritor | 19.55 | 126 | 4.88 | 5039 |
| Selene dorsalis | 16.74 | 155 | 4.18 | 5040 |
| Drepane africana | 12.15 | 41 | 3.03 | |
| Sphyraena afra | 11.23 | 2 | 2.80 | |
| Pteroscion pelli | 6.19 | 184 | 1.55 | |
| Pagrus caeruleostictus | 5.42 | 19 | 1.35 | |
| Chaetodipterus lippei | 4.39 | 10 | 1.10 | |
| Sphyraena sphyraena | 3.68 | 12 | 0.92 | |
| Alectis alexandrinus | 3.19 | 10 | 0.80 | |
| Galeoides decadactylus | 2.50 | 19 | 0.62 | |
| Trachinocephalus myops | 1.94 | 19 | 0.48 | |
| Caranx senegallus | 1.65 | 10 | 0.41 | |
| Dentex canariensis | 1.30 | 8 | 0.32 | |
| Sepia officinalis hierredda | 1.01 | 2 | 0.25 | |
| Pseudupeneus prayensis | 0.97 | 10 | 0.24 | |
| Ilisha africana | 0.68 | 29 | 0.17 | |
| Pagellus bellottii | 0.58 | 10 | 0.14 | |
| Pomadasyus jubelini | 0.54 | 2 | 0.13 | |
| Cynoglossus senegalensis | 0.23 | 2 | 0.06 | |
| Total | | 400.56 | 99.97 | |

PROJECT STATION:1172
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 505
 start stop duration Long W 325
 TIME :13:55:17 14:21:28 26 (min) Purpose code: 3
 LOG :1072.95 1074.32 1.36 Area code : 1
 FDEPTH: 41 40 GearCond.code:
 BDEPTH: 41 40 Validity code:
 Towing dir: 280ø Wire out: 150 m Speed: 30 kn*10

Sorted: 36 Kg Total catch: 36.36 CATCH/HOUR: 83.91

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 34.78 | 258 | 41.45 | 5041 |
| Selene dorsalis | 16.66 | 51 | 19.85 | 5044 |
| Pagrus caeruleostictus | 12.55 | 39 | 14.96 | 5043 |
| Dentex canariensis | 5.40 | 28 | 6.44 | 5042 |
| Sepia officinalis hierredda | 3.39 | 5 | 4.04 | |
| Aluterus heudelotii | 1.92 | 5 | 2.29 | |
| Sphyraena guachancho | 1.85 | 2 | 2.20 | |
| Balistes capriscus | 1.34 | 12 | 1.60 | |
| Eucinostomus melanopterus | 1.08 | 28 | 1.29 | |
| Epinephelus aeneus | 0.92 | 2 | 1.10 | |
| Elops lacerta | 0.83 | 2 | 0.99 | |
| Alloteuthis africana | 0.74 | 270 | 0.88 | |
| Chloroscombrus chrysurus | 0.74 | 18 | 0.88 | |
| Pseudupeneus prayensis | 0.62 | 9 | 0.74 | |
| Dactylopterus volitans | 0.53 | 2 | 0.63 | |
| Scomberomorus tritor | 0.30 | 2 | 0.36 | |
| Galeoides decadactylus | 0.25 | 5 | 0.30 | |
| Total | | 83.90 | 100.00 | |

PROJECT STATION:1173
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 500
 start stop duration Long W 325
 TIME :15:26:51 15:56:48 30 (min) Purpose code: 3
 LOG :1081.13 1082.66 1.49 Area code : 1
 FDEPTH: 71 71 GearCond.code:
 BDEPTH: 71 71 Validity code:
 Towing dir: 110ø Wire out: 190 m Speed: 30 kn*10

Sorted: 62 Kg Total catch: 553.09 CATCH/HOUR: 1106.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 470.06 | 12598 | 42.49 | 5046 |
| Chloroscombrus chrysurus | 259.24 | 3994 | 23.44 | 5045 |
| Trachurus trecae | 214.20 | 4896 | 19.36 | 5047 |
| Trichiurus lepturus | 48.46 | 460 | 4.38 | 5049 |
| Boops boops | 28.56 | 1122 | 2.58 | 5048 |
| Pagellus bellottii | 12.22 | 120 | 1.10 | 5052 |
| Dentex canariensis | 11.90 | 16 | 1.08 | 5053 |
| Sardinella aurita | 11.06 | 476 | 1.00 | 5050 |
| Selene dorsalis | 9.52 | 170 | 0.86 | |
| Dentex angolensis | 7.40 | 48 | 0.67 | 5051 |
| Priacanthus arenatus | 5.10 | 120 | 0.46 | |
| Caranx crysos | 4.26 | 52 | 0.39 | |
| Sphyraena guachancho | 3.86 | 8 | 0.35 | |
| Sardinella maderensis | 3.24 | 68 | 0.29 | |
| Anthias anthias | 3.06 | 204 | 0.28 | |
| Scorpaena scrofa | 2.90 | 18 | 0.26 | |
| Umbra canariensis | 2.56 | 34 | 0.23 | |
| Selar crumenophthalmus | 2.04 | 18 | 0.18 | |
| Scomber japonicus | 1.54 | 18 | 0.14 | |
| Fistularia petimba | 1.50 | 10 | 0.14 | |
| Raja miraletus | 1.46 | 4 | 0.13 | |
| Sphyraena sphyraena | 1.00 | 6 | 0.09 | |
| Pseudupeneus prayensis | 0.70 | 6 | 0.06 | |
| Dentex gibbosus | 0.34 | 2 | 0.03 | |
| Total | | 1106.18 | 99.99 | |

PROJECT STATION:1174
 DATE:31/ 5/06 GEAR TYPE: BT No:19 POSITION:Lat N 458
 start stop duration Long W 326
 TIME :16:56:39 17:26:33 30 (min) Purpose code: 3
 LOG :1087.08 1088.80 1.71 Area code : 1
 FDEPTH: 83 84 GearCond.code:
 BDEPTH: 83 84 Validity code:
 Towing dir: 278ø Wire out: 220 m Speed: 30 kn*10
 Sorted: Kg Total catch: 65.23 CATCH/HOUR: 130.46

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Boops boops | 33.40 | 596 | 25.60 | 5059 |
| Epinephelus aeneus | 29.70 | 2 | 22.77 | |
| Illex coindetii | 16.28 | 166 | 12.48 | |
| Dentex angolensis | 15.90 | 32 | 12.19 | 5054 |
| Scomberomorus tritor | 10.58 | 132 | 8.11 | 5058 |
| Trachurus trecae | 6.62 | 144 | 5.07 | 5055 |
| Sardinella aurita | 4.78 | 104 | 3.66 | 5057 |
| Sphyaera sphyraena | 2.50 | 10 | 1.92 | |
| Dentex canariensis | 2.42 | 6 | 1.85 | |
| Fistularia petimba | 2.04 | 16 | 1.56 | |
| Dentex congolensis | 1.96 | 50 | 1.50 | 5056 |
| Selar crumenophthalmus | 1.18 | 4 | 0.90 | |
| Chloroscombrus chrysurus | 1.10 | 16 | 0.84 | |
| Raja miraletus | 1.00 | 2 | 0.77 | |
| Pseudupeneus prayensis | 0.40 | 4 | 0.31 | |
| Alloteuthis africana | 0.36 | 194 | 0.28 | |
| Lepidotrigla cadmani | 0.24 | 2 | 0.18 | |
| Total | 130.46 | | 99.99 | |

PROJECT STATION:1175
 DATE:31/ 5/06 GEAR TYPE: PT No: 2 POSITION:Lat N 451
 start stop duration Long W 326
 TIME :19:25:57 20:26:00 60 (min) Purpose code: 1
 LOG :1100.12 1103.89 3.76 Area code : 1
 FDEPTH: 25 15 GearCond.code:
 BDEPTH: 611 111 Validity code:
 Towing dir: 61ø Wire out: 200 m Speed:390 kn*10
 Sorted: Kg Total catch: 30.05 CATCH/HOUR: 30.05

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Trichiurus lepturus | 12.45 | 42 | 41.43 | 5060 |
| Cubiceps sp. | 8.56 | 285 | 28.49 | |
| Ommastrephes bartrami | 3.24 | 31 | 10.78 | |
| Ariomma bondi | 3.22 | 51 | 10.72 | 5061 |
| NOMEIDAE | 1.79 | 1040 | 5.96 | |
| Gempylus serpens | 0.79 | 10 | 2.63 | |
| Total | 30.05 | | 100.01 | |

PROJECT STATION:1176
 DATE: 1/ 6/06 GEAR TYPE: PT No: 5 POSITION:Lat N 500
 start stop duration Long W 340
 TIME :01:12:55 01:45:43 33 (min) Purpose code: 1
 LOG :1145.07 1147.05 2.25 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 98 115 Validity code:
 Towing dir: 210ø Wire out: 110 m Speed: 30 kn*10
 Sorted: 4 Kg Total catch: 4.21 CATCH/HOUR: 7.65

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Ariomma bondi | 7.47 | 164 | 97.65 | 5062 |
| Selar crumenophthalmus | 0.18 | 2 | 2.35 | |
| Total | 7.65 | | 100.00 | |

PROJECT STATION:1177
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 501
 start stop duration Long W 342
 TIME :06:01:12 06:31:05 30 (min) Purpose code: 3
 LOG :1157.94 1159.45 1.51 Area code : 1
 FDEPTH: 88 89 GearCond.code:
 BDEPTH: 88 89 Validity code:
 Towing dir: 285ø Wire out: 220 m Speed: 30 kn*10
 Sorted: 34 Kg Total catch: 246.03 CATCH/HOUR: 492.06

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Boops boops | 221.90 | 7952 | 45.10 | 5063 |
| Ommastrephes bartrami | 122.92 | 1484 | 24.98 | |
| Trachurus trecae | 76.30 | 3542 | 15.51 | 5064 |
| Ariomma bondi | 23.52 | 434 | 4.78 | 5065 |
| Dentex angolensis | 17.78 | 224 | 3.61 | 5066 |
| Zeus faber | 9.20 | 18 | 1.87 | |
| Priacanthus arenatus | 8.82 | 350 | 1.79 | |
| Pentheroscion mbizi | 3.22 | 28 | 0.65 | |
| Sepia officinalis hierredda | 3.20 | 4 | 0.65 | |
| Sphyaera guachancho | 2.80 | 14 | 0.57 | |
| Raja miraletus | 1.26 | 2 | 0.26 | |
| Fistularia petimba | 0.72 | 4 | 0.15 | |
| Pagellus bellottii | 0.42 | 14 | 0.09 | |
| Total | 492.06 | | 100.01 | |

PROJECT STATION:1178
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 506
 start stop duration Long W 344
 TIME :07:26:43 07:56:37 30 (min) Purpose code: 3
 LOG :1165.41 1166.96 1.55 Area code : 1
 FDEPTH: 45 46 GearCond.code:
 BDEPTH: 45 46 Validity code:
 Towing dir: 100ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 31 Kg Total catch: 148.69 CATCH/HOUR: 297.38

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chloroscombrus chrysurus | 75.20 | 984 | 25.29 | 5067 |
| Pagellus bellottii | 65.52 | 808 | 22.03 | 5068 |
| Sardinella aurita | 50.72 | 496 | 17.06 | 5069 |
| Alectis alexandrinus | 37.30 | 20 | 12.54 | |
| Pseudupeneus prayensis | 22.48 | 392 | 7.56 | |
| Ommastrephes pteropus | 11.20 | 128 | 3.77 | |
| Pomadasy jubelini | 8.80 | 12 | 2.96 | |
| Decapterus punctatus | 5.44 | 248 | 1.83 | 5070 |
| Selene dorsalis | 4.32 | 64 | 1.45 | |
| Pagrus caeruleostictus | 3.44 | 16 | 1.16 | |
| Selar crumenophthalmus | 3.20 | 24 | 1.08 | |
| Aluterus monoceros | 2.78 | 2 | 0.93 | |
| Balistes caprisicus | 1.78 | 12 | 0.60 | |
| Dactylopterus volitans | 1.44 | 8 | 0.48 | |
| Fistularia petimba | 1.04 | 16 | 0.35 | |
| Ariomma bondi | 0.72 | 8 | 0.24 | |
| J E L Y F I S H | 0.56 | 8 | 0.19 | |
| Decapterus rhonchus | 0.56 | 8 | 0.19 | |
| Chaetodon marcellae | 0.56 | 8 | 0.19 | |
| Brachydeuterus auritus | 0.32 | 8 | 0.11 | |
| Total | 297.38 | | 100.01 | |

PROJECT STATION:1179
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 509
 start stop duration Long W 341
 TIME :08:47:03 09:17:03 30 (min) Purpose code: 3
 LOG :1171.93 1173.51 1.56 Area code : 1
 FDEPTH: 26 26 GearCond.code:
 BDEPTH: 26 26 Validity code:
 Towing dir: 280ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 23 Kg Total catch: 100.90 CATCH/HOUR: 201.80

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 85.00 | 7776 | 42.12 | 5072 |
| Alectis alexandrinus | 74.14 | 166 | 36.74 | 5071 |
| J E L Y F I S H | 16.12 | 24 | 7.99 | |
| Scomberomorus tritor | 6.52 | 72 | 3.23 | |
| Selene dorsalis | 4.92 | 32 | 2.44 | |
| Drepane africana | 4.60 | 16 | 2.28 | |
| Pomadasy peroteti | 2.14 | 2 | 1.06 | |
| Epinephelus aeneus | 1.90 | 2 | 0.94 | |
| Sphyaera guachancho | 1.56 | 4 | 0.77 | |
| Euclinostomus melanopterus | 1.04 | 24 | 0.52 | |
| Sardinella aurita | 0.92 | 12 | 0.46 | |
| Caranx senegalensis | 0.84 | 2 | 0.42 | |
| Batrachoides liberiensis | 0.46 | 2 | 0.23 | |
| Chloroscombrus chrysurus | 0.44 | 8 | 0.22 | |
| Pseudupeneus prayensis | 0.40 | 6 | 0.20 | |
| Sepia officinalis hierredda | 0.34 | 2 | 0.17 | |
| Pagrus caeruleostictus | 0.26 | 2 | 0.13 | |
| Sardinella maderensis | 0.16 | 12 | 0.08 | |
| Penaeus notialis | 0.04 | 2 | 0.02 | |
| Total | 201.80 | | 100.02 | |

PROJECT STATION:1180
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 512
 start stop duration Long W 412
 TIME :12:42:23 13:12:26 30 (min) Purpose code: 3
 LOG :1203.13 1204.69 1.54 Area code : 1
 FDEPTH: 33 33 GearCond.code:
 BDEPTH: 33 33 Validity code:
 Towing dir: 260ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 86.96 CATCH/HOUR: 173.92

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Pseudupeneus prayensis | 37.50 382 | 21.56 | 5073 |
| Balistes capriscus | 26.40 72 | 15.18 | |
| Decapterus punctatus | 25.30 538 | 14.55 | 5074 |
| Sardinella aurita | 22.50 676 | 12.94 | 5076 |
| Pagellus bellottii | 20.40 184 | 11.73 | 5075 |
| Lutjanus fulgens | 10.48 382 | 6.03 | 5079 |
| Pomadasys incisus | 6.42 38 | 3.69 | |
| Dentex gibbosus | 5.02 38 | 2.89 | 5077 |
| Epinephelus aeneus | 4.56 12 | 2.62 | |
| Dactylopterus volitans | 3.14 12 | 1.81 | |
| Caranx crysos | 3.10 16 | 1.78 | |
| Priacanthus arenatus | 2.92 32 | 1.68 | 5078 |
| Sepia officinalis hierredda | 2.32 2 | 1.33 | |
| Trachinocephalus myops | 2.08 12 | 1.20 | |
| Brachydeuterus auritus | 0.62 24 | 0.36 | 5080 |
| Lagocephalus laevigatus | 0.58 2 | 0.33 | |
| Xyrichtys novacula | 0.30 4 | 0.17 | |
| Decapterus rhonchus | 0.28 2 | 0.16 | |
| Total | 173.92 | 100.01 | |

PROJECT STATION:1181
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 511
 start stop duration Long W 410
 TIME :14:03:58 14:33:04 29 (min) Purpose code: 3
 LOG :1209.27 1210.75 1.49 Area code : 1
 FDEPTH: 57 57 GearCond.code:
 BDEPTH: 57 57 Validity code:
 Towing dir: 73ø Wire out: 165 m Speed: 30 kn*10
 Sorted: 61 Kg Total catch: 618.10 CATCH/HOUR: 1278.83

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Pagellus bellottii | 821.38 13241 | 64.23 | 5081 |
| Sardinella aurita | 114.00 4241 | 8.91 | 5082 |
| Dentex canariensis | 84.83 310 | 6.63 | 5084 |
| Boops boops | 56.90 2048 | 4.45 | 5086 |
| Pomadasys incisus | 50.28 683 | 3.93 | 5087 |
| Pagrus caeruleostictus | 48.41 228 | 3.79 | 5085 |
| Pseudupeneus prayensis | 35.38 497 | 2.77 | 5083 |
| Umbrina canariensis | 21.72 186 | 1.70 | |
| Balistes capriscus | 15.10 21 | 1.18 | |
| Epinephelus aeneus | 8.28 4 | 0.65 | |
| Priacanthus arenatus | 4.14 41 | 0.32 | |
| Sepia officinalis hierredda | 3.97 4 | 0.31 | |
| Illex coindetii | 2.90 41 | 0.23 | |
| Sardinella maderensis | 2.90 21 | 0.23 | |
| Decapterus punctatus | 2.69 166 | 0.21 | |
| Sphyræna sphyraena | 2.48 21 | 0.19 | |
| Caranx crysos | 2.07 21 | 0.16 | |
| Chaetodon robustus | 1.45 21 | 0.11 | |
| Total | 1278.88 | 100.00 | |

PROJECT STATION:1182
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 509
 start stop duration Long W 407
 TIME :15:35:55 16:05:43 30 (min) Purpose code: 3
 LOG :1213.78 1215.36 1.57 Area code : 1
 FDEPTH: 81 95 GearCond.code:
 BDEPTH: 81 95 Validity code:
 Towing dir: 117ø Wire out: 240 m Speed: 30 kn*10
 Sorted: Kg Total catch: 43.81 CATCH/HOUR: 87.62

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|--------------------------|----------------|-------------|------|
| | weight numbers | | |
| Illex coindetii | 31.40 50 | 35.84 | |
| Dentex canariensis | 13.70 26 | 15.64 | 5095 |
| Raja miraletus | 6.56 12 | 7.49 | |
| Dentex angolensis | 5.44 44 | 6.21 | 5094 |
| Squatina oculata | 4.84 4 | 5.52 | |
| Umbrina canariensis | 4.38 20 | 5.00 | 5090 |
| J E L Y F I S H | 2.98 2 | 3.40 | |
| Trichiurus lepturus | 2.82 76 | 3.22 | 5092 |
| Sphyræna sphyraena | 2.70 18 | 3.08 | |
| Torpedo sp. | 2.34 2 | 2.67 | |
| Sardinella aurita | 2.34 70 | 2.67 | 5091 |
| Ariomma bondi | 1.58 26 | 1.80 | 5088 |
| Boops boops | 1.34 52 | 1.53 | 5089 |
| Parapenaeopsis atlantica | 1.22 96 | 1.39 | |
| Priacanthus arenatus | 0.82 56 | 0.94 | 5093 |
| Alloteuthis africana | 0.70 330 | 0.80 | |
| Saurida brasiliensis | 0.52 70 | 0.59 | |
| Pagellus bellottii | 0.46 4 | 0.52 | |
| Fistularia petimba | 0.42 2 | 0.48 | |
| Syacium micrurum | 0.36 10 | 0.41 | |
| Engraulis encrasicolus | 0.22 20 | 0.25 | |
| Trigla lyra | 0.22 2 | 0.25 | |
| Uranoscopus albesca | 0.18 2 | 0.21 | |
| Decapterus punctatus | 0.08 2 | 0.09 | |
| Total | 87.62 | 100.00 | |

PROJECT STATION:1183
 DATE: 1/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 512
 start stop duration Long W 412
 TIME :17:14:39 17:44:45 30 (min) Purpose code: 3
 LOG :1223.33 1224.97 1.63 Area code : 1
 FDEPTH: 24 24 GearCond.code:
 BDEPTH: 24 24 Validity code:
 Towing dir: 257ø Wire out: 145 m Speed: 30 kn*10
 Sorted: 24 Kg Total catch: 148.46 CATCH/HOUR: 296.92

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-------------------------|----------------|-------------|------|
| | weight numbers | | |
| Pseudupeneus prayensis | 89.04 792 | 29.99 | |
| Decapterus punctatus | 53.22 1200 | 17.92 | 5098 |
| Lagocephalus laevigatus | 31.08 120 | 10.47 | |
| Pagellus bellottii | 16.68 180 | 5.62 | 5099 |
| Scomberomorus tritor | 15.96 12 | 5.38 | |
| Pagrus caeruleostictus | 13.08 132 | 4.41 | |
| Brachydeuterus auritus | 12.60 192 | 4.24 | 5096 |
| Balistes capriscus | 11.04 72 | 3.72 | |
| Decapterus rhonchus | 10.44 96 | 3.52 | |
| Caranx crysos | 10.20 48 | 3.44 | |
| Ommastrephes pteropus | 7.80 84 | 2.63 | |
| Trachurus trecae | 6.84 120 | 2.30 | 5097 |
| Selar crumenophthalmus | 5.76 48 | 1.94 | |
| Sardinella aurita | 5.16 84 | 1.74 | |
| Dactylopterus volitans | 5.04 12 | 1.70 | |
| Rachycentron canadum | 1.78 2 | 0.60 | |
| Xyrichtys novacula | 1.20 12 | 0.40 | |
| Total | 296.92 | 100.02 | |

PROJECT STATION:1184
 DATE: 2/ 6/06 GEAR TYPE: PT No: 7 POSITION:Lat N 506
 start stop duration Long W 435
 TIME :01:35:34 02:05:09 30 (min) Purpose code: 1
 LOG :1282.54 1284.19 1.64 Area code : 1
 FDEPTH: 0 0 GearCond.code:
 BDEPTH: 56 59 Validity code:
 Towing dir: 247ø Wire out: 110 m Speed: 30 kn*10
 Sorted: 8 Kg Total catch: 8.13 CATCH/HOUR: 16.26

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|-----------------------|----------------|-------------|------|
| | weight numbers | | |
| Sardinella maderensis | 13.80 306 | 84.87 | 5100 |
| Trichiurus lepturus | 1.20 20 | 7.38 | 5101 |
| Trachinotus ovatus | 0.44 4 | 2.71 | |
| Sardinella aurita | 0.40 8 | 2.46 | |
| Sphyræna sphyraena | 0.30 6 | 1.85 | |
| Priacanthus arenatus | 0.12 2 | 0.74 | |
| Total | 16.26 | 100.01 | |

PROJECT STATION:1185
 DATE: 2/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 504
 start stop duration Long W 422
 TIME :06:02:08 06:32:05 30 (min) Purpose code: 3
 LOG :1303.62 1305.14 1.52 Area code : 1
 FDEPTH: 86 84 GearCond.code:
 BDEPTH: 86 84 Validity code:
 Towing dir: 80ø Wire out: 225 m Speed: 30 kn*10
 Sorted: Kg Total catch: 44.17 CATCH/HOUR: 88.34

| SPECIES | CATCH/HOUR | % OF TOT. C | SAMP |
|----------------------------|----------------|-------------|------|
| | weight numbers | | |
| Ommastrephes pteropus | 23.80 236 | 26.94 | |
| Dentex angolensis | 18.40 144 | 20.83 | 5103 |
| Mustelus mustelus | 15.00 4 | 16.98 | |
| Dentex congoensis | 13.02 128 | 14.74 | 5102 |
| Sphoeroides pachgaster | 4.26 32 | 4.82 | |
| Trachurus trecae | 3.78 74 | 4.28 | 5104 |
| Octopus vulgaris | 2.30 2 | 2.60 | |
| Sardinella maderensis | 1.88 52 | 2.13 | 5105 |
| Scorpaena scrofa | 1.62 2 | 1.83 | |
| Fistularia petimba | 1.48 4 | 1.68 | |
| Sphyræna sphyraena | 0.74 2 | 0.84 | |
| Pagellus bellottii | 0.54 10 | 0.61 | |
| Dentex canariensis | 0.54 2 | 0.61 | |
| Umbrina canariensis | 0.42 2 | 0.48 | |
| Ariomma bondi | 0.24 4 | 0.27 | |
| Chelidonichthys gabonensis | 0.22 2 | 0.25 | |
| Anthias anthias | 0.06 4 | 0.07 | |
| Citharus linguatula | 0.04 2 | 0.05 | |
| Total | 88.34 | 100.01 | |

PROJECT STATION:1186
 DATE: 2/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 508
 start stop duration Long W 422
 TIME :07:28:07 07:58:00 30 (min) Purpose code: 3
 LOG :1310.38 1312.07 1.68 Area code : 1
 FDEPTH: 60 59 GearCond.code:
 BDEPTH: 60 59 Validity code:
 Towing dir: 260ø Wire out: 200 m Speed: 30 kn*10
 Sorted: 34 Kg Total catch: 245.85 CATCH/HOUR: 491.70

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Priacanthus arenatus | 168.00 | 4298 | 34.17 | |
| Illex coindetii | 102.48 | 1134 | 20.84 | |
| Pagellus bellottii | 87.78 | 2310 | 17.85 | 5107 |
| Sardinella aurita | 51.66 | 658 | 10.51 | 5106 |
| Caranx crysos | 33.04 | 280 | 6.72 | |
| Brachydeuterus auritus | 14.00 | 210 | 2.85 | |
| Selar crumenophthalmus | 8.40 | 154 | 1.71 | |
| Alectis alexandrinus | 8.30 | 2 | 1.69 | |
| J E L L Y F I S H | 4.48 | 112 | 0.91 | |
| Pseudupeneus prayensis | 3.50 | 112 | 0.71 | |
| Chloroscombrus chrysurus | 3.08 | 56 | 0.63 | |
| Ballistes capriscus | 2.32 | 4 | 0.47 | |
| Pagrus caeruleostictus | 1.40 | 14 | 0.28 | |
| Raja miraletus | 1.12 | 2 | 0.23 | |
| Lagocephalus laevigatus | 0.74 | 2 | 0.15 | |
| Trichiurus lepturus | 0.70 | 14 | 0.14 | |
| Dentex gibbosus | 0.70 | 14 | 0.14 | |
| Total | 491.70 | | 100.00 | |

PROJECT STATION:1187
 DATE: 2/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 511
 start stop duration Long W 422
 TIME :08:47:57 09:17:42 30 (min) Purpose code: 3
 LOG :1317.01 1318.59 1.59 Area code : 1
 FDEPTH: 25 25 GearCond.code:
 BDEPTH: 25 25 Validity code:
 Towing dir: 260ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 20.51 CATCH/HOUR: 41.02

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Decapterus punctatus | 10.84 | 210 | 26.43 | 5111 |
| Illex coindetii | 6.74 | 80 | 16.43 | |
| Caranx crysos | 6.44 | 30 | 15.70 | |
| Brachydeuterus auritus | 6.18 | 404 | 15.07 | 5108 |
| Trachinotus ovatus | 3.34 | 52 | 8.14 | 5109 |
| Sardinella aurita | 2.14 | 30 | 5.22 | 5110 |
| Scomberomorus tritor | 1.52 | 2 | 3.71 | |
| Chloroscombrus chrysurus | 1.04 | 28 | 2.54 | |
| Lagocephalus laevigatus | 1.00 | 2 | 2.44 | |
| Priacanthus arenatus | 0.62 | 18 | 1.51 | |
| J E L L Y F I S H | 0.40 | 2 | 0.98 | |
| Pagellus bellottii | 0.32 | 2 | 0.78 | |
| Sphyræna sphyraena | 0.30 | 2 | 0.73 | |
| Pseudupeneus prayensis | 0.14 | 2 | 0.34 | |
| Total | 41.02 | | 100.02 | |

PROJECT STATION:1188
 DATE: 2/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 508
 start stop duration Long W 442
 TIME :11:22:49 11:52:33 30 (min) Purpose code: 3
 LOG :1336.62 1338.25 1.63 Area code : 1
 FDEPTH: 22 21 GearCond.code:
 BDEPTH: 22 21 Validity code:
 Towing dir: 255ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 111 Kg Total catch: 111.30 CATCH/HOUR: 222.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 87.00 | 2254 | 39.08 | 5113 |
| Chloroscombrus chrysurus | 39.10 | 1984 | 17.57 | 5114 |
| Drepane africana | 20.60 | 90 | 9.25 | 5116 |
| Sphyræna guachancho | 18.06 | 178 | 8.11 | 5118 |
| J E L L Y F I S H | 13.18 | 10 | 5.92 | |
| Selene dorsalis | 9.92 | 684 | 4.46 | 5115 |
| Galeoides decadactylus | 9.52 | 142 | 4.28 | 5112 |
| Caranx senegallus | 8.08 | 180 | 3.63 | 5117 |
| Pomadasyus jubelini | 4.78 | 28 | 2.15 | 5119 |
| Pseudotolithus typus | 4.06 | 10 | 1.82 | |
| Caranx hippos | 1.52 | 6 | 0.68 | |
| Penaeus notialis | 1.16 | 20 | 0.52 | |
| Caranx crysos | 1.12 | 8 | 0.50 | |
| Sardinella maderensis | 0.78 | 32 | 0.35 | 5120 |
| Alectis alexandrinus | 0.72 | 6 | 0.32 | |
| Dactylopterus volitans | 0.64 | 2 | 0.29 | |
| Panulirus regius | 0.50 | 2 | 0.22 | |
| Scomberomorus tritor | 0.42 | 2 | 0.19 | |
| Trachinotus goreensis | 0.40 | 2 | 0.18 | |
| Euclinostomus melanopterus | 0.40 | 12 | 0.18 | |
| Sardinella aurita | 0.22 | 6 | 0.10 | |
| Pteroscion peli | 0.20 | 6 | 0.09 | |
| Trachinotus ovatus | 0.12 | 2 | 0.05 | |
| Ethmalosa fimbriata | 0.10 | 2 | 0.04 | |
| Total | 222.60 | | 99.98 | |

PROJECT STATION:1189
 DATE: 2/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 505
 start stop duration Long W 444
 TIME :12:34:41 13:04:20 30 (min) Purpose code: 3
 LOG :1341.68 1343.29 1.61 Area code : 1
 FDEPTH: 40 39 GearCond.code:
 BDEPTH: 40 39 Validity code:
 Towing dir: 257ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 43 Kg Total catch: 43.14 CATCH/HOUR: 86.28

