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# Portuguese Research Report for 1994

by

A. M. Ávila de Melo, R. Alpoim, M. L. Godinho, and E. Santos

Instituto Portugues de Investigaçao Maritima
Av. Brasilia 1400 Lisboa, Portugal

## A. Status of the fisheries

The Portuguese nominal catches proceeding from NAFO Regulatory Area peaked in 1991 at 75,314 ton after a continuous increase since 1988. Since then nominal catches dropped to half of that level in 1992 and 1993 and reached a recent minimum in 1994 with 30,156 tons recorded. Most of this figure (76%) was caught by trawl in Flemish Cap, the only area where nominal catches increased from the previous year, due to an increase of the redfish catches, together with the increase of unquoted species such as Greenland halibut (for the time being), Roughhead grenadier, wolffishes and skates, corresponding to more than 60% of the overall trawl catch in Div. 3M (Table I) .

Nominal trawl catches of traditional species in Div. 3L continued to be null (cod) or almost null (redfish and American plaice) in 1994, while the Greenland halibut catches declined to one third of the 1993 value. This is justified by the moratorium for cod in force since July 1992, so far the most attractive species for the Portuguese trawlers, which in turn pushed the fleet to the southern areas of the Grand Bank and to Flemish Cap.

In Div. 3N trawl catches also declined to one third of the 1993 level, being in 1994 in the same order of magnitude of the nominal catches reported for Div. 3O, that also declined but to a lesser extent. Nevertheless in this last division catches were dominated by redfish (more than 90%), while in Div. 3N Greenland halibut represented almost 50% of the overall catch, followed by skates (37%).

Nominal catches of gillnets were stabilized between 1993 and 1994 around 1,950 ton, representing about 6% of the total. Almost 80% of this value was taken in Div. 3M, mainly composed by cod, Greenland halibut and redfish catches (Table I). Red hake continues to be the most important target species for gillneters outside the Flemish Cap.

Although the Portuguese fleet operating in the NAFO Regulatory Area in 1994 was the same as in 1993 (12 trawlers and 4 gillneters), due to quota restrictions trawl fishing effort was reduced in 1994 by 40% while the gillnet effort was only 10% less than in 1993 (Table II-A). Based in the logbook information of two trawlers and two gillneters operating in the Regulatory Area throughout the year, Flemish Cap was the major ground for the Portuguese fleets and 3M cod the major target species. Nevertheless 25% and 30% of the directed effort of these trawlers was still spent in divisions 3O and 3N, mainly fishing for redfish and Greenland halibut respectively, while for the monitorized gillneters only 12% of their fishing effort was spent outside the Flemish Cap, fishing for red hake in Div. 3O (Table II-B, Fig.1). Also as regards trawl fishing strategy in 1994 an increase of the effort directed to American plaice is recorded in Div. 3N and, for the first time since 1988, in Div. 3O. Fishing for American plaice in both divisions represented in 1994 about 10% of the fishing effort for the trawlers surveyed, while the mean proportion for the 1989-92 period was at 5%.

## B. Portuguese Annual Sampling Program

### 1. Biological Sampling

During 1994 biological sampling was obtained from one stern trawl fishing in all divisions from January to June and another one fishing in Div. 3M in December. One gillneter was also sampled from May to July in divisions 3M and 3O, and throughout the last quarter of the year in Flemish Cap. In all vessels biological sampling was conducted for the most abundant species in each haul, following the NAFO sampling recommendations.

Cod, American plaice, Greenland halibut and redfish (*S. mentella*) were the trawl catches sampled in the nose and tail of the Bank during the first half of the year. By the end of June cod and redfish (*S. marinus* and *S. mentella* ) trawl catches where the only ones sampled in Flemish Cap. The fishing strategy changed since then and until the end of 1994 the Flemish Cap was the major ground for the Portuguese fleets, namely due to the attractive catch rates of cod. For trawl, 3M cod catches were sampled only in December but for gillnets cod, redfish (*S. mentella*) and Greenland halibut catches were sampled in Flemish Cap from September till December (Table III). As in former years the redfish catches were dominated by *S. mentella* in all divisions and for both gears, but in the 3M trawl fishery both *S. mentella* and *S. marinus* were caught and sampled in June.

Information on age composition for the 3M redfish catches were obtained by using the *S.mentella* and *S. marinus* age length keys of the June/July 94 EC survey. Besides the species usually aged, otolith reading was also carried out for Greenland halibut and so the age composition of the 3N catches for this species are presented for the first time in this report.

Length and age structure of the catches as well as respective mean weights and mean lengths by division and gear are presented from tables VIII to XVII and figures 6 to 31.

## 2. Catch and effort sampling.

The catch and effort data series for Portuguese trawl and gillnet fisheries on NAFO Regulatory Area have been reconstructed through the revision of skipper logbooks, kindly supplied by their owners. Data from 8 trawlers and 5 gillneters have been made available and, although not all of them covering the same period of time, for each one of the years from 1988 to 1994, at least a couple of logbooks for each gear were revised. With the exception of one year (1988), for one trawler, where the existing information regards the overall catches (by species) and the corresponding fishing effort by trip, all the other information has been recorded and put on file on a daily basis as regards round weight of the catch by species and on a tow basis as regards fishing effort, positions and depths. The conversion factors used in each vessel were also used to convert its processed landings in catches.

Effort data obtained through the revision of the 1994 logbooks available were processed in order to convert the 1994 portuguese effort in fishing days, reported on the 1994 Portuguese STATLANT 21-B, into NAFO standard effort units (Table II-A). The daily catch and effort data from the 1994 logbooks were also used to estimate the direct effort and cpue for each of the target species/stocks, as well as the main by-catch species and depth range of the different fisheries, on a monthly basis. Data regarding directed effort and catch rates are presented in Table II-B, Fig. 1 and Fig. 2 and Table IV-A to VII-C, Fig. 3 to 5.

The catch rates presented and discussed in the next section are standardized trawl cpue´s for each stock from 1988 onwards, corrected by an additive model for the month and division of each monthly observation. In this analysis, for each of the stocks, any observation corresponding to a month and a trawler with less than 10 hours of directed effort on that stock was rejected. The mean values of the corrected catch rates for each stock considered are presented in tables V and figures 3 to 5, with the associated standard errors (+/- 2 standard errors in the figures) and coefficients of variation. This model is fully described in a previous study of the Portuguese cod fisheries in divisions 3N and 3O (Ávila de Melo and Alpoim, 1994).

## 3. Comments on catch and effort data ( based on the vessels sampled)

### 3.1. Cod in Division 3M

On Div. 3M cod trawl catch rates increased to 0.750 ton/h in 1989 (Table V-A; Fig.3), when the trawl directed effort to cod was concentrated on this division and the strong 1985 year-class dominated the catches, along with the 1986 and 1984 ones. In 1990 trawl directed effort to cod started to divert back to Division 3L when in Flemish Cap the 1985 year-class was already overexploited and the 1986 class supported the fishery, though with a catch rate down to 0.566 ton/h. In 1991 cod trawl fishery almost vanished from 3M, due to the larger than usual concentrations of cod in Division 3L outside the 200 miles limit until the late spring of that year. The only couple of observations available for that year came from February (1.410 ton/h) and November (0.449 ton/h) but were too different to be included in the analysis. However the sequence of these values may indicate that the 1986 year-class loosed its strength in the trawlable biomass throughout 1991, and no other strong year-class had yet started to recruit. However since 1992 the catch rates increased steadily, reaching a maximum of 0.943 ton/h in 1994. The continuous recruitment of two strong year-classes from 1990 and 1991, during a two years period (1991 and 1992) where the fishing pressure to cod in Division 3M was kept at a relative low level, allowed these two cohorts to growth with a higher survival rate and support the 3M cod fishery at age 3 with high yields in 1993 and 94.

### 3.2. Cod in Divisions 3N and 3O.

Cod trawl catch rates declined between 1990 and 1992 in Div. 3N, when a minimum of 0.287 ton/h was reached (no direct trawl effort to cod is recorded in 1988 and 89). This continuous decline was related with the low recruitment occurring between 1983 and 1988. However in the beginning of 1993 the strong 1989 year-class had already entered into the trawl fishery, dominating the catches in that year and pushing up the catch rate to a maximum of 0.523 ton/h for that stock (Table V-A, Fig. 3). Although considered above the average, the 1990 year-class was not big enough to prevent a new decline of the 3NO cod catch rate in 1994, this time to the former level of 1990, around the 0.400 ton/h. Nevertheless the 1989 year-class was still well represented in the 1994 trawl fishery, being still the most abundant age group in Div. 3O where, for the first time since 1988, directed trawl effort to cod was recorded from March to June. In 1994 the cod trawl fishery in the tail of the Bank continued to reach bottoms well bellow what is considered to be the normal depth limits of distribution for this species (Table IV-B).

### 3.3. Redfish in Div. 3L, 3N and 3O.

The 3LNO redfish stock, considered as a whole, presents no clear trend on the annual catch rates ( when corrected for the month and area of each observation) which, from 1988 to 1994, oscillated between 0.360 ton/h and 0.560 ton/h, with the first and last year of the time period recording the highest catch rates and also the highest variability for this trawl fishery (Table V-B, Fig.4). The results from the disagregated analysis for the two areas ( Div. 3L and Div. 3NO, the last one considered as a whole since the majority of the hauls has been made around the border of these two divisions) showed that on Div. 3L catch rates remained rather stable, while directed effort to redfish gradually declined till 1994 when no directed effort was recorded. In Div. 3N0 a steady increase of the catch rates is apparent since 1991 till 1994, along with a progressive southwards shift of the corresponding fishing effort. This pattern is consistent with the increase of the relative abundance of redfish in Div. 3N given by the Russian survey of 1993.