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chloroscombrus chrysurus | 52.60 | 954 | 60.96 | 5122 |
| Sardinella maderensis | 15.90 | 1334 | 18.43 | 5121 |
| Brachydeuterus auritus | 4.52 | 96 | 5.24 | 5124 |
| Selene dorsalis | 3.64 | 92 | 4.22 | 5123 |
| Alectis alexandrinus | 3.58 | 2 | 4.15 | |
| Sphyræna guachancho | 1.90 | 14 | 2.20 | |
| Ballistes capriscus | 1.62 | 4 | 1.88 | |
| J E L L Y F I S H | 0.84 | 28 | 0.97 | |
| Trichiurus lepturus | 0.52 | 10 | 0.60 | |
| Decapterus rhonchus | 0.44 | 4 | 0.51 | |
| Caranx crysos | 0.44 | 4 | 0.51 | |
| Sardinella aurita | 0.16 | 8 | 0.19 | |
| Decapterus punctatus | 0.12 | 6 | 0.14 | |
| Total | 86.28 | | 100.00 | |

PROJECT STATION:1190
 DATE: 2/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 503
 start stop duration Long W 445
 TIME :15:10:56 15:40:58 30 (min) Purpose code: 3
 LOG :1351.21 1352.85 1.64 Area code : 1
 FDEPTH: 69 73 GearCond.code:
 BDEPTH: 69 73 Validity code:
 Towing dir: 85ø Wire out: 185 m Speed: 30 kn*10
 Sorted: 554 Kg Total catch: 554.38 CATCH/HOUR: 1108.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 873.80 | 21862 | 78.81 | 5125 |
| Sphyræna guachancho | 107.10 | 1054 | 9.66 | 5126 |
| Trichiurus lepturus | 104.04 | 1836 | 9.38 | 5127 |
| Caranx crysos | 12.92 | 34 | 1.17 | |
| Trachurus trecae | 5.10 | 204 | 0.46 | |
| Sardinella maderensis | 2.38 | 68 | 0.21 | |
| Squatina oculata | 2.16 | 2 | 0.19 | |
| Raja miraletus | 1.26 | 2 | 0.11 | |
| Total | 1108.76 | | 99.99 | |

PROJECT STATION:1191
 DATE: 2/ 6/06 GEAR TYPE: PT No: 2 POSITION:Lat N 500
 start stop duration Long W 502
 TIME :22:20:16 22:50:39 30 (min) Purpose code: 1
 LOG :1382.38 1384.23 1.85 Area code : 1
 FDEPTH: 10 10 GearCond.code:
 BDEPTH: 56 72 Validity code:
 Towing dir: 224ø Wire out: 160 m Speed: 36 kn*10
 Sorted: Kg Total catch: 44.31 CATCH/HOUR: 88.62

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chloroscombrus chrysurus | 51.40 | 1168 | 58.00 | 5129 |
| Sphyræna guachancho | 13.08 | 196 | 14.76 | 5130 |
| Caranx crysos | 9.02 | 30 | 10.18 | 5128 |
| Sardinella maderensis | 7.98 | 216 | 9.00 | 5131 |
| Selene dorsalis | 2.04 | 34 | 2.30 | 5132 |
| Selar crumenophthalmus | 1.16 | 4 | 1.31 | |
| Trichiurus lepturus | 1.06 | 20 | 1.20 | |
| Brachydeuterus auritus | 1.02 | 20 | 1.15 | |
| Ommastrephes pteropus | 0.94 | 4 | 1.06 | |
| Sardinella aurita | 0.82 | 6 | 0.93 | |
| Saurida brasiliensis | 0.10 | 34 | 0.11 | |
| Total | 88.62 | | 100.00 | |

PROJECT STATION:1192
 DATE: 3/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 458
 start stop duration Long W 509
 TIME :06:15:34 06:45:33 30 (min) Purpose code: 3
 LOG :1402.08 1403.66 1.56 Area code : 1
 FDEPTH: 82 83 GearCond.code:
 BDEPTH: 82 83 Validity code:
 Towing dir: 265ø Wire out: 220 m Speed: 30 kn*10
 Sorted: 30 Kg Total catch: 459.77 CATCH/HOUR: 919.54

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 725.20 | 13748 | 78.87 | 5135 |
| Sphyræna guachancho | 47.04 | 476 | 5.12 | 5134 |
| Trachurus trecae | 38.92 | 1064 | 4.23 | 5136 |
| Stromateus fiatola | 29.40 | 62 | 3.20 | |
| Dentex angolensis | 17.64 | 140 | 1.92 | |
| Sardinella maderensis | 13.72 | 140 | 1.49 | |
| Trichiurus lepturus | 5.70 | 88 | 0.62 | 5133 |
| J E L Y F I S H | 5.60 | 56 | 0.61 | |
| Squatina oculata | 4.80 | 2 | 0.52 | |
| Zeus faber | 4.78 | 18 | 0.52 | |
| Pagellus bellottii | 4.20 | 56 | 0.46 | |
| Umbrina canariensis | 3.66 | 28 | 0.40 | |
| Pentheroscion mbizi | 3.08 | 28 | 0.33 | |
| Caranx crysos | 3.08 | 28 | 0.33 | |
| Brotula barbata | 2.24 | 28 | 0.24 | |
| Ommastrephes pteropus | 1.96 | 28 | 0.21 | |
| Chelidonichthys gabonensis | 1.96 | 28 | 0.21 | |
| Scorpaena scrofa | 1.72 | 4 | 0.19 | |
| Epinephelus aeneus | 1.70 | 2 | 0.18 | |
| Raja miraletus | 1.20 | 2 | 0.13 | |
| Citharus linguatula | 0.84 | 28 | 0.09 | |
| Boops boops | 0.56 | 28 | 0.06 | |
| Fistularia petimba | 0.54 | 2 | 0.06 | |
| Total | 919.54 | | 99.99 | |

PROJECT STATION:1193
 DATE: 3/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 502
 start stop duration Long W 511
 TIME :07:50:36 08:20:56 30 (min) Purpose code: 3
 LOG :1408.39 1410.03 1.62 Area code : 1
 FDEPTH: 44 44 GearCond.code:
 BDEPTH: 44 44 Validity code:
 Towing dir: 85ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 16.55 CATCH/HOUR: 33.10

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 11.10 | 78 | 33.53 | 5137 |
| Chloroscombrus chrysurus | 6.08 | 74 | 18.37 | 5138 |
| Sardinella maderensis | 5.48 | 54 | 16.56 | 5139 |
| J E L Y F I S H | 2.86 | 2 | 8.64 | |
| Ommastrephes pteropus | 1.62 | 20 | 4.89 | |
| Raja miraletus | 1.36 | 2 | 4.11 | |
| Brachydeuterus auritus | 1.36 | 28 | 4.11 | |
| Pagrus caeruleostictus | 0.98 | 2 | 2.96 | |
| Balistes caprisus | 0.58 | 2 | 1.75 | |
| Trachurus trecae | 0.54 | 14 | 1.63 | |
| Fistularia petimba | 0.32 | 2 | 0.97 | |
| Caranx crysos | 0.28 | 2 | 0.85 | |
| Sphyræna guachancho | 0.20 | 4 | 0.60 | |
| Galeoides decadactylus | 0.16 | 2 | 0.48 | |
| Selene dorsalis | 0.12 | 4 | 0.36 | |
| Penaeus notialis | 0.06 | 2 | 0.18 | |
| Total | 33.10 | | 99.99 | |

PROJECT STATION:1194
 DATE: 3/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 505
 start stop duration Long W 510
 TIME :09:11:03 09:41:04 30 (min) Purpose code: 3
 LOG :1415.28 1416.79 1.51 Area code : 1
 FDEPTH: 26 25 GearCond.code:
 BDEPTH: 26 25 Validity code:
 Towing dir: 265ø Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 25.13 CATCH/HOUR: 50.26

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Elops lacerta | 12.84 | 34 | 25.55 | |
| Chloroscombrus chrysurus | 7.26 | 116 | 14.44 | 5144 |
| Selene dorsalis | 4.84 | 458 | 9.63 | 5145 |
| Pomadasys peroteti | 4.56 | 18 | 9.07 | |
| Brachydeuterus auritus | 3.62 | 60 | 7.20 | 5143 |
| Trachinotus teraia | 2.62 | 2 | 5.21 | |
| Galeoides decadactylus | 2.52 | 26 | 5.01 | |
| Sardinella maderensis | 2.32 | 128 | 4.62 | 5142 |
| Pseudotolithus senegalensis | 2.06 | 4 | 4.10 | |
| Sphyræna guachancho | 1.22 | 32 | 2.43 | 5141 |
| Sepia juveniles | 0.94 | 384 | 1.87 | |
| Zanobatus shoeneleini | 0.84 | 2 | 1.67 | |
| Ephippion guttifer | 0.80 | 2 | 1.59 | |
| Pagellus bellottii | 0.76 | 6 | 1.51 | |
| Ilisha africana | 0.74 | 60 | 1.47 | 5140 |
| Lycondontis afer | 0.74 | 2 | 1.47 | |
| Pseudupeneus prayensis | 0.34 | 2 | 0.68 | |
| J E L Y F I S H | 0.32 | 6 | 0.64 | |
| Drepane africana | 0.28 | 2 | 0.56 | |
| Eucinostomus melanopterus | 0.24 | 2 | 0.48 | |
| Trichiurus lepturus | 0.20 | 4 | 0.40 | |
| Penaeus notialis | 0.12 | 6 | 0.24 | |
| Alectis alexandrinus | 0.04 | 8 | 0.08 | |
| Decapterus punctatus | 0.04 | 2 | 0.08 | |
| Total | 50.26 | | 100.00 | |

PROJECT STATION:1195
 DATE: 3/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 501
 start stop duration Long W 541
 TIME :13:01:32 13:27:14 26 (min) Purpose code: 3
 LOG :1448.38 1449.76 1.38 Area code : 1
 FDEPTH: 21 21 GearCond.code:
 BDEPTH: 21 21 Validity code:
 Towing dir: 265ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 31 Kg Total catch: 160.19 CATCH/HOUR: 369.67

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Ilisha africana | 62.63 | 8382 | 16.94 | 5151 |
| Sphyræna guachancho | 57.74 | 768 | 15.62 | 5146 |
| Pseudotolithus elongatus | 41.08 | 108 | 11.11 | 5156 |
| Brachydeuterus auritus | 40.92 | 644 | 11.07 | 5148 |
| Chloroscombrus chrysurus | 29.82 | 967 | 8.07 | 5153 |
| Selene dorsalis | 25.55 | 1756 | 6.91 | 5152 |
| Pseudotolithus senegalensis | 19.73 | 104 | 5.34 | |
| Drepane africana | 17.03 | 32 | 4.61 | |
| Galeoides decadactylus | 14.63 | 219 | 3.96 | 5147 |
| Sphyræna juveniles | 13.41 | 2047 | 3.63 | 5155 |
| Trichiurus lepturus | 10.50 | 457 | 2.84 | 5154 |
| Pteroscion pelli | 9.55 | 552 | 2.58 | 5149 |
| Sardinella maderensis | 5.40 | 519 | 1.46 | 5150 |
| Scomberomorus tritor | 4.18 | 12 | 1.13 | |
| J E L Y F I S H | 3.85 | 53 | 1.04 | |
| Eucinostomus melanopterus | 1.98 | 12 | 0.54 | |
| Parapenaeopsis atlantica | 1.87 | 157 | 0.51 | |
| Alloteuthis africana | 1.57 | 478 | 0.42 | |
| Alectis alexandrinus | 1.57 | 42 | 0.42 | |
| Cynoglossus senegalensis | 1.18 | 2 | 0.32 | |
| Panulirus regius | 0.97 | 7 | 0.26 | |
| Caranx senegallus | 0.95 | 12 | 0.26 | |
| Lagocephalus laevigatus | 0.95 | 32 | 0.26 | |
| Engraulis encrasicolus | 0.83 | 125 | 0.22 | |
| Sepia officinalis hierredda | 0.74 | 32 | 0.20 | |
| Antennarius sp. | 0.42 | 12 | 0.11 | |
| Portunus validus | 0.37 | 2 | 0.10 | |
| Pythonichthys microphthalmus | 0.28 | 2 | 0.08 | |
| Total | 369.70 | | 100.01 | |

PROJECT STATION:1196
 DATE: 3/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 457
 start stop duration Long W 542
 TIME :14:21:48 14:51:42 30 (min) Purpose code: 3
 LOG :1454.84 1456.53 1.68 Area code : 1
 FDEPTH: 45 45 GearCond.code:
 BDEPTH: 45 45 Validity code:
 Towing dir: 256ø Wire out: 150 m Speed: 30 kn*10
 Sorted: 11 Kg Total catch: 11.30 CATCH/HOUR: 22.60

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Raja miraletus | 4.76 | 10 | 21.06 | |
| Balistes capriscus | 3.76 | 18 | 16.64 | |
| Pomadasy jubelini | 2.34 | 4 | 10.35 | |
| Octopus vulgaris | 1.80 | 4 | 7.96 | |
| Selene dorsalis | 1.46 | 6 | 6.46 | |
| Sphyræna guachancho | 1.32 | 110 | 5.84 | 5158 |
| Alloteuthis africana | 1.26 | 1148 | 5.58 | |
| Stromateus fiatola | 1.08 | 2 | 4.78 | |
| J E L Y F I S H | 1.00 | 24 | 4.42 | |
| Brachydeuterus auritus | 0.94 | 84 | 4.16 | 5157 |
| Lagocephalus laevigatus | 0.72 | 2 | 3.19 | |
| Decapterus punctatus | 0.58 | 34 | 2.57 | 5159 |
| Sardinella aurita | 0.48 | 4 | 2.12 | |
| Sardinella maderensis | 0.38 | 26 | 1.68 | 5160 |
| Ilisha africana | 0.20 | 22 | 0.88 | |
| Galeoides decadactylus | 0.18 | 2 | 0.80 | |
| Priacanthus arenatus | 0.18 | 2 | 0.80 | |
| Dentex canariensis | 0.16 | 2 | 0.71 | |
| Total | 22.60 | | 100.00 | |

PROJECT STATION:1197
 DATE: 3/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 453
 start stop duration Long W 542
 TIME :15:49:38 16:20:03 30 (min) Purpose code: 3
 LOG :1461.86 1463.38 1.51 Area code : 1
 FDEPTH: 65 64 GearCond.code:
 BDEPTH: 65 64 Validity code:
 Towing dir: 70ø Wire out: 170 m Speed: 30 kn*10
 Sorted: 35 Kg Total catch: 242.68 CATCH/HOUR: 485.36

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sardinella aurita | 322.00 | 2296 | 66.34 | 5161 |
| Brachydeuterus auritus | 75.74 | 1092 | 15.60 | 5164 |
| Pagellus bellottii | 24.22 | 140 | 4.99 | 5162 |
| Sphyræna sphyraena | 22.82 | 210 | 4.70 | 5163 |
| Caranx crysos | 16.80 | 56 | 3.46 | |
| Priacanthus arenatus | 7.98 | 56 | 1.64 | |
| Decapterus rhonchus | 5.46 | 56 | 1.12 | |
| Trachurus trachurus | 3.36 | 14 | 0.69 | |
| Balistes capriscus | 2.10 | 14 | 0.43 | |
| Sardinella maderensis | 1.54 | 14 | 0.32 | |
| Raja miraletus | 1.30 | 4 | 0.27 | |
| Pseudupeneus prayensis | 0.70 | 14 | 0.14 | |
| Dentex canariensis | 0.54 | 2 | 0.11 | |
| Dentex gibbosus | 0.42 | 4 | 0.09 | |
| Pagrus caeruleostictus | 0.38 | 2 | 0.08 | |
| Total | 485.36 | | 99.98 | |

PROJECT STATION:1198
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 442
 start stop duration Long W 600
 TIME :05:59:50 06:29:44 30 (min) Purpose code: 3
 LOG :1574.61 1576.20 1.59 Area code : 1
 FDEPTH: 94 95 GearCond.code:
 BDEPTH: 94 95 Validity code:
 Towing dir: 70ø Wire out: 220 m Speed: 30 kn*10
 Sorted: 34 Kg Total catch: 176.26 CATCH/HOUR: 352.52

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Sardinella aurita | 255.50 | 4910 | 72.48 | 5166 |
| Scomber japonicus | 78.80 | 860 | 22.35 | 5165 |
| Dentex angolensis | 7.20 | 52 | 2.04 | 5167 |
| Pentheroscion mbizi | 3.14 | 20 | 0.89 | |
| Illex coindetii | 2.20 | 20 | 0.62 | |
| Fistularia petimba | 1.36 | 6 | 0.39 | |
| Umbrina canariensis | 1.16 | 4 | 0.33 | |
| Raja miraletus | 0.92 | 2 | 0.26 | |
| Zeus faber | 0.68 | 2 | 0.19 | |
| Priacanthus arenatus | 0.66 | 2 | 0.19 | |
| Citharus linguatula | 0.40 | 10 | 0.11 | |
| Chelidonichthys gabonensis | 0.24 | 2 | 0.07 | |
| Dentex congolensis | 0.16 | 2 | 0.05 | |
| Trachurus trecae | 0.10 | 10 | 0.03 | |
| Total | 352.52 | | 100.00 | |

PROJECT STATION:1199
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 448
 start stop duration Long W 602
 TIME :07:49:32 08:20:43 31 (min) Purpose code: 3
 LOG :1583.53 1585.23 1.69 Area code : 1
 FDEPTH: 59 59 GearCond.code:
 BDEPTH: 59 59 Validity code:
 Towing dir: 250ø Wire out: 180 m Speed: 30 kn*10
 Sorted: Kg Total catch: 33.88 CATCH/HOUR: 65.57

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|--------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 32.81 | 437 | 50.04 | 5168 |
| Priacanthus arenatus | 11.25 | 118 | 17.16 | |
| Sardinella aurita | 7.28 | 2183 | 11.10 | |
| Sphyræna guachancho | 2.88 | 19 | 4.39 | |
| Brachydeuterus auritus | 2.44 | 101 | 3.72 | 5169 |
| Octopus vulgaris | 1.63 | 4 | 2.49 | |
| Chloroscombrus chrysurus | 1.39 | 21 | 2.12 | 5170 |
| Alloteuthis africana | 1.34 | 817 | 2.04 | |
| Lagocephalus laevigatus | 1.34 | 10 | 2.04 | |
| Balistes capriscus | 0.89 | 2 | 1.36 | |
| Scomber japonicus | 0.72 | 8 | 1.10 | |
| J E L Y F I S H | 0.29 | 2 | 0.44 | |
| Decapterus rhonchus | 0.27 | 4 | 0.41 | |
| Pseudupeneus prayensis | 0.23 | 6 | 0.35 | |
| Decapterus punctatus | 0.17 | 6 | 0.26 | |
| Citharus linguatula | 0.15 | 4 | 0.23 | |
| Sardinella maderensis | 0.15 | 4 | 0.23 | |
| Trichiurus lepturus | 0.12 | 2 | 0.18 | |
| Grammolites gruvelli | 0.10 | 2 | 0.15 | |
| Penaeus notialis | 0.08 | 2 | 0.12 | |
| Syacium micrum | 0.06 | 4 | 0.09 | |
| Total | 65.59 | | 100.02 | |

PROJECT STATION:1200
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 450
 start stop duration Long W 604
 TIME :09:08:16 09:38:30 30 (min) Purpose code: 3
 LOG :1589.55 1591.11 1.55 Area code : 1
 FDEPTH: 41 40 GearCond.code:
 BDEPTH: 41 40 Validity code:
 Towing dir: 70ø Wire out: 150 m Speed: 30 kn*10
 Sorted: Kg Total catch: 31.64 CATCH/HOUR: 63.28

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Alectis alexandrinus | 50.30 | 16 | 79.49 | |
| Pagellus bellottii | 3.94 | 26 | 6.23 | 5171 |
| Balistes capriscus | 3.30 | 10 | 5.21 | |
| Lagocephalus laevigatus | 3.12 | 10 | 4.93 | |
| Alloteuthis africana | 1.70 | 604 | 2.69 | |
| Fistularia petimba | 0.74 | 2 | 1.17 | |
| Pagrus caeruleostictus | 0.12 | 4 | 0.19 | |
| Dentex canariensis | 0.06 | 2 | 0.09 | |
| Total | 63.28 | | 100.00 | |

PROJECT STATION:1201
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 453
 start stop duration Long W 604
 TIME :10:25:12 10:56:02 31 (min) Purpose code: 3
 LOG :1595.01 1596.69 1.66 Area code : 1
 FDEPTH: 24 23 GearCond.code:
 BDEPTH: 24 23 Validity code:
 Towing dir: 260ø Wire out: 140 m Speed: 30 kn*10
 Sorted: 32 Kg Total catch: 208.86 CATCH/HOUR: 404.25

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Drepane africana | 90.58 | 255 | 22.41 | |
| Chloroscombrus chrysurus | 73.16 | 1870 | 18.10 | 5173 |
| Galeoides decadactylus | 61.55 | 801 | 15.23 | 5176 |
| Brachydeuterus auritus | 34.03 | 534 | 8.42 | 5174 |
| Sphyræna guachancho | 33.45 | 395 | 8.27 | 5175 |
| Ilisha africana | 24.15 | 7246 | 5.97 | |
| Pseudotolithus senegalensis | 17.90 | 17 | 4.43 | |
| Caranx hippos | 16.26 | 46 | 4.02 | |
| Elops senegalensis | 14.86 | 46 | 3.68 | |
| Sardinella maderensis | 13.12 | 1858 | 3.25 | 5172 |
| Selene dorsalis | 6.15 | 209 | 1.52 | |
| Pseudotolithus brachygnathus | 3.08 | 2 | 0.76 | |
| Alectis alexandrinus | 2.55 | 12 | 0.63 | |
| Psettodes belcheri | 2.36 | 2 | 0.58 | |
| Pomadasy peroteti | 2.34 | 8 | 0.58 | |
| Portunus validus | 2.34 | 6 | 0.58 | |
| Scomberomorus tritor | 1.99 | 2 | 0.49 | |
| Lagocephalus laevigatus | 1.90 | 2 | 0.47 | |
| Eucinostomus melanopterus | 1.63 | 58 | 0.40 | |
| Pomadasy jubelini | 0.58 | 2 | 0.14 | |
| Ephippion guttifer | 0.25 | 2 | 0.06 | |
| Total | 404.23 | | 99.99 | |

PROJECT STATION:1202
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 444
 start stop duration Long W 633
 TIME :14:06:54 14:36:40 30 (min) Purpose code: 3
 LOG :1627.27 1628.77 1.50 Area code : 1
 FDEPTH: 26 27 GearCond.code:
 BDEPTH: 26 27 Validity code:
 Towing dir: 70ø Wire out: 140 m Speed: 30 kn*10

Sorted: 36 Kg Total catch: 97.31 CATCH/HOUR: 194.62

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Ilisha africana | 35.38 | 5230 | 18.18 | 5177 |
| J E L Y F I S H | 33.16 | 112 | 17.04 | |
| Selene dorsalis | 23.26 | 766 | 11.95 | 5179 |
| Galeoides decadactylus | 17.40 | 88 | 8.94 | 5185 |
| Stromateus fiatola | 14.14 | 22 | 7.27 | |
| Drepane africana | 12.06 | 22 | 6.20 | 5186 |
| Sphyraena guachancho | 11.90 | 304 | 6.11 | 5182 |
| Chloroscombrus chrysurus | 8.14 | 288 | 4.18 | 5180 |
| Pseudotolithus senegalensis | 7.30 | 42 | 3.75 | 5187 |
| Pomadasy peroteti | 6.24 | 8 | 3.21 | |
| Trichiurus lepturus | 5.50 | 100 | 2.83 | 5178 |
| Cynoponticus ferox | 3.86 | 2 | 1.98 | |
| Pteroscion peli | 3.36 | 126 | 1.73 | 5181 |
| Chaetodipterus lippei | 3.18 | 4 | 1.63 | |
| Elops lacerta | 3.04 | 10 | 1.56 | |
| Panulirus regius | 2.56 | 12 | 1.32 | |
| Pisodonophis semicinctus | 1.50 | 6 | 0.77 | |
| Scomberomorus tritor | 0.82 | 2 | 0.42 | |
| Sardinella maderensis | 0.82 | 102 | 0.42 | 5183 |
| Brachydeuterus auritus | 0.78 | 46 | 0.40 | 5184 |
| Pentanemus quinquarius | 0.22 | 4 | 0.11 | |
| Total | 194.62 | | 100.00 | |

PROJECT STATION:1203
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 441
 start stop duration Long W 632
 TIME :16:02:33 16:32:03 30 (min) Purpose code: 3
 LOG :1639.08 1640.51 1.41 Area code : 1
 FDEPTH: 46 46 GearCond.code:
 BDEPTH: 46 46 Validity code:
 Towing dir: 70ø Wire out: 150 m Speed: 30 kn*10

Sorted: 170 Kg Total catch: 170.31 CATCH/HOUR: 340.62

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 112.80 | 3732 | 33.12 | 5188 |
| Sphyraena guachancho | 76.10 | 260 | 22.34 | 5190 |
| Chloroscombrus chrysurus | 36.40 | 1794 | 10.69 | 5189 |
| Ephippion guttifer | 33.30 | 12 | 9.78 | |
| Galeoides decadactylus | 18.82 | 104 | 5.53 | 5194 |
| Selene dorsalis | 15.80 | 426 | 4.64 | 5193 |
| Drepane africana | 12.22 | 18 | 3.59 | |
| Sardinella maderensis | 9.78 | 1030 | 2.87 | |
| Panulirus regius | 4.36 | 8 | 1.28 | |
| Trachinotus teraia | 4.22 | 2 | 1.24 | |
| Sphyraena juveniles | 2.80 | 98 | 0.82 | 5191 |
| Pomadasy incisus | 2.66 | 54 | 0.78 | 5192 |
| Pomadasy peroteti | 2.48 | 8 | 0.73 | |
| Octopus vulgaris | 2.20 | 4 | 0.65 | |
| Alectis alexandrinus | 1.90 | 4 | 0.56 | |
| Ilisha africana | 1.22 | 88 | 0.36 | |
| J E L Y F I S H | 0.92 | 32 | 0.27 | |
| Epinephelus aeneus | 0.66 | 2 | 0.19 | |
| Trichiurus lepturus | 0.66 | 8 | 0.19 | |
| Pagellus bellottii | 0.42 | 2 | 0.12 | |
| Euclinostomus melanopterus | 0.28 | 4 | 0.08 | |
| Penaeus notialis | 0.22 | 4 | 0.06 | |
| Pentanemus quinquarius | 0.18 | 2 | 0.05 | |
| Pteroscion peli | 0.14 | 6 | 0.04 | |
| Scyllarides herklotsii | 0.08 | 14 | 0.02 | |
| Total | 340.62 | | 100.00 | |

PROJECT STATION:1204
 DATE: 4/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 437
 start stop duration Long W 630
 TIME :17:42:32 18:12:18 30 (min) Purpose code: 3
 LOG :1648.85 1650.25 1.40 Area code : 1
 FDEPTH: 74 74 GearCond.code:
 BDEPTH: 74 74 Validity code:
 Towing dir: 70ø Wire out: 190 m Speed: 30 kn*10

Sorted: 31 Kg Total catch: 410.86 CATCH/HOUR: 821.72

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 565.50 | 11648 | 68.82 | 5195 |
| Pagellus bellottii | 121.68 | 1032 | 14.81 | 5196 |
| Sphyraena guachancho | 78.26 | 468 | 9.52 | 5198 |
| Trachurus trecae | 11.18 | 364 | 1.36 | 5197 |
| Caranx crysos | 9.62 | 104 | 1.17 | |
| Selene dorsalis | 8.32 | 208 | 1.01 | |
| Sepia officinalis hierredda | 6.30 | 10 | 0.77 | |
| Sphoeroides pachgaster | 4.42 | 26 | 0.54 | |
| Pseudupeneus prayensis | 4.42 | 26 | 0.54 | |
| Raja miraletus | 2.66 | 6 | 0.32 | |
| Zeus faber | 2.64 | 2 | 0.32 | |
| Priacanthus arenatus | 2.60 | 130 | 0.32 | |
| Fistularia petimba | 2.04 | 8 | 0.25 | |
| Dentex angolensis | 1.56 | 26 | 0.19 | |
| Dactylopterus volitans | 0.52 | 26 | 0.06 | |
| Total | 821.72 | | 100.00 | |

PROJECT STATION:1205
 DATE: 5/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 414
 start stop duration Long W 727
 TIME :05:59:50 06:30:10 30 (min) Purpose code: 3
 LOG :1740.35 1741.80 1.45 Area code : 1
 FDEPTH: 75 73 GearCond.code:
 BDEPTH: 75 73 Validity code:
 Towing dir: 265° Wire out: 190 m Speed: 30 kn*10

Sorted: 31 Kg Total catch: 320.09 CATCH/HOUR: 640.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Brachydeuterus auritus | 392.00 | 17420 | 61.23 | 5200 |
| Sphyraena guachancho | 64.80 | 440 | 10.12 | |
| Sardinella maderensis | 33.40 | 1260 | 5.22 | 5199 |
| Saurida brasiliensis | 24.00 | 4800 | 3.75 | |
| Selene dorsalis | 20.80 | 700 | 3.25 | |
| Trachurus trecae | 16.40 | 300 | 2.56 | |
| Pentheroscion mbizi | 14.40 | 120 | 2.25 | |
| Chelidonichthys gabonensis | 13.20 | 120 | 2.06 | |
| Priacanthus arenatus | 10.80 | 160 | 1.69 | |
| Chloroscombrus chrysurus | 5.80 | 140 | 0.91 | |
| Pagellus bellottii | 5.20 | 60 | 0.81 | |
| Dentex angolensis | 5.00 | 80 | 0.78 | |
| Citharus linguatula | 4.60 | 140 | 0.72 | |
| Brotula barbata | 3.90 | 10 | 0.61 | |
| Uranoscopus polli | 3.68 | 16 | 0.57 | |
| Parapanaeus longirostris | 3.60 | 860 | 0.56 | |
| Octopus vulgaris | 2.94 | 4 | 0.46 | |
| Lagocephalus laevigatus | 2.20 | 20 | 0.34 | |
| Dicologlossa cuneata | 1.80 | 20 | 0.28 | |
| Umbrina canariensis | 1.68 | 8 | 0.26 | |
| Sardinella aurita | 1.40 | 40 | 0.22 | |
| Pontinus accraensis | 1.40 | 20 | 0.22 | |
| Decapterus punctatus | 1.20 | 80 | 0.19 | |
| Serranus accraensis | 1.20 | 40 | 0.19 | |
| Trichiurus lepturus | 1.20 | 22 | 0.19 | |
| Alloteuthis africana | 1.00 | 440 | 0.16 | |
| J E L Y F I S H | 0.80 | 100 | 0.12 | |
| Fistularia petimba | 0.56 | 4 | 0.09 | |
| Stromateus fiatola | 0.42 | 2 | 0.07 | |
| Sphoeroides pachgaster | 0.40 | 20 | 0.06 | |
| Gobius sp | 0.40 | 80 | 0.06 | |
| Total | 640.18 | | 100.00 | |

PROJECT STATION:1206
 DATE: 5/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 417
 start stop duration Long W 727
 TIME :08:47:09 09:17:02 30 (min) Purpose code: 3
 LOG :1748.78 1750.28 1.48 Area code : 1
 FDEPTH: 42 40 GearCond.code:
 BDEPTH: 42 40 Validity code:
 Towing dir: 260° Wire out: 150 m Speed: 30 kn*10

Sorted: 20 Kg Total catch: 205.59 CATCH/HOUR: 411.18

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|------------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chloroscombrus chrysurus | 92.48 | 352 | 22.49 | 5201 |
| Brachydeuterus auritus | 89.60 | 304 | 21.79 | 5203 |
| Sardinella maderensis - Juv. | 75.52 | 480 | 18.37 | 5202 |
| Pseudotolithus senegalensis | 31.20 | 240 | 7.59 | 5206 |
| Selene dorsalis | 22.88 | 304 | 5.56 | 5204 |
| Galeoides decadactylus | 21.60 | 208 | 5.25 | 5205 |
| Stromateus fiatola | 21.40 | 34 | 5.20 | |
| Ilisha africana | 16.80 | 544 | 4.09 | 5207 |
| Drepane africana | 9.54 | 8 | 2.32 | |
| Alectis alexandrinus | 7.50 | 4 | 1.82 | |
| J E L Y F I S H | 6.56 | 96 | 1.60 | |
| Scomberomorus tritor | 3.76 | 8 | 0.91 | |
| Raja miraletus | 3.48 | 6 | 0.85 | |
| Portunus validus | 2.16 | 6 | 0.53 | |
| Torpedo nobiliana | 1.72 | 2 | 0.42 | |
| Pteroscion peli | 1.44 | 48 | 0.35 | |
| Sepia officinalis hierredda | 1.40 | 2 | 0.34 | |
| Mystriophis rostellatus | 1.32 | 2 | 0.32 | |
| Trichiurus lepturus | 0.82 | 12 | 0.20 | |
| Total | 411.18 | | 100.00 | |

PROJECT STATION:1207
 DATE: 5/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 419
 start stop duration Long W 728
 TIME :09:52:35 10:23:47 31 (min) Purpose code: 3
 LOG :1753.19 1754.84 1.63 Area code : 1
 FDEPTH: 28 30 GearCond.code:
 BDEPTH: 28 30 Validity code:
 Towing dir: 90° Wire out: 140 m Speed: 30 kn*10
 Sorted: Kg Total catch: 189.43 CATCH/HOUR: 366.64

PROJECT STATION:1209
 DATE: 5/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 434
 start stop duration Long W 655
 TIME :16:07:36 16:37:38 30 (min) Purpose code: 3
 LOG :1801.94 1803.41 1.46 Area code : 1
 FDEPTH: 43 44 GearCond.code:
 BDEPTH: 43 44 Validity code:
 Towing dir: 242° Wire out: 150 m Speed: 30 kn*10
 Sorted: 50 Kg Total catch: 186.88 CATCH/HOUR: 373.76

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Ilisha africana | 91.16 | 5797 | 24.86 | 5214 |
| Pseudotolithus senegalensis | 68.52 | 145 | 18.69 | 5213 |
| Chloroscombrus chrysurus | 66.77 | 1432 | 18.21 | 5208 |
| Sardinella maderensis | 34.84 | 3174 | 9.50 | 5209 |
| Selene dorsalis | 28.84 | 1481 | 7.87 | 5211 |
| Sphyræna guachancho | 28.26 | 213 | 7.71 | 5215 |
| Galeoides decadactylus | 15.39 | 145 | 4.20 | 5212 |
| Brachydeuterus auritus | 9.97 | 242 | 2.72 | 5210 |
| J E L Y F I S H | 8.52 | 87 | 2.32 | |
| Pomadasys jubelini | 7.24 | 14 | 1.97 | |
| Drepane africana | 4.26 | 12 | 1.16 | |
| Alectis alexandrinus | 1.43 | 8 | 0.39 | |
| Pteroscion peli | 1.26 | 48 | 0.34 | |
| Trichiurus lepturus | 0.19 | 8 | 0.05 | |
| Total | 366.65 | | 99.99 | |

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Chloroscombrus chrysurus | 94.74 | 1984 | 25.35 | 5225 |
| Galeoides decadactylus | 55.84 | 232 | 14.94 | 5228 |
| Selene dorsalis | 52.26 | 1166 | 13.98 | 5226 |
| Sphyræna guachancho | 29.16 | 172 | 7.80 | 5230 |
| Brachydeuterus auritus | 28.70 | 410 | 7.68 | 5223 |
| Stromateus fiatola | 22.28 | 28 | 5.96 | |
| Ilisha africana | 22.08 | 1242 | 5.91 | 5227 |
| Cynoponticus ferox | 14.40 | 2 | 3.85 | |
| Trichiurus lepturus | 8.86 | 112 | 2.37 | |
| J E L Y F I S H | 8.50 | 56 | 2.27 | |
| Brachydeuterus auritus Juv. | 6.82 | 728 | 1.82 | 5224 |
| Sardinella maderensis | 5.78 | 640 | 1.55 | 5229 |
| Raja miraletus | 4.46 | 10 | 1.19 | |
| Pteroscion peli | 4.30 | 172 | 1.15 | 5231 |
| Pomadasys peroteti | 3.92 | 12 | 1.05 | |
| Pagellus bellottii | 2.56 | 24 | 0.68 | |
| Octopus vulgaris | 2.38 | 2 | 0.64 | |
| Pseudotolithus senegalensis | 1.86 | 14 | 0.50 | |
| Dentex gibbosus | 1.20 | 2 | 0.32 | |
| Elops lacerta | 0.80 | 2 | 0.21 | |
| Alloteuthis africana | 0.74 | 374 | 0.20 | |
| Pomadasys incisus | 0.74 | 2 | 0.20 | |
| Epinephelus aeneus | 0.54 | 2 | 0.14 | |
| Torpedo torpedo | 0.30 | 2 | 0.08 | |
| Scyllarides herklotsii | 0.24 | 56 | 0.06 | |
| Dentex angolensis | 0.22 | 2 | 0.06 | |
| Penaeus notialis | 0.08 | 6 | 0.02 | |
| Total | 373.76 | | 99.98 | |

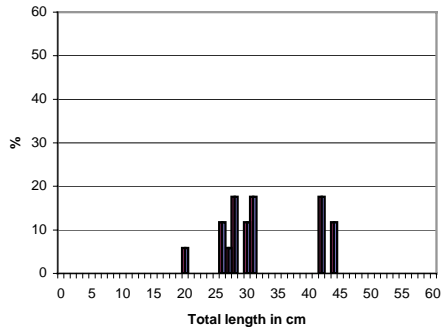
PROJECT STATION:1208
 DATE: 5/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 428
 start stop duration Long W 653
 TIME :14:31:10 15:01:09 30 (min) Purpose code: 3
 LOG :1792.69 1794.27 1.57 Area code : 1
 FDEPTH: 81 85 GearCond.code:
 BDEPTH: 81 85 Validity code:
 Towing dir: 240° Wire out: 210 m Speed: 30 kn*10
 Sorted: 100 Kg Total catch: 100.30 CATCH/HOUR: 200.60

PROJECT STATION:1210
 DATE: 5/ 6/06 GEAR TYPE: BT No:19 POSITION:Lat N 438
 start stop duration Long W 649
 TIME :18:04:27 18:25:15 21 (min) Purpose code: 3
 LOG :1814.85 1815.89 1.02 Area code : 1
 FDEPTH: 29 30 GearCond.code:
 BDEPTH: 29 30 Validity code:
 Towing dir: 250° Wire out: 140 m Speed: 30 kn*10
 Sorted: 24 Kg Total catch: 161.14 CATCH/HOUR: 460.40

| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pagellus bellottii | 90.72 | 1138 | 45.22 | 5216 |
| Dentex angolensis | 41.52 | 382 | 20.70 | 5217 |
| Dentex canariensis | 14.22 | 14 | 7.09 | |
| Dentex gibbosus | 12.90 | 20 | 6.43 | 5218 |
| Sphyræna sphyraena | 11.56 | 56 | 5.76 | 5219 |
| Trachurus trecae | 8.24 | 246 | 4.11 | 5220 |
| Alloteuthis africana | 3.68 | 1472 | 1.83 | |
| Pseudupeneus prayensis | 2.38 | 16 | 1.19 | |
| Decapterus punctatus | 2.04 | 86 | 1.02 | 5221 |
| Sardinella aurita | 1.94 | 56 | 0.97 | 5222 |
| Raja miraletus | 1.60 | 4 | 0.80 | |
| Sepia officinalis hierredda | 1.52 | 2 | 0.76 | |
| Scorpaena scrofa | 1.52 | 2 | 0.76 | |
| Fistularia petimba | 1.00 | 6 | 0.50 | |
| Illex coindetii | 0.86 | 14 | 0.43 | |
| Spherooides pachgaster | 0.84 | 6 | 0.42 | |
| Chloroscombrus chrysurus | 0.64 | 6 | 0.32 | |
| Umbrina canariensis | 0.60 | 2 | 0.30 | |
| J E L Y F I S H | 0.58 | 10 | 0.29 | |
| Brotula barbata | 0.56 | 2 | 0.28 | |
| Boops boops | 0.56 | 18 | 0.28 | |
| Lepidotrigla carolae | 0.44 | 2 | 0.22 | |
| Selene dorsalis | 0.34 | 6 | 0.17 | |
| Priacanthus arenatus | 0.20 | 4 | 0.10 | |
| Citharus linguatula | 0.14 | 8 | 0.07 | |
| Total | 200.60 | | 100.02 | |

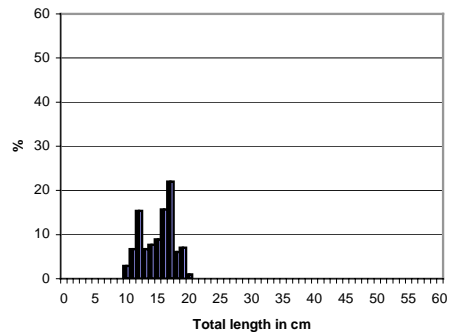
| SPECIES | CATCH/HOUR | | % OF TOT. C | SAMP |
|-----------------------------|------------|---------|-------------|------|
| | weight | numbers | | |
| Pseudotolithus senegalensis | 91.86 | 263 | 19.95 | 5234 |
| J E L Y F I S H | 66.69 | 240 | 14.49 | |
| Drepane africana | 56.17 | 60 | 12.20 | |
| Pteroscion peli | 37.63 | 1311 | 8.17 | 5236 |
| Ilisha africana | 31.37 | 2066 | 6.81 | 5235 |
| Parapenaeopsis atlantica | 26.23 | 8657 | 5.70 | |
| Pomadasys peroteti | 26.14 | 74 | 5.68 | |
| Cynoponticus ferox | 21.14 | 29 | 4.59 | |
| Selene dorsalis | 20.83 | 1877 | 4.52 | |
| Dasyatis margarita | 19.00 | 17 | 4.13 | |
| Trichiurus lepturus | 13.60 | 211 | 2.95 | 5233 |
| Ephippion guttifer | 8.29 | 3 | 1.80 | |
| Elops senegalensis | 6.86 | 26 | 1.49 | |
| Chloroscombrus chrysurus | 6.60 | 334 | 1.43 | 5238 |
| Pomadasys incisus | 5.23 | 26 | 1.14 | |
| Galeoides decadactylus | 5.03 | 20 | 1.09 | |
| Brachydeuterus auritus | 4.89 | 146 | 1.06 | 5237 |
| Cynoglossus senegalensis | 4.66 | 9 | 1.01 | |
| Pisodonophis semicinctus | 3.29 | 29 | 0.71 | |
| Sardinella maderensis | 2.83 | 326 | 0.61 | 5232 |
| Portunus validus | 1.86 | 6 | 0.40 | |
| Torpedo torpedo | 0.63 | 9 | 0.14 | |
| Antennarius sp. | 0.29 | 6 | 0.06 | |
| Batrachoides liberiensis | 0.09 | 3 | 0.02 | |
| Total | 461.21 | | 100.15 | |

Annex II Length distributions of main species



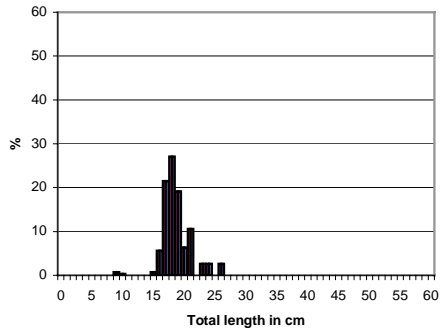
Dentex canariensis
Mean length = 32.9 cm

Benin
N = 17



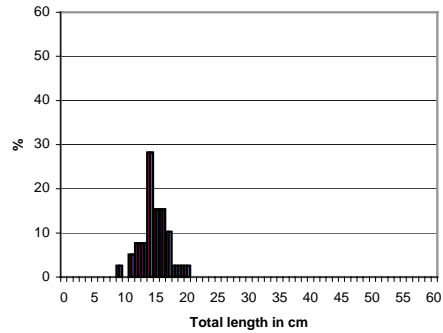
Pagellus bellottii
Mean length = 15.5 cm

Benin
N = 110



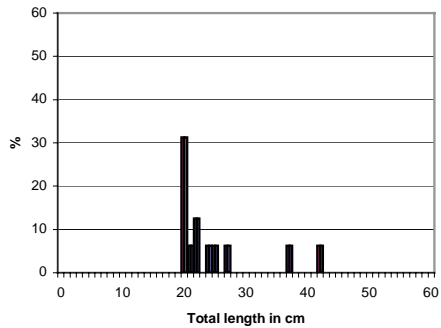
Dentex angolensis
Mean length = 19.4 cm

Benin
N = 50



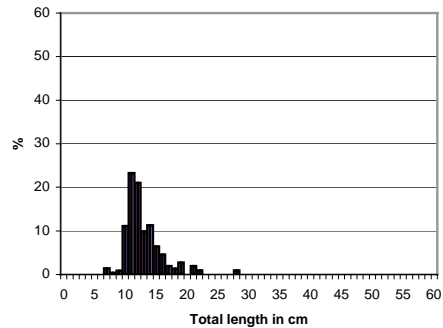
Dentex congoensis
Mean length = 15.1 cm

Benin
N = 39



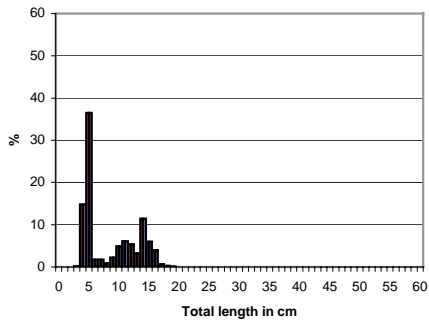
Pseudotolithus senegalensis
Mean length = 32.4 cm

Benin
N = 16

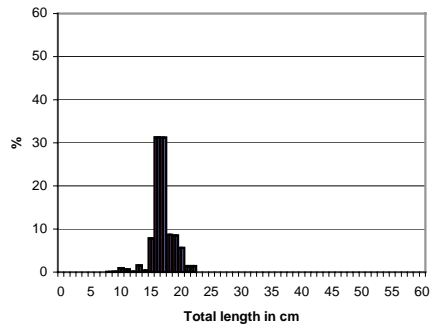


Galeoides decadrylus
Mean length = 13.4 cm

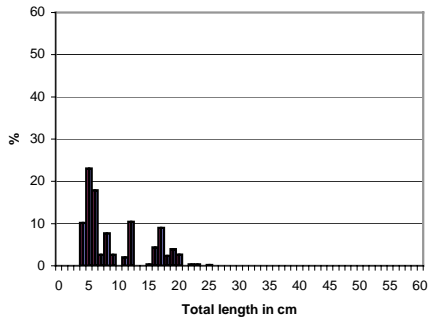
Benin
N = 143



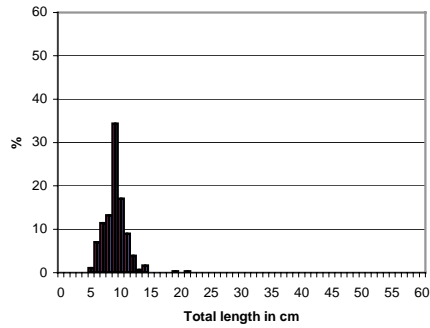
Brachydeuterus auritus Benin
Mean length = 9.0 cm N = 411



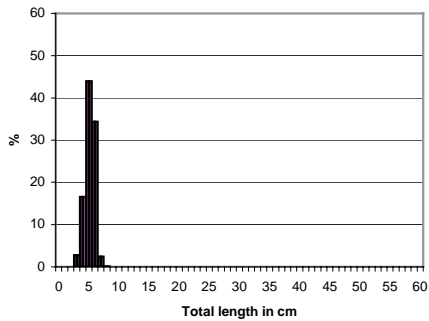
Sardinella aurita Benin
Mean length = 17.3 cm N = 127



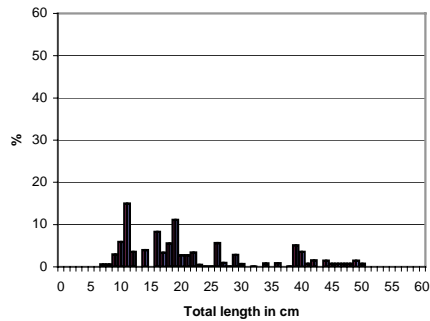
Chloroscombrus chrysurus Benin
Mean length = 9.8 cm N = 59



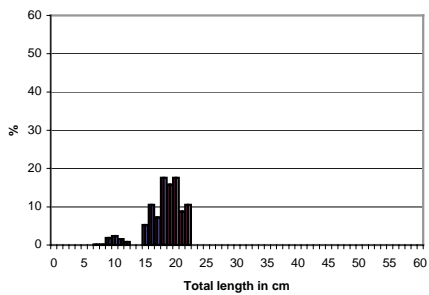
Sardinella maderensis Benin
Mean length = 9.5 cm N = 144



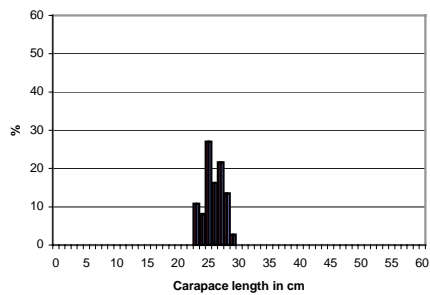
Engraulis encrasicolus Benin
Mean length = 5.7 cm N = 308



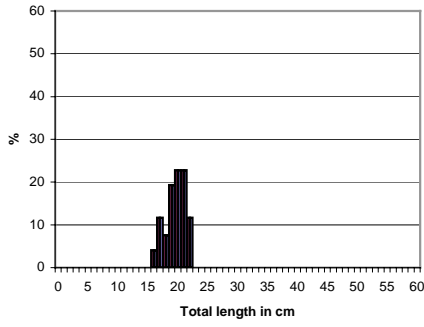
Sphyræna guachancho Benin
Mean length = 22.0 cm N = 107



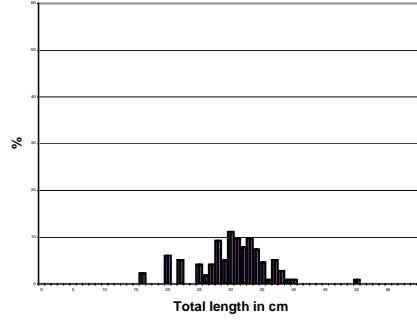
Decapterus punctatus Benin
Mean length = 18.7 cm N = 97



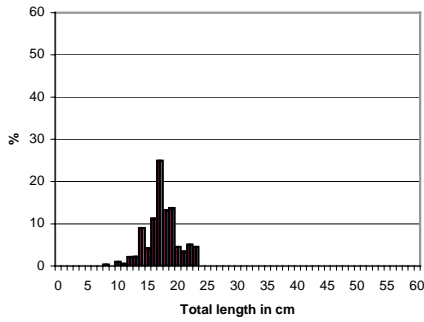
Selene dorsalis Benin
Mean length = 26.3 cm N = 37



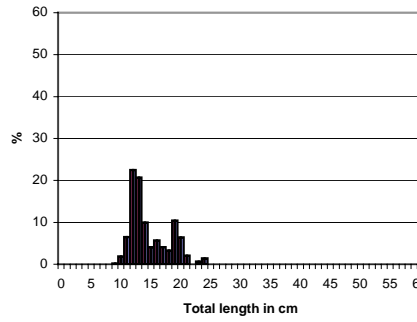
Dentex angolensis Togo
Mean length = 20.1 cm N = 26



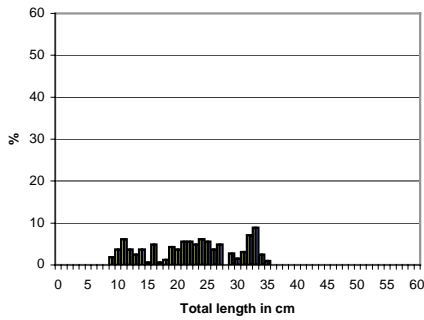
Dentes canariensis Togo
Mean length = 30.6 cm N = 90



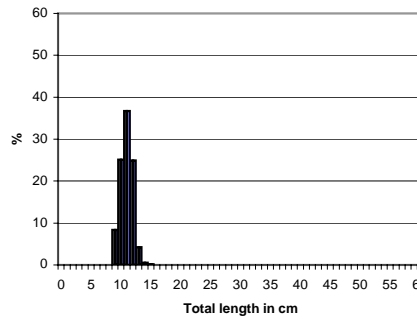
Pagellus bellottii Togo
Mean length = 17.9 cm N = 157



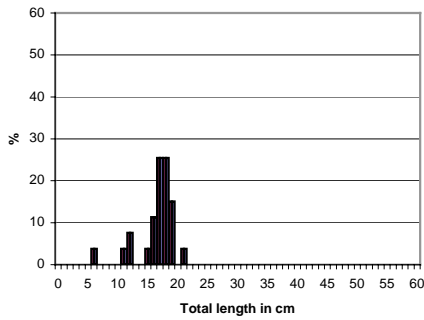
Sardinella aurita Togo
Mean length = 15.2 cm N = 132



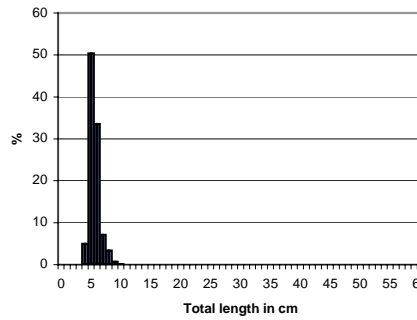
Pagrus caeruleostictus Togo
Mean length = 23.0 cm N = 153



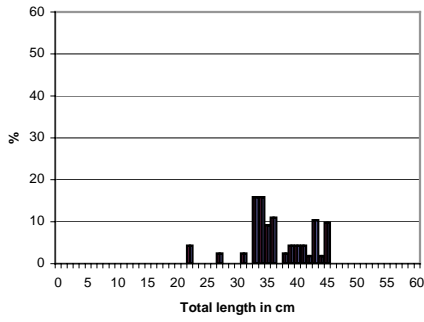
Priacanthus arenatus Togo
Mean length = 11.4 cm N =



Pseudupeneus prayensis Togo
Mean length = 17.0 cm N = 27

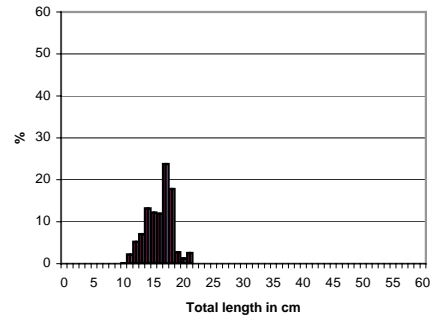


Engraulis encrasicolus Togo
Mean length = 6.1 cm N = 173



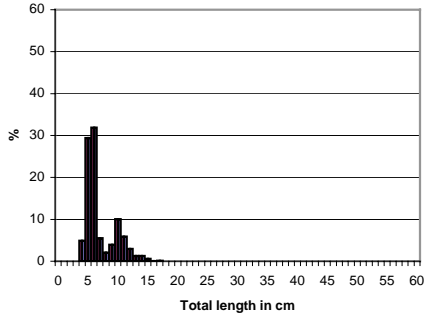
Sphyraena sphyraena
Mean length = 37.1 cm

Togo
N = 46



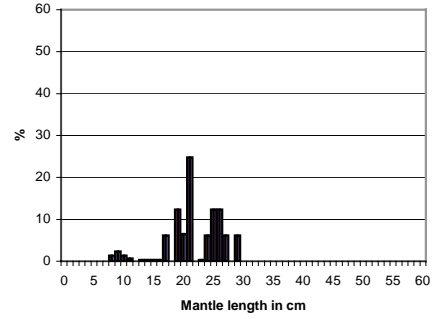
Boops boops
Mean length = 16.4 cm

Ghana
N = 165



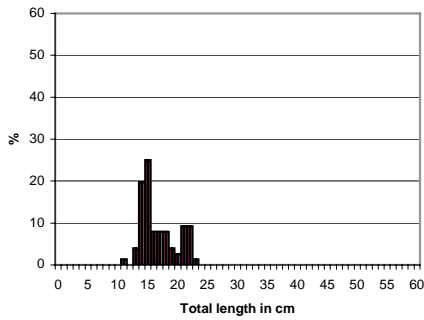
Decapterus punctatus
Mean length = 7.5 cm

Togo
N = 363



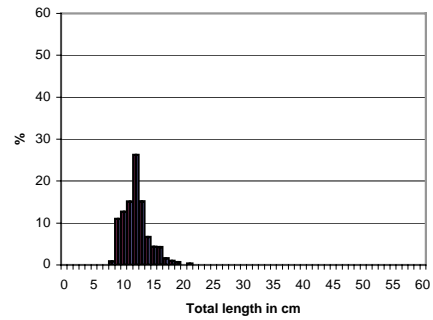
Dentex angolensis
Mean length = 22.4 cm

Ghana
N = 38



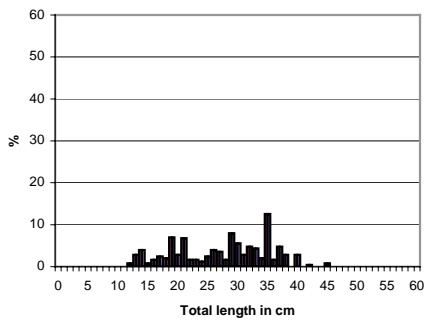
Sepia officinalis
Mean length = 17.2 cm

Togo
N = 49



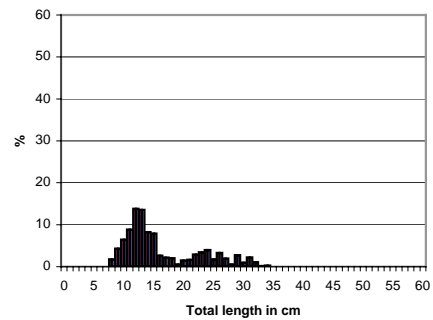
Dentex congoensis
Mean length = 12.5 cm

Ghana
N = 137



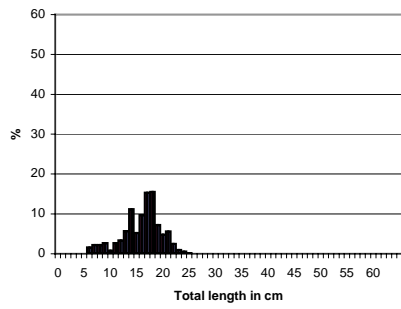
Dentex canariensis
Mean length = 28.1 cm

Ghana
N = 170

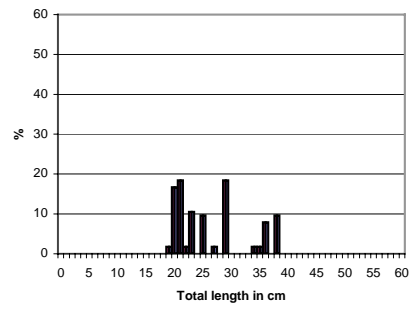


Pagrus caeruleostictus
Mean length = 16.8 cm

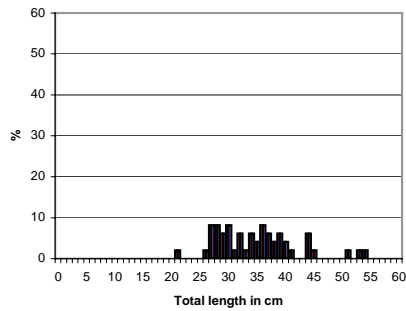
Ghana
N = 390



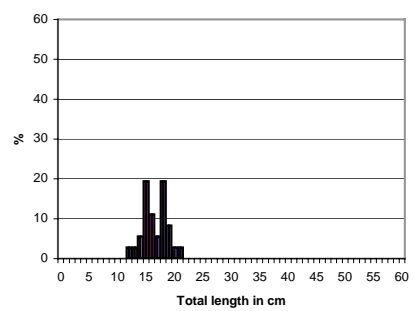
Pagellus bellottii Ghana
Mean length = 16.4 cm N = 471



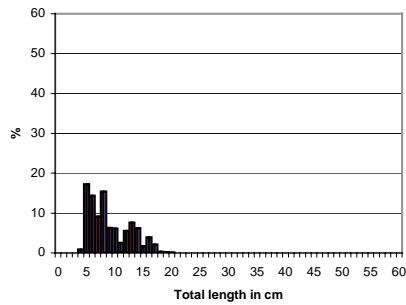
Pseudotolithus senegalensis Ghana
Mean length = 26.8 cm N = 23



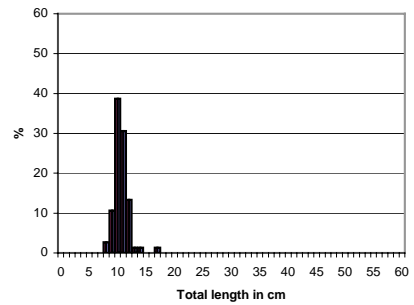
Dentex gibbosus Ghana
Mean length = 35.4 cm N = 49



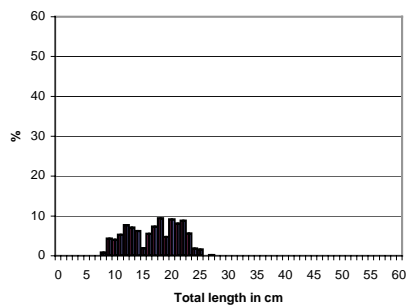
Lethrinus atlanticus Ghana
Mean length = 17.4 cm N = 36



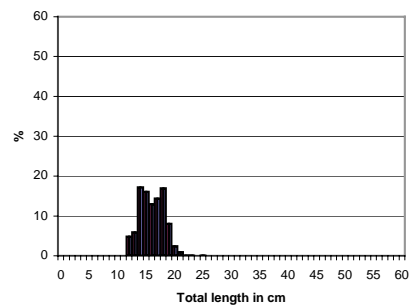
Brachydeuterus auritus Ghana
Mean length = 9.5 cm N = 654