### 3.4. Redfish in Div. 3M

Redfish trawl catch rates on Div. 3M followed the same pattern observed on the trawlable biomass indices from the EC survey series on Flemish Cap (Fig. 4-A): a decline from 1989 (0.682 ton/h) to 1991 (0.574 ton/h), most probably as an immediate consequence of the unusually high catches observed in 1989 - 90, followed by a set of values that went up and down from 1992 to 1994 (Table V-B, Fig. 4). Although catch rates over the last 7 years reach a maximum in 1992 and 1994 , those sudden and wide oscillations of this index 1992 onwards can only be attributed to large shifts in the distribution of the Flemish Cap redfish populations within the water column over the last years, with direct impact on the accessibility of the fish to the bottom trawl gear, either from survey or from commercial trawlers. Variability of the standardized catch rates for the most recent years is higher than during the former period, 1988 - 91.

With a higher mean catch rate (0.644 ton/h) than the other two neighbour divisions (0.432 ton/h), the Flemish Cap appears as the main ground for trawling to redfish (Table V-E).

### 3.5. Greenland halibut in Div. 3L and 3N.

When the monthly trawl catch rates for Greenland halibut from the Divisions 3L and 3N are lumped together and corrected each for the month and area, a downward trend is observed from a level around 0.400 ton/h in 1988 - 89 to 0.183 ton/h in 1991 (Table V-C, Fig.5). This decline was followed in 1992 by an increase to 0.321 ton/h. Catch rates stabilized in 1993 and 1994 at a lower level, between 0.260 - 0.270 ton/h. This pattern is very similar to the one from the Spanish deepwater Greenland halibut fishery on those divisions from 1990 onwards (Cardenas, pers. comm.). However, looking at the two divisions separately, two distinct patterns emerge. On Div. 3L, more precisely on the deep grounds of the Flemish Pass, where this new fishery was first developed by few Portuguese trawlers in 1988, the Greenland halibut trawl catch rates dropped from values between 0.400 - 0.450 ton/h observed from 1988 to 1990 to half of that level, in 1991. Despite an anedoctical increase in 1993 to 0.365 ton/h the catch rates for 1992 and 1994 were of the same order of magnitude, 0.250 - 0.260 ton/h, indicating that the abundance of this segment of the stock is in 1991 - 1994 lower than the one that produced the catch rates for 1988 - 1990, at the beginning of this new deep sea fishery. In 1988 and 1989 trawl directed effort to Greenland halibut was entirely spent on Div. 3L, but in 1990 the trawl effort directed to Greenland halibut start moving to new deep grounds on Div. 3N. Although in general terms the catch rates in this southern area are poorer than northwards, no obvious trends emerge from the catch rates analyzed, which in turn present low variability within each year.

### 3.6 American plaice in Div. 3N and 3O.

No directed fishing on this stock is observed in 1988 and 1989. From 1990 onwards, the

fishery concentrated inn Div. 3N, with only a couple of observations recorded in Div. 3O, both for 1994. Catch rates declined significantly from 1990 to 1992 and increased onwards until 1994, being again at a similar level to 1990. Within year variability is relatively low (Table V-G, Fig. 5A).

## 4. Comments on length and age composition

### 4.1 Division 3L

Information from catches in Div. 3L is very scarce due to the cod moratorium since 1992 and refers only to redfish and American plaice, sampled during May.

4.1.1 - For Div. 3L redfish catches some information is available for *S. mentella* based on a small sample of 619 fish. Data suggest that lengths between 24-30 cm dominate males while females were mainly composed of lengths between 24-38 cm.

Comparatively to 1993 the mean length and mean weight in the catch increased in 1994 for both sexes. (Table IX-A, Fig.12). No age information is available.

4.1.2. Information on American plaice catches in Div 3L indicate that males were composed of a narrow range of lengths (30-46 cm), with 32-34 cm dominant.

Females present a larger range of lengths, between 28-60 cm, with 32-44 cm clearly dominant (Tab.XI-A, Fig. 26). Compared to 1993 an evident increase of about 8 cm was observed for both sexes for the mean length in the catch, while the respective mean weight doubled . The corresponding age composition (based on a 3LNO age length key) indicates that the 1985 year-class dominated for males and females at age 9, followed by age 8 ( Tab. XVII-A, Fig. 28).

### 4.2. Division 3M

*Biological information on cod 3M is available for March, June and December for trawl* and for September, November and December for gillnets. For both gears length and age composition are available.

4.2.1 - Cod trawl catches are represented by a relative narrow range of lengths (Tab.VIII-A, Fig. 6) and ages (Tab. XIII-A, Fig.8). The respective age composition was clearly dominated by the 1991 year-class at age 3, with 39.8 cm mean length. The 1990 year-class (with 4 years and 49.2 cm mean length) that at same age 3 dominates the 1993 catches with 68%, decreased notoriously in 1994 (to 18%) although still being the second more abundant. There was no fish older than 5 years in the trawl catches. Comparatively to 1993 the range of year-classes available to trawl in 1994 is reduced. For the dominant ages a significant increase, both in the mean length and mean weight at age, occurred in 1994.

The gillnet cod catches were dominated by the 1990 year-class at age 4, with 58 cm mean length, followed by the 1989 and 1988 ones. As for trawl, the mean length and mean weight at age for the year-classes dominant in the portuguese gillnets increased in 1994, compared to 1993. Also the mean weight in the catch increased slightly in 1994, although mean length in the catch decreased 1 cm (Tab. VIII-D, Fig.6 and Tab.XIV-D, Fig.8).

4.2.2 - Some information on redfish is available for both species *S. mentella* and *S marinus* from trawl and for *S. mentella* from gillnets.

Information on *S. mentella* from trawl catches based on a very small sample (91 individuals) from March, suggest a mode for males at 26 cm and two modes for females at 22 cm and 27 cm (Tab IX-B, Fig,15). The respective age composition, derived from the (July) trawl research survey also suggest ages 7 and 8 as dominant (Tab XV-A and B, Fig,17).

Gillnet catches of *S. mentella*, ( sampled in October and November and based on 600 fish measured) were dominated, for both males and females, by a relatively large range of lengths between 31 cm and 45 cm, with a mode at 39 cm (Tab. IX-E, Fig.16).

This length range corresponds to ages older than 11 years for males and females (Tab. XV-C and D, Fig. 18 ). The information available also suggest that mean length and mean weight in the catch increased from 1993 to 1994 about 1.5 cm. Information on *S. marinus* from trawl came also from a small sample (626 measured fish) and again suggest that catches were dominated by fish with a large range of lengths, between 26-37 cm for males and 24-47 cm for females (Tab. IX-G, Fig.20). Age composition is spread for a large range of ages, with the 12 years old dominant for males and 15 years old for females.

4.2.3.- Information on Greenland halibut is available only for the gillnet catches and is based on

a small sample (666 fish measured). Both males and females were dominated by lengths between 42 cm and 64 cm although females as large as 88 cm were also represented in the catches. Males are better represented between 56 cm and 64 cm and females between 54 cm and 60 cm (Tab. X-B, Fig. 25 ).There is no information on age composition.

### 4.3. Division 3N and 3O

Biological information is available from trawl for cod, redfish (*S. mentella* and *S. marinus*) and American plaice in Div. 3NO and Greenland halibut in Div. 3N. From gillnets there is information for cod, redfish (*S. mentella* and *S. marinus*) in Div. 3O.

4.3.1 - Cod trawl catches in Div. 3N were mainly composed of lengths between 33 cm and 42 cm (Tab. VIII-B, Fig. 10). The 1990 year-class, that dominated the catches at age 3 in 1993, is still dominant at age 4 followed by age 5. Ages older than 5 almost disappeared (Tab. XIV-B, Fig. 11).

Compared to 1993, mean length in the catch increased about 6 cm and the respective mean weight increased twice. Mean length and mean weight at age were relatively constant.

Information on cod catches in Div. 3O is based on a small sample either for trawl (507 fish measured) or gillnets (127 fish measured). Data available for trawl suggest that catches were mainly composed by lengths between 39 cm and 65 cm, with two modes at 39 cm and 51 cm (Tab. VIII-C, pag. Fig. 2). The year-class 1989 at age 5, with a mean length at 52.7 cm, was dominant followed by the 1990 at age 4 with 40 cm (Tab. XIV-C, Fig.9). Comparatively to Div. 3N, the mean length and mean weight at same ages are larger in Div. 3O. Also ages older than 5 are better represented in div. 3O trawl cod catches.

Biological information on cod from gillnets in Div 3O came from a very small sample (124 fish measured and only 60 aged). Based on that it is suggested that catches were mainly dominated by lengths between 60 cm to 69 cm (Tab VIII-E, Fig 7), corresponding to the year-class 1989 at ages 5 (Tab. XIV-E, Fig. 9) . Despite the small number of observations, this sample indicates that this year-class also dominated the gillnet catches in 1994.

4.3.2. - Redfish (*S. mentella*) from trawl catches were sampled from March to June in Div. 3N and during March and May in Div 3O. Only information on length composition is available (respectively in Tab. IX-C, Fig. 13 and Tab.IX-D, Fig. 14). In Div. 3N the bulk of lengths occurred between 22 cm-29 cm for males, with a mode at 26 cm, and between 22 cm-35 cm for female, without a clear modal length.

In Div 3O length composition of catches spreads for a larger range of lengths, dominated by fish between 18 cm and 38 cm for males and 16 cm-42 cm for females.

The mean length and respective mean weight in the catch decreased in both divisions, compared to 1993. Decrease was more evident in Div 3N. Information on *S. mentella* from gillnets in Div. 3O is based on a sample of 626 fish measured during May. Lengths ranged between 24 cm and 45 cm for males, with predominance of 30 cm and 36 cm and between 23 cm and 46 cm for females, more abundant at 31 cm and 39 cm (Tab. IX - F, fig 19).

The redfish (*S. marinus*) 3O catches from gillnets were again poorly sampled but suggest a very narrow range of lengths, both for males and females, with two modes at 30 cm and 35 cm for males and without clear modal lengths for females (Tab. IX - H, Fig. 21).

4.3.3 - Information on Greenland halibut is available for trawl catches from Div. 3N, sampled during March, April and June. Catches were mainly dominated by lengths between 30 cm-38 cm for males, with a mode at 34 cm, and 30 cm-46 cm for females, with a mode at 36 cm. Fishes bigger than 50 cm are scarce (Table X-A, Fig. 24). Mean length in the catch decreased about 10 cm from 1993 to 1994 for both sexes. This decrease in the mean length in the catch can be a consequence of the accessibility of the abundant 1990 year-class, already recruiting to the deep sea fishery in 1994, first detected as being above the average in the 1993 by the canadian survey in Div. 2J and 3KL. In fact age composition, available for the first time for portuguese catches, indicate that the 1990 year-class dominates the male catch at age 4, while in females this year-class is the second age group represented in the 3N trawl catches ( the first one is age five from the 1989 year-class) .

4.3.4 - Biological information relative to American plaice catches is available for trawl in Div. 3N and 3O, respectively from April to June and from April to May. Catches in Div. 3N were mainly composed of lengths between 26 cm-42 cm for males and 26 cm-48 cm for females, with a mode respectively at 32 cm and 36 cm. Although present, females between 50 cm and 64 cm are poorly represented (Tab. XI-B, Fig. 27). For both sexes the 1985 year-class dominated at age 9, followed by the 1986 and 1987 ones, with 8 and 7 years old, respectively (Tab. XVII-C and D, Fig. 29). Mean length in the catch increased about 2 cm in 1994, compared to 1993, but mean length and mean weight at same age continue to decrease in 1994.

Catches in Div. 3O were dominated by a range of lengths between 28 cm-38 cm for males, with a mode at 32 cm, while females were dominated by lengths between 28 cm-46 cm, with a clear dominance of the 32 cm-36 cm (Tab.XI-C, Fig. 30).
Like in Div. 3N, age composition was dominated by the 1985 year-class at age 9 followed by the 8 and 7 ones (Tab. XVII-E and F, Fig 31).

## 5. Others

Information for red hake from gillnet catches was obtained for Div. 3O in June (Tab. XII,). Lengths spreads between 45 cm and 79 cm without well defined modal lengths.

Some information roughhead grenadier , Div. 3M, gillnet catches is presented in table XIII. Lengths are referred to total length.

## 6. References

ÁVILA DE MELO, A. M., and R. ALPOIM. 1994. Portuguese cod fisheries in NAFO Divisions 3N and 3O, 1989-93. *NAFO SCR Doc*, No. 30, Serial No N2396, 25 p.

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TABLE I : PORTUGUESE NOMINAL CATCHES (mt) IN NAFO AREA, 1994

| SPECIES | DIVISION | | | | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|
| | 3L | | 3M | | 3N | | 3O | | |
| | OT | GNS | OT | GNS | OT | GNS | OT | GNS | 1994 |
| Cod | | | 1988.4 | 598.8 | 6.8 | | 37.4 | 4.9 | 2636 |
| Redfish | 3.6 | | 5319.1 | 311.2 | 59.4 | | 2871.5 | 44.1 | 8609 |
| American plaice | 2.8 | | 243.6 | 6.4 | 48.7 | | 41.4 | 1.3 | 344 |
| Yellowtail(1) | | | | | | | | | |
| Witch flounder | 19.6 | | 465.6 | 6.5 | 58.8 | | 21.4 | 1 | 573 |
| Greenland halibut | 115 | | 3753.7 | 324.1 | 1682 | 5.3 | 40.4 | 46 | 5967 |
| Atlantic halibut | 0.3 | | 11.2 | | 22.2 | | 9.8 | 1.9 | 45 |
| Roughead grenadier(2) | 3.9 | | 1923.4 | 15.1 | 272 | 0.1 | 5.7 | 2.8 | 2223 |
| Anarhichas spp. | 0.7 | | 2929.9 | 244.2 | 31.3 | 2.5 | 10.0 | 0.5 | 3219 |
| Hadocck | | | | | | | 0.1 | 9.5 | 10 |
| Pollock | | | | | | 12.5 | 0.3 | | 13 |
| Red hake | | | | | | 94.3 | 0.6 | 172.3 | 267 |
| Capelin | | | | | | | | | |
| Monkfish | | | | | | | | | |
| Skates | 22.2 | | 4832.5 | 7.3 | 1271.1 | 0.9 | 100.0 | 3.5 | 6238 |
| Unidentified | 0.1 | | | | | | 0.7 | 11.4 | 12 |
| TOTAL | 168.2 | | 21467.4 | 1513.6 | 3452.3 | 115.6 | 3139.3 | 299.2 | 30156 |

(1) From the 1994 sampling, there were no yellowtail catches recorded .
(2) Reported as Roundnose grenadier in years before.

TABLE I : cont.

| SPECIES \ YEAR | TOTAL 1994 | TOTAL 1993 | TOTAL 1992 | TOTAL 1991 | TOTAL 1990 | TOTAL 1989 | TOTAL 1988 |
|---|---|---|---|---|---|---|---|
| Cod | 2636 | 3651 | 5984 | 13357 | 15138 | 24129 | 12931 |
| Redfish | 8609 | 9828 | 6581 | 12163 | 17810 | 18870 | 17072 |
| American plaice | 344 | 347 | 451 | 1288 | 714 | 1821 | 1791 |
| Yellowtail(1) | | | 1 | 10 | 11 | 5 | |
| Witch flounder | 573 | 289 | 849 | 1982 | 2254 | 16 | 12 |
| Greenland halibut | 5967 | 8805 | 10539 | 13961 | 11170 | 3614 | 4194 |
| Atlantic halibut | 45 | 53 | 81 | 228 | 91 | | |
| Roughead grenadier(2) | 2223 | 1969 | 2000 | 4486 | 3211 | 290 | 914 |
| Anarhichas spp. | 3219 | 2302 | 1696 | 2843 | 1940 | | |
| Hadocck | 10 | 10 | 166 | 83 | 17 | | |
| Pollock | 13 | 41 | 28 | 421 | 11 | | |
| Red hake | 267 | 366 | 466 | 1009 | 467 | | |
| Capelin | | | | | 77 | | |
| Monkfish | | 8 | 37 | 10 | 2 | | |
| Skates | 6238 | 7626 | 7017 | 23301 | 13569 | 663 | 1097 |
| Unidentified | 12 | 238 | 325 | 174 | 852 | | |
| TOTAL | 30156 | 35532 | 36220 | 75314 | 67334 | 49408 | 38011 |

TABLE II - A : PORTUGUESE EFFORT IN FISHING DAYS AND FISHING HOURS (TRAWL) OR NUMBER OF NETS (GILLNETS), IN NAFO AREA IN 1994.

| MONTH | DIVISION 3L | | | | 3M | | | | 3N | | | | 3O | | | | TOTAL 1994 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OT | | GNS | | OT | | GNS | | OT | | GNS | | OT | | GNS | | OT | | GNS | |
| | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS |
| JAN. | 1 | 16 | | | 73 | 818 | | | 2 | 15 | | | | | | | 76 | 849 | | |
| FEB. | | | | | 96 | 893 | | | 13 | 100 | | | 6 | 67 | | | 115 | 1060 | | |
| MAR. | | | | | 16 | 118 | 81 | 9388 | 100 | 1226 | 2 | 502 | 57 | 639 | | | 173 | 1984 | 83 | 9890 |
| APR. | 3 | 48 | | | 2 | 7 | 47 | 7440 | 96 | 1364 | 8 | 2008 | 45 | 624 | 3 | 753 | 146 | 2042 | 58 | 10201 |
| MAY | 20 | 321 | | | 3 | 49 | 28 | 5048 | 89 | 1299 | | | 24 | 391 | 37 | 9287 | 136 | 2060 | 65 | 14335 |
| JUN. | | | | | 52 | 882 | 12 | 2164 | 43 | 683 | | | 10 | 127 | 51 | 13224 | 105 | 1691 | 63 | 15388 |
| JUL. | | | | | 71 | 1277 | 50 | 13240 | | | | | | | | | 71 | 1277 | 50 | 13240 |
| AUG. | | | | | 80 | 1407 | 94 | 23876 | 9 | 88 | | | 13 | 196 | | | 102 | 1691 | 94 | 23876 |
| SEP. | | | | | 110 | 1990 | 108 | 28825 | 19 | 226 | | | 55 | 719 | | | 184 | 2935 | 108 | 28825 |
| OCT. | | | | | 186 | 3011 | 98 | 25803 | 2 | 24 | | | 21 | 338 | | | 209 | 3373 | 98 | 25803 |
| NOV. | | | | | 104 | 1466 | 49 | 1176 | | | | | | | | | 104 | 1466 | 49 | 1176 |
| DEC. | | | | | 99 | 1228 | 8 | 24000 | 17 | 211 | | | 16 | 198 | | | 132 | 1637 | 8 | 24000 |
| TOTAL | 24 | 385 | 0 | 0 | 892 | 13146 | 575 | 140961 | 390 | 5236 | 10 | 2510 | 247 | 3299 | 91 | 23264 | 1553 | 22065 | 676 | 166735 |

Note: Fishing hours and number of nets estimated from their monthly rates to fishing days observed in the trawlers and gillnetters sampled by the IPIMAR.
Monthly effort of gillnetters is given by the sum of nets per fishing day

TABLE II - A: cont.