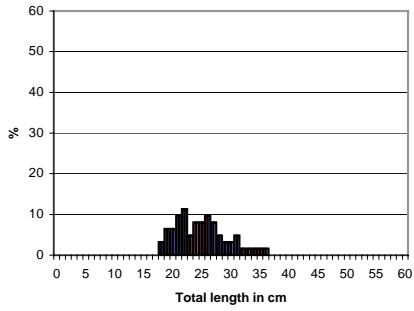
Ilisha africana Ghana
Mean length = 11.1 cm N = 75



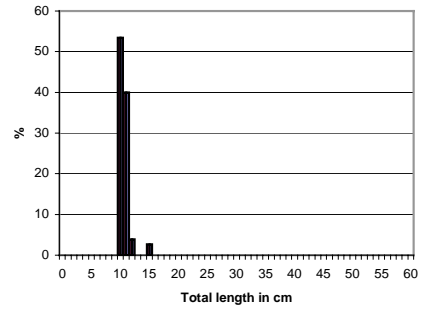
Pseudupeneus prayensis Ghana
Mean length = 17.4 cm N = 253



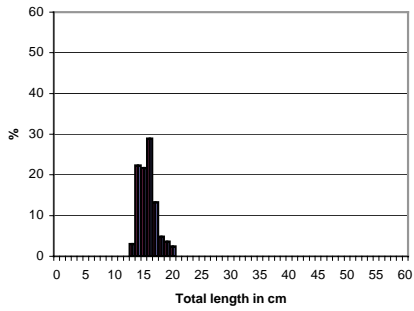
Sardinella aurita Ghana
Mean length = 16.5 cm N = 414



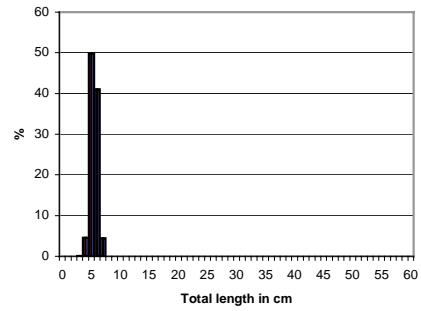
Galeoides decadactylus Ghana
 Mean length = 25.9 cm N = 62
 4



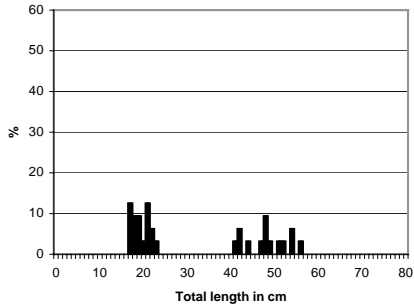
Sardinella maderensis Ghana
 Mean length = 11.1 cm N = 90



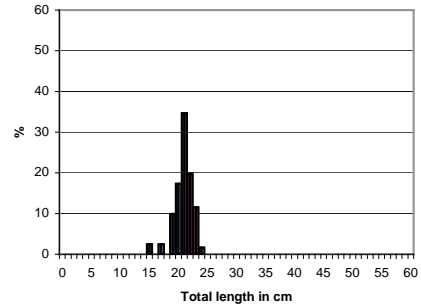
Priacanthus arenatus Ghana
 Mean length = 16.2 cm N = 52



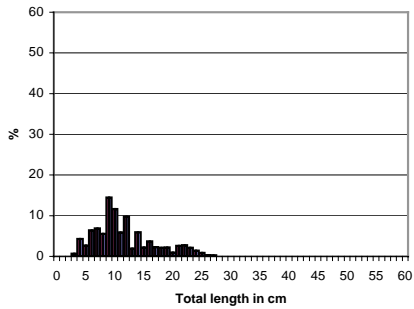
Engraulis encrasicolus Ghana
 Mean length = 6.0 cm N = 227



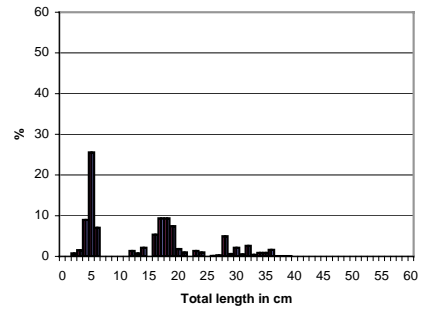
Alectis alexandrinus Ghana
 Mean length = 32.6 cm N = 32



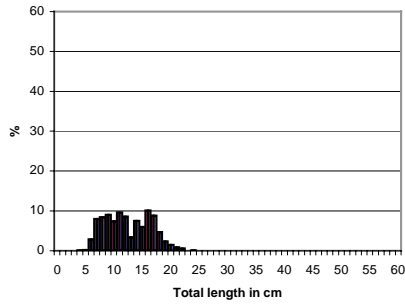
Decapterus rhonchus Ghana
 Mean length = 21.4 cm N = 55



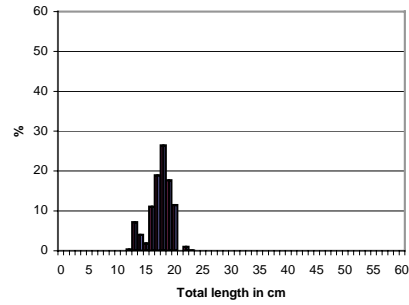
Chloroscombrus chrysurus Ghana
 Mean length = 12.2 cm N = 296



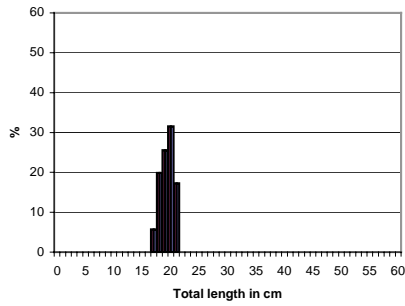
Selene dorsalis Ghana
 Mean length = 14.6 cm N = 143



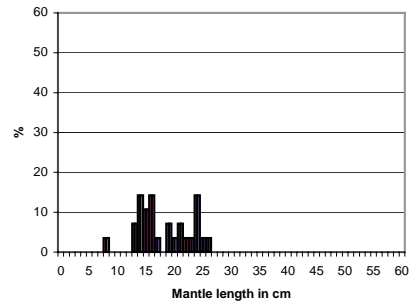
Decapterus punctatus Ghana
Mean length = 13.0 cm N = 872



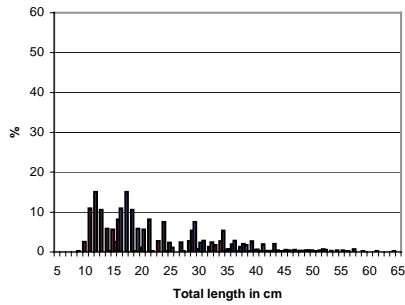
Trachurus trecae Ghana
Mean length = 17.9 cm N = 88



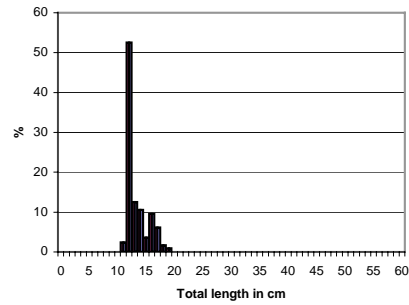
Scomber japonicus Ghana
Mean length = 19.9 cm N = 32



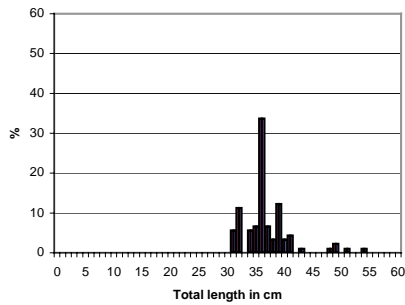
Sepia officinalis Ghana
Mean length = 18.6 cm N = 28



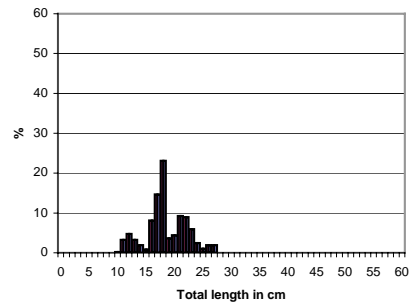
Sphyaena guachancho Ghana
Mean length = 20.9 cm N = 143



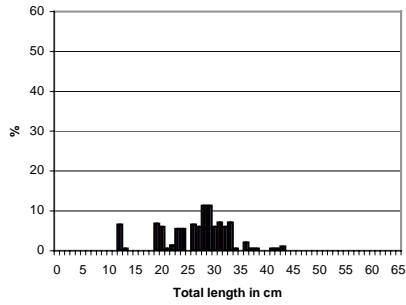
Boops boops Côte d'Ivoire
Mean length = 13.8 cm N = 200



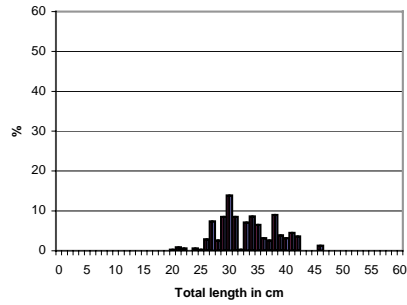
Sphyaena sphyaena Ghana
Mean length = 13.8 cm N = 42



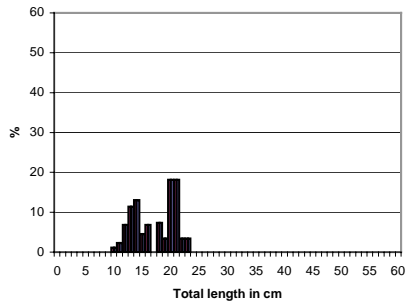
Dentex angolensis Côte d'Ivoire
Mean length = 19.0 cm N = 149



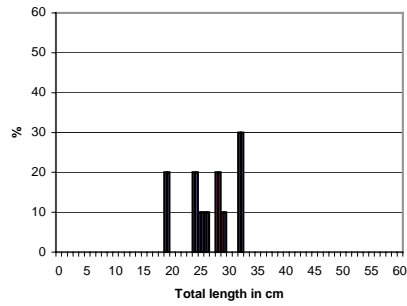
Dentex canariensis Côte d'Ivoire
Mean length = 27.1 cm N = 48



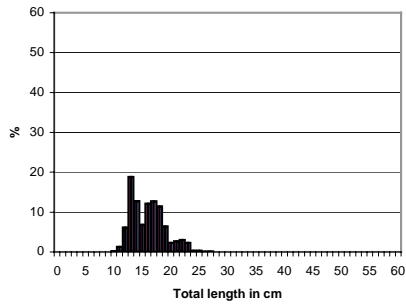
Pseudotolithus senegalensis Côte d'Ivoire
Mean length = 33.7 cm N = 84



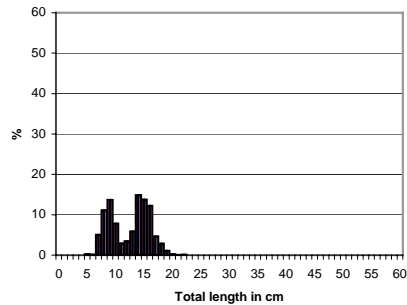
Dentex congoensis Côte d'Ivoire
Mean length = 17.7 cm N = 45



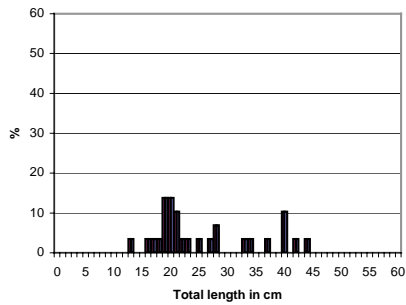
Umbrina canariensis Côte d'Ivoire
Mean length = 25.9 cm N = 10



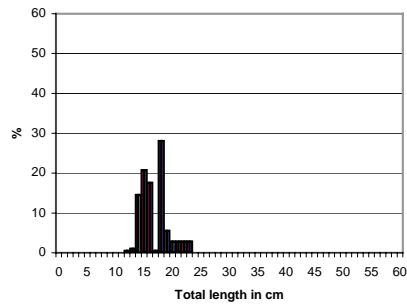
Pagellus bellottii Côte d'Ivoire
Mean length = 16.4 cm N = 296



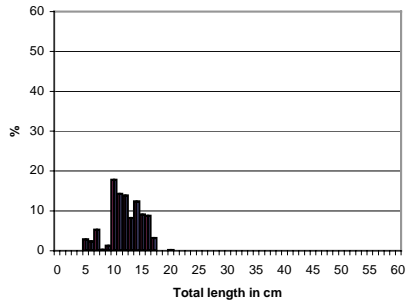
Brachydeuterus auritus Côte d'Ivoire
Mean length = 12.9 cm N = 635



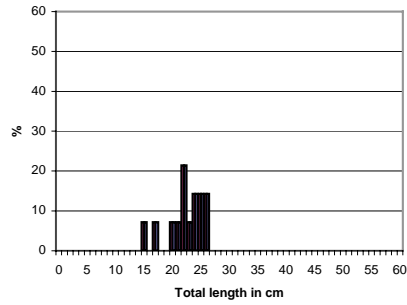
Dentex gibbosus Côte d'Ivoire
Mean length = 26.2 cm N = 29



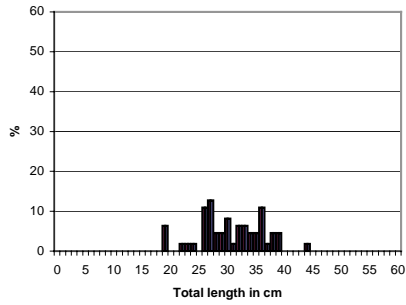
Pomadasys incisus Côte d'Ivoire
Mean length = 17.3 cm N = 60



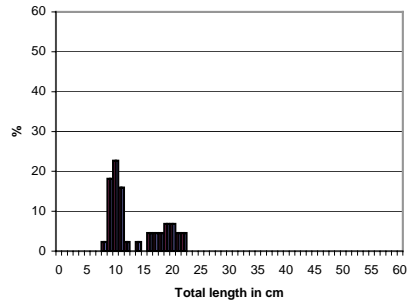
Pteroscion peli Côte d'Ivoire
Mean length = 12.5 cm N = 134



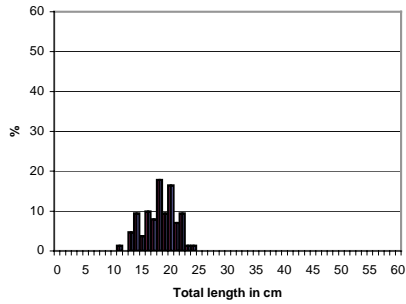
Pomadasys jubelini Côte d'Ivoire
Mean length = 22.8 cm N = 14



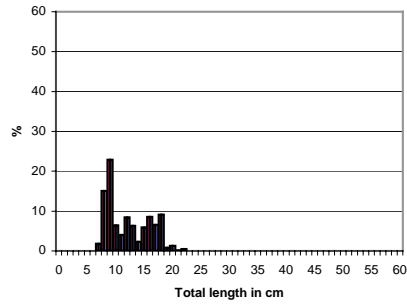
Pseudotolithus typus Côte d'Ivoire
Mean length = 31.0 cm N = 47



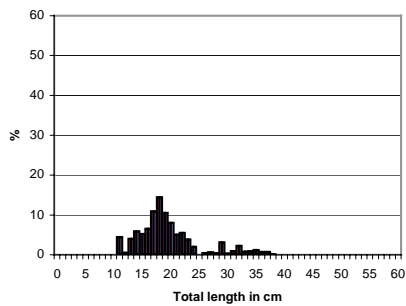
Priacanthus arenatus Côte d'Ivoire
Mean length = 13.9 cm N = 44



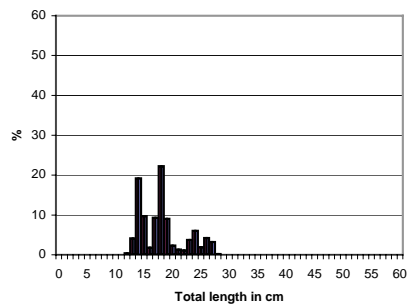
Pseudupeneus prayensis Côte d'Ivoire
Mean length = 18.6 cm N = 55



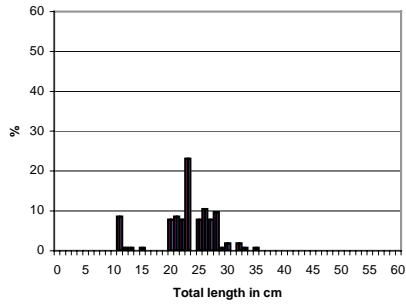
Ilisha africana Côte d'Ivoire
Mean length = 11.7 cm N = 300



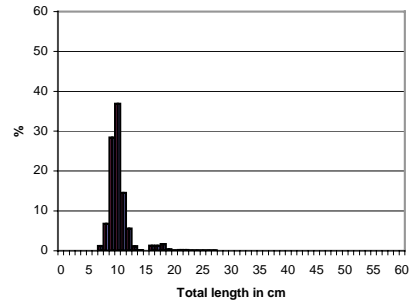
Galeoides decadactylus Côte d'Ivoire
Mean length = 20.0 cm N = 175



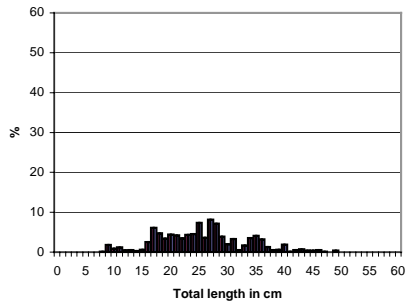
Sardinella aurita Côte d'Ivoire
Mean length = 18.6 cm N = 303



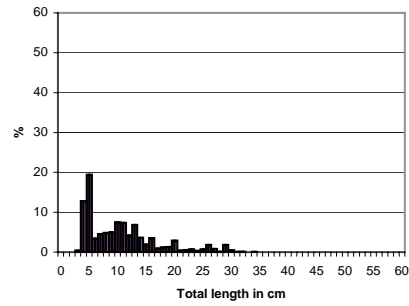
Pagrus caeruleostictus Côte d'Ivoire
Mean length = 23.5 cm N = 26



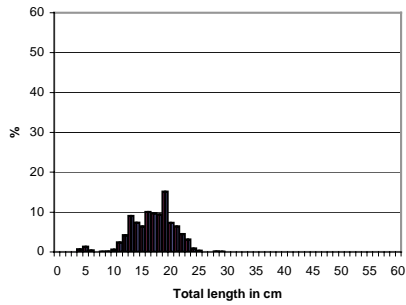
Sardinella maderensis Côte d'Ivoire
Mean length = 10.8 cm N = 486



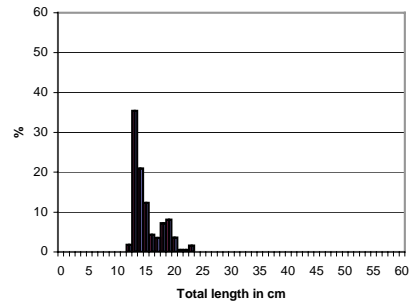
Sphyræna guachancho Côte d'Ivoire
Mean length = 26.2 cm N = 328



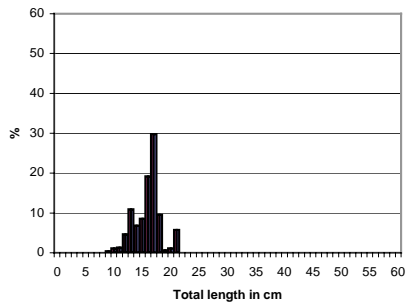
Selene dorsalis Côte d'Ivoire
Mean length = 11.0 cm N = 401



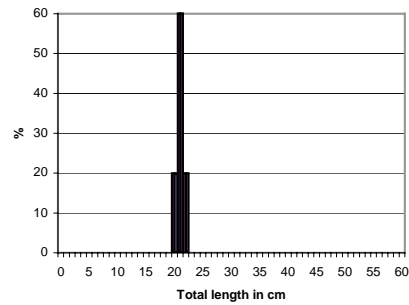
Chloroscombrus chrysurus Côte d'Ivoire
Mean length = 17.4 cm N = 429



Trachurus trecae Côte d'Ivoire
Mean length = 15.7 cm N = 203



Decapterus punctatus Côte d'Ivoire
Mean length = 16.5 cm N = 39



Scomber japonicus Côte d'Ivoire
Mean length = 21.5 cm N = 20

Annex III Families/genera in catch analysis and swept area estimates

1) Main groups in swept-area bottom trawl hauls:

Demersal: Sciaenidae, Sparidae, Haemulidae, Ariidae, Serranidae, Lutjanidae, Merluccidae, Ophididae, Lethrinidae

Pelagic: Carangidae, Scombridae, Sphyraenidae, Trichiuridae, Clupeidae, Engraulididae

Shrimp: Shrimps

Cephalopods: Cephalopods

Sharks: Sharks

2) Main pelagic families in swept-area bottom trawl hauls:

Clupeids: Clupeidae, Engraulididae

Carangids: Carangidae

Scombrids: Scombridae

Hairtails: Trichiuridae

Barracudas: Sphyraenidae

3) Commercially important demersal species grouped by families in swept-area bottom trawl hauls:

Seabream: *Dentex* spp., *Diplodus* spp., *Lithognathus* spp., *Pagellus* spp., *Pagrus* spp., *Sparus* spp.

Snappers: Lutjanidae

Groupers: Serranidae

Grunts: *Plectorhynchus* spp., *Pomadasyd* spp.

Croakers: Sciaenidae

Annex IV Swept-area biomass estimates

SWEPT AREA ANALYSIS FROM STATION 1089 TO STATION 1108

Benin 2006

| SPECIES NAME | SAMPLE DISTRIB. BY CATCH CLASSES | | | | | % inci- dence | Mean dens. t/nm ² | Mean densities by bottom depth strata t/nm ² | | | | |
|-----------------------------|--|---|---|--|---|------------------|------------------------------------|---|---------|---------|----------|------|
| | Lower limits, Kg/nm >0 10 30 100 300 1000 | | | | | | | - 30m | 30- 50m | 50-100m | 100-100m | |
| Dentex congoensis | 1 | | | | 1 | 13 | 1.96 | | | | | |
| Brachydeuterus auritus | 9 | 1 | 1 | | | 73 | 0.69 | 0.28 | 1.58 | | 5.86 | 0.22 |
| Dentex canariensis | 5 | | 1 | | | 40 | 0.61 | 0.02 | 0.02 | | 1.79 | |
| Pagellus bellottii | 6 | 2 | 1 | | | 60 | 0.58 | | 0.08 | | 1.66 | |
| Dentex angolensis | 4 | | 1 | | | 33 | 0.35 | | | | 1.06 | |
| Sepia officinalis hierredda | 11 | | 1 | | | 80 | 0.26 | 0.10 | 0.21 | | 0.48 | |
| Galeoides decadactylus | 5 | | 1 | | | 40 | 0.20 | 0.53 | 0.07 | | | |
| Ariomma bondi | | | 1 | | | 7 | 0.19 | | | | 0.58 | |
| Pseudolithus senegalensis | 2 | | 1 | | | 20 | 0.16 | 0.47 | | | | |
| Pagrus caeruleostictus | 6 | | 1 | | | 47 | 0.15 | 0.04 | 0.10 | | 0.30 | |
| Fistularia petimba | 8 | | | | | 53 | 0.15 | 0.01 | 0.13 | | 0.33 | |
| Polydactylus quadrifilis | | | 1 | | | | 0.12 | 0.35 | | | | |
| Epinephelus aeneus | 4 | | | | | 27 | 0.10 | | 0.04 | | 0.25 | |
| Squatina oculata | 3 | | | | | 20 | 0.09 | | | | 0.26 | |
| Alloteuthis africana | 2 | | | | | 13 | 0.08 | | 0.19 | | 0.06 | |
| Priacanthus arenatus | 4 | | | | | 27 | 0.08 | | 0.02 | | 0.20 | |
| Lutjanus goreensis | 2 | | | | | 13 | 0.08 | 0.23 | | | | |
| Lethrinus atlanticus | 3 | | | | | 20 | 0.08 | 0.23 | | | | |
| Drepane africana | 6 | | | | | 40 | 0.08 | 0.21 | 0.02 | | | |
| Dasyatis margarita | 4 | | | | | 27 | 0.07 | 0.21 | | | | |
| Dentex gibbosus | 2 | | | | | 13 | 0.06 | | | | 0.18 | |
| Penaeus notialis | 2 | | | | | 13 | 0.06 | | 0.17 | | | |
| Lagocephalus laevigatus | 5 | | | | | 33 | 0.05 | 0.05 | 0.09 | | 0.01 | |
| Boops boops | 1 | | | | | 7 | 0.05 | | | | 0.14 | |
| Pteroscion peli | 4 | | | | | 27 | 0.05 | 0.16 | | | | |
| Panulirus argus | 1 | | | | | 7 | 0.05 | 0.16 | | | | |
| Cymbium cymbium | 1 | | | | | 7 | 0.05 | | 0.15 | | | |
| Penaeus kerathurus | 1 | | | | | 7 | 0.01 | 0.02 | | | | |
| Sicyonia galeata | 1 | | | | | 7 | | | 0.01 | | | |
| Penaeus monodon | 1 | | | | | | | | | | | |
| Other fish | | | | | | | 0.34 | 0.55 | 0.43 | | 0.24 | |
| Sum all species | | | | | | | 6.80 | 3.62 | 3.31 | | 13.62 | |
| Sum Snappers | | | | | | | 0.11 | 0.32 | | | | |
| Sum Groupers | | | | | | | 0.10 | | 0.04 | | 0.25 | |
| Sum Grunts | | | | | | | 0.73 | 0.33 | 1.65 | | 0.22 | |
| Sum Croakers | | | | | | | 0.21 | 0.63 | | | | |
| Sum Seabreams | | | | | | | 3.76 | 0.06 | 0.20 | | 10.99 | |
| Sum Sharks | | | | | | | 0.10 | | | | 0.30 | |
| Sum Rays | | | | | | | 0.10 | 0.21 | 0.03 | | 0.07 | |
| Sum Squids | | | | | | | 0.34 | 0.11 | 0.40 | | 0.55 | |

Number of stations included in analysis, total and by depth strata

15

5

5

5

SWEPT AREA ANALYSIS FROM STATION 1109 TO STATION 1119

Togo 2006

| SPECIES NAME | SAMPLE DISTRIB. BY CATCH CLASSES | | | | | % inci- dence | Mean dens. t/nm ² | Mean densities by bottom depth strata t/nm ² | | | | |
|-----------------------------|----------------------------------|----|----|-----|-----|------------------|------------------------------------|---|---------|---------|----------|--|
| | Lower limits, Kg/nm | | | | | | | - 30m | 30- 50m | 50-100m | 100-100m | |
| | >0 | 10 | 30 | 100 | 300 | 1000 | | | | | | |
| Sepia officinalis hierredda | 7 | 2 | | | | | 100 | 0.57 | 0.17 | 0.91 | 0.62 | |
| Priacanthus arenatus | 3 | | 1 | | | | 44 | 0.52 | | | 1.57 | |
| Pagellus bellottii | 7 | 1 | | | | | 89 | 0.41 | 0.02 | 0.91 | 0.31 | |
| Brachydeuterus auritus Juv. | | | | 1 | | | 11 | 0.40 | | 1.20 | | |
| Dentex canariensis | 4 | | | | | | 44 | 0.39 | 0.33 | 0.29 | 0.53 | |
| Pagrus caeruleostictus | 8 | 1 | | | | | 100 | 0.34 | 0.16 | 0.55 | 0.30 | |
| Fistularia petimba | 9 | | | | | | 100 | 0.29 | 0.19 | 0.30 | 0.37 | |
| Alloteuthis africana | 8 | | | | | | 89 | 0.20 | 0.02 | 0.38 | 0.19 | |
| Aluterus monoceros | 4 | | | | | | 44 | 0.15 | 0.03 | 0.11 | 0.29 | |
| Lagocephalus laevigatus | 6 | | | | | | 67 | 0.10 | 0.23 | 0.03 | 0.06 | |
| Stromateus fiatola | 2 | | | | | | 22 | 0.08 | | 0.11 | 0.13 | |
| Dentex angolensis | 2 | | | | | | 11 | 0.07 | | | 0.20 | |
| Balistes punctatus | 1 | | | | | | 11 | 0.05 | 0.15 | | | |
| Balistes capriscus | 6 | | | | | | 67 | 0.05 | 0.02 | 0.05 | 0.07 | |
| Other fish | | | | | | | | 0.34 | 0.44 | 0.51 | 0.21 | |
| Sum all species | | | | | | | | 3.96 | 1.76 | 5.35 | 4.85 | |
| Sum Snappers | | | | | | | | 0.01 | | | 0.03 | |
| Sum Groupers | | | | | | | | 0.04 | | 0.09 | 0.02 | |
| Sum Grunts | | | | | | | | 0.43 | | 1.30 | | |
| Sum Croakers | | | | | | | | | | | | |
| Sum Seabreams | | | | | | | | 1.22 | 0.53 | 1.77 | 1.35 | |
| Sum Sharks | | | | | | | | 0.02 | | | 0.07 | |
| Sum Rays | | | | | | | | | 0.01 | 0.01 | | |
| Sum Squids | | | | | | | | 0.77 | 0.19 | 1.29 | 0.81 | |
| Sum | | | | | | | | | | | | |