| MONTH | TOTAL 1993 | | | | TOTAL 1992 | | | | TOTAL 1991 | | | | TOTAL 1990 | | | | TOTAL 1989 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OT | | GNS | | OT | | GNS | | OT | | GNS | | OT | | GNS | | OT | | GNS | |
| | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS | DAYS | HOURS | DAYS | NETS |
| JAN. | 125 | 1480 | | | 227 | 2513 | | | 99 | 949 | | | 123 | 1616 | 25 | 6241 | 351 | 4612 | | |
| FEB. | 209 | 2656 | | | 244 | 3187 | | | 184 | 1774 | | | 155 | 2255 | 16 | 3994 | 348 | 5063 | | |
| MAR. | 278 | 3442 | 65 | 14640 | 215 | 2521 | 6 | 1810 | 326 | 4293 | 40 | 11759 | 418 | 5785 | 43 | 10735 | 382 | 5287 | | |
| APR. | 200 | 2695 | 78 | 13341 | 417 | 4522 | 50 | 15083 | 732 | 9760 | 51 | 14992 | 523 | 7019 | 45 | 14648 | 375 | 5033 | 6 | 1760 |
| MAY | 224 | 3168 | 35 | 12198 | 321 | 3775 | 73 | 26273 | 647 | 8412 | 104 | 29428 | 448 | 5833 | 74 | 24087 | 383 | 4987 | 127 | 43917 |
| JUN. | 144 | 1835 | 97 | 29083 | 268 | 4112 | 145 | 67829 | 522 | 8172 | 42 | 16174 | 400 | 5780 | 81 | 29962 | 501 | 7239 | 161 | 63144 |
| JUL. | 117 | 1755 | 137 | 33858 | 195 | 2658 | 128 | 61755 | 422 | 5986 | 71 | 31147 | 293 | 4647 | 164 | 61516 | 301 | 4774 | 112 | 44834 |
| AUG. | 266 | 3886 | 101 | 28358 | 174 | 2458 | 101 | 42690 | 407 | 5266 | 153 | 93191 | 482 | 8271 | 126 | 47263 | 178 | 3054 | 176 | 73251 |
| SEP. | 280 | 3769 | 43 | 15894 | 177 | 2452 | 118 | 35400 | 450 | 7330 | 69 | 33476 | 469 | 7663 | 39 | 14629 | 219 | 3578 | 52 | 19609 |
| OCT. | 277 | 3723 | 80 | 28745 | 118 | 1208 | 37 | 11100 | 674 | 10833 | 84 | 36540 | 466 | 6431 | 67 | 15377 | 361 | 4982 | 36 | 13885 |
| NOV. | 186 | 2000 | 75 | 27545 | 106 | 1085 | 14 | 4200 | 482 | 7137 | 87 | 32400 | 968 | 13358 | 30 | 9464 | 270 | 3726 | 22 | 8485 |
| DEC. | 190 | 2073 | 20 | 5873 | 208 | 2170 | | | 352 | 4915 | 11 | 3300 | 281 | 3878 | 4 | 816 | 181 | 2498 | | |
| TOTAL | 2496 | 32481 | 731 | 209536 | 2670 | 32662 | 672 | 266141 | 5297 | 74829 | 712 | 302407 | 5026 | 72536 | 714 | 238732 | 3850 | 54833 | 692 | 268885 |

TABLE II - B : Breakdown of the 1994 Portuguese directed effort by species and division.

A - STERN TRAWL

| DIVISION | COD | REDFISH | G. HALIBUT | A. PLAICE | SKATES | TOTAL/DIV. |
|---|---|---|---|---|---|---|
| 3M | 38.5 | 2.2 | | | | 40.7 |
| 3N | 5.3 | 5.3 | 12.1 | 6.7 | 2 | 31.4 |
| 3O | 6.4 | 11.9 | | 3.6 | 2.4 | 24.4 |
| 3L | | | 3.5 | | | 3.5 |
| TOTAL/SPECIES | 50.2 | 19.5 | 15.6 | 10.4 | 4.3 | |

TABLE II - B: cont.

B - GILLNETS

| DIVISION | COD | REDFISH | G. HALIBUT | RED HAKE | TOTAL/DIV. |
|---|---|---|---|---|---|
| 3M | 53.2 | 13.5 | 21.5 | | 88.2 |
| 3N | | | | | |
| 3O | | 2.2 | | 9.6 | 11.8 |
| 3L | | | | | |
| TOTAL/SPECIES | 53.2 | 15.7 | 21.5 | 9.6 | |

TABLE III: Intensity of sampling during 1994, by gear, species, division and month.

A- STERN TRAWL

| SPECIES | DIV. | MONTH | Nº OF SAMPLES | Nº FISH MEASURED | SAMPLING WEIGHT(Kg) | OTOLITHS Nº | LENGTH RANGE |
|---|---|---|---|---|---|---|---|
| COD | 3M | MAR. | 1 | 43 | 38 | 41 | 32-90 cm |
| | | JUN. | 15 | 3226 | 1935 | | |
| | | DEC. | 8 | 916 | 907 | | |
| | 3N | FEB. | 2 | 288 | 230 | 119 | 31-75 cm |
| | | MAR. | 19 | 5482 | 3579 | 193 | 30-114 cm |
| | | APR. | 5 | 1226 | 801 | | |
| | 3O | MAR. | 3 | 507 | 927 | 256 | 30-118 cm |
| REDFISH S.mentella | 3L | MAY | 5 | 619 | 276 | 178 | 24-46 cm |
| | 3M | MAR. | 1 | 91 | 23 | 28 | 20-33 cm |
| | 3N | FEB. | 4 | 1048 | 278 | 146 | 20-41 cm |
| | | MAR. | 20 | 4641 | 1991 | 220 | 18-51 cm |
| | | APR. | 4 | 813 | 391 | 142 | 22-49 cm |
| | | MAY | 1 | 87 | 30 | 86 | 24-40 cm |
| | | JUN. | 8 | 429 | 175 | 63 | 26-42 cm |
| | 3O | MAR. | 2 | 153 | 25 | 102 | 16-41 cm |
| | | MAY | 3 | 237 | 92 | 32 | 25-41 cm |
| REDFISH S.marinus | 3M | JUN. | 3 | 626 | 410 | | |
| AMERICAN PLAICE | 3L | MAY | 9 | 816 | 501 | 71 | 32-58 cm |
| | 3N | MAR. | 19 | 2053 | 1025 | 276 | 23-65 cm |
| | | APR. | 25 | 5864 | 1929 | 240 | 26-64 cm |
| | | MAY | 15 | 1150 | 604 | 185 | 25-62 cm |
| | | JUN. | 6 | 612 | 261 | | |
| | 3O | APR. | 3 | 490 | 163 | | |
| | | MAY | 3 | 282 | 138 | 87 | 30-60 cm |
| GREENLAND HALIBUT | 3N | MAR. | 9 | 1101 | 860 | 32 | 31-59 cm |
| | | APR. | 24 | 5628 | 3531 | 157 | 32-58 cm |
| | | JUN. | 12 | 1278 | 590 | 90 | 28-65 cm |

B- GILLNETS

| SPECIES | DIV. | MONTH | Nº OF SAMPLES | Nº FISH MEASURED | SAMPLING WEIGHT(Kg) | OTOLITHS Nº | LENGTH RANGE |
|---|---|---|---|---|---|---|---|
| COD | 3M | SEP. | 1 | 70 | 187 | | |
| | | NOV. | 5 | 500 | 1886 | | |
| | | DEC. | 4 | 400 | 1159 | | |
| | 3O | MAY | 6 | 124 | 295 | 63 | 46-89 cm |
| REDFISH S.mentella | 3M | OCT. | 5 | 500 | 400 | | |
| | | NOV. | 1 | 100 | 93 | | |
| | 3O | MAY | 12 | 480 | 361 | 156 | 23-46 cm |
| REDFISH S.marinus | 3O | MAY | 9 | 180 | 115 | 84 | 21-59 cm |
| GREENLAND HALIBUT | 3M | JUL. | 5 | 66 | 112 | 32 | 54-65 cm |
| | | SEP. | 1 | 100 | 130 | | |
| | | OCT. | 5 | 500 | 790 | | |
| RED HAKE | 3O | JUN. | 5 | 117 | 259 | | |
| ROUGHEAD GRENADIER | 3M | JUL. | 5 | 90 | 100 | 44 | 48-64 cm |
| | | AUG. | 5 | 83 | 78 | 38 | 50-70 cm |

TABLE IV-A: Portuguese trawl fishery: cpue and bycatch by month and division, for 1994.