Number of stations included in analysis, total and by depth strata

9 3 3 3

SWEPT AREA ANALYSIS FROM STATION 1120 TO STATION 1170

Ghana 2006

| SPECIES NAME | SAMPLE DISTRIB. BY CATCH CLASSES | | | | | % inci- dence | Mean dens. t/nm ² | Mean densities by bottom depth strata t/nm ² | | | |
|-----------------------------|--|---|---|---|---|------------------|------------------------------------|---|---------|---------|----------|
| | Lower limits, Kg/nm >0 10 30 100 300 1000 | | | | | | | - 31m | 31- 51m | 51-100m | 100-100m |
| Ariomma bondi | 1 | | | | 1 | 5 | 1.55 | 0.01 | | 4.32 | |
| Brachydeuterus auritus | 11 | 5 | 3 | 2 | | 50 | 1.39 | 2.98 | 0.91 | 0.44 | |
| Chromis cadenati | 3 | | 1 | 1 | | 12 | 0.96 | | | 2.69 | |
| Pagellus bellottii | 22 | 5 | 1 | 1 | | 69 | 0.81 | 0.01 | 0.55 | 1.76 | |
| Priacanthus arenatus | 20 | | 1 | 1 | | 52 | 0.78 | 0.01 | 0.03 | 2.16 | |
| Dentex congoensis | 3 | 1 | 1 | 1 | | 14 | 0.50 | | | 1.40 | |
| Sepia officinalis hierredda | 32 | 2 | 1 | | | 83 | 0.40 | 0.06 | 0.39 | 0.71 | |
| Boops boops | 5 | 2 | 2 | | | 21 | 0.40 | | | 1.13 | |
| Dentex canariensis | 23 | 1 | 1 | | | 60 | 0.33 | 0.25 | 0.06 | 0.64 | |
| Fistularia petimba | 30 | 3 | | | | 79 | 0.32 | 0.05 | 0.18 | 0.68 | |
| Chelonia mydas | | | | | 1 | 2 | 0.25 | 0.81 | | | |
| Pagrus caeruleostictus | 31 | 2 | | | | 79 | 0.23 | 0.13 | 0.18 | 0.36 | |
| Pseudupeneus prayensis | 23 | 2 | | | | 60 | 0.22 | 0.02 | 0.09 | 0.52 | |
| Dactylopterus volitans | 11 | 2 | | | | 31 | 0.15 | | | 0.43 | |
| Apsilus fuscus | 5 | | 1 | | | 14 | 0.13 | | | 0.36 | |
| Dentex angolensis | 6 | | 1 | | | 17 | 0.11 | | | 0.32 | |
| Epinephelus aeneus | 15 | | | | | 33 | 0.10 | 0.01 | 0.12 | 0.15 | |
| Drepane africana | 8 | 2 | | | | 24 | 0.10 | 0.30 | 0.01 | | |
| Lagocephalus laevigatus | 21 | 1 | | | | 52 | 0.08 | 0.13 | 0.10 | 0.03 | |
| Dentex gibbosus | 9 | 1 | | | | 24 | 0.08 | | | 0.21 | |
| Umbrina canariensis | 2 | 2 | | | | 10 | 0.07 | | | 0.18 | |
| Galeoides decadactylus | 8 | 1 | | | | 21 | 0.07 | 0.12 | 0.10 | | |
| Scorpaena scrofa | | 1 | | | | 2 | 0.06 | | | 0.16 | |
| Elops senegalensis | | 1 | | | | 2 | 0.06 | 0.21 | | | |
| Sphoeroides pachgaster | 6 | | | | | 14 | 0.05 | | | 0.13 | |
| Alloteuthis africana | 13 | | | | | 31 | 0.05 | 0.01 | 0.09 | 0.03 | |
| Squatina oculata | 6 | | | | | 14 | 0.05 | | | 0.14 | |
| Chlamys purpuratus | 5 | 1 | | | | 14 | 0.05 | 0.13 | 0.04 | | |
| Penaeus notialis | 4 | | | | | 10 | | | | | |
| Other fish | | | | | | | 0.45 | 0.69 | 0.17 | 0.59 | |
| Sum all species | | | | | | | 9.80 | 5.93 | 3.02 | 19.54 | |
| Sum Snappers | | | | | | | 0.19 | 0.11 | | 0.44 | |
| Sum Groupers | | | | | | | 0.10 | 0.01 | 0.12 | 0.15 | |
| Sum Grunts | | | | | | | 1.42 | 3.05 | 0.93 | 0.44 | |
| Sum Croakers | | | | | | | 0.10 | 0.09 | 0.02 | 0.18 | |
| Sum Seabreams | | | | | | | 2.47 | 0.39 | 0.79 | 5.85 | |
| Sum Sharks | | | | | | | 0.07 | | | 0.19 | |
| Sum Rays | | | | | | | 0.04 | 0.03 | 0.01 | 0.08 | |
| Sum Squids | | | | | | | 0.46 | 0.07 | 0.48 | 0.77 | |
| Sum | | | | | | | | | | | |

Number of stations included in analysis, total and by depth strata

42

13

14

15

SWEPT AREA ANALYSIS FROM STATION 1171 TO STATION 1210

Cote d'Ivoire 2006

| SPECIES NAME | SAMPLE DISTRIB. BY CATCH CLASSES Lower limits, Kg/nm | | | | | % inci- dence | Mean dens. t/nm ² | Mean densities by bottom depth strata t/nm ² | | | |
|---------------------------|---|----|----|-----|-----|------------------|------------------------------------|---|-------|---------|---------|
| | >0 | 10 | 30 | 100 | 300 | | | 1000 | - 31m | 31- 51m | 51-100m |
| Brachydeuterus auritus | 14 | 5 | 3 | 5 | | 75 | 3.43 | 1.17 | 0.83 | 6.83 | |
| Pagellus bellottii | 16 | 5 | 1 | 1 | | 64 | 1.23 | 0.05 | 0.45 | 2.61 | |
| Boops boops | 5 | 1 | 1 | | | 19 | 0.31 | | | 0.75 | |
| Pseudolithus senegalensis | 5 | 2 | 1 | | | 22 | 0.22 | 0.62 | 0.11 | | |
| Drepane africana | 9 | 2 | | | | 31 | 0.22 | 0.64 | 0.08 | | |
| Galeoides decadactylus | 12 | 2 | | | | 39 | 0.21 | 0.37 | 0.33 | | |
| Priacanthus arenatus | 13 | | 1 | | | 39 | 0.19 | | 0.01 | 0.45 | |
| Pseudupeneus prayensis | 13 | 3 | | | | 44 | 0.18 | 0.25 | 0.20 | 0.10 | |
| Illex coindetii | 6 | | 1 | | | 19 | 0.14 | 0.02 | | 0.31 | |
| Dentex canariensis | 10 | 1 | | | | 31 | 0.12 | | 0.02 | 0.28 | |
| Dentex angolensis | 10 | 1 | | | | 31 | 0.12 | | | 0.30 | |
| Ommastrephes bartrami | | | 1 | | | 3 | 0.11 | | | 0.27 | |
| Stromateus fiatola | 6 | | | | | 17 | 0.08 | 0.04 | 0.15 | 0.06 | |
| Pagrus caeruleostictus | 9 | 1 | | | | 28 | 0.08 | 0.05 | 0.06 | 0.11 | |
| Pteroscion peli | 8 | 1 | | | | 25 | 0.06 | 0.18 | 0.02 | | |
| Pomadasys incisus | 4 | 1 | | | | 14 | 0.06 | 0.02 | 0.03 | 0.11 | |
| Balistes capriscus | 12 | | | | | 33 | 0.06 | 0.03 | 0.12 | 0.04 | |
| Pomadasys peroteti | 7 | | | | | 19 | 0.05 | 0.13 | 0.02 | | |
| Parapenaeopsis atlantica | 3 | | | | | 8 | 0.03 | 0.09 | | | |
| Penaeus notialis | 7 | | | | | 19 | | | | | |
| Parapenaeus longirostris | 1 | | | | | 3 | | | | 0.01 | |
| Other fish | | | | | | | 0.73 | 0.82 | 0.57 | 0.84 | |
| Sum all species | | | | | | | 7.63 | 4.48 | 3.00 | 13.07 | |
| Sum Snappers | | | | | | | 0.01 | | 0.03 | | |
| Sum Groupers | | | | | | | 0.04 | 0.01 | 0.02 | 0.08 | |
| Sum Grunts | | | | | | | 3.57 | 1.36 | 0.94 | 6.94 | |
| Sum Croakers | | | | | | | 0.37 | 0.94 | 0.13 | 0.13 | |
| Sum Seabreams | | | | | | | 1.89 | 0.10 | 0.55 | 4.11 | |
| Sum Sharks | | | | | | | 0.02 | | | 0.06 | |
| Sum Rays | | | | | | | 0.05 | 0.06 | 0.06 | 0.05 | |
| Sum Squids | | | | | | | 0.33 | 0.05 | 0.09 | 0.71 | |
| Sum | | | | | | | | | | | |

Number of stations included in analysis, total and by depth strata

36 11 10 15

Annex V Calculations of mean density and confidence intervals

1. Stratified mean density and confidence intervals

The stratified estimator of mean density in the entire area is calculated as (Cochran, 1977; eq. 5.1, p. 91)

$$\bar{y}_{st} = \sum_{i=1}^L W_i \bar{y}_i, \quad (1)$$

where

L is the number of strata,

$W_i = \frac{area_i}{total\ area}$ is the proportion of the survey area in the i^{th} stratum,

$\bar{y}_i = \frac{\sum_{k=1}^{n_i} y_{i,k}}{n_i}$ is the average catch in the i^{th} stratum

n_i is the number of tows in the i^{th} stratum, and

$y_{i,k}$ is the catch by the k^{th} tow in stratum i (normalized to either kg/hour

or $t/nmi^2 = \frac{y_{ik}}{area\ swept_{ik}}$ for biomass estimates).

The estimated variance of the stratified mean, \bar{y}_{st} , is

$$\text{var}(\bar{y}_{st}) = \sum_{i=1}^L W_i^2 \frac{s_i^2}{n_i}, \quad (2)$$

where

$$s_i^2 = \frac{\sum_{k=1}^{n_i} (y_{i,k} - \bar{y}_i)^2}{n_i - 1}. \quad (3)$$

When \bar{y}_{st} is estimated in t/nmi^2 then an estimate of the total biomass in the area is calculated by

$$B = \bar{y}_{st} \cdot total\ area \quad (4)$$

2. Precision of the estimates of mean density

2.1. Estimates based on the sample mean

The estimate of the standard error for each stratum mean is given by

$$se(\bar{y}_i) = \sqrt{\frac{s_i^2}{n_i}}, \quad (5)$$

where s_i^2 is from equation (3).

The standard error of the stratified mean (\bar{y}_{st} , equation 1), i.e. the square root of the variance of \bar{y}_{st} , is calculated as

$$se(\bar{y}_{st}) = \sqrt{\text{var}(\bar{y}_{st})}, \quad (6)$$

where $\text{var}(\bar{y}_{st})$ is defined by equation (2).

If the sample size is “large” enough, then the Central Limit Theorem states that each time a survey is conducted there is a 95% chance that the true mean lies in the interval (see Cochran, 1977, pp. 39-44)

$$\bar{y}_{st} \pm t_{(n-1)} se(\bar{y}_{st}), \quad (7)$$

where t is from Students t-table with $(n-1)$ degrees of freedom and $\alpha = 0.025$.

2.2. Estimates of the mean based on lognormal theory - The Pennington estimator

Since abundance data from marine surveys usually have a large variance (much higher than the mean) and are highly skewed to the right, the sample sizes are typically not large enough so that equation (2) is a valid 95% confidence interval. In fact, the confidence associated with the interval given by equation (7) is usually much lower than 95% (McConnaughey and Conquest, 1992; Conquest *et al.*, 1996; Pennington, 1996). A major problem to the degree of skewness is due to the high proportion of zero tows often observed. Development of confidence intervals is complicated by the asymmetric distribution, and the occurrence of zero catches confounds an effective normalization transformation. Logarithmic transformation will stabilize the variance but data will still not be normally distributed and interpretation of re-transformed means is difficult (Pennington and Grosslein 1978).

One way to generate more precise estimates of the mean and more accurate confidence statements for skewed marine data is to base the estimators on the lognormal Delta distribution (Pennington, 1983, 1996; Conquest *et al.*, 1996), in which catches are divided into zero and non-zero units, followed by transformation of the non-zero values to natural logarithms. When it is found that the transformed non-zero data are approximated by a lognormal distribution (*i.e.* the logged values are normally distributed), then a more efficient estimator of mean density, c_i , within each stratum is given by (Pennington, 1983, 1996)

$$c_i = \frac{m_i}{n_i} \exp(\bar{x}_i) G_{m_i} (s_{x,i}^2 / 2), \quad (8)$$

where

m_i is the number of sample values greater than 0 in stratum i ,

\bar{x}_i and $s_{x,i}^2$ are the mean and variance, respectively, of the log transformed values of catches greater than 0, and

$G_m(f)$ is an infinite series function of m and f [for example, $m = m_i$ and $f = s_{x,i}^2 / 2$ in equation (8)] which is used to correct for bias in re-transformation from log to arithmetic scale and is defined by

$$G_m(f) = 1 + \frac{m-1}{m} f + \sum_{j=2}^{\infty} \frac{(m-1)^{2j-1} f^j}{m^j (m+1)(m+3)\cdots(m+2j-3)j!} \quad (9)$$

The variance of c_i is given by

$$\text{var}(c_i) = \frac{m_i}{n_i} \exp(2\bar{x}_i) \left\{ \frac{m_i}{n_i} G_{m_i}^2 (s_{x,i}^2 / 2) - \frac{(m_i-1)}{(n_i-1)} G_{m_i} \left(\frac{m_i-2}{m_i-1} s_{x,i}^2 \right) \right\} \quad (10)$$

2.3. The modified Pennington estimator

In contrast to estimates based on the sample mean (equation 1 and 2), which are highly sensitive to a single or a few isolated high catch rates that may account for more than 50% of the total catch, Pennington's estimator (equations 8 and 10) is sensitive to low catch rates which contribute little to the total catch, but when log-transformed may give large negative values resulting in a distribution skewed to the left. In such a case a more precise estimator of mean density within each stratum, $\hat{\mu}_i$, is given by (modified from Pennington, 1983, 1996)

$$\hat{\mu}_i = \frac{(n_i - m_i)}{n_i} \bar{y}'_i + \frac{m_i}{n_i} \exp(\bar{x}_i) G_{m_i}(s_{x,i}^2 / 2), \quad (11)$$

where

m_i is the number of sample values greater than a defined 'cut-level' (rather than 0 as in equation 8) in stratum i ,

\bar{y}'_i denotes the arithmetic mean of the non-transformed values less than the cut-level, and

\bar{x}_i and $s_{x,i}^2$ are the mean and variance, respectively, of the logged values of catches greater than the cut-level.

The variance of $\hat{\mu}_i$ is given by

$$\text{var}(\hat{\mu}_i) = \text{var}(c_i) + \left(\frac{n_i - m_i - 1}{n_i(n_i - 1)} \right) s_i'^2 + \left(\frac{m_i(n_i - m_i)}{n_i^2(n_i - 1)} \right) \bar{y}'_i'^2 - 2 \left(\frac{n_i - m_i}{n_i(n_i - 1)} \right) \bar{y}'_i \times c_i, \quad (12)$$

where

$s_i'^2$ is the variance of the values less than the cut-level (equation 3), and

c_i and $\text{var}(c_i)$ are equations (8) and (10) with m_i bigger than the cut-level.

There is no single objective criterion upon which to define a cut-level bigger than zero. Basically the logged Delta distribution should be viewed (e.g. in GRAFER) in order to determine if it is skewed to the left and/or contains isolated small catches. As a 'rule of thumb' (Pennington pers. com.) the cut-level should be set $= (2\bar{x}_i - x_{\max})$, where \bar{x}_i and x_{\max} are the mean and the largest value, respectively, of the log transformed values of catches greater than 0.

2.4. Stratified mean and confidence interval based on lognormal theory

The stratified estimate of mean density (denoted by $\hat{\mu}_{st}$) in the entire area is calculated by replacing \bar{y}_i with $\hat{\mu}_i$ for each stratum in equation (1). The standard error of $\hat{\mu}_{st}$ is obtained by substituting $\text{var}(\hat{\mu}_i)$ for s_i^2 / n_i (which equals $\text{var}(\bar{y}_i)$) in equation (2) and then

$$se(\hat{\mu}_{st}) = \sqrt{\text{var}(\hat{\mu}_{st})} \quad (13)$$

Sometimes the $\hat{\mu}_{st}$ -estimator is higher than the one based on the sample mean. This is because, given the sample sizes typical for marine surveys, the sample mean tends to underestimate the true mean most of the time for these highly skewed distributions (Pennington, 1983, 1996; Conquest *et al.*, 1996).

An approximate 95% confidence interval for $\hat{\mu}_{st}$ is given by

$$\hat{\mu}_{st} \pm t_{(n-1)} se(\hat{\mu}_{st}) \quad (14)$$

Annex VI Excel sheet used for calculations of biomass and confidence intervals

This example is the biomass of seabreams in Benin 2002

This sheet is used to calculate stratified mean density, total biomass, and 95% confidence limits on the total biomass. Inputs are only required in the yellow fields and optionally the t-value can be set. NOTE that the Station field MUST be 1 even if there is no catch Density (t/nm²) is from NAN-SIS and Coefficient of variation (CV) is from GRAFER using the same depth intervals The underlying assumption is that the CV from the catch (kg/hour) is equal for for the density (t/nm²), i.a. that the swept area is constant per hour Equation numbers (1) and (2) refers to Appendix in report

| Input from NANSIS | | | GRAFER | | | | | | |
|-------------------|------|-------------|------------------------------|--------------|--------------|-------|------------------|---------------|--|
| Depth (m) | Area | No Stations | Density (t/nm ²) | CV (kg/hour) | Equation(1)= | SD | Est. Variance | Equation (2)= | |
| 20-30 | 387 | 6 | 0.08 | 1.83 | 0.04 | 0.146 | 0.021 | 0.001 | |
| 31-50 | 134 | 6 | 0.53 | 1.54 | 0.09 | 0.816 | 0.666 | 0.003 | |
| 51-100 | 244 | 5 | 2.59 | 1.20 | 0.83 | 3.108 | 9.660 | 0.197 | |
| Total | 5561 | | | | | | Var(strat-mean)= | 0.20 | |

t- value = 2

Stratified mean = 0.96

SE(strat-mean)= 0.45

95% Confidence limits:

| | | | |
|----------------|-----|----|------|
| Total biomass= | 734 | 48 | 1420 |
|----------------|-----|----|------|

Annex VII Instruments and fishing gear used

Echo sounder

The SIMRAD EK500/38 kHz scientific sounder was used during the survey for fish abundance estimation. The lowering keel was submerged a few times during the survey. The Bergen Echo Integrator system (BEI) was used to scrutinise the acoustic records. System calibration experiment using a standard copper sphere was performed 11.01.2006. The settings of 38 kHz echo sounder were as follows:

Tranceiver-1 menu (38 kHz, mounted in lowering keel)

| | |
|--------------------|--------------------------------------|
| Transducer depth | 5.5 m (lowering keel not submerged) |
| Absorption coeff. | 10 dB/km |
| Pulse length | medium (1 ms) |
| Bandwidth | wide |
| Max Power | 2000 Watt |
| 2-way beam angle | -21.0 dB |
| Sv Transducer gain | 26.96 dB |
| TS Transducer gain | 27.07 dB |
| Angle sensitivity | 21.9 |
| 3 dB beamwidth | 6.9 ° alongship 6.8 ° athwardship |
| Alongship offset | -0.07 ° |
| Athwardship effect | 0.08 ° |

Display menu

| | |
|--------------------|------------|
| Echogram | 1 (38 kHz) |
| Bottom range | 15 m |
| Bottom range start | 10 m |
| Sv colour min | -67 dB |

Printer menu

| | |
|--------------------|---------------------------|
| Echogram | 1 (38 kHz) |
| Range | 50 m, 100 m, 250 m, 500 m |
| Range start | 0 |
| Bottom range | 12 m |
| Bottom range start | 10 m |
| TVG | 20 log R |
| Sv Colour min | - 60 dB |

Bottom detection menu Minimum level -50 dB

Fishing gear

The vessel has "Harstad" and "Åkrahamn" pelagic trawls and "Gisund super bottom trawl".

The bottom trawl has a headline of 31 m, footrope 47 m and 20 mm meshsize in the codend with an innernet of 10 mm mesh size. The estimated opening is 6 m (observed 5.7) and distance between wings during towing about 18 m. The sweeps are 40 m long. The trawl is equipped with a 12" rubber bobbins gear. The doors are of "Thyborøn" combi type, 7.81 m², 1670 kg, their distance while trawling about 45 - 55 m in average, depending on the depth (least distance at low depths). This distance can be kept constant (about 50 m) at all depths by the use of a 9.5 m strap between the wires at 130 m distance from the doors, normally applied at depths greater than 80 m. On the present survey, however, the strap was not applied because most of the trawl hauls were made in shallower waters.

The SCANMAR system was used on all trawl hauls. This equipment consists of sensors, a hydrophone, a receiver, a display unit and a battery charger. Communication between sensors and ship is based on acoustic transmission. The doors are fitted with sensors to provide information on their distance and a height sensor is fitted to the bottom trawl to measure the trawl opening and provide information on clearance and bottom contact.

The pelagic trawl can be equipped with a trawleye that provides information on the trawl opening and the distance of the footrope to the bottom.

Annex VIIIa CTD-stations in hydrographic transects

| Cotonou | Lat | Lon | Depth (m) |
|-------------------|------------|-------------|-----------|
| 1 | 06°17.34'N | 002°37.25'E | 20 |
| 2 | 06°14.87'N | 002°36.96'E | 26 |
| 3 | 06°11.72'N | 002°37.03'E | 45 |
| 4 | 06°07.32'N | 002°37.00'E | 81 |
| 5 | 06°06.10'N | 002°36.92'E | 357 |
| 6 | 06°00.68'N | 002°36.95'E | 1356 |
| 7 | 05°55.75'N | 002°36.95'E | 1821 |
| Accra | Lat | Lon | Depth (m) |
| 1 | 05°26.00'N | 000°20.49'W | 21 |
| 2 | 05°20.93'N | 000°17.97'W | 40 |
| 3 | 05°16.68'N | 000°15.72'W | 60 |
| 4 | 05°10.82'N | 000°12.43'W | 228 |
| 5 | 05°08.53'N | 000°11.47'W | 707 |
| 6 | 05°04.32'N | 000°09.69'W | 1783 |
| Cape Three Points | Lat | Lon | Depth (m) |
| 1 | 04°42.09'N | 002°06.08'W | 34 |
| 2 | 04°36.95'N | 002°07.60'W | 70 |
| 3 | 04°32.56'N | 002°08.92'W | 84 |
| 4 | 04°27.19'N | 002°10.60'W | 163 |
| 5 | 04°21.58'N | 002°12.21'W | 660 |
| 6 | 04°17.02'N | 002°13.60'W | 958 |
| Grand Jacques | Lat | Lon | Depth (m) |
| 1 | 05°10.81'N | 004°24.03'W | 24 |
| 2 | 05°05.76'N | 004°23.21'W | 78 |
| 3 | 05°00.65'N | 004°23.21'W | 410 |
| 4 | 04°55.44'N | 004°22.97'W | 1731 |
| 5 | 04°50.79'N | 004°22.90'W | 2023 |
| Grand Berebi | Lat | Lon | Depth (m) |
| 1 | 04°36.02'N | 006°55.25'W | 25 |
| 2 | 04°31.37'N | 006°54.00'W | 56 |
| 3 | 04°26.91'N | 006°52.57'W | 110 |
| 4 | 04°25.80'N | 006°52.28'W | 392 |
| 5 | 04°21.88'N | 006°50.88'W | 1422 |
| 6 | 04°16.81'N | 006°49.51'W | 2236 |

Annex VIIIb Zooplankton stations

| | Depth (m) | Lat | Lon | Country |
|---|-----------|-----------|-----------|---------------|
| 1 | 47 | 06°11.7'N | 02°36.9'E | Benin |
| 2 | 68 | 06°01.9'N | 01°34.2'E | Togo |
| 3 | 27 | 05°56.7'N | 01°04.4'E | Ghana |
| 4 | 59 | 05°16.8'N | 00°16.0'W | -" |
| 5 | 52 | 04°54.9'N | 00°40.8'W | -" |
| 6 | 42 | 04°40.9'N | 02°06.5'W | -" |
| 7 | 34 | 05°06.1'N | 03°24.7'W | Cote d'Ivoire |
| 8 | 32 | 05°05.2'N | 04°47.8'W | -" |
| 9 | 75 | 04°13.9'N | 07°29.9'W | -" |

Annex VIIIc

Stations with sampling of benthic macrofauna

| DATE | TIME | Benin | STATION COORDINATES | | STATION CODE | DEPTH (m) | PRESERVATIVE |
|------------|----------|---------------|---------------------|----------|--------------|-----------|--------------|
| | | | LAT | LONG | | | |
| 20/05/2006 | 11:28:53 | Benin | 6.1875 | 2.592 E | BN 01A | 50 | Formalin |
| 20/05/2006 | 11:28:53 | Benin | 6.1875 | 2.592 E | BN 01B | 50 | Formalin |
| 20/05/2006 | 11:28:53 | Benin | 6.1875 | 2.592 E | BN 01B | 50 | Alcohol |
| 20/05/2006 | 11:28:53 | Benin | 6.1875 | 2.592 E | BN 01C | 50 | Alcohol |
| 20/05/2006 | 11:28:53 | Benin | 6.1875 | 2.592 E | BN 01D | 50 | Formalin |
| 22/05/2006 | 12:36:31 | Togo | 6.0328 | 1.5673 E | TG 01A | 66 | Formalin |
| 22/05/2006 | 12:36:31 | Togo | 6.0328 | 1.5673 E | TG 01B | 66 | Formalin |
| 22/05/2006 | 12:36:31 | Togo | 6.0328 | 1.5673 E | TG 01B | 66 | Alcohol |
| 22/05/2006 | 12:36:31 | Togo | 6.0328 | 1.5673 E | TG 01C | 66 | Alcohol |
| 22/05/2006 | 12:36:31 | Togo | 6.0328 | 1.5673 E | TG 01D | 66 | Formalin |
| 24/05/2006 | 22:13:40 | Ghana | 5.9453 | 1.0737 E | GH 01A | 27 | Formalin |
| 24/05/2006 | 22:13:40 | Ghana | 5.9453 | 1.0737 E | GH 01B | 27 | Formalin |
| 24/05/2006 | 22:13:40 | Ghana | 5.9453 | 1.0737 E | GH 01B | 27 | Alcohol |
| 24/05/2006 | 22:13:40 | Ghana | 5.9453 | 1.0737 E | GH 01C | 27 | Alcohol |
| 24/05/2006 | 22:13:40 | Ghana | 5.9453 | 1.0737 E | GH 01D | 27 | Formalin |
| 25/05/2006 | 15:36:46 | Ghana | 5.2780 | 0.2610 W | GH 02 A | 60 | Formalin |
| 25/05/2006 | 15:36:46 | Ghana | 5.2780 | 0.2610 W | GH 02 B | 60 | Formalin |
| 25/05/2006 | 15:36:46 | Ghana | 5.2780 | 0.2610 W | GH 02 B | 60 | Alcohol |
| 25/05/2006 | 15:36:46 | Ghana | 5.2780 | 0.2610 W | GH 02C | 60 | Alcohol |
| 25/05/2006 | 15:36:46 | Ghana | 5.2780 | 0.2610 W | GH 02D | 60 | Formalin |
| 26/05/2006 | 11:42:59 | Ghana | 4.9045 | 0.6852 W | GH 03A | 53 | Formalin |
| 26/05/2006 | 11:42:59 | Ghana | 4.9045 | 0.6852 W | GH 03B | 53 | Formalin |
| 26/05/2006 | 11:42:59 | Ghana | 4.9045 | 0.6852 W | GH 03B | 53 | Alcohol |
| 26/05/2006 | 11:42:59 | Ghana | 4.9045 | 0.6852 W | GH 03C | 53 | Alcohol |
| 26/05/2006 | 11:42:59 | Ghana | 4.9045 | 0.6852 W | GH 03D | 53 | Formalin |
| 29/05/2006 | 13:30:31 | Ghana | 4.6670 | 2.1158 W | GH 04A | 48 | Formalin |
| 29/05/2006 | 13:30:31 | Ghana | 4.6670 | 2.1158 W | GH 04B | 48 | Formalin |
| 29/05/2006 | 13:30:31 | Ghana | 4.6670 | 2.1158 W | GH 04A | 48 | Alcohol |
| 29/05/2006 | 13:30:31 | Ghana | 4.6670 | 2.1158 W | GH 04B | 48 | Alcohol |
| 29/05/2006 | 13:30:31 | Ghana | 4.6670 | 2.1158 W | GH 04D | 48 | Formalin |
| 31/05/2006 | 13:12:04 | Côte d'Ivoire | 5.0837 | 3.4005 W | CI 01A | 40 | Formalin |
| 31/05/2006 | 13:12:04 | Côte d'Ivoire | 5.0837 | 3.4005 W | CI 01B | 40 | Formalin |
| 31/05/2006 | 13:12:04 | Côte d'Ivoire | 5.0837 | 3.4005 W | CI 01B | 40 | Alcohol |
| 31/05/2006 | 13:12:04 | Côte d'Ivoire | 5.0837 | 3.4005 W | CI 01C | 40 | Alcohol |
| 31/05/2006 | 13:12:04 | Côte d'Ivoire | 5.0837 | 3.4005 W | CI 01D | 40 | Formalin |
| 02/06/2006 | 13:55:44 | Côte d'Ivoire | 5.0828 | 4.8003 W | CI 02 A | 31 | Formalin |
| 02/06/2006 | 13:55:44 | Côte d'Ivoire | 5.0828 | 4.8003 W | CI 02 B | 31 | Formalin |
| 02/06/2006 | 13:55:44 | Côte d'Ivoire | 5.0828 | 4.8003 W | CI 02 B | 31 | Alcohol |
| 02/06/2006 | 13:55:44 | Côte d'Ivoire | 5.0828 | 4.8003 W | CI 02C | 31 | Alcohol |
| 02/06/2006 | 13:55:44 | Côte d'Ivoire | 5.0828 | 4.8003 W | CI 02D | 31 | Formalin |
| 05/06/2006 | 07:37:37 | Côte d'Ivoire | 4.2333 | 7.4667 W | CI 03A | 73 | Formalin |
| 05/06/2006 | 07:37:37 | Côte d'Ivoire | 4.2333 | 7.4667 W | CI 03B | 73 | Formalin |
| 05/06/2006 | 07:37:37 | Côte d'Ivoire | 4.2333 | 7.4667 W | CI 03B | 73 | Alcohol |
| 05/06/2006 | 07:37:37 | Côte d'Ivoire | 4.2333 | 7.4667 W | CI 03C | 73 | Alcohol |
| 05/06/2006 | 07:37:37 | Côte d'Ivoire | 4.2333 | 7.4667 W | CI 03D | 73 | Formalin |