| DIVISION | TARGET SPECIES | MONTH | DEPTH RANGE (m) MIN. | DEPTH RANGE (m) MAX. | C.P.U.E. (ton/hour) | MAIN BY-CATCH SPECIES | MAIN BY-CATCH % | TOTAL BYCATCH % |
|---|---|---|---|---|---|---|---|---|
| 3M | COD | JAN. | | | 1.256 | | | |
| 3M | COD | MAR. | 52 | 720 | 0.251 | REDFISH | 11.4 | 13.9 |
| 3M | COD | JUN. | 180 | 469 | 1.002 | REDFISH | 6.7 | 9.3 |
| 3M | COD | JUL. | 128 | 326 | 0.984 | A.PLAICE | 3.3 | 7.9 |
| 3M | COD | AUG. | 128 | 345 | 1.012 | REDFISH | 4.6 | 11.5 |
| 3M | COD | SEP. | 129 | 404 | 1.135 | A.PLAICE | 4.3 | 8.5 |
| 3M | COD | OCT. | 127 | 498 | 1.212 | A.PLAICE | 3.3 | 6.1 |
| 3M | COD | NOV. | 131 | 144 | 1.800 | A.PLAICE | 1.4 | 1.7 |
| 3M | COD | DEC. | 163 | 365 | 0.107 | A.PLAICE | 0.5 | 1.0 |
| 3N | COD | FEB. | 377 | 857 | 0.430 | REDFISH | 15.1 | 31.3 |
| 3N | COD | MAR. | 312 | 1220 | 0.766 | REDFISH | 10.6 | 22.4 |
| 3N | COD | APR. | 462 | 1117 | 0.172 | A.PLAICE | 20.8 | 56.3 |
| 3O | COD | MAR. | 132 | 870 | 0.846 | REDFISH | 14.5 | 22.4 |
| 3O | COD | APR. | 133 | 870 | 0.196 | REDFISH | 24.2 | 56.1 |
| 3O | COD | MAY | 80 | 885 | 0.340 | SKATES | 17.5 | 47.8 |
| 3O | COD | JUN. | 234 | 391 | 0.204 | SKATES | 27.7 | 47.8 |
| 3M | REDFISH | AUG. | 184 | 345 | 0.350 | COD | 41.9 | 52.0 |
| 3M | REDFISH | SEP. | 196 | 404 | 0.434 | COD | 39.6 | 51.3 |
| 3M | REDFISH | OCT. | 133 | 498 | 0.533 | COD | 16.7 | 29.2 |
| 3N | REDFISH | MAR. | 233 | 1075 | 0.391 | COD | 21.9 | 50.2 |
| 3N | REDFISH | APR. | 426 | 1102 | 0.313 | A.PLAICE | 17.7 | 49.8 |
| 3N | REDFISH | MAY | 528 | 1156 | 0.103 | G.HALIBUT | 44.0 | 67.9 |
| 3N | REDFISH | JUN. | 428 | 1200 | 0.186 | G.HALIBUT | 31.3 | 66.6 |
| 3N | REDFISH | AUG. | 464 | 797 | 1.282 | G.HALIBUT | 8.6 | 10.8 |
| 3O | REDFISH | MAR. | 205 | 817 | 0.436 | COD | 9.5 | 31.4 |
| 3O | REDFISH | APR. | 133 | 870 | 0.215 | COD | 26.1 | 59.4 |
| 3O | REDFISH | MAY | 106 | 689 | 0.233 | A.PLAICE | 22.9 | 44.3 |
| 3O | REDFISH | AUG. | 472 | 721 | 1.085 | G.HALIBUT | 0.3 | 0.2 |
| 3O | REDFISH | SEP. | 321 | 919 | 1.057 | COD | 1.3 | 2.4 |
| 3O | REDFISH | OCT. | 310 | 850 | 0.803 | G.HALIBUT | 2.6 | 3.3 |
| 3N | A.PLAICE | MAR. | 412 | 1240 | 0.272 | COD | 14.2 | 47.4 |
| 3N | A.PLAICE | APR. | 345 | 1243 | 0.213 | G.HALIBUT | 27.6 | 48.5 |
| 3N | A.PLAICE | MAY | 883 | 1201 | 0.105 | G.HALIBUT | 26.0 | 41.9 |
| 3N | A.PLAICE | JUN. | 614 | 1200 | 0.125 | G.HALIBUT | 34.3 | 73.7 |
| 3O | A.PLAICE | APR. | 274 | 996 | 0.129 | COD | 24.7 | 70.4 |
| 3O | A.PLAICE | MAY | 80 | 885 | 0.127 | SKATES | 25.1 | 69.8 |
| 3L | G.HALIBUT | MAY | 629 | 827 | 0.147 | A.PLAICE | 22.1 | 50.4 |
| 3N | G.HALIBUT | APR. | 512 | 1287 | 0.169 | A.PLAICE | 33.0 | 54.5 |
| 3N | G.HALIBUT | MAY | 528 | 1346 | 0.226 | REDFISH | 15.0 | 46.5 |
| 3N | G.HALIBUT | JUN. | 315 | 1314 | 0.215 | REDFISH | 22.9 | 53.0 |
| 3N | SKATES | APR. | 526 | 1207 | 0.159 | A.PLAICE | 34.5 | 68.3 |
| 3N | SKATES | MAY. | 610 | 1229 | 0.189 | G.HALIBUT | 41.0 | 55.4 |
| 3N | SKATES | JUN. | 428 | 1200 | 0.137 | G.HALIBUT | 33.4 | 61.9 |
| 3O | SKATES | MAY | 80 | 1073 | 0.223 | A.PLAICE | 22.0 | 61.9 |
| 3O | SKATES | JUN. | 234 | 391 | 0.193 | COD | 32.8 | 61.9 |

TABLE IV-B: Portuguese gillnet fishery: cpue and bycatch by month and division, for 1994.

| DIVISION | TARGET SPECIES | MONTH | DEPTH RANGE (m) MIN. | MAX. | C.P.U.E. (Kg/net/day) | MAIN BY-CATCH SPECIES | % | TOTAL BYCATCH % |
|---|---|---|---|---|---|---|---|---|
| 3M | COD | MAR. | 437 | 673 | 27.2 | REDFISH | 4.8 | 5.7 |
| 3M | COD | APR. | 291 | 619 | 15.9 | REDFISH | 1.4 | 1.4 |
| 3M | COD | MAY | 273 | 655 | 11.3 | REDFISH | 8.5 | 8.5 |
| 3M | COD | JUL. | 127 | 264 | 6.5 | REDFISH | 6.5 | 8.4 |
| 3M | COD | AUG. | 133 | 228 | 10.5 | A.PLAICE | 1.0 | 2.2 |
| 3M | COD | SEP. | 138 | 582 | 13.8 | REDFISH | 1.8 | 2.1 |
| 3M | COD | OCT. | 175 | 253 | 16.0 | | | |
| 3M | COD | NOV. | 140 | 240 | 10.2 | | | |
| 3M | COD | DEC. | 240 | 370 | 9.1 | | | |
| 3M | REDFISH | MAY | 346 | 692 | 2.3 | COD | 18.4 | 23.7 |
| 3M | REDFISH | AUG. | 668 | 1006 | 9.4 | G. HALIBUT | 15.6 | 15.8 |
| 3M | REDFISH | OCT. | 370 | 740 | 7.6 | G. HALIBUT | 33.3 | 38.8 |
| 3M | REDFISH | NOV. | 540 | 550 | 12.7 | G. HALIBUT | 32.5 | 32.5 |
| 3O | REDFISH | MAY | 237 | 746 | 5.5 | REDHAKE | 45.1 | 59.4 |
| 3M | G. HALIBUT | JUN. | 410 | 792 | 9.5 | ROUGHEAD G. | 21.6 | 22.4 |
| 3M | G. HALIBUT | JUL. | 564 | 1000 | 10.9 | ROUGHEAD G. | 0.1 | 0.1 |
| 3M | G. HALIBUT | AUG. | 546 | 956 | 7.6 | ROUGHEAD G. | 0.2 | 0.2 |
| 3M | G. HALIBUT | SEP. | 440 | 790 | 6.5 | REDFISH | 24.2 | 28.2 |
| 3M | G. HALIBUT | OCT. | 371 | 1040 | 5.9 | REDFISH | 43.6 | 43.6 |
| 3M | G. HALIBUT | NOV. | 540 | 550 | 8.6 | REDFISH | 57.9 | 57.9 |
| 3O | RED HAKE | MAY | 215 | 666 | 16.1 | REDFISH | 13.9 | 29.9 |
| 3O | RED HAKE | JUN. | 158 | 706 | 36.1 | G. HALIBUT | 4.0 | 16.8 |

TABLE V - A: COD TRAWL CATCH RATES, 1988-94 : mean annual cpue's corrected for the month and division of each observation.

| | 3M | | | 3NO | | | |
|---|---|---|---|---|---|---|---|
| | CPUE | ST.ERROR | C.V. | CPUE | ST.ERROR | C.V. | |
| 1988 | 0.498 | 0.145 | 71.4 | | | | 1998 |
| 1989 | 0.793 | 0.053 | 19.9 | | | | 1989 |
| 1990 | 0.566 | 0.086 | 48.1 | 0.422 | 0.116 | 38.8 | 1990 |
| 1991 | | | | 0.307 | 0.042 | 27.7 | 1991 |
| 1992 | 0.813 | 0.293 | 72.0 | 0.287 | 0.072 | 49.9 | 1992 |
| 1993 | 0.930 | 0.171 | 55.3 | 0.523 | 0.197 | 65.4 | 1993 |
| 1994 | 0.943 | 0.147 | 41.2 | 0.393 | 0.108 | 61.5 | 1994 |

TABLE V - B: REDFISH TRAWL CATCH RATES, 1988-94 : mean annual cpue's corrected for the month and division of each observation.

| | 3L | | | 3NO | | | 3LNO | | | 3M | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CPUE | ST.ERROR | C.V. | CPUE | ST.ERROR | C.V. | CPUE | ST.ERROR | C.V. | CPUE | ST.ERROR | C.V. | |
| 1988 | 0.515 | 0.071 | 27.7 | | | | 0.535 | 0.155 | 58.0 | 0.585 | 0.026 | 7.7 | 1998 |
| 1989 | 0.447 | 0.041 | 18.4 | | | | 0.418 | 0.061 | 29.1 | 0.682 | 0.087 | 38.4 | 1989 |
| 1990 | 0.460 | 0.042 | 24.1 | 0.400 | 0.082 | 41.1 | 0.450 | 0.035 | 25.8 | 0.659 | 0.052 | 26.3 | 1990 |
| 1991 | 0.480 | 0.082 | 38.1 | 0.281 | 0.041 | 41.0 | 0.339 | 0.056 | 59.8 | 0.574 | 0.087 | 39.9 | 1991 |
| 1992 | 0.375 | 0.045 | 16.8 | 0.433 | 0.077 | 47.2 | 0.444 | 0.068 | 46.3 | 0.805 | 0.144 | 31.0 | 1992 |
| 1993 | 0.464 | | | 0.412 | 0.048 | 36.8 | 0.411 | 0.035 | 28.6 | 0.445 | 0.158 | 71.1 | 1993 |
| 1994 | | | | 0.564 | 0.128 | 60.2 | 0.565 | 0.153 | 71.5 | 0.801 | 0.187 | 40.4 | 1994 |

TABLE V-C: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-94 : mean annual cpue's corrected for the month and division of each observation.

| | 3L | | | 3N | | | 3LN | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | CPUE | ST.ERROR | C.V. | CPUE | ST.ERROR | C.V. | CPUE | ST.ERROR | C.V. | |
| 1988 | 0.403 | 0.067 | 28.8 | | | | 0.392 | 0.084 | 37.3 | 1988 |
| 1989 | 0.454 | 0.060 | 35.0 | | | | 0.413 | 0.060 | 38.5 | 1989 |
| 1990 | 0.404 | 0.038 | 26.6 | 0.246 | | | 0.353 | 0.033 | 28.4 | 1990 |
| 1991 | 0.219 | 0.056 | 44.2 | 0.168 | 0.033 | 34.6 | 0.185 | 0.030 | 39.2 | 1991 |
| 1992 | 0.261 | 0.029 | 24.8 | 0.335 | 0.027 | 21.5 | 0.321 | 0.037 | 39.9 | 1992 |
| 1993 | 0.365 | 0.005 | 1.9 | 0.204 | 0.021 | 27.4 | 0.273 | 0.025 | 27.5 | 1993 |
| 1994 | 0.251 | 0.041 | 23.0 | 0.212 | 0.009 | 7.4 | 0.260 | 0.041 | 35.2 | 1994 |