Annex VIII d Stations with sampling of stomach content of selected fish species

| Day | Country | Station No. | Sample No. | Species Code | Depth (m) | Position | Length (cm) | Weight (g) | Sex | Maturity |
|-----------|---------|-------------|------------|--------------|-----------|----------|-------------|------------|-----|----------|
| 20-May-06 | Benin | 1089 | 1 | PLNGA01 | 20 | 617N237E | 18.4 | 11.8 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 2 | PLNGA01 | 20 | 617N237E | 18.5 | 12.6 | M | II |
| 20-May-06 | Benin | 1089 | 3 | PLNGA01 | 20 | 617N237E | 15 | 62.2 | M | II |
| 20-May-06 | Benin | 1089 | 4 | PLNGA01 | 20 | 617N237E | 16.5 | 84.6 | M | II |
| 20-May-06 | Benin | 1089 | 5 | PLNGA01 | 20 | 617N237E | 26 | 378.8 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 6 | PLNGA01 | 20 | 617N237E | 13.7 | 57.5 | M | II |
| 20-May-06 | Benin | 1089 | 7 | PLNGA01 | 20 | 617N237E | 18.7 | 127.7 | F | II |
| 20-May-06 | Benin | 1089 | 8 | PLNGA01 | 20 | 617N237E | 25 | 313.6 | F | 11-111 |
| 20-May-06 | Benin | 1089 | 9 | PLNGA01 | 20 | 617N237E | 21.6 | 224.5 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 10 | PLNGA01 | 20 | 617N237E | 14.5 | 60.1 | M | II |
| 20-May-06 | Benin | 1089 | 11 | PLNGA01 | 20 | 617N237E | 12.5 | 43.2 | M | II |
| 20-May-06 | Benin | 1089 | 12 | PLNGA01 | 20 | 617N237E | 18 | 107.1 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 13 | SPHSP01 | 20 | 617N237E | 34.6 | 254.8 | F | III |
| 20-May-06 | Benin | 1089 | 14 | SPHSP01 | 20 | 617N237E | 22.4 | 75.8 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 15 | SPHSP01 | 20 | 617N237E | 38 | 348.6 | F | III |
| 20-May-06 | Benin | 1089 | 16 | SPHSP01 | 20 | 617N237E | 24 | 90.1 | M | II |
| 20-May-06 | Benin | 1089 | 17 | SPHSP01 | 20 | 617N237E | 27 | 133.7 | F | II |
| 20-May-06 | Benin | 1089 | 18 | SPHSP01 | 20 | 617N237E | 31 | 188.9 | F | II |
| 20-May-06 | Benin | 1089 | 19 | SPHSP01 | 20 | 617N237E | 31.5 | 190.4 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 20 | SPHSP01 | 20 | 617N237E | 27 | 147.8 | M | II |
| 20-May-06 | Benin | 1089 | 21 | SPHSP01 | 20 | 617N237E | 50 | 759.5 | F | 11-111 |
| 20-May-06 | Benin | 1089 | 22 | SPHSP01 | 20 | 617N237E | 23 | 81.3 | M | III |
| 20-May-06 | Benin | 1089 | 23 | SCIPS02 | 20 | 617N237E | 23 | 76.6 | M | III |
| 20-May-06 | Benin | 1089 | 24 | SCIPS02 | 20 | 617N237E | 20.5 | 68.1 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 25 | SCIPS02 | 20 | 617N237E | 21.5 | 76.3 | M | III |
| 20-May-06 | Benin | 1089 | 26 | SCIPS02 | 20 | 617N237E | 31 | 283.5 | M | 11-111 |
| 20-May-06 | Benin | 1089 | 27 | SCIPS02 | 20 | 617N237E | 48.5 | 767.7 | M | III |
| 20-May-06 | Benin | 1094 | 28 | PLNGA01 | 21 | 616N222E | 15.5 | 69.9 | M | II |
| 20-May-06 | Benin | 1094 | 29 | PLNGA01 | 21 | 616N222E | 14 | 49.1 | F | II |
| 20-May-06 | Benin | 1094 | 30 | PLNGA01 | 21 | 616N222E | 13.5 | 49.9 | M | II |
| 20-May-06 | Benin | 1094 | 31 | PLNGA01 | 21 | 616N222E | 18.5 | 127.7 | M | III |
| 20-May-06 | Benin | 1094 | 32 | PLNGA01 | 21 | 616N222E | 14.4 | 53.7 | F | II |
| 20-May-06 | Benin | 1094 | 33 | PLNGA01 | 21 | 616N222E | 11 | 26.2 | M | II |
| 20-May-06 | Benin | 1094 | 34 | PLNGA01 | 21 | 616N222E | 14.5 | 55.7 | M | II |
| 20-May-06 | Benin | 1094 | 35 | PLNGA01 | 21 | 616N222E | 13.5 | 46 | M | I |
| 20-May-06 | Benin | 1094 | 36 | PLNGA01 | 21 | 616N222E | 14.5 | 55.4 | F | II |
| 20-May-06 | Benin | 1094 | 37 | PLNGA01 | 21 | 616N222E | 14.5 | 50.9 | M | II |
| 20-May-06 | Benin | 1094 | 38 | LUTLU03 | 21 | 616N222E | 29.8 | 466.2 | M | IV |
| 20-May-06 | Benin | 1094 | 39 | LUTLU03 | 21 | 616N222E | 44 | 239 | M | II |
| 20-May-06 | Benin | 1094 | 40 | LUTLU03 | 21 | 616N222E | 21.6 | 172.3 | M | III |
| 20-May-06 | Benin | 1094 | 41 | LUTLU03 | 21 | 616N222E | 23.7 | 226.3 | M | III |
| 20-May-06 | Benin | 1094 | 42 | LUTLU03 | 21 | 616N222E | 25 | 291.5 | M | III |
| 20-May-06 | Benin | 1094 | 43 | LUTLU03 | 21 | 616N222E | 23 | 211.7 | M | IV |
| 20-May-06 | Benin | 1094 | 44 | LUTLU03 | 21 | 616N222E | 28 | 390.2 | M | IV |
| 20-May-06 | Benin | 1094 | 45 | LUTLU03 | 21 | 616N222E | 23.5 | 239.2 | M | III |
| 20-May-06 | Benin | 1094 | 46 | LUTLU03 | 21 | 616N222E | 33.5 | 124.5 | M | I |
| 20-May-06 | Benin | 1094 | 47 | LUTLU03 | 21 | 616N222E | 26 | 294 | M | II |
| 21-May-06 | Benin | 1096 | 48 | CLUSL01 | 17 | 612N208E | 16.5 | 56.2 | F | I |
| 21-May-06 | Benin | 1096 | 49 | CLUSL01 | 17 | 612N208E | 9.5 | 10.8 | M | - |
| 21-May-06 | Benin | 1096 | 50 | CLUSL01 | 17 | 612N208E | 19 | 94.7 | F | III |
| 21-May-06 | Benin | 1096 | 51 | CLUSL01 | 17 | 612N208E | 14.5 | 32.2 | M | II |
| 21-May-06 | Benin | 1096 | 52 | CLUSL01 | 17 | 612N208E | 14.5 | 39.2 | M | II |
| 21-May-06 | Benin | 1096 | 53 | CLUSL01 | 17 | 612N208E | 14 | 13.6 | M | I |

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| 21-May-06 | Benin | 1096 | 54 | CLUSL01 | 17 | 612N208E | 13 | 23.4 | M | II |
| 21-May-06 | Benin | 1096 | 55 | CLUSL01 | 17 | 612N208E | 13 | 24.1 | M | II |
| 21-May-06 | Benin | 1096 | 56 | CLUSL01 | 17 | 612N208E | 14 | 32.1 | M | II |
| 21-May-06 | Benin | 1096 | 57 | CLUSL01 | 17 | 612N208E | 10.5 | 12.4 | M | I |
| 21-May-06 | Benin | 1098 | 58 | SPADE04 | 82 | 607N207E | 20 | 144.3 | M | II |
| 21-May-06 | Benin | 1098 | 59 | SPADE04 | 82 | 607N207E | 18 | 109.8 | F | III |
| 21-May-06 | Benin | 1098 | 60 | SPADE04 | 82 | 607N207E | 13.5 | 44.5 | M | I-11 |
| 21-May-06 | Benin | 1098 | 61 | SPADE04 | 82 | 607N207E | 18 | 93.4 | M | II |
| 21-May-06 | Benin | 1098 | 62 | SPADE04 | 82 | 607N207E | 19.5 | 126.8 | M | II |
| 21-May-06 | Benin | 1098 | 63 | SPADE01 | 82 | 607N207E | 23 | 246.2 | F | IV |
| 21-May-06 | Benin | 1098 | 64 | SPADE01 | 82 | 607N207E | 21 | 201.2 | F | III |
| 21-May-06 | Benin | 1098 | 65 | SPADE01 | 82 | 607N207E | 21.5 | 211.8 | F | III |
| 21-May-06 | Benin | 1098 | 66 | SPADE01 | 82 | 607N207E | 20 | 161.5 | F | III |
| 21-May-06 | Benin | 1098 | 67 | SPADE01 | 82 | 607N207E | 18 | 131.4 | F | III-IV |
| 21-May-06 | Benin | 1099 | 68 | CLUSL01 | 63 | 607N156E | 15 | 44.2 | M | III |
| 21-May-06 | Benin | 1099 | 69 | CLUSL01 | 63 | 607N156E | 19 | 104 | F | IV |
| 21-May-06 | Benin | 1099 | 70 | CLUSL01 | 63 | 607N156E | 19.5 | 101 | F | III-IV |
| 21-May-06 | Benin | 1099 | 71 | CLUSL01 | 63 | 607N156E | 16 | 48.1 | F | II-III |
| 21-May-06 | Benin | 1099 | 72 | CLUSL01 | 63 | 607N156E | 19 | 90.1 | F | IV |
| 21-May-06 | Benin | 1099 | 73 | CLUSL01 | 63 | 607N156E | 16 | 48.2 | F | III |
| 21-May-06 | Benin | 1099 | 74 | CLUSL01 | 63 | 607N156E | 16 | 48 | M | II-III |
| 21-May-06 | Benin | 1099 | 75 | CLUSL01 | 63 | 607N156E | 17.5 | 72.7 | M | II-III |
| 21-May-06 | Benin | 1099 | 76 | CLUSL01 | 63 | 607N156E | 19 | 85.7 | F | IV |
| 21-May-06 | Benin | 1099 | 77 | CLUSL01 | 63 | 607N156E | 14.5 | 43 | F | III-IV |
| 21-May-06 | Benin | 1099 | 78 | SPADE01 | 63 | 607N156E | 16.6 | 95.9 | M | II |
| 21-May-06 | Benin | 1099 | 79 | SPADE01 | 63 | 607N156E | 19 | 148.5 | F | II-III |
| 21-May-06 | Benin | 1099 | 80 | SPADE01 | 63 | 607N156E | 21 | 201.6 | F | II |
| 21-May-06 | Benin | 1099 | 81 | SPADE01 | 63 | 607N156E | 20 | 148 | F | II-III |
| 21-May-06 | Benin | 1099 | 82 | SPADE01 | 63 | 607N156E | 18.5 | 132 | M | II |
| 21-May-06 | Benin | 1102 | 83 | SCIPS02 | 18 | 613N147E | 26.9 | 177.1 | M | III |
| 21-May-06 | Benin | 1102 | 84 | SCIPS02 | 18 | 613N147E | 18.5 | 47.1 | M | I |
| 21-May-06 | Benin | 1102 | 85 | SCIPS02 | 18 | 613N147E | 28.8 | 216.5 | M | III |
| 21-May-06 | Benin | 1102 | 86 | SCIPS02 | 18 | 613N147E | 26 | 110.1 | F | IV |
| 21-May-06 | Benin | 1102 | 87 | SCIPS02 | 18 | 613N147E | 19 | 52.2 | M | I |
| 21-May-06 | Benin | 1102 | 88 | SPHSP01 | 18 | 613N147E | 26 | 131 | M | III |
| 21-May-06 | Benin | 1102 | 89 | SPHSP01 | 18 | 613N147E | 19 | 43.9 | M | I |
| 21-May-06 | Benin | 1102 | 90 | SPHSP01 | 18 | 613N147E | 17.1 | 34.8 | M | I |
| 21-May-06 | Benin | 1102 | 91 | SPHSP01 | 18 | 613N147E | 29 | 167.1 | F | I |
| 21-May-06 | Benin | 1102 | 92 | SPHSP01 | 18 | 613N147E | 38.5 | 385.6 | F | II |
| 22-May-06 | Benin | 1107 | 93 | PODBR01 | 62 | 605N146E | 13.2 | 44.6 | F | III |
| 22-May-06 | Benin | 1107 | 94 | PODBR01 | 62 | 605N146E | 14.2 | 47.2 | F | III |
| 22-May-06 | Benin | 1107 | 95 | PODBR01 | 62 | 605N146E | 13.5 | 38.9 | M | III |
| 22-May-06 | Benin | 1107 | 96 | PODBR01 | 62 | 605N146E | 15.1 | 61 | F | III |
| 22-May-06 | Benin | 1107 | 97 | PODBR01 | 62 | 605N146E | 16 | 67 | F | III |
| 22-May-06 | Benin | 1107 | 98 | PODBR01 | 62 | 605N146E | 16 | 62.8 | F | III |
| 22-May-06 | Benin | 1107 | 99 | PODBR01 | 62 | 605N146E | 17 | 78.2 | F | III |
| 22-May-06 | Benin | 1107 | 100 | PODBR01 | 62 | 605N146E | 19.1 | 124.3 | F | III |
| 22-May-06 | Benin | 1107 | 101 | PODBR01 | 62 | 605N146E | 17 | 72.3 | F | III |
| 22-May-06 | Benin | 1107 | 102 | PODBR01 | 62 | 605N146E | 18 | 93.7 | F | III |
| 22-May-06 | Benin | 1107 | 103 | SPAPA02 | 62 | 605N146E | 17.7 | 109.8 | F | III |
| 22-May-06 | Benin | 1107 | 104 | SPAPA02 | 62 | 605N146E | 14.5 | 63.4 | M | II |
| 22-May-06 | Benin | 1107 | 105 | SPAPA02 | 62 | 605N146E | 16.8 | 97.4 | M | II |
| 22-May-06 | Benin | 1107 | 106 | SPAPA02 | 62 | 605N146E | 17.7 | 112 | M | III |
| 22-May-06 | Benin | 1107 | 107 | SPAPA02 | 62 | 605N146E | 17 | 104.3 | M | III |
| 22-May-06 | Benin | 1107 | 108 | SPAPA02 | 62 | 605N146E | 16.2 | 89 | M | III |
| 22-May-06 | Benin | 1107 | 109 | SPAPA02 | 62 | 605N146E | 17 | 100.2 | M | III |

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| 22-May-06 | Benin | 1107 | 110 | SPAPA02 | 62 | 605N146E | 16.5 | 86.8 | F | III |
| 22-May-06 | Benin | 1107 | 111 | SPAPA02 | 62 | 605N146E | 18.4 | 123.3 | M | III |
| 22-May-06 | Benin | 1107 | 112 | SPAPA02 | 62 | 605N146E | 16.3 | 81.9 | M | III |
| 22-May-06 | Togo | 1109 | 113 | LUTLU03 | 67 | 602N134E | 34 | 594.4 | F | III |
| 22-May-06 | Togo | 1109 | 114 | LUTLU03 | 67 | 602N134E | 35 | 747 | M | III |
| 22-May-06 | Togo | 1110 | 115 | SPAPR07 | 40 | 606N134E | 26 | 416.6 | M | I |
| 22-May-06 | Togo | 1110 | 116 | SPAPR07 | 40 | 606N134E | 26 | 405.6 | M | III |
| 22-May-06 | Togo | 1110 | 117 | SPAPR07 | 40 | 606N134E | 27 | 458.4 | M | I |
| 22-May-06 | Togo | 1110 | 118 | SPAPR07 | 40 | 606N134E | 27 | 477.2 | M | II |
| 22-May-06 | Togo | 1110 | 119 | SPAPR07 | 40 | 606N134E | 27.5 | 478.8 | M | II |
| 22-May-06 | Togo | 1110 | 120 | SPAPR07 | 40 | 606N134E | 28 | 492.6 | F | III-IV |
| 22-May-06 | Togo | 1110 | 121 | SPAPR07 | 40 | 606N134E | 26 | 433 | M | IV |
| 22-May-06 | Togo | 1110 | 122 | SPAPR07 | 40 | 606N134E | 27.5 | 487 | F | II |
| 22-May-06 | Togo | 1110 | 123 | SPAPR07 | 40 | 606N134E | 26 | 408.2 | M | III-IV |
| 22-May-06 | Togo | 1110 | 124 | SPAPR07 | 40 | 606N134E | 26 | 444.6 | F | III |
| 22-May-06 | Togo | 1110 | 125 | SEREP01 | 40 | 606N134E | 47 | 1130.5 | F | III |
| 22-May-06 | Togo | 1110 | 126 | SEREP01 | 40 | 606N134E | 43 | 904 | M | I |
| 22-May-06 | Togo | 1110 | 127 | SEREP01 | 40 | 606N134E | 44 | 953 | M | I |
| 22-May-06 | Togo | 1110 | 128 | SEREP01 | 40 | 606N134E | 45 | 505.6 | M | I |
| 22-May-06 | Togo | 1110 | 129 | SEREP01 | 40 | 606N134E | 41 | 721 | M | I |
| 22-May-06 | Togo | 1111 | 130 | CARCA02 | 21 | 609N135E | 30 | 483.8 | F | III |
| 23-May-06 | Togo | 1113 | 131 | SPHSP01 | 44 | 603N124E | 39 | 369.2 | F | III |
| 23-May-06 | Togo | 1113 | 132 | SPHSP01 | 44 | 603N124E | 43 | 481 | F | III |
| 23-May-06 | Togo | 1113 | 133 | SPHSP01 | 44 | 603N124E | 34.5 | 236 | M | II |
| 23-May-06 | Togo | 1113 | 134 | SPHSP01 | 44 | 603N124E | 36 | 242 | F | IV |
| 23-May-06 | Togo | 1113 | 135 | SPHSP01 | 44 | 603N124E | 33 | 239.4 | M | III |
| 23-May-06 | Togo | 1113 | 136 | SPAPA02 | 44 | 603N124E | 20 | 151.1 | M | IV |
| 23-May-06 | Togo | 1113 | 137 | SPAPA02 | 44 | 603N124E | 17 | 111.9 | F | III |
| 23-May-06 | Togo | 1113 | 138 | SPAPA02 | 44 | 603N124E | 14 | 54.3 | M | III |
| 23-May-06 | Togo | 1113 | 139 | SPAPA02 | 44 | 603N124E | 18 | 104.9 | F | III |
| 23-May-06 | Togo | 1113 | 140 | SPAPA02 | 44 | 603N124E | 11 | 23.6 | M | III |
| 23-May-06 | Togo | 1113 | 141 | SPAPR07 | 44 | 603N124E | 26.3 | 414 | M | II |
| 23-May-06 | Togo | 1113 | 142 | SPAPR07 | 44 | 603N124E | 12 | 25.7 | M | I |
| 23-May-06 | Togo | 1113 | 143 | SPAPR07 | 44 | 603N124E | 11.2 | 34.2 | M | I |
| 23-May-06 | Togo | 1113 | 144 | SPAPR07 | 44 | 603N124E | 15.5 | 89.6 | M | I |
| 23-May-06 | Togo | 1113 | 145 | SPAPR07 | 44 | 603N124E | 18.2 | 135.4 | M | I |
| 23-May-06 | Togo | 1113 | 146 | MULPS01 | 44 | 603N124E | 15.5 | 69.3 | M | II |
| 23-May-06 | Togo | 1113 | 147 | MULPS01 | 44 | 603N124E | 15.5 | 64.7 | F | II |
| 23-May-06 | Togo | 1113 | 148 | MULPS01 | 44 | 603N124E | 13.5 | 43.4 | F | III |
| 23-May-06 | Togo | 1113 | 149 | MULPS01 | 44 | 603N124E | 11.2 | 23.2 | - | - |
| 23-May-06 | Togo | 1113 | 150 | MULPS01 | 44 | 603N124E | 19.4 | 130.6 | M | II |
| 23-May-06 | Togo | 1114 | 151 | SPAPR07 | 23 | 605N123E | 17 | 88.5 | M | II |
| 23-May-06 | Togo | 1114 | 152 | SPAPR07 | 23 | 605N123E | 13.6 | 48 | M | I-II |
| 23-May-06 | Togo | 1114 | 153 | SPAPR07 | 23 | 605N123E | 16 | 68.9 | F | II |
| 23-May-06 | Togo | 1114 | 154 | SPAPR07 | 23 | 605N123E | 14.8 | 60.2 | F | II |
| 23-May-06 | Togo | 1114 | 155 | SPAPR07 | 23 | 605N123E | 15.5 | 60.4 | F | II |
| 23-May-06 | Togo | 1116 | 156 | CARDE01 | 52 | 558N117E | 11 | 14.1 | - | - |
| 23-May-06 | Togo | 1116 | 157 | CARDE01 | 52 | 558N117E | 12 | 13 | M | II |
| 23-May-06 | Togo | 1116 | 158 | CARDE01 | 52 | 558N117E | 12.5 | 19.2 | F | II |
| 23-May-06 | Togo | 1116 | 159 | CARDE01 | 52 | 558N117E | 13 | 21.7 | F | II |
| 23-May-06 | Togo | 1116 | 160 | CARDE01 | 52 | 558N117E | 11 | 11.7 | M | II |
| 23-May-06 | Togo | 1116 | 161 | CARDE01 | 52 | 558N117E | 12 | 14.9 | M | II-III |
| 23-May-06 | Togo | 1116 | 162 | CARDE01 | 52 | 558N117E | 10.5 | 11.4 | M | II |
| 23-May-06 | Togo | 1116 | 163 | CARDE01 | 52 | 558N117E | 11 | 13 | M | II |
| 23-May-06 | Togo | 1116 | 164 | CARDE01 | 52 | 558N117E | 9.5 | 8.3 | - | II |
| 23-May-06 | Togo | 1116 | 165 | CARDE01 | 52 | 558N117E | 11.5 | 13.9 | F | II |

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| 23-May-06 | Togo | 1118 | 166 | SPHSP01 | 22 | 602N111E | 21 | 57.1 | M | II |
| 23-May-06 | Togo | 1118 | 167 | SPHSP01 | 22 | 602N111E | 21 | 53.2 | F | III |
| 23-May-06 | Togo | 1118 | 168 | SPHSP01 | 22 | 602N111E | 37.8 | 320.8 | M | III |
| 23-May-06 | Togo | 1118 | 169 | SPHSP01 | 22 | 602N111E | 39 | 348.2 | M | II-III |
| 23-May-06 | Togo | 1118 | 170 | SPHSP01 | 22 | 602N111E | 36.5 | 327.8 | M | I-II |
| 23-May-06 | Togo | 1118 | 171 | SPHSP01 | 22 | 602N111E | 37.5 | 311.5 | M | I-II |
| 24-May-06 | Ghana | 1121 | 172 | SPAPA02 | 27 | 557N104E | 15 | 80 | M | I |
| 24-May-06 | Ghana | 1121 | 173 | SPAPA02 | 27 | 557N104E | 12.1 | 41.3 | - | - |
| 24-May-06 | Ghana | 1121 | 174 | SPAPA02 | 27 | 557N104E | 17.4 | 115.2 | M | I |
| 24-May-06 | Ghana | 1121 | 175 | SPAPA02 | 27 | 557N104E | 23 | 271.7 | F | III |
| 24-May-06 | Ghana | 1121 | 176 | SPAPA02 | 27 | 557N104E | 21.5 | 240.8 | M | II |
| 24-May-06 | Ghana | 1121 | 177 | SPADE02 | 27 | 557N104E | 15.1 | 59.8 | M | III |
| 24-May-06 | Ghana | 1121 | 178 | SPADE02 | 27 | 557N104E | 25.5 | 350.6 | M | III |
| 24-May-06 | Ghana | 1121 | 179 | SPADE02 | 27 | 557N104E | 34.8 | 801.5 | F | V |
| 24-May-06 | Ghana | 1121 | 180 | SPADE02 | 27 | 557N104E | 24 | 307.2 | F | II |
| 24-May-06 | Ghana | 1121 | 181 | SPADE02 | 27 | 557N104E | 25 | 321.2 | F | IV |
| 24-May-06 | Ghana | 1124 | 182 | CARDE01 | 48 | 536N037W | 14 | 27.6 | M | II |
| 24-May-06 | Ghana | 1124 | 183 | CARDE01 | 48 | 536N037W | 17.5 | 55.9 | F | III |
| 24-May-06 | Ghana | 1124 | 184 | CARDE01 | 48 | 536N037W | 14 | 32.8 | F | II-III |
| 24-May-06 | Ghana | 1124 | 185 | CARDE01 | 48 | 536N037W | 14 | 31 | M | II |
| 24-May-06 | Ghana | 1124 | 186 | CARDE01 | 48 | 536N037W | 13 | 23.7 | F | II |
| 24-May-06 | Ghana | 1124 | 187 | CARDE01 | 48 | 536N037W | 14 | 28.7 | F | II |
| 24-May-06 | Ghana | 1124 | 188 | CARDE01 | 48 | 536N037W | 12 | 19 | M | I-II |
| 24-May-06 | Ghana | 1124 | 189 | CARDE01 | 48 | 536N037W | 11.5 | 16 | M | I-II |
| 24-May-06 | Ghana | 1124 | 190 | CARDE01 | 48 | 536N037W | 13 | 22.4 | F | II |
| 24-May-06 | Ghana | 1124 | 191 | CARDE01 | 48 | 536N037W | 10 | 11.1 | M | I |
| 24-May-06 | Ghana | 1124 | 192 | SPAPA02 | 48 | 536N037W | 14 | 41.4 | F | II |
| 24-May-06 | Ghana | 1124 | 193 | SPAPA02 | 48 | 536N037W | 12.5 | 36.3 | F | II |
| 24-May-06 | Ghana | 1124 | 194 | SPAPA02 | 48 | 536N037W | 22 | 221.2 | F | II-III |
| 24-May-06 | Ghana | 1124 | 195 | SPAPA02 | 48 | 536N037W | 16 | 70.1 | M | II-III |
| 24-May-06 | Ghana | 1124 | 196 | SPAPA02 | 48 | 536N037W | 21.5 | 210.4 | M | III |
| 24-May-06 | Ghana | 1124 | 197 | SPAPA02 | 48 | 536N037W | 13 | 46 | M | II |
| 24-May-06 | Ghana | 1124 | 198 | SPAPA02 | 48 | 536N037W | 19 | 138.5 | F | II-III |
| 24-May-06 | Ghana | 1124 | 199 | SPAPA02 | 48 | 536N037W | 12 | 34.9 | M | II |
| 24-May-06 | Ghana | 1124 | 200 | SPAPA02 | 48 | 536N037W | 14 | 52.7 | M | II |
| 24-May-06 | Ghana | 1124 | 201 | SPAPA02 | 48 | 536N037W | 19.5 | 159.2 | M | II-III |
| 24-May-06 | Ghana | 1128 | 202 | CLUSL01 | 69 | 537N018W | 13.7 | 30.3 | M | I |
| 24-May-06 | Ghana | 1128 | 203 | CLUSL01 | 69 | 537N018W | 13.6 | 29.8 | M | I |
| 24-May-06 | Ghana | 1128 | 204 | CLUSL01 | 69 | 537N018W | 16 | 52 | M | III |
| 24-May-06 | Ghana | 1128 | 205 | CLUSL01 | 69 | 537N018W | 15.9 | 49.2 | M | IV |
| 24-May-06 | Ghana | 1128 | 206 | CLUSL01 | 69 | 537N018W | 13 | 24.6 | M | I |
| 24-May-06 | Ghana | 1128 | 207 | CLUSL01 | 69 | 537N018W | 17.4 | 60.8 | M | II |
| 24-May-06 | Ghana | 1128 | 208 | CLUSL01 | 69 | 537N018W | 16.4 | 54 | F | III |
| 24-May-06 | Ghana | 1128 | 209 | CLUSL01 | 69 | 537N018W | 12.5 | 23 | M | I |
| 24-May-06 | Ghana | 1128 | 210 | CLUSL01 | 69 | 537N018W | 13 | 25 | M | I |
| 24-May-06 | Ghana | 1128 | 211 | CLUSL01 | 69 | 537N018W | 13 | 22.4 | M | I |
| 24-May-06 | Ghana | 1128 | 212 | PODBR01 | 69 | 537N018W | 17.4 | 80.8 | F | III |
| 24-May-06 | Ghana | 1128 | 213 | PODBR01 | 69 | 537N018W | 16.4 | 66.6 | F | III |
| 24-May-06 | Ghana | 1128 | 214 | PODBR01 | 69 | 537N018W | 15 | 56.2 | F | III |
| 24-May-06 | Ghana | 1128 | 215 | PODBR01 | 69 | 537N018W | 15.3 | 54.8 | F | II |
| 24-May-06 | Ghana | 1128 | 216 | PODBR01 | 69 | 537N018W | 18 | 89 | F | III |
| 24-May-06 | Ghana | 1128 | 217 | PODBR01 | 69 | 537N018W | 16 | 67.4 | F | II |
| 24-May-06 | Ghana | 1128 | 218 | PODBR01 | 69 | 537N018W | 15.5 | 57.6 | F | II |
| 24-May-06 | Ghana | 1128 | 219 | PODBR01 | 69 | 537N018W | 15.7 | 63 | F | II-III |
| 24-May-06 | Ghana | 1128 | 220 | PODBR01 | 69 | 537N018W | 16.5 | 73.4 | F | II |
| 24-May-06 | Ghana | 1128 | 221 | PODBR01 | 69 | 537N018W | 15 | 55.9 | F | II |

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| 25-May-06 | Ghana | 1132 | 222 | PODBR01 | 60 | 516N016W | 16.6 | 76.1 | F | III |
| 25-May-06 | Ghana | 1132 | 223 | PODBR01 | 60 | 516N016W | 16 | 64.8 | F | II |
| 25-May-06 | Ghana | 1132 | 224 | PODBR01 | 60 | 516N016W | 17.5 | 88.1 | F | I-II |
| 25-May-06 | Ghana | 1132 | 225 | PODBR01 | 60 | 516N016W | 14.2 | 48.9 | F | II |
| 25-May-06 | Ghana | 1132 | 226 | PODBR01 | 60 | 516N016W | 16 | 71.2 | F | III |
| 25-May-06 | Ghana | 1132 | 227 | PODBR01 | 60 | 516N016W | 17 | 73.7 | F | II |
| 25-May-06 | Ghana | 1132 | 228 | PODBR01 | 60 | 516N016W | 17 | 82.4 | F | III |
| 25-May-06 | Ghana | 1132 | 229 | PODBR01 | 60 | 516N016W | 16 | 70.9 | F | III |
| 25-May-06 | Ghana | 1132 | 230 | PODBR01 | 60 | 516N016W | 14 | 46.1 | F | III |
| 25-May-06 | Ghana | 1132 | 231 | PODBR01 | 60 | 516N016W | 15.2 | 45 | F | II |
| 25-May-06 | Ghana | 1132 | 232 | CARDE01 | 60 | 516N016W | 12.5 | 23.7 | M | II-III |
| 25-May-06 | Ghana | 1132 | 233 | CARDE01 | 60 | 516N016W | 13 | 29 | F | III |
| 25-May-06 | Ghana | 1132 | 234 | CARDE01 | 60 | 516N016W | 13 | 24.5 | M | II |
| 25-May-06 | Ghana | 1132 | 235 | CARDE01 | 60 | 516N016W | 18 | 37.3 | F | III |
| 25-May-06 | Ghana | 1132 | 236 | CARDE01 | 60 | 516N016W | 18 | 35.6 | F | III |
| 26-May-06 | Ghana | 1134 | 237 | CLUSL02 | 31 | 505N047W | 15.5 | 52.4 | M | II |
| 26-May-06 | Ghana | 1134 | 238 | CLUSL02 | 31 | 505N047W | 15 | 48.3 | M | I |
| 26-May-06 | Ghana | 1134 | 239 | MULPS01 | 31 | 505N047W | 17.5 | 91.9 | M | II |
| 26-May-06 | Ghana | 1134 | 240 | MULPS01 | 31 | 505N047W | 15 | 51 | F | II |
| 26-May-06 | Ghana | 1134 | 241 | MULPS01 | 31 | 505N047W | 15.3 | 63.9 | F | II |
| 26-May-06 | Ghana | 1134 | 242 | MULPS01 | 31 | 505N047W | 15 | 61.7 | M | I |
| 26-May-06 | Ghana | 1134 | 243 | MULPS01 | 31 | 505N047W | 16.1 | 69.9 | F | II |
| 26-May-06 | Ghana | 1134 | 244 | MULPS01 | 31 | 505N047W | 12.9 | 42.5 | M | I |
| 26-May-06 | Ghana | 1134 | 245 | MULPS01 | 31 | 505N047W | 10.4 | 18.1 | - | - |
| 26-May-06 | Ghana | 1134 | 246 | MULPS01 | 31 | 505N047W | 12 | 39.4 | M | I |
| 26-May-06 | Ghana | 1134 | 247 | MULPS01 | 31 | 505N047W | 13.9 | 44.9 | M | I |
| 26-May-06 | Ghana | 1134 | 248 | MULPS01 | 31 | 505N047W | 16.2 | 77.9 | M | II |
| 26-May-06 | Ghana | 1135 | 249 | SPAPA02 | 39 | 500N046W | 18.5 | 116.8 | M | III |
| 26-May-06 | Ghana | 1135 | 250 | SPAPA02 | 39 | 500N046W | 14.5 | 58.8 | M | III |
| 26-May-06 | Ghana | 1135 | 251 | SPAPA02 | 39 | 500N046W | 14.5 | 72.5 | M | I-II |
| 26-May-06 | Ghana | 1135 | 252 | SPAPA02 | 39 | 500N046W | 15.5 | 86.5 | M | I-II |
| 26-May-06 | Ghana | 1135 | 253 | SPAPA02 | 39 | 500N046W | 19.5 | 150.7 | M | III |
| 26-May-06 | Ghana | 1135 | 254 | CARDE01 | 39 | 500N046W | 11 | 14.5 | M | II |
| 26-May-06 | Ghana | 1135 | 255 | CARDE01 | 39 | 500N046W | 12.1 | 20.3 | - | - |
| 26-May-06 | Ghana | 1135 | 256 | CARDE01 | 39 | 500N046W | 11.7 | 17.6 | M | I |
| 26-May-06 | Ghana | 1135 | 257 | CARDE01 | 39 | 500N046W | 10.8 | 14.4 | F | II |
| 26-May-06 | Ghana | 1135 | 258 | CARDE01 | 39 | 500N046W | 13 | 26.7 | F | III |
| 26-May-06 | Ghana | 1136 | 259 | SPAPA02 | 54 | 500N040W | 13.2 | 47.7 | F | II |
| 26-May-06 | Ghana | 1136 | 260 | SPAPA02 | 54 | 500N040W | 14.4 | 58.2 | F | II-III |
| 26-May-06 | Ghana | 1136 | 261 | SPAPA02 | 54 | 500N040W | 16.5 | 88.3 | M | II |
| 26-May-06 | Ghana | 1136 | 262 | SPAPA02 | 54 | 500N040W | 18 | 117.5 | M | III-IV |
| 26-May-06 | Ghana | 1136 | 263 | SPAPA02 | 54 | 500N040W | 16.5 | 78.6 | F | III |
| 26-May-06 | Ghana | 1136 | 264 | SPAPR07 | 54 | 500N040W | 14 | 67.7 | - | - |
| 26-May-06 | Ghana | 1136 | 265 | SPAPR07 | 54 | 500N040W | 20 | 189.6 | M | II |
| 26-May-06 | Ghana | 1136 | 266 | SPAPR07 | 54 | 500N040W | 20 | 188.6 | M | II |
| 26-May-06 | Ghana | 1136 | 267 | SPAPR07 | 54 | 500N040W | 19 | 165.2 | M | II |
| 26-May-06 | Ghana | 1136 | 268 | SPAPR07 | 54 | 500N040W | 21.3 | 226.4 | F | III |
| 26-May-06 | Ghana | 1136 | 269 | DACDA01 | 54 | 500N040W | 30 | 253.4 | F | II-III |
| 26-May-06 | Ghana | 1136 | 270 | DACDA01 | 54 | 500N040W | 29.5 | 231.7 | F | II-III |
| 26-May-06 | Ghana | 1137 | 271 | CLUSL01 | 68 | 451N037W | 17.5 | 62.7 | F | II |
| 26-May-06 | Ghana | 1137 | 272 | CLUSL01 | 68 | 451N037W | 17.5 | 62.9 | F | II |
| 26-May-06 | Ghana | 1137 | 273 | CLUSL01 | 68 | 451N037W | 17 | 57.9 | M | II |
| 26-May-06 | Ghana | 1137 | 274 | CLUSL01 | 68 | 451N037W | 17 | 56.5 | F | II |
| 26-May-06 | Ghana | 1137 | 275 | CLUSL01 | 68 | 451N037W | 17 | 59.1 | M | II |
| 26-May-06 | Ghana | 1137 | 276 | LUTLU03 | 68 | 451N037W | 34.3 | 621 | M | II |
| 26-May-06 | Ghana | 1137 | 277 | LUTLU03 | 68 | 451N037W | 34 | 661 | M | II |

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|-----------|-------|------|-----|---------|----|----------|------|-------|---|--------|
| 27-May-06 | Ghana | 1144 | 278 | LUTLU03 | 56 | 439N057W | 25 | 225.1 | M | I |
| 27-May-06 | Ghana | 1144 | 279 | LUTLU03 | 56 | 439N057W | 29 | 331.8 | M | II |
| 27-May-06 | Ghana | 1144 | 280 | LUTLU03 | 56 | 439N057W | 25 | 238.9 | M | I |
| 27-May-06 | Ghana | 1144 | 281 | LUTLU03 | 56 | 439N057W | 27.9 | 303.6 | M | II-III |
| 27-May-06 | Ghana | 1144 | 282 | LUTLU03 | 56 | 439N057W | 25.2 | 223.6 | M | II |
| 27-May-06 | Ghana | 1144 | 283 | LUTLU03 | 56 | 439N057W | 26.5 | 282.7 | F | II |
| 27-May-06 | Ghana | 1144 | 284 | LUTLU03 | 56 | 439N057W | 25.2 | 225.6 | F | II |
| 27-May-06 | Ghana | 1144 | 285 | LUTLU03 | 56 | 439N057W | 25.9 | 252 | M | II |
| 27-May-06 | Ghana | 1144 | 286 | LUTLU03 | 56 | 439N057W | 25.7 | 256.4 | M | I |
| 27-May-06 | Ghana | 1144 | 287 | LUTLU03 | 56 | 439N057W | 25.5 | 249.5 | F | I-II |
| 27-May-06 | Ghana | 1144 | 288 | MULPS01 | 56 | 439N057W | 22 | 187.6 | M | II |
| 27-May-06 | Ghana | 1144 | 289 | MULPS01 | 56 | 439N057W | 20 | 141.9 | M | II |
| 27-May-06 | Ghana | 1144 | 290 | MULPS01 | 56 | 439N057W | 16 | 69.5 | M | I-II |
| 27-May-06 | Ghana | 1144 | 291 | MULPS01 | 56 | 439N057W | 18 | 88.6 | M | II |
| 27-May-06 | Ghana | 1144 | 292 | MULPS01 | 56 | 439N057W | 17.5 | 98.4 | F | III |
| 28-May-06 | Ghana | 1147 | 293 | SCIPS02 | 20 | 500N129W | 26.4 | 149.5 | M | II |
| 28-May-06 | Ghana | 1147 | 294 | SCIPS02 | 20 | 500N129W | 23.5 | 200.1 | M | I |
| 28-May-06 | Ghana | 1147 | 295 | SCIPS02 | 20 | 500N129W | 25.3 | 96.1 | M | I |
| 28-May-06 | Ghana | 1147 | 296 | SCIPS02 | 20 | 500N129W | 23.5 | 70.7 | M | I |
| 28-May-06 | Ghana | 1147 | 297 | SCIPS02 | 20 | 500N129W | 23.5 | 109.5 | M | I |
| 28-May-06 | Ghana | 1147 | 298 | SCIPS02 | 20 | 500N129W | 22.5 | 87.6 | M | I |
| 28-May-06 | Ghana | 1147 | 299 | SCIPS02 | 20 | 500N129W | 25 | 115.1 | M | II |
| 28-May-06 | Ghana | 1147 | 300 | SCIPS02 | 20 | 500N129W | 22 | 73.7 | M | I |
| 28-May-06 | Ghana | 1147 | 301 | SCIPS02 | 20 | 500N129W | 20 | 60.3 | M | II |
| 28-May-06 | Ghana | 1147 | 302 | SPAPR07 | 20 | 500N129W | 15 | 70.1 | M | I |
| 28-May-06 | Ghana | 1147 | 303 | SPAPR07 | 20 | 500N129W | 17 | 99.5 | M | I |
| 28-May-06 | Ghana | 1147 | 304 | SPAPR07 | 20 | 500N129W | 21 | 187.6 | F | II-III |
| 28-May-06 | Ghana | 1147 | 305 | SPAPR07 | 20 | 500N129W | 17 | 90.4 | M | II |
| 28-May-06 | Ghana | 1147 | 306 | SPAPR07 | 20 | 500N129W | 17 | 91.5 | M | II |
| 28-May-06 | Ghana | 1147 | 307 | SPAPR07 | 20 | 500N129W | 18.5 | 141.8 | F | II-III |
| 28-May-06 | Ghana | 1147 | 308 | SPAPR07 | 20 | 500N129W | 19 | 166 | F | I-II |
| 28-May-06 | Ghana | 1147 | 309 | SPAPR07 | 20 | 500N129W | 16 | 82.4 | M | I-II |
| 28-May-06 | Ghana | 1147 | 310 | SPAPR07 | 20 | 500N129W | 16.5 | 83.9 | F | I-II |
| 28-May-06 | Ghana | 1147 | 311 | SPAPR07 | 20 | 500N129W | 21 | 187.6 | F | II |
| 28-May-06 | Ghana | 1147 | 312 | SPAPR07 | 20 | 500N129W | 19 | 155.9 | F | II |
| 28-May-06 | Ghana | 1147 | 313 | SPAPR07 | 20 | 500N129W | 21.3 | 226.4 | F | II-III |
| 28-May-06 | Ghana | 1151 | 314 | SCMSC01 | 59 | 428N119W | 21 | 107 | M | II |
| 28-May-06 | Ghana | 1151 | 315 | SCMSC01 | 59 | 428N119W | 22.8 | 143.4 | F | III |
| 28-May-06 | Ghana | 1151 | 316 | SCMSC01 | 59 | 428N119W | 20.7 | 97.9 | M | III |
| 28-May-06 | Ghana | 1151 | 317 | SCMSC01 | 59 | 428N119W | 22 | 118 | F | II |
| 28-May-06 | Ghana | 1151 | 318 | SCMSC01 | 59 | 428N119W | 22.2 | 122.8 | F | III |
| 28-May-06 | Ghana | 1151 | 319 | SCMSC01 | 59 | 428N119W | 22 | 127.7 | M | IV |
| 28-May-06 | Ghana | 1151 | 320 | SCMSC01 | 59 | 428N119W | 18.3 | 62.9 | M | II |
| 28-May-06 | Ghana | 1151 | 321 | SCMSC01 | 59 | 428N119W | 19.5 | 79.1 | M | I |
| 28-May-06 | Ghana | 1151 | 322 | SCMSC01 | 59 | 428N119W | 18.7 | 64.8 | M | I |
| 28-May-06 | Ghana | 1151 | 323 | SCMSC01 | 59 | 428N119W | 20.3 | 93.2 | M | III-IV |
| 28-May-06 | Ghana | 1151 | 324 | SCMSC01 | 59 | 428N119W | 19 | 76.7 | F | IV |
| 28-May-06 | Ghana | 1151 | 325 | CLUSL01 | 59 | 428N119W | 18 | 66.6 | M | III-IV |
| 28-May-06 | Ghana | 1151 | 326 | CLUSL01 | 59 | 428N119W | 18.2 | 70.9 | F | III |
| 28-May-06 | Ghana | 1151 | 327 | CLUSL01 | 59 | 428N119W | 17.6 | 64 | F | III |
| 28-May-06 | Ghana | 1151 | 328 | CLUSL01 | 59 | 428N119W | 17.6 | 64.1 | M | II |
| 28-May-06 | Ghana | 1151 | 329 | CLUSL01 | 59 | 428N119W | 19 | 65 | F | II-III |
| 28-May-06 | Ghana | 1151 | 330 | CLUSL01 | 59 | 428N119W | 16.7 | 54.5 | F | II-III |
| 28-May-06 | Ghana | 1151 | 331 | CLUSL01 | 59 | 428N119W | 18 | 63.6 | M | II-III |
| 28-May-06 | Ghana | 1151 | 332 | CLUSL01 | 59 | 428N119W | 17.5 | 59.5 | F | II-III |
| 28-May-06 | Ghana | 1151 | 333 | CLUSL01 | 59 | 428N119W | 17.8 | 64.2 | F | II-III |

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|-----------|-------|------|-----|---------|----|----------|------|-------|---|--------|
| 28-May-06 | Ghana | 1151 | 334 | CLUSL01 | 59 | 428N119W | 18.1 | 64.7 | M | III |
| 28-May-06 | Ghana | 1151 | 335 | MULPS01 | 59 | 428N119W | 18.1 | 100.3 | M | I-II |
| 28-May-06 | Ghana | 1151 | 336 | MULPS01 | 59 | 428N119W | 20 | 134 | M | II |
| 28-May-06 | Ghana | 1151 | 337 | MULPS01 | 59 | 428N119W | 20 | 141.1 | F | II |
| 28-May-06 | Ghana | 1151 | 338 | MULPS01 | 59 | 428N119W | 23.6 | 225.1 | M | I-II |
| 28-May-06 | Ghana | 1151 | 339 | MULPS01 | 59 | 428N119W | 18.9 | 131.5 | M | II-III |
| 29-May-06 | Ghana | 1155 | 340 | SPHSP01 | 47 | 442N150W | 34.6 | 204.3 | M | III |
| 29-May-06 | Ghana | 1155 | 341 | SPHSP01 | 47 | 442N150W | 37.7 | 321.8 | M | II |
| 29-May-06 | Ghana | 1155 | 342 | SPHSP01 | 47 | 442N150W | 39.4 | 351.6 | M | II |
| 29-May-06 | Ghana | 1155 | 343 | SPHSP01 | 47 | 442N150W | 43.4 | 530.6 | M | II-III |
| 29-May-06 | Ghana | 1155 | 344 | SPHSP01 | 47 | 442N150W | 44.5 | 554.8 | M | III |
| 29-May-06 | Ghana | 1156 | 345 | SCIPS02 | 28 | 447N150W | 22.2 | 84.2 | M | I |
| 29-May-06 | Ghana | 1156 | 346 | SCIPS02 | 28 | 447N150W | 26.9 | 159.1 | F | I |
| 29-May-06 | Ghana | 1156 | 347 | SCIPS02 | 28 | 447N150W | 23 | 96.3 | M | I |
| 29-May-06 | Ghana | 1156 | 348 | SCIPS02 | 28 | 447N150W | 14 | 24.4 | M | I-II |
| 29-May-06 | Ghana | 1156 | 349 | SCIPS02 | 28 | 447N150W | 23.5 | 96.6 | M | I |
| 29-May-06 | Ghana | 1156 | 350 | SCIPS02 | 28 | 447N150W | 24 | 107.9 | M | I |
| 29-May-06 | Ghana | 1156 | 351 | SCIPS02 | 28 | 447N150W | 26 | 137.4 | M | I |
| 29-May-06 | Ghana | 1156 | 352 | SCIPS02 | 28 | 447N150W | 26.5 | 148.3 | M | II |
| 29-May-06 | Ghana | 1156 | 353 | SCIPS02 | 28 | 447N150W | 35.4 | 350.8 | M | III |
| 29-May-06 | Ghana | 1156 | 354 | SCIPS02 | 28 | 447N150W | 49.1 | 514.8 | M | III |
| 29-May-06 | Ghana | 1157 | 355 | PODBR01 | 46 | 440N207W | 15.6 | 76.9 | F | II |
| 29-May-06 | Ghana | 1157 | 356 | PODBR01 | 46 | 440N207W | 10.4 | 49.6 | M | I-II |
| 29-May-06 | Ghana | 1157 | 357 | PODBR01 | 46 | 440N207W | 15 | 50.5 | F | I-II |
| 29-May-06 | Ghana | 1157 | 358 | PODBR01 | 46 | 440N207W | 15.7 | 81.9 | F | II |
| 29-May-06 | Ghana | 1157 | 359 | PODBR01 | 46 | 440N207W | 10.4 | 45.4 | F | II |
| 29-May-06 | Ghana | 1157 | 360 | PODBR01 | 46 | 440N207W | 5.9 | 10.9 | - | - |
| 29-May-06 | Ghana | 1157 | 361 | PODBR01 | 46 | 440N207W | 10.3 | 27.3 | M | I |
| 29-May-06 | Ghana | 1157 | 362 | PODBR01 | 46 | 440N207W | 10.1 | 16 | - | - |
| 29-May-06 | Ghana | 1157 | 363 | PODBR01 | 46 | 440N207W | 10.1 | 17.8 | - | - |
| 29-May-06 | Ghana | 1157 | 364 | PODBR01 | 46 | 440N207W | 10 | 13.4 | - | - |
| 29-May-06 | Ghana | 1157 | 365 | PLNGA01 | 46 | 440N207W | 20.2 | 197.3 | M | II |
| 29-May-06 | Ghana | 1157 | 366 | PLNGA01 | 46 | 440N207W | 20.1 | 175.1 | M | II |
| 29-May-06 | Ghana | 1157 | 367 | PLNGA01 | 46 | 440N207W | 20 | 140.9 | M | II |
| 29-May-06 | Ghana | 1157 | 368 | PLNGA01 | 46 | 440N207W | 20.4 | 238.9 | M | II |
| 29-May-06 | Ghana | 1157 | 369 | PLNGA01 | 46 | 440N207W | 20 | 142.1 | M | II |
| 29-May-06 | Ghana | 1157 | 370 | PLNGA01 | 46 | 440N207W | 20.1 | 163.9 | M | II |
| 29-May-06 | Ghana | 1157 | 371 | PLNGA01 | 46 | 440N207W | 25.8 | 396.2 | M | III |
| 29-May-06 | Ghana | 1157 | 372 | PLNGA01 | 46 | 440N207W | 15.9 | 115.5 | M | II |
| 29-May-06 | Ghana | 1157 | 373 | PLNGA01 | 46 | 440N207W | 15.8 | 98.4 | M | I |
| 29-May-06 | Ghana | 1157 | 374 | PLNGA01 | 46 | 440N207W | 15.9 | 119.4 | M | I-II |
| 29-May-06 | Ghana | 1159 | 375 | SPADE01 | 85 | 433N210W | 21.6 | 202.2 | M | III |
| 29-May-06 | Ghana | 1159 | 376 | SPADE01 | 85 | 433N210W | 19.4 | 155.1 | F | III |
| 29-May-06 | Ghana | 1159 | 377 | SPADE01 | 85 | 433N210W | 20.5 | 191.2 | M | II |
| 29-May-06 | Ghana | 1159 | 378 | SPADE01 | 85 | 433N210W | 15.5 | 73.5 | F | I-II |
| 29-May-06 | Ghana | 1159 | 379 | SPADE01 | 85 | 433N210W | 22.8 | 229.9 | F | IV |
| 29-May-06 | Ghana | 1159 | 380 | SPADE01 | 85 | 433N210W | 18.9 | 134.8 | F | III |
| 29-May-06 | Ghana | 1159 | 381 | SPADE01 | 85 | 433N210W | 22.5 | 228.3 | F | IV |
| 30-May-06 | Ghana | 1161 | 382 | SPHSP01 | 48 | 449N223W | 52 | 688 | M | II |
| 30-May-06 | Ghana | 1161 | 383 | SPHSP01 | 48 | 449N223W | 33.4 | 232.3 | M | I |
| 30-May-06 | Ghana | 1161 | 384 | SPHSP01 | 48 | 449N223W | 35 | 288.7 | M | I |
| 30-May-06 | Ghana | 1161 | 385 | PODBR01 | 48 | 449N223W | 13.7 | 43 | F | III |
| 30-May-06 | Ghana | 1161 | 386 | PODBR01 | 48 | 449N223W | 13.4 | 37.7 | M | III |
| 30-May-06 | Ghana | 1161 | 387 | PODBR01 | 48 | 449N223W | 13 | 34.6 | M | III |
| 30-May-06 | Ghana | 1161 | 388 | PODBR01 | 48 | 449N223W | 12.8 | 29.7 | F | III |
| 30-May-06 | Ghana | 1161 | 389 | PODBR01 | 48 | 449N223W | 17 | 78.3 | F | II |

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| 30-May-06 | Ghana | 1161 | 390 | PODBR01 | 48 | 449N223W | 13.4 | 40.1 | F | III |
| 30-May-06 | Ghana | 1161 | 391 | PODBR01 | 48 | 449N223W | 12.7 | 35.7 | M | III |
| 30-May-06 | Ghana | 1161 | 392 | PODBR01 | 48 | 449N223W | 14.2 | 40.1 | F | III |
| 30-May-06 | Ghana | 1161 | 393 | PODBR01 | 48 | 449N223W | 13.7 | 39.4 | F | III |
| 30-May-06 | Ghana | 1161 | 394 | PODBR01 | 48 | 449N223W | 12.7 | 31.9 | F | III |
| 30-May-06 | Ghana | 1161 | 395 | PODBR01 | 48 | 449N223W | 12.1 | 35.4 | M | II |
| 30-May-06 | Ghana | 1161 | 396 | PODBR01 | 48 | 449N223W | 11.6 | 28.2 | M | III |
| 30-May-06 | Ghana | 1163 | 397 | SPHSP01 | 28 | 452N221W | 15 | 25 | M | I |
| 30-May-06 | Ghana | 1163 | 398 | SPHSP01 | 28 | 452N221W | 15.5 | 25.1 | M | I |
| 30-May-06 | Ghana | 1163 | 399 | SPHSP01 | 28 | 452N221W | 14.9 | 22.7 | - | - |
| 30-May-06 | Ghana | 1163 | 400 | SPHSP01 | 28 | 452N221W | 15.4 | 19.8 | - | - |
| 30-May-06 | Ghana | 1163 | 401 | SPHSP01 | 28 | 452N221W | 14.5 | 21.6 | - | - |
| 30-May-06 | Ghana | 1163 | 402 | SPHSP01 | 28 | 452N221W | 14 | 19.7 | - | - |
| 30-May-06 | Ghana | 1163 | 403 | SPHSP01 | 28 | 452N221W | 14 | 19.7 | - | - |
| 30-May-06 | Ghana | 1163 | 404 | SPHSP01 | 28 | 452N221W | 14 | 17.4 | - | - |
| 30-May-06 | Ghana | 1163 | 405 | SPHSP01 | 28 | 452N221W | 14 | 18.1 | - | - |
| 30-May-06 | Ghana | 1163 | 406 | SPHSP01 | 28 | 452N221W | 13.4 | 15.8 | - | - |
| 30-May-06 | Ghana | 1164 | 407 | SPADE02 | 26 | 459N246W | 29.4 | 536.4 | F | II-III |
| 30-May-06 | Ghana | 1164 | 408 | SPADE02 | 26 | 459N246W | 17 | 104.3 | - | - |
| 30-May-06 | Ghana | 1164 | 409 | SPADE02 | 26 | 459N246W | 20 | 158.9 | M | I |
| 30-May-06 | Ghana | 1164 | 410 | SPADE02 | 26 | 459N246W | 25 | 316 | M | II |
| 30-May-06 | Ghana | 1165 | 411 | CARCA02 | 40 | 456N245W | 16 | 81.7 | - | - |
| 30-May-06 | Ghana | 1165 | 412 | CARCA02 | 40 | 456N245W | 18 | 117.9 | M | I |
| 30-May-06 | Ghana | 1165 | 413 | CARCA02 | 40 | 456N245W | 21 | 186.7 | F | I-II |
| 30-May-06 | Ghana | 1165 | 414 | CARCA02 | 40 | 456N245W | 20.5 | 174.7 | F | I-II |
| 30-May-06 | Ghana | 1165 | 415 | CARCA02 | 40 | 456N245W | 19.5 | 144.4 | M | I |
| 30-May-06 | Ghana | 1165 | 416 | CARCA02 | 40 | 456N245W | 20 | 159.4 | M | I |
| 30-May-06 | Ghana | 1165 | 417 | CARCA02 | 40 | 456N245W | 20.5 | 155 | M | I |
| 30-May-06 | Ghana | 1165 | 418 | CARCA02 | 40 | 456N245W | 17.5 | 107.8 | - | - |
| 30-May-06 | Ghana | 1165 | 419 | CARCA02 | 40 | 456N245W | 19.5 | 144.3 | M | I-II |
| 30-May-06 | Ghana | 1165 | 420 | CARCA02 | 40 | 456N245W | 16.5 | 87.2 | - | - |
| 30-May-06 | Ghana | 1166 | 421 | CLUSL01 | 60 | 451N247W | 22 | 148.1 | M | I-II |
| 30-May-06 | Ghana | 1166 | 422 | CLUSL01 | 60 | 451N247W | 17.5 | 69.3 | F | I |
| 30-May-06 | Ghana | 1166 | 423 | CLUSL01 | 60 | 451N247W | 18 | 62.4 | M | II |
| 30-May-06 | Ghana | 1166 | 424 | SPAPA02 | 60 | 451N247W | 15 | 70.8 | F | II |
| 30-May-06 | Ghana | 1166 | 425 | SPAPA02 | 60 | 451N247W | 14 | 57.7 | F | II |
| 30-May-06 | Ghana | 1166 | 426 | SPAPA02 | 60 | 451N247W | 14.3 | 61.8 | M | II |
| 30-May-06 | Ghana | 1166 | 427 | SPAPA02 | 60 | 451N247W | 18 | 125.3 | M | II |
| 30-May-06 | Ghana | 1166 | 428 | SPAPA02 | 60 | 451N247W | 18 | 99.9 | M | I-II |
| 30-May-06 | Ghana | 1166 | 429 | MULPS01 | 60 | 451N247W | 18.5 | 110.1 | F | I |
| 30-May-06 | Ghana | 1166 | 430 | MULPS01 | 60 | 451N247W | 17 | 98.5 | M | II |
| 30-May-06 | Ghana | 1166 | 431 | MULPS01 | 60 | 451N247W | 17 | 92.7 | M | II |
| 31-May-06 | Ghana | 1169 | 432 | CARDE02 | 44 | 501N307W | 20.5 | 126.4 | M | II |
| 31-May-06 | Ghana | 1169 | 433 | CARDE02 | 44 | 501N307W | 18.5 | 96.1 | F | I-II |
| 31-May-06 | Ghana | 1169 | 434 | CARDE02 | 44 | 501N307W | 19 | 104.6 | M | II |
| 31-May-06 | Ghana | 1169 | 435 | CARDE02 | 44 | 501N307W | 18 | 91.2 | M | I |
| 31-May-06 | Ghana | 1169 | 436 | CARDE02 | 44 | 501N307W | 18 | 91.9 | M | I |
| 31-May-06 | Ghana | 1169 | 437 | SPAPA02 | 44 | 501N307W | 18.6 | 138.7 | M | I |
| 31-May-06 | Ghana | 1169 | 438 | SPAPA02 | 44 | 501N307W | 17.7 | 103.4 | M | I-II |
| 31-May-06 | Ghana | 1169 | 439 | SPAPA02 | 44 | 501N307W | 18 | 114.3 | M | II |
| 31-May-06 | Ghana | 1169 | 440 | SPAPA02 | 44 | 501N307W | 18.2 | 115.6 | M | II-III |
| 31-May-06 | Ghana | 1169 | 441 | SPAPA02 | 44 | 501N307W | 13.7 | 50.5 | M | II |
| 31-May-06 | Ghana | 1169 | 442 | SPAPA02 | 44 | 501N307W | 13.8 | 52.2 | M | II |
| 31-May-06 | Ghana | 1169 | 443 | SPAPA02 | 44 | 501N307W | 13.2 | 48.4 | F | II |
| 31-May-06 | Ghana | 1169 | 444 | SPAPA02 | 44 | 501N307W | 12.5 | 38.4 | M | I-II |
| 31-May-06 | Ghana | 1169 | 445 | SPAPA02 | 44 | 501N307W | 13.2 | 45.4 | M | I-II |