TABLE V-D: COD TRAWL CATCH RATES, 1988-94: mean cpue's by division corrected for the year and month of each observation.

| | CPUE | ST.ERROR | C.V. | |
|---|---|---|---|---|
| 3M | 0.756 | 0.071 | 62.6 | 3M |
| 3NO | 0.375 | 0.055 | 61.7 | 3NO |

TABLE V-E: REDFISH TRAWL CATCH RATES, 1988-94 : mean cpue's by division corrected for the year and month of each observation.

| | CPUE | ST.ERROR | C.V. | |
|---|---|---|---|---|
| 3L | 0.455 | 0.038 | 40.5 | 3L |
| 3NO | 0.422 | 0.037 | 53.0 | 3NO |
| 3LNO | 0.434 | 0.027 | 47.8 | 3LNO |
| 3M | 0.644 | 0.049 | 48.0 | 3M |

TABLE V-F: GREENLAND HALIBUT TRAWL CATCH RATES, 1988-94 : mean cpue's by division corrected for the year and month of each observation.

| | CPUE | ST.ERROR | C.V. | |
|---|---|---|---|---|
| 3L | 0.360 | 0.032 | 49.3 | 3L |
| 3N | 0.246 | 0.020 | 38.2 | 3N |
| 3LN | 0.313 | 0.022 | 50.6 | 3LN |

TABLE V.G. American plaice catch rates, 1988-94: mean annual CPUE's corrected for the month and Division of each observation.

| YEAR | 3NO CPUE | STANDARD ERROR | C.V. |
|---|---|---|---|
| 1988 | | | |
| 1989 | | | |
| 1990 | 0.351 | 0.022 | 11.0 |
| 1991 | 0.254 | 0.026 | 26.7 |
| 1992 | 0.182 | 0.016 | 12.1 |
| 1993 | 0.287 | 0.033 | 26.0 |
| 1994 | 0.309 | 0.019 | 12.2 |

TABLE VI: Portuguese stern trawl fishery : C.P.U.E. (ton/h), mean weigth (Kg) in the catch, sex ratio and C.P.U.E. in number for males, females and total, by month and division, for 1994.

| DIVISION | TARGET SPECIES | MONTH | C.P.U.E. (ton/hour) | MEAN WEIGHT (kg) | | SEX RATIO | C.P.U.E (number/hour) | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | males | females | total |
| 3M | COD | MAR. | 0.251 | 0.916 | | | | | 274 |
| 3M | COD | JUN. | 1.002 | 0.725 | | | | | 1382 |
| 3M | COD | DEC. | 0.107 | 0.664 | | | | | 161 |
| 3N | COD | FEB. | 0.430 | 0.689 | | | | | 624 |
| 3N | COD | MAR. | 0.766 | 0.606 | | | | | 1264 |
| 3N | COD | APR. | 0.172 | 0.790 | | | | | 218 |
| 3O | COD | MAR. | 0.846 | 1.821 | | | | | 464 |
| 3N | REDFISH | MAR. | 0.391 | 0.439 | 0.217 | | 193 | 698 | 891 |
| 3N | REDFISH | APR. | 0.313 | 0.453 | 0.314 | | 217 | 474 | 690 |
| 3N | REDFISH | MAY | 0.103 | 0.412 | 0.494 | | 124 | 126 | 250 |
| 3N | REDFISH | JUN. | 0.186 | 0.490 | 0.254 | | 96 | 283 | 379 |
| 3O | REDFISH | MAR. | 0.436 | 0.201 | 0.540 | | 1172 | 998 | 2170 |
| 3O | REDFISH | MAY | 0.233 | 0.494 | 0.396 | | 186 | 285 | 471 |
| 3N | A.PLAICE | MAR. | 0.272 | 0.505 | 0.293 | | 158 | 381 | 539 |
| 3N | A.PLAICE | APR. | 0.213 | 0.462 | 0.348 | | 160 | 300 | 461 |
| 3N | A.PLAICE | MAY | 0.105 | 0.556 | 0.188 | | 36 | 153 | 189 |
| 3N | A.PLAICE | JUN. | 0.125 | 0.494 | 0.249 | | 63 | 189 | 252 |
| 3O | A.PLAICE | APR. | 0.129 | 0.478 | 0.344 | | 93 | 177 | 270 |
| 3O | A.PLAICE | MAY | 0.127 | 0.517 | 0.110 | | 27 | 218 | 246 |
| 3N | G.HALIBUT | APR. | 0.169 | 0.484 | 0.269 | | 94 | 256 | 350 |
| 3N | G.HALIBUT | JUN. | 0.215 | 0.403 | 0.295 | | 158 | 377 | 535 |

TABLE VII-A: COD, 1994: cpue in number at age per hour, for the portuguese stern trawl fishery.

| DIVISION | TARGET SPECIES | MONTH | AGE 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3M | COD | MAR. | | 11.6 | 222.4 | 27.1 | 0.2 | | | 12.7 | | | | | | |
| 3M | COD | JUN. | | 64.9 | 1048.0 | 263.9 | 5.0 | | | | | | | | | |
| 3M | COD | DEC. | 0.01 | 4.0 | 145.8 | 11.5 | 0.1 | | | | | | | | | |
| 3N | COD | FEB. | | | 5.5 | 348.8 | 242.6 | 15.1 | 11.0 | 0.6 | 0.6 | | | | | |
| 3N | COD | MAR. | | | 86.1 | 786.7 | 328.5 | 33.5 | 25.8 | 1.5 | 1.3 | 0.04 | | 0.2 | | 0.1 |
| 3N | COD | APR. | | | 4.4 | 113.0 | 74.1 | 13.0 | 11.3 | 1.3 | 0.8 | | | | | 0.1 |
| 3O | COD | MAR. | | | 6.8 | 120.8 | 209.9 | 40.9 | 26.4 | 43.4 | 11.6 | 3.0 | 0.7 | 1.0 | | |

TABLE VII - B: AMERICAN PLAICE, 1994: cpue in number at age per hour, for the portuguese stern trawl fishery.

| DIVISION | TARGET SPECIES | SEX | MONTH | AGE 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17+ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3N | A.PLAICE | MALE | MAR. | 14.3 | 18.3 | 24.6 | 30.2 | 42.5 | 13.8 | 7.0 | 6.1 | 1.0 | | | | |
| 3N | A.PLAICE | MALE | APR. | 12.3 | 20.6 | 28.5 | 35.0 | 44.9 | 10.9 | 4.3 | 2.9 | 0.5 | | | | |
| 3N | A.PLAICE | MALE | MAY | 0.7 | 2.8 | 6.3 | 9.1 | 11.0 | 3.2 | 1.2 | 1.0 | 0.1 | | | | |
| 3N | A.PLAICE | MALE | JUN. | 1.3 | 5.5 | 13.1 | 18.7 | 20.1 | 3.4 | 0.8 | 0.02 | 0.01 | | | | |
| 3N | A.PLAICE | FEMALE | MAR. | 38.0 | 33.1 | 73.8 | 59.3 | 79.6 | 34.2 | 21.8 | 21.4 | 7.3 | 4.1 | 1.9 | 1.8 | 4.6 |
| 3N | A.PLAICE | FEMALE | APR. | 18.2 | 23.4 | 60.2 | 65.5 | 76.9 | 25.4 | 12.5 | 11.5 | 3.8 | 1.7 | 0.7 | 0.5 | 0.8 |
| 3N | A.PLAICE | FEMALE | MAY | 2.5 | 7.5 | 24.4 | 33.4 | 45.4 | 16.4 | 8.9 | 8.4 | 2.7 | 1.5 | 0.6 | 0.6 | 1.3 |
| 3N | A.PLAICE | FEMALE | JUN. | 3.4 | 10.0 | 30.9 | 43.7 | 60.7 | 20.6 | 10.0 | 7.5 | 1.7 | 0.7 | 0.04 | 0.2 | |
| 3O | A.PLAICE | MALE | APR. | 4.6 | 10.5 | 17.7 | 23.1 | 27.5 | 6.0 | 2.2 | 1.0 | 0.3 | | | | |
| 3O | A.PLAICE | MALE | MAY | 0.5 | 2.2 | 5.4 | 7.5 | 8.2 | 1.8 | 0.9 | 0.5 | 0.1 | | | | |
| 3O | A.PLAICE | FEMALE | APR. | 6.5 | 12.5 | 33.3 | 39.8 | 48.8 | 16.3 | 7.3 | 7.1 | 2.3 | 1.2 | 0.7 | 0.6 | 1.0 |
| 3O | A.PLAICE | FEMALE | MAY | 3.6 | 11.2 | 38.6 | 53.2 | 68.7 | 20.6 | 9.9 | 7.9 | 2.0 | 1.0 | 0.4 | 0.2 | 1.1 |

TABLE VII-C: GREENLAND HALIBUT, 1994: cpue in number at age per hour, for the portuguese stern trawl fishery.

| DIVISION | TARGET SPECIES | SEX | MONTH | AGE 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3N | G.HALIBUT | MALE | APR. | 2.3 | 26.4 | 35.3 | 25.4 | 4.6 | 0.1 | | |
| 3N | G.HALIBUT | MALE | JUN. | 4.0 | 86.1 | 54.0 | 10.6 | 2.9 | | | |
| 3N | G.HALIBUT | FEMALE | APR. | 2.0 | 48.4 | 100.4 | 61.0 | 39.4 | 4.7 | 0.2 | 0.1 |
| 3N | G.HALIBUT | FEMALE | JUN. | 19.3 | 104.1 | 132.0 | 64.2 | 45.4 | 9.8 | 1.4 | 0.6 |

TABLE VIII-A: COD DIV.3M, 1994: length composition of the trawl catches.

| LENGTH GROUP | MAR.=1st Q. | JUN.=2nd Q. | DEC.=4th Q. | TOTAL | LENGTH GROUP |
|---|---|---|---|---|---|
| 24 | | | 1.1 | 0.1 | 24 |
| 27 | | | 6.5 | 0.4 | 27 |
| 30 | 46.5 | 65.4 | 19.3 | 62.5 | 30 |
| 33 | 186.0 | 103.9 | 76.9 | 102.7 | 33 |
| 36 | 302.3 | 160.7 | 138.8 | 160.2 | 36 |
| 39 | 186.0 | 217.9 | 329.4 | 224.4 | 39 |
| 42 | 93.0 | 160.3 | 336.8 | 170.5 | 42 |
| 45 | 69.8 | 153.0 | 65.0 | 147.3 | 45 |
| 48 | 23.3 | 77.5 | 8.3 | 73.0 | 48 |
| 51 | 23.3 | 37.2 | 10.3 | 35.5 | 51 |
| 54 | 23.3 | 13.3 | 4.8 | 12.9 | 54 |
| 57 | | 5.9 | 2.8 | 5.7 | 57 |
| 60 | | 3.5 | | 3.2 | 60 |
| 63 | | 1.5 | | 1.4 | 63 |
| 66 | | | | | 66 |
| 69 | | | | | 69 |
| 72 | | | | | 72 |
| 75 | | | | | 75 |
| 78 | | | | | 78 |
| 81 | | | | | 81 |
| 84 | 23.3 | | | 0.1 | 84 |
| 87 | | | | | 87 |
| 90 | 23.3 | | | 0.1 | 90 |
| TOTAL | 1000 | 1000 | 1000 | 1000 | |
| Nº. SAMPLES | 1 | 15 | 8 | 24 | |
| SAMPLING WEIGHT(kg) | 38 | 1935 | 907 | 2880 | |
| Nº.F.MEASURED | 43 | 3226 | 916 | 4185 | |
| MEAN LENGTH(cm) | 41.3 | 41.3 | 40.6 | 41.2 | |
| MEAN WEIGHT (g) | 916 | 725 | 664 | 723 | |
| DEPTH RANGE (m) | 364/520 | 180/335 | 163/801 | 163/801 | |

TABLE VIII - B: COD DIV.3N, 1994: length composition of the trawl catches.

| LENGTH GROUP | FEB. | MAR. | APR.=2nd Q. | 1st Q. | TOTAL | LENGTH GROUP |
|---|---|---|---|---|---|---|
| 30 | 7.2 | 65.5 | 3.2 | 59.9 | 57.5 | 30 |
| 33 | 31.9 | 199.3 | 139.6 | 183.0 | 181.2 | 33 |
| 36 | 217.4 | 206.6 | 162.5 | 207.7 | 205.7 | 36 |
| 39 | 208.5 | 165.8 | 171.3 | 170.0 | 170.0 | 39 |
| 42 | 216.6 | 135.8 | 144.2 | 143.6 | 143.7 | 42 |
| 45 | 147.3 | 80.6 | 102.5 | 87.1 | 87.7 | 45 |
| 48 | 102.9 | 66.4 | 88.0 | 69.9 | 70.7 | 48 |
| 51 | 39.4 | 32.3 | 56.9 | 33.0 | 34.0 | 51 |
| 54 | 5.4 | 20.6 | 56.9 | 19.1 | 20.7 | 54 |
| 57 | 18.1 | 13.1 | 20.9 | 13.6 | 13.9 | 57 |
| 60 | 1.1 | 7.6 | 22.1 | 6.9 | 7.6 | 60 |
| 63 | 2.2 | 4.3 | 18.9 | 4.1 | 4.8 | 63 |
| 66 | 1.1 | 1.3 | 5.4 | 1.2 | 1.4 | 66 |
| 69 | | 0.4 | 5.2 | 0.3 | 0.5 | 69 |
| 72 | | 0.3 | 2.6 | 0.3 | 0.4 | 72 |
| 75 | 1.1 | 0.03 | | 0.1 | 0.1 | 75 |
| 78 | | 0.03 | | 0.03 | 0.03 | 78 |
| 81 | | 0.01 | | 0.01 | 0.01 | 81 |
| 84 | | | | | | 84 |
| 87 | | | | | | 87 |
| 90 | | | | | | 90 |
| 93 | | 0.1 | | 0.1 | 0.1 | 93 |
| TOTAL | 1000 | 1000 | 1000 | 1000 | 1000 | |
| Nº. SAMPLES | 2 | 19 | 5 | 21 | 26 | |
| SAMPLING WEIGHT(kg) | 230 | 3579 | 801 | 3809 | 4610 | |
| Nº.F.MEASURED | 288 | 5482 | 1226 | 5770 | 6996 | |
| MEAN LENGTH(cm) | 42.6 | 40.3 | 43.7 | 40.6 | 40.7 | |
| MEAN WEIGHT (g) | 689 | 606 | 790 | 614 | 622 | |
| DEPTH RANGE (m) | 336/929 | 312/946 | 420/965 | 312/946 | 312/965 | |

TABLE VIII - C: COD DIV.3O , 1994:
length composition of the trawl catches.

| LENGTH GROUP | MAR. = TOTAL | LENGTH GROUP |
|---|---|---|
| 30 | 2.8 | 30 |
| 33 | 34.4 | 33 |
| 36 | 31.1 | 36 |
| 39 | 131.2 | 39 |
| 42 | 68.8 | 42 |
| 45 | 81.6 | 45 |
| 48 | 82.6 | 48 |
| 51 | 102.1 | 51 |
| 54 | 78.7 | 54 |
| 57 | 80.7 | 57 |
| 60 | 50.1 | 60 |
| 63 | 52.2 | 63 |
| 66 | 27.5 | 66 |
| 69 | 18.1 | 69 |
| 72 | 19.0 | 72 |
| 75 | 31.8 | 75 |
| 78 | 27.5 | 78 |
| 81 | 25.7 | 81 |
| 84 | 12.2 | 84 |
| 87 | 12.2 | 87 |
| 90 | 16.9 | 90 |
| 93 | 6.5 | 93 |
| 96 | | 96 |
| 99 | 0.9 | 99 |
| 102 | 5.6 | 102 |
| TOTAL | 1000 | |
| Nº. SAMPLES | 3 | |
| SAMPLING WEIGHT(kg) | 927 | |
| Nº.F.MEASURED | 507 | |
| MEAN LENGTH(cm) | 55.2 | |
| MEAN WEIGHT (g) | 1821 | |
| DEPTH RANGE (m) | 272/870 | |

TABLE VIII - D: COD DIV. 3M , 1994: length composition of the gillnet catches.

| LENGTH GROUP | SEP.=3rd Q. | NOV. | DEC. | 4th Q. | TOTAL | LENGTH GROUP |
|---|---|---|---|---|---|---|
| 42 | | 11.9 | | 6.8 | 6.7 | 42 |
| 45 | 28.6 | 66.1 | 10.7 | 42.2 | 42.2 | 45 |
| 48 | 42.9 | 36.4 | 21.0 | 29.8 | 29.9 | 48 |
| 51 | 42.9 | 37.8 | 19.0 | 29.7 | 29.8 | 51 |
| 54 | 114.3 | 103.5 | 27.2 | 70.7 | 70.8 | 54 |
| 57 | 71.4 | 195.9 | 55.2 | 135.4 | 135.1 | 57 |
| 60 | 157.1 | 164.4 | 74.9 | 125.9 | 126.1 | 60 |
| 63 | 142.9 | 152.8 | 150.4 | 151.8 | 151.7 | 63 |
| 66 | 157.1 | 45.1 | 291.0 | 150.8 | 150.9 | 66 |
| 69 | 57.1 | 22.4 | 223.4 | 108.8 | 108.6 | 69 |
| 72 | 57.1 | 21.8 | 64.9 | 40.3 | 40.4 | 72 |
| 75 | 42.9 | 13.3 | 21.2 | 16.7 | 16.8 | 75 |
| 78 | 42.9 | 17.9 | 12.3 | 15.5 | 15.6 | 78 |
| 81 | 42.9 | 8.8 | 6.1 | 7.7 | 7.8 | 81 |
| 84 | | 17.4 | | 9.9 | 9.9 | 84 |
| 87 | | 12.4 | 12.3 | 12.3 | 12.3 | 87 |
| 90 | | 22.9 | 3.3 | 14.5 | 14.4 | 90 |
| 93 | | 8.6 | 2.8 | 6.1 | 6.1 | 93 |
| 96 | | 18.9 | 2.3 | 11.7 | 11.7 | 96 |
| 99 | | 6.8 | | 3.9 | 3.9 | 99 |
| 102 | | 6.1 | 2.3 | 4.5 | 4.5 | 102 |
| 105 | | 2.0 | | 1.2 | 1.2 | 105 |
| 108 | | 0.2 | | 0.1 | 0.1 | 108 |
| 111 | | 1.8 | | 1.0 | 1.0 | 111 |
| 114 | | 2.0 | | 1.2 | 1.2 | 114 |
| 117 | | | | | | 117 |
| 120 | | 0.2 | | 0.1 | 0.1 | 120 |
| 123 | | 2.3 | | 1.3 | 1.3 | 123 |
| 126 | | 0.2 | | 0.1 | 0.1 | 126 |
| TOTAL | 1000 | 1000 | 1000 | 1000 | 1000 | |
| N°. SAMPLES | 1 | 5 | 4 | 9 | 10 | |
| SAMPLING WEIGHT(kg) | 187 | 1886 | 1159 | 3045 | 3232 | |
| N°.F.MEASURED | 70 | 500 | 400 | 900 | 970 | |
| MEAN LENGTH(cm) | 63.7 | 63.1 | 66.4 | 64.5 | 64.5 | |
| MEAN WEIGHT (g) | 2794 | 2964 | 3123 | 3032 | 3031 | |
| DEPTH RANGE (m) | 440 | 140/240 | 240/370 | 140/370 | 140/440 | |

TABLE VIII - E: COD DIV. 3O , 1994:
length composition of the gillnet catches.