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| 31-May-06 | Ghana | 1169 | 446 | SPAPA02 | 44 | 501N307W | 12.2 | 33.3 | M | I |
| 31-May-06 | C d'Ivoire | 1171 | 447 | PLNGA01 | 23 | 507N324W | 15 | 54.9 | M | II |
| 31-May-06 | C d'Ivoire | 1171 | 448 | PLNGA01 | 23 | 507N324W | 20.4 | 282.4 | F | III |
| 31-May-06 | C d'Ivoire | 1171 | 449 | PLNGA01 | 23 | 507N324W | 15.8 | 113.3 | F | III |
| 31-May-06 | C d'Ivoire | 1171 | 450 | PLNGA01 | 23 | 507N324W | 20 | 116 | F | II |
| 31-May-06 | C d'Ivoire | 1171 | 451 | PLNGA01 | 23 | 507N324W | 15.7 | 79.9 | F | II |
| 31-May-06 | C d'Ivoire | 1171 | 452 | PLNGA01 | 23 | 507N324W | 15.6 | 81 | F | II |
| 31-May-06 | C d'Ivoire | 1171 | 453 | PLNGA01 | 23 | 507N324W | 15.7 | 90.3 | F | III |
| 31-May-06 | C d'Ivoire | 1171 | 454 | PLNGA01 | 23 | 507N324W | 10.3 | 44.9 | M | I |
| 31-May-06 | C d'Ivoire | 1171 | 455 | PLNGA01 | 23 | 507N324W | 10.3 | 34.1 | F | I |
| 31-May-06 | C d'Ivoire | 1171 | 456 | PLNGA01 | 23 | 507N324W | 15.6 | 69.4 | M | I |
| 31-May-06 | C d'Ivoire | 1171 | 457 | DREDR01 | 23 | 507N324W | 20.3 | 339.8 | M | III |
| 31-May-06 | C d'Ivoire | 1171 | 458 | SPHSP01 | 23 | 507N324W | 20.2 | 317.4 | M | III |
| 31-May-06 | C d'Ivoire | 1171 | 459 | SPHSP01 | 23 | 507N324W | 45 | 593 | M | II-III |
| 31-May-06 | C d'Ivoire | 1171 | 460 | SPHSP01 | 23 | 507N324W | 30.4 | 224.5 | F | II-III |
| 31-May-06 | C d'Ivoire | 1171 | 461 | SPHSP01 | 23 | 507N324W | 35 | 246.8 | F | III |
| 31-May-06 | C d'Ivoire | 1171 | 462 | SPHSP01 | 23 | 507N324W | 15.8 | 37.4 | M | I-II |
| 31-May-06 | C d'Ivoire | 1173 | 463 | SPADE01 | 71 | 500N325W | 20.5 | 120.3 | M | II |
| 31-May-06 | C d'Ivoire | 1173 | 464 | SPADE01 | 71 | 500N325W | 19 | 138.3 | M | II |
| 31-May-06 | C d'Ivoire | 1173 | 465 | SPADE01 | 71 | 500N325W | 20.5 | 194.8 | M | II |
| 31-May-06 | C d'Ivoire | 1173 | 466 | SPADE01 | 71 | 500N325W | 19 | 155 | F | II |
| 31-May-06 | C d'Ivoire | 1173 | 467 | SPADE01 | 71 | 500N325W | 15.5 | 73 | F | I-II |
| 31-May-06 | C d'Ivoire | 1173 | 468 | PODBR01 | 71 | 500N325W | 16 | 65.3 | F | I-II |
| 31-May-06 | C d'Ivoire | 1173 | 469 | PODBR01 | 71 | 500N325W | 16.7 | 65.3 | M | I |
| 31-May-06 | C d'Ivoire | 1173 | 470 | PODBR01 | 71 | 500N325W | 17.5 | 56.7 | F | I |
| 31-May-06 | C d'Ivoire | 1173 | 471 | PODBR01 | 71 | 500N325W | 15.4 | 68.1 | M | III |
| 31-May-06 | C d'Ivoire | 1173 | 472 | PODBR01 | 71 | 500N325W | 14.5 | 49.3 | M | III |
| 31-May-06 | C d'Ivoire | 1173 | 473 | SCMSC01 | 71 | 500N325W | 20 | 97.2 | M | II-III |
| 31-May-06 | C d'Ivoire | 1173 | 474 | CARTR02 | 71 | 500N325W | 14 | 30.9 | M | I |
| 31-May-06 | C d'Ivoire | 1173 | 475 | CARTR02 | 71 | 500N325W | 12.1 | 22.5 | F | II |
| 31-May-06 | C d'Ivoire | 1173 | 476 | CARTR02 | 71 | 500N325W | 15.5 | 48.7 | M | III |
| 31-May-06 | C d'Ivoire | 1173 | 477 | CARTR02 | 71 | 500N325W | 14.5 | 37.8 | F | II |
| 31-May-06 | C d'Ivoire | 1173 | 478 | CARTR02 | 71 | 500N325W | 16.9 | 58.8 | M | III |
| 31-May-06 | C d'Ivoire | 1173 | 479 | CARTR02 | 71 | 500N325W | 13.5 | 28.3 | M | II |
| 31-May-06 | C d'Ivoire | 1173 | 480 | CARTR02 | 71 | 500N325W | 17.5 | 61.8 | F | III |
| 31-May-06 | C d'Ivoire | 1173 | 481 | CARTR02 | 71 | 500N325W | 16.5 | 62.4 | F | III |
| 31-May-06 | C d'Ivoire | 1173 | 482 | CARTR02 | 71 | 500N325W | 17.2 | 65.5 | F | III |
| 31-May-06 | C d'Ivoire | 1173 | 483 | CARTR02 | 71 | 500N325W | 12.2 | 21 | F | II |
| 01-Jun-06 | C d'Ivoire | 1178 | 484 | CLUSL01 | 45 | 506N344W | 19.6 | 97.5 | M | II-III |
| 01-Jun-06 | C d'Ivoire | 1178 | 485 | CLUSL01 | 45 | 506N344W | 20.6 | 116.3 | M | II-III |
| 01-Jun-06 | C d'Ivoire | 1178 | 486 | CLUSL01 | 45 | 506N344W | 20 | 106 | M | II-III |
| 01-Jun-06 | C d'Ivoire | 1178 | 487 | CLUSL01 | 45 | 506N344W | 19 | 78.6 | M | I-II |
| 01-Jun-06 | C d'Ivoire | 1178 | 488 | CLUSL01 | 45 | 506N344W | 18.3 | 74.2 | M | I |
| 01-Jun-06 | C d'Ivoire | 1178 | 489 | CLUSL01 | 45 | 506N344W | 14 | 31.1 | M | I |
| 01-Jun-06 | C d'Ivoire | 1178 | 490 | CLUSL01 | 45 | 506N344W | 20.5 | 103 | M | I |
| 01-Jun-06 | C d'Ivoire | 1178 | 491 | CLUSL01 | 45 | 506N344W | 20.4 | 103.6 | M | I |
| 01-Jun-06 | C d'Ivoire | 1178 | 492 | CLUSL01 | 45 | 506N344W | 20.5 | 105.4 | M | I |
| 01-Jun-06 | C d'Ivoire | 1178 | 493 | CLUSL01 | 45 | 506N344W | 21.2 | 125.6 | M | II |
| 01-Jun-06 | C d'Ivoire | 1178 | 494 | SPAPA02 | 45 | 506N344W | 15.7 | 84.2 | F | III |
| 01-Jun-06 | C d'Ivoire | 1178 | 495 | SPAPA02 | 45 | 506N344W | 12.7 | 44.6 | M | II |
| 01-Jun-06 | C d'Ivoire | 1178 | 496 | SPAPA02 | 45 | 506N344W | 12.5 | 40.1 | F | II |
| 01-Jun-06 | C d'Ivoire | 1178 | 497 | SPAPA02 | 45 | 506N344W | 17 | 98.4 | M | III |
| 01-Jun-06 | C d'Ivoire | 1178 | 498 | SPAPA02 | 45 | 506N344W | 16 | 78.6 | M | II |
| 01-Jun-06 | C d'Ivoire | 1178 | 499 | SPAPA02 | 45 | 506N344W | 18.2 | 120 | F | III |
| 01-Jun-06 | C d'Ivoire | 1178 | 500 | SPAPA02 | 45 | 506N344W | 17.5 | 107.9 | M | III |
| 01-Jun-06 | C d'Ivoire | 1178 | 501 | SPAPA02 | 45 | 506N344W | 19 | 146.5 | M | III |

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|-----------|------------|------|-----|---------|----|----------|------|-------|---|--------|
| 01-Jun-06 | C d'Ivoire | 1178 | 502 | SPAPA02 | 45 | 506N344W | 15.6 | 77.3 | F | III |
| 01-Jun-06 | C d'Ivoire | 1178 | 503 | SPAPA02 | 45 | 506N344W | 15.6 | 82.8 | F | III |
| 01-Jun-06 | C d'Ivoire | 1180 | 504 | MULPS01 | 33 | 512N412W | 15.5 | 62.9 | M | II |
| 01-Jun-06 | C d'Ivoire | 1180 | 505 | MULPS01 | 33 | 512N412W | 19 | 104.6 | M | II |
| 01-Jun-06 | C d'Ivoire | 1180 | 506 | MULPS01 | 33 | 512N412W | 19.2 | 126.5 | M | II |
| 01-Jun-06 | C d'Ivoire | 1180 | 507 | MULPS01 | 33 | 512N412W | 18.5 | 107.3 | M | II |
| 01-Jun-06 | C d'Ivoire | 1180 | 508 | MULPS01 | 33 | 512N412W | 20.5 | 146.2 | M | II-III |
| 01-Jun-06 | C d'Ivoire | 1180 | 509 | MULPS01 | 33 | 512N412W | 15.5 | 75.8 | M | II-III |
| 01-Jun-06 | C d'Ivoire | 1180 | 510 | MULPS01 | 33 | 512N412W | 18 | 119.9 | M | II |
| 01-Jun-06 | C d'Ivoire | 1180 | 511 | MULPS01 | 33 | 512N412W | 18 | 122.3 | M | I |
| 01-Jun-06 | C d'Ivoire | 1180 | 512 | MULPS01 | 33 | 512N412W | 13.5 | 46.8 | M | I |
| 01-Jun-06 | C d'Ivoire | 1180 | 513 | MULPS01 | 33 | 512N412W | 15.5 | 65.8 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 514 | SPAPA02 | 60 | 508N422W | 12.2 | 37.9 | F | II |
| 02-Jun-06 | C d'Ivoire | 1186 | 515 | SPAPA02 | 60 | 508N422W | 11.9 | 31.6 | F | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 516 | SPAPA02 | 60 | 508N422W | 13.4 | 48.7 | F | II |
| 02-Jun-06 | C d'Ivoire | 1186 | 517 | SPAPA02 | 60 | 508N422W | 12.4 | 39.5 | M | II |
| 02-Jun-06 | C d'Ivoire | 1186 | 518 | SPAPA02 | 60 | 508N422W | 18 | 111.5 | M | III |
| 02-Jun-06 | C d'Ivoire | 1186 | 519 | SPAPA02 | 60 | 508N422W | 18.5 | 128.3 | M | III |
| 02-Jun-06 | C d'Ivoire | 1186 | 520 | SPAPA02 | 60 | 508N422W | 17.5 | 109.1 | M | IV |
| 02-Jun-06 | C d'Ivoire | 1186 | 521 | SPAPA02 | 60 | 508N422W | 16 | 80.7 | F | III |
| 02-Jun-06 | C d'Ivoire | 1186 | 522 | SPAPA02 | 60 | 508N422W | 16.2 | 85.6 | F | IV |
| 02-Jun-06 | C d'Ivoire | 1186 | 523 | SPAPA02 | 60 | 508N422W | 15.7 | 80.6 | F | III |
| 02-Jun-06 | C d'Ivoire | 1186 | 524 | CLUSL01 | 60 | 508N422W | 12.5 | 19.8 | - | - |
| 02-Jun-06 | C d'Ivoire | 1186 | 525 | CLUSL01 | 60 | 508N422W | 13 | 22.1 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 526 | CLUSL01 | 60 | 508N422W | 17.5 | 63 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 527 | CLUSL01 | 60 | 508N422W | 18 | 69.6 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 528 | CLUSL01 | 60 | 508N422W | 18 | 68.5 | M | II |
| 02-Jun-06 | C d'Ivoire | 1186 | 529 | CLUSL01 | 60 | 508N422W | 17.5 | 64.9 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 530 | CLUSL01 | 60 | 508N422W | 18.7 | 67.5 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 531 | CLUSL01 | 60 | 508N422W | 22.8 | 166.3 | M | I |
| 02-Jun-06 | C d'Ivoire | 1186 | 532 | CLUSL01 | 60 | 508N422W | 23 | 155.9 | M | III |
| 02-Jun-06 | C d'Ivoire | 1186 | 533 | CLUSL01 | 60 | 508N422W | 21.1 | 125.3 | M | III |
| 02-Jun-06 | C d'Ivoire | 1188 | 534 | PODBR01 | 22 | 508N442W | 12.2 | 34 | M | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 535 | PODBR01 | 22 | 508N442W | 13 | 36.6 | M | II-III |
| 02-Jun-06 | C d'Ivoire | 1188 | 536 | PODBR01 | 22 | 508N442W | 16 | 63.9 | M | II-III |
| 02-Jun-06 | C d'Ivoire | 1188 | 537 | PODBR01 | 22 | 508N442W | 13.6 | 42.1 | M | III |
| 02-Jun-06 | C d'Ivoire | 1188 | 538 | PODBR01 | 22 | 508N442W | 11.7 | 37.8 | M | II-III |
| 02-Jun-06 | C d'Ivoire | 1188 | 539 | PODBR01 | 22 | 508N442W | 15 | 52.4 | M | II-III |
| 02-Jun-06 | C d'Ivoire | 1188 | 540 | PODBR01 | 22 | 508N442W | 16 | 69.9 | F | III |
| 02-Jun-06 | C d'Ivoire | 1188 | 541 | PODBR01 | 22 | 508N442W | 12.5 | 31.6 | M | II-III |
| 02-Jun-06 | C d'Ivoire | 1188 | 542 | PODBR01 | 22 | 508N442W | 13 | 40.6 | M | III |
| 02-Jun-06 | C d'Ivoire | 1188 | 543 | PODBR01 | 22 | 508N442W | 14.2 | 49.7 | M | II-III |
| 02-Jun-06 | C d'Ivoire | 1188 | 544 | SPHSP01 | 22 | 508N442W | 29.5 | 157 | M | I-II |
| 02-Jun-06 | C d'Ivoire | 1188 | 545 | SPHSP01 | 22 | 508N442W | 21.5 | 64 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 546 | SPHSP01 | 22 | 508N442W | 31 | 181 | F | I-II |
| 02-Jun-06 | C d'Ivoire | 1188 | 547 | SPHSP01 | 22 | 508N442W | 13.5 | 197.9 | F | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 548 | SPHSP01 | 22 | 508N442W | 13 | 176.4 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 549 | SPHSP01 | 22 | 508N442W | 29 | 154.5 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 550 | SPHSP01 | 22 | 508N442W | 30.5 | 169.5 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 551 | SPHSP01 | 22 | 508N442W | 29.5 | 181.5 | F | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 552 | SPHSP01 | 22 | 508N442W | 26 | 112.3 | M | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 553 | SPHSP01 | 22 | 508N442W | 25.6 | 99.6 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 554 | PLNGA01 | 22 | 508N442W | 15.9 | 132.1 | F | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 555 | PLNGA01 | 22 | 508N442W | 15.9 | 142.1 | F | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 556 | PLNGA01 | 22 | 508N442W | 20.1 | 189.7 | F | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 557 | PLNGA01 | 22 | 508N442W | 15.9 | 114.7 | M | II |

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|-----------|------------|------|-----|---------|----|----------|------|-------|---|--------|
| 02-Jun-06 | C d'Ivoire | 1188 | 558 | PLNGA01 | 22 | 508N442W | 10.3 | 41.3 | M | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 559 | PLNGA01 | 22 | 508N442W | 15.9 | 13.3 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 560 | PLNGA01 | 22 | 508N442W | 15.7 | 86.8 | F | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 561 | PLNGA01 | 22 | 508N442W | 15 | 66.1 | M | II |
| 02-Jun-06 | C d'Ivoire | 1188 | 562 | PLNGA01 | 22 | 508N442W | 15.6 | 76.7 | M | I |
| 02-Jun-06 | C d'Ivoire | 1188 | 563 | PLNGA01 | 22 | 508N442W | 10.3 | 37.5 | - | - |
| 02-Jun-06 | C d'Ivoire | 1190 | 564 | PODBR01 | 73 | 503N445W | 15 | 57 | M | II |
| 02-Jun-06 | C d'Ivoire | 1190 | 565 | PODBR01 | 73 | 503N445W | 10.4 | 37.7 | F | II |
| 02-Jun-06 | C d'Ivoire | 1190 | 566 | PODBR01 | 73 | 503N445W | 15.6 | 59.4 | M | III |
| 02-Jun-06 | C d'Ivoire | 1190 | 567 | PODBR01 | 73 | 503N445W | 15.7 | 63.7 | M | III |
| 02-Jun-06 | C d'Ivoire | 1190 | 568 | PODBR01 | 73 | 503N445W | 15 | 49.5 | F | II |
| 02-Jun-06 | C d'Ivoire | 1190 | 569 | PODBR01 | 73 | 503N445W | 15.9 | 98.7 | F | II-III |
| 02-Jun-06 | C d'Ivoire | 1190 | 570 | PODBR01 | 73 | 503N445W | 15.8 | 79 | M | II |
| 02-Jun-06 | C d'Ivoire | 1190 | 571 | PODBR01 | 73 | 503N445W | 15.6 | 61.3 | F | I-II |
| 02-Jun-06 | C d'Ivoire | 1190 | 572 | PODBR01 | 73 | 503N445W | 15.6 | 37.6 | F | I |
| 02-Jun-06 | C d'Ivoire | 1190 | 573 | PODBR01 | 73 | 503N445W | 15.6 | 55.2 | F | II |
| 03-Jun-06 | C d'Ivoire | 1193 | 574 | CLUSL02 | 44 | 502N511W | 19 | 101.2 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 575 | CLUSL02 | 44 | 502N511W | 21.8 | 163.4 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 576 | CLUSL02 | 44 | 502N511W | 18.5 | 87.5 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 577 | CLUSL02 | 44 | 502N511W | 18.7 | 93.5 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 578 | CLUSL02 | 44 | 502N511W | 18.3 | 86.1 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 579 | CLUSL02 | 44 | 502N511W | 20.5 | 118.3 | M | II |
| 03-Jun-06 | C d'Ivoire | 1193 | 580 | CLUSL02 | 44 | 502N511W | 20 | 116.1 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 581 | CLUSL02 | 44 | 502N511W | 17.8 | 85.9 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 582 | CLUSL02 | 44 | 502N511W | 16.9 | 69.7 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 583 | CLUSL02 | 44 | 502N511W | 15.5 | 49.6 | M | I |
| 03-Jun-06 | C d'Ivoire | 1193 | 584 | SPAPR07 | 44 | 502N511W | 16.4 | 448.7 | M | II |
| 03-Jun-06 | C d'Ivoire | 1195 | 585 | SCIPS01 | 21 | 501N541W | 27.5 | 160.2 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 586 | SCIPS02 | 21 | 501N541W | 39 | 303.9 | M | II |
| 03-Jun-06 | C d'Ivoire | 1195 | 587 | SCIPS02 | 21 | 501N541W | 36 | 416 | M | II |
| 03-Jun-06 | C d'Ivoire | 1195 | 588 | SCIPS02 | 21 | 501N541W | 18.5 | 52.4 | - | - |
| 03-Jun-06 | C d'Ivoire | 1195 | 589 | SCIPS02 | 21 | 501N541W | 25.5 | 133.4 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 590 | SCIPS02 | 21 | 501N541W | 39 | 167.2 | M | II-III |
| 03-Jun-06 | C d'Ivoire | 1195 | 591 | SCIPS02 | 21 | 501N541W | 23.5 | 107.4 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1195 | 592 | SCIPS02 | 21 | 501N541W | 18.5 | 47.1 | - | - |
| 03-Jun-06 | C d'Ivoire | 1195 | 593 | SCIPS02 | 21 | 501N541W | 31 | 203.5 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 594 | SCIPS02 | 21 | 501N541W | 20 | 56.6 | - | - |
| 03-Jun-06 | C d'Ivoire | 1195 | 595 | SPHSP01 | 21 | 501N541W | 28 | 144.6 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 596 | SPHSP01 | 21 | 501N541W | 30.5 | 177.4 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 597 | SPHSP01 | 21 | 501N541W | 31.5 | 194.6 | F | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 598 | SPHSP01 | 21 | 501N541W | 38 | 147.1 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 599 | SPHSP01 | 21 | 501N541W | 37.5 | 145.2 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 600 | SPHSP01 | 21 | 501N541W | 27 | 128.1 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 601 | SPHSP01 | 21 | 501N541W | 23 | 77.9 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 602 | SPHSP01 | 21 | 501N541W | 27 | 130.9 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 603 | SPHSP01 | 21 | 501N541W | 29.2 | 160.2 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 604 | SPHSP01 | 21 | 501N541W | 32 | 199 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1195 | 605 | PLNGA01 | 21 | 501N541W | 22 | 206 | M | II |
| 03-Jun-06 | C d'Ivoire | 1195 | 606 | PLNGA01 | 21 | 501N541W | 18.5 | 113.7 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1195 | 607 | PLNGA01 | 21 | 501N541W | 16.5 | 77 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1195 | 608 | PLNGA01 | 21 | 501N541W | 16.5 | 94.4 | M | II |
| 03-Jun-06 | C d'Ivoire | 1195 | 609 | PLNGA01 | 21 | 501N541W | 18 | 119.3 | F | II |
| 03-Jun-06 | C d'Ivoire | 1195 | 610 | PLNGA01 | 21 | 501N541W | 12 | 35.4 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 611 | PLNGA01 | 21 | 501N541W | 17 | 92.3 | M | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 612 | PLNGA01 | 21 | 501N541W | 14 | 61.2 | F | I |
| 03-Jun-06 | C d'Ivoire | 1195 | 613 | PLNGA01 | 21 | 501N541W | 14.5 | 58.1 | F | I |

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|-----------|------------|------|-----|---------|----|----------|------|-------|---|--------|
| 03-Jun-06 | C d'Ivoire | 1195 | 614 | PLNGA01 | 21 | 501N541W | 18 | 117.8 | M | II |
| 03-Jun-06 | C d'Ivoire | 1197 | 615 | CLUSL01 | 65 | 453N542W | 22 | 114.2 | F | I |
| 03-Jun-06 | C d'Ivoire | 1197 | 616 | CLUSL01 | 65 | 453N542W | 21 | 112.9 | F | I |
| 03-Jun-06 | C d'Ivoire | 1197 | 617 | CLUSL01 | 65 | 453N542W | 23 | 167.9 | M | I |
| 03-Jun-06 | C d'Ivoire | 1197 | 618 | CLUSL01 | 65 | 453N542W | 21 | 121.8 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1197 | 619 | CLUSL01 | 65 | 453N542W | 22 | 136.4 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1197 | 620 | CLUSL01 | 65 | 453N542W | 21.5 | 22.5 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1197 | 621 | CLUSL01 | 65 | 453N542W | 21.5 | 132.6 | M | I |
| 03-Jun-06 | C d'Ivoire | 1197 | 622 | CLUSL01 | 65 | 453N542W | 20.5 | 113.8 | M | I-II |
| 03-Jun-06 | C d'Ivoire | 1197 | 623 | CLUSL01 | 65 | 453N542W | 20 | 121.3 | M | II |
| 03-Jun-06 | C d'Ivoire | 1197 | 624 | CLUSL01 | 65 | 453N542W | 22 | 147.9 | M | II |
| 04-Jun-06 | C d'Ivoire | 1198 | 625 | SCMSC01 | 94 | 442N600W | 20.3 | 100.8 | F | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 626 | SCMSC01 | 94 | 442N600W | 20.2 | 96.9 | M | III |
| 04-Jun-06 | C d'Ivoire | 1198 | 627 | SCMSC01 | 94 | 442N600W | 19.8 | 86.5 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 628 | SCMSC01 | 94 | 442N600W | 19.8 | 83.6 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 629 | SCMSC01 | 94 | 442N600W | 20.9 | 111.3 | F | III |
| 04-Jun-06 | C d'Ivoire | 1198 | 630 | SCMSC01 | 94 | 442N600W | 20 | 88.2 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 631 | SCMSC01 | 94 | 442N600W | 20.2 | 88.9 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 632 | SCMSC01 | 94 | 442N600W | 19.5 | 85.1 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 633 | SCMSC01 | 94 | 442N600W | 20.4 | 99.2 | F | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 634 | SCMSC01 | 94 | 442N600W | 19.5 | 87.6 | M | III |
| 04-Jun-06 | C d'Ivoire | 1198 | 635 | SCMSC01 | 94 | 442N600W | 20 | 94.6 | M | III |
| 04-Jun-06 | C d'Ivoire | 1198 | 636 | SCMSC01 | 94 | 442N600W | 19.5 | 78 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 637 | SCMSC01 | 94 | 442N600W | 19.8 | 89.6 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 638 | SCMSC01 | 94 | 442N600W | 19.7 | 90.2 | M | III |
| 04-Jun-06 | C d'Ivoire | 1198 | 639 | SCMSC01 | 94 | 442N600W | 20.6 | 103.7 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 640 | SCMSC01 | 94 | 442N600W | 19.9 | 93.2 | F | II |
| 04-Jun-06 | C d'Ivoire | 1198 | 641 | SCMSC01 | 94 | 442N600W | 20.8 | 94.9 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 642 | SCMSC01 | 94 | 442N600W | 20 | 89.2 | M | I |
| 04-Jun-06 | C d'Ivoire | 1198 | 643 | SCMSC01 | 94 | 442N600W | 19.8 | 96.2 | F | III |
| 04-Jun-06 | C d'Ivoire | 1203 | 644 | PODBR01 | 46 | 441N632W | 20 | 138.1 | F | II |
| 04-Jun-06 | C d'Ivoire | 1203 | 645 | PODBR01 | 46 | 441N632W | 15.5 | 64.9 | F | I |
| 04-Jun-06 | C d'Ivoire | 1203 | 646 | PODBR01 | 46 | 441N632W | 17 | 80.8 | M | II-III |
| 04-Jun-06 | C d'Ivoire | 1203 | 647 | PODBR01 | 46 | 441N632W | 18 | 92.6 | M | II-III |
| 04-Jun-06 | C d'Ivoire | 1203 | 648 | PODBR01 | 46 | 441N632W | 18.5 | 104.8 | F | I |
| 04-Jun-06 | C d'Ivoire | 1203 | 649 | PODBR01 | 46 | 441N632W | 14.5 | 49.5 | M | II |
| 04-Jun-06 | C d'Ivoire | 1203 | 650 | PODBR01 | 46 | 441N632W | 18.5 | 109.2 | F | II |
| 04-Jun-06 | C d'Ivoire | 1203 | 651 | PODBR01 | 46 | 441N632W | 14.7 | 52.2 | M | II |
| 04-Jun-06 | C d'Ivoire | 1203 | 652 | PODBR01 | 46 | 441N632W | 16 | 71.6 | M | I-II |
| 04-Jun-06 | C d'Ivoire | 1203 | 653 | PODBR01 | 46 | 441N632W | 15.5 | 63.1 | M | II |
| 05-Jun-06 | C d'Ivoire | 1206 | 654 | SPHSP01 | 42 | 417N727W | 34 | 243.5 | M | I |
| 05-Jun-06 | C d'Ivoire | 1206 | 655 | SPHSP01 | 42 | 417N727W | 31.7 | 195.1 | M | I |
| 05-Jun-06 | C d'Ivoire | 1206 | 656 | SPHSP01 | 42 | 417N727W | 38.8 | 332.6 | F | I |
| 05-Jun-06 | C d'Ivoire | 1206 | 657 | SPHSP01 | 42 | 417N727W | 36.5 | 257.8 | M | II |
| 05-Jun-06 | C d'Ivoire | 1206 | 658 | SPHSP01 | 42 | 417N727W | 35.6 | 284.8 | M | III |
| 05-Jun-06 | C d'Ivoire | 1206 | 659 | SCIPS02 | 42 | 417N727W | 27 | 148.5 | M | I |
| 05-Jun-06 | C d'Ivoire | 1206 | 660 | SCIPS02 | 42 | 417N727W | 31.5 | 256.4 | M | I |
| 05-Jun-06 | C d'Ivoire | 1206 | 661 | SCIPS02 | 42 | 417N727W | 31.4 | 259.9 | M | I |
| 05-Jun-06 | C d'Ivoire | 1206 | 662 | SCIPS02 | 42 | 417N727W | 35 | 333.2 | M | III |
| 05-Jun-06 | C d'Ivoire | 1206 | 663 | SCIPS02 | 42 | 417N727W | 33 | 279.8 | M | I |
| 05-Jun-06 | C d'Ivoire | 1207 | 664 | PLNGA01 | 30 | 419N728W | 25.6 | 321.2 | M | III |
| 05-Jun-06 | C d'Ivoire | 1207 | 665 | PLNGA01 | 30 | 419N728W | 19.1 | 129.6 | M | I |
| 05-Jun-06 | C d'Ivoire | 1207 | 666 | PLNGA01 | 30 | 419N728W | 19 | 133.2 | M | I |
| 05-Jun-06 | C d'Ivoire | 1207 | 667 | PLNGA01 | 30 | 419N728W | 24.4 | 259.7 | M | II |
| 05-Jun-06 | C d'Ivoire | 1207 | 668 | PLNGA01 | 30 | 419N728W | 16.5 | 75.3 | M | I |
| 05-Jun-06 | C d'Ivoire | 1208 | 669 | SPADE01 | 81 | 428N653W | 19 | 132.7 | M | III |

| | | | | | | | | | | |
|-----------|------------|------|-----|---------|----|----------|------|-------|---|------|
| 05-Jun-06 | C d'Ivoire | 1208 | 670 | SPADE01 | 81 | 428N653W | 16.5 | 86.9 | M | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 671 | SPADE01 | 81 | 428N653W | 19 | 128.9 | M | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 672 | SPADE01 | 81 | 428N653W | 15.5 | 78.9 | M | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 673 | SPADE01 | 81 | 428N653W | 17.5 | 113.9 | M | II |
| 05-Jun-06 | C d'Ivoire | 1208 | 674 | SPADE01 | 81 | 428N653W | 19.5 | 132.9 | M | II |
| 05-Jun-06 | C d'Ivoire | 1208 | 675 | SPADE01 | 81 | 428N653W | 18.6 | 136.6 | F | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 676 | SPADE01 | 81 | 428N653W | 15.5 | 74.6 | M | II |
| 05-Jun-06 | C d'Ivoire | 1208 | 677 | SPADE01 | 81 | 428N653W | 17.5 | 106.4 | F | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 678 | SPADE01 | 81 | 428N653W | 16.5 | 92.2 | M | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 679 | SPAPA02 | 81 | 428N653W | 19 | 115 | F | II |
| 05-Jun-06 | C d'Ivoire | 1208 | 680 | SPAPA02 | 81 | 428N653W | 22 | 245.1 | F | IV |
| 05-Jun-06 | C d'Ivoire | 1208 | 681 | SPAPA02 | 81 | 428N653W | 20.5 | 176.3 | F | IV |
| 05-Jun-06 | C d'Ivoire | 1208 | 682 | SPAPA02 | 81 | 428N653W | 15.5 | 85.3 | F | II |
| 05-Jun-06 | C d'Ivoire | 1208 | 683 | SPAPA02 | 81 | 428N653W | 16.5 | 91.1 | F | II |
| 05-Jun-06 | C d'Ivoire | 1208 | 684 | SPAPA02 | 81 | 428N653W | 17.5 | 101.2 | F | III |
| 05-Jun-06 | C d'Ivoire | 1208 | 685 | SPAPA02 | 81 | 428N653W | 15 | 68.6 | F | I |
| 05-Jun-06 | C d'Ivoire | 1208 | 686 | SPAPA02 | 81 | 428N653W | 16 | 79.4 | F | I |
| 05-Jun-06 | C d'Ivoire | 1208 | 687 | SPAPA02 | 81 | 428N653W | 15.5 | 77.9 | F | I-II |
| 05-Jun-06 | C d'Ivoire | 1208 | 688 | SPAPA02 | 81 | 428N653W | 14.7 | 72.5 | F | I-II |
| 05-Jun-06 | C d'Ivoire | 1208 | 689 | SPAPA02 | 81 | 428N653W | 17 | 106.2 | F | I-II |

Annex IX List of Participants

| NAME | INSTITUTION | COUNTRY |
|---|---|---------------|
| Sébastien AHOUANJOGBE | Direction des Pêches, Cotonou. | Bénin |
| Amélie GBAGUIDI Zacharie SOHOU | Centre de Recherches Halieutiques et Oceanologiques du Bénin (Centre Béninois de la Recherche Scientifique et Technique) CRHOB/CBRST, Cotonou | |
| Adjéya Banilé KEBENZIKATO Yaovi ACAKPO-ADDRA | Division des Pêches et de l'Aquaculture, Lomé. | Togo |
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| Sigbjørn MEHL (Cruise leader) Tore MØRK Magne OLSEN Jan Frode WILHELMSEN | Institute of Marine Research, Bergen | Norway |