| LENGTH GROUP | MAY = TOTAL | LENGTH GROUP |
|---|---|---|
| 45 | 6.1 | 45 |
| 48 | 15.3 | 48 |
| 51 | 37.3 | 51 |
| 54 | | 54 |
| 57 | 23.6 | 57 |
| 60 | 197.8 | 60 |
| 63 | 466.9 | 63 |
| 66 | 161.7 | 66 |
| 69 | 35.8 | 69 |
| 72 | 27.7 | 72 |
| 75 | 13.9 | 75 |
| 78 | | 78 |
| 81 | | 81 |
| 84 | 2.9 | 84 |
| 87 | 11.0 | 87 |
| TOTAL | 1000 | |
| N°. SAMPLES | 6 | |
| SAMPLING WEIGHT(kg) | 295 | |
| N°.F.MEASURED | 124 | |
| MEAN LENGTH(cm) | 63.9 | |
| MEAN WEIGHT (g) | 2340 | |
| DEPTH RANGE (m) | 215/728 | |

TABLE IX - A : RED-FISH (S.mentella) , DIV. 3L , 1994: length composition of the trawl catches.

| LENGTH GROUP | MAY = TOTAL M | F | LENGTH GROUP |
|---|---|---|---|
| 24 | 26.1 | 41.1 | 24 |
| 25 | 47.3 | 57.4 | 25 |
| 26 | 46.6 | 44.5 | 26 |
| 27 | 43.5 | 47.2 | 27 |
| 28 | 36.8 | 41.0 | 28 |
| 29 | 35.9 | 47.2 | 29 |
| 30 | 31.0 | 40.4 | 30 |
| 31 | 15.6 | 41.9 | 31 |
| 32 | 11.7 | 32.8 | 32 |
| 33 | 10.1 | 24.6 | 33 |
| 34 | 19.1 | 29.6 | 34 |
| 35 | 12.5 | 31.9 | 35 |
| 36 | 11.8 | 26.9 | 36 |
| 37 | 11.2 | 33.6 | 37 |
| 38 | 14.4 | 15.3 | 38 |
| 39 | 6.3 | 18.8 | 39 |
| 40 | 3.8 | 11.8 | 40 |
| 41 | 3.8 | 10.2 | 41 |
| 42 | | 5.4 | 42 |
| 43 | 1.1 | 5.3 | 43 |
| 44 | 1.1 | 1.6 | 44 |
| 45 | | 0.6 | 45 |
| 46 | | 1.1 | 46 |
| TOTAL | 389.8 | 610.2 | |
| Nº. SAMPLES | | 5 | |
| SAMPLING WEIGHT(Kg) | | 276 | |
| Nº.F.MEASURED | 218 | 401 | |
| MEAN LENGTH(cm) | 30.0 | 31.4 | |
| MEAN WEIGHT (g) | 411 | 495 | |
| MEAN WEIGHT(M+F) | | 462 | |
| DEPTH RANGE (m) | | 629/819 | |

TABLE IX - B: RED-FISH (S.mentella), DIV. 3M , 1994: length composition of the trawl catches.

| LENGTH GROUP | MAR. = TOTAL M | F | LENGTH GROUP |
|---|---|---|---|
| 20 | 11.0 | 54.9 | 20 |
| 21 | | 33.0 | 21 |
| 22 | 44.0 | 98.9 | 22 |
| 23 | 22.0 | 87.9 | 23 |
| 24 | 76.9 | 54.9 | 24 |
| 25 | 65.9 | 11.0 | 25 |
| 26 | 109.9 | 54.9 | 26 |
| 27 | 33.0 | 87.9 | 27 |
| 28 | | 44.0 | 28 |
| 29 | | 44.0 | 29 |
| 30 | | 22.0 | 30 |
| 31 | | 22.0 | 31 |
| 32 | | 11.0 | 32 |
| 33 | | 11.0 | 33 |
| TOTAL | 362.6 | 637.4 | |
| Nº. SAMPLES | | 1 | |
| SAMPLING WEIGHT(Kg) | | 23 | |
| Nº.F.MEASURED | 33 | 58 | |
| MEAN LENGTH(cm) | 25.1 | 25.5 | |
| MEAN WEIGHT (g) | 231 | 257 | |
| MEAN WEIGHT(M+F) | | 248 | |
| DEPTH RANGE (m) | | 450/520 | |

TABLE IX - C: RED-FISH (S.mentella), DIV. 3N, 1994: length composition of the trawl catches.

| LENGTH GROUP | FEB. | | MAR. | | APR. | | MAY | | JUN. | | 1st Q. | | 2nd Q. | | TOTAL | | LENGTH GROUP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F | |
| 18 | 0.6 | | 0.01 | 0.1 | | | | | | | 0.5 | 0.03 | | | 0.4 | 0.03 | 18 |
| 19 | 0.6 | | 0.01 | 0.6 | | | | | | | 0.5 | 0.1 | | | 0.4 | 0.1 | 19 |
| 20 | 0.6 | 1.2 | 0.1 | 0.7 | | | | | | | 0.5 | 1.1 | | | 0.4 | 0.9 | 20 |
| 21 | 11.9 | 23.7 | 2.2 | 1.8 | | | | | | | 9.6 | 18.4 | | | 8.3 | 15.9 | 21 |
| 22 | 40.4 | 44.6 | 2.9 | 5.8 | | | | | | | 31.4 | 35.3 | | | 27.1 | 30.5 | 22 |
| 23 | 36.0 | 34.9 | 6.3 | 9.6 | 0.3 | 3.5 | | | | | 28.9 | 28.8 | 0.1 | 1.6 | 25.0 | 25.1 | 23 |
| 24 | 32.3 | 30.9 | 6.8 | 28.7 | 8.4 | 9.6 | 11.5 | 11.5 | | | 26.1 | 30.4 | 5.0 | 5.5 | 23.3 | 27.0 | 24 |
| 25 | 55.2 | 21.3 | 8.6 | 42.2 | 25.5 | 13.2 | 57.5 | 57.5 | | 5.9 | 44.0 | 26.3 | 17.0 | 13.8 | 40.3 | 24.6 | 25 |
| 26 | 71.0 | 37.8 | 10.9 | 63.8 | 32.4 | 57.8 | 57.5 | 57.5 | 12.5 | 28.9 | 56.6 | 44.1 | 25.8 | 45.0 | 52.4 | 44.2 | 26 |
| 27 | 57.8 | 51.3 | 25.8 | 87.1 | 27.3 | 54.9 | 69.0 | 57.5 | 19.9 | 43.6 | 50.1 | 59.9 | 27.7 | 50.1 | 47.1 | 58.6 | 27 |
| 28 | 36.7 | 44.3 | 28.0 | 86.8 | 25.0 | 54.8 | 57.5 | 57.5 | 32.6 | 55.8 | 34.6 | 54.5 | 31.2 | 55.5 | 34.1 | 54.7 | 28 |
| 29 | 21.7 | 55.5 | 28.2 | 86.9 | 32.5 | 73.2 | 57.5 | 57.5 | 30.8 | 67.7 | 23.3 | 63.0 | 33.9 | 69.4 | 24.7 | 63.9 | 29 |
| 30 | 3.4 | 62.4 | 21.1 | 55.7 | 30.4 | 85.4 | 34.5 | | 55.7 | 83.5 | 7.6 | 60.8 | 42.0 | 77.0 | 12.3 | 63.0 | 30 |
| 31 | 2.1 | 58.8 | 18.4 | 53.9 | 25.0 | 71.5 | 11.5 | 57.5 | 20.7 | 93.0 | 6.1 | 57.7 | 21.9 | 79.8 | 8.2 | 60.7 | 31 |
| 32 | | 74.2 | 14.9 | 44.8 | 18.8 | 72.0 | 46.0 | 23.0 | 32.7 | 62.0 | 3.6 | 67.1 | 27.3 | 63.3 | 6.8 | 66.6 | 32 |
| 33 | | 32.0 | 11.6 | 51.5 | 27.0 | 40.5 | 46.0 | 11.5 | 22.6 | 82.4 | 2.8 | 36.7 | 26.7 | 56.5 | 6.0 | 39.3 | 33 |
| 34 | | 27.7 | 6.2 | 41.4 | 18.8 | 53.5 | | 23.0 | 7.8 | 68.9 | 1.5 | 31.0 | 12.3 | 57.6 | 2.9 | 34.6 | 34 |
| 35 | | 12.7 | 8.3 | 33.4 | 16.7 | 30.8 | 11.5 | 34.5 | 6.2 | 57.7 | 2.0 | 17.7 | 11.6 | 43.1 | 3.3 | 21.1 | 35 |
| 36 | | 4.5 | 3.1 | 18.4 | 0.7 | 15.4 | 11.5 | 11.5 | 6.2 | 42.3 | 0.8 | 7.8 | 4.1 | 26.9 | 1.2 | 10.4 | 36 |
| 37 | | 3.0 | 2.1 | 18.7 | 13.8 | 27.0 | | 23.0 | 0.0 | 18.1 | 0.5 | 6.8 | 6.5 | 22.7 | 1.3 | 8.9 | 37 |
| 38 | | 4.5 | 1.3 | 17.4 | 3.9 | 5.4 | 11.5 | 11.5 | 6.1 | 18.7 | 0.3 | 7.6 | 5.5 | 11.8 | 1.0 | 8.1 | 38 |
| 39 | | 3.2 | 4.4 | 13.0 | 3.5 | 10.8 | | 11.5 | | 2.3 | 1.0 | 5.6 | 1.6 | 7.1 | 1.1 | 5.8 | 39 |
| 40 | | | 4.2 | 8.7 | 2.9 | 5.9 | 11.5 | | | 4.6 | 1.0 | 2.1 | 2.4 | 4.8 | 1.2 | 2.5 | 40 |
| 41 | | 1.2 | 0.2 | 5.7 | 0.6 | 0.2 | | | | 2.1 | 0.1 | 2.3 | 0.3 | 1.0 | 0.1 | 2.1 | 41 |
| 42 | | | 0.9 | 2.7 | | 0.5 | | | | 6.6 | 0.2 | 0.7 | | 3.2 | 0.2 | 1.0 | 42 |
| 43 | | | | 1.6 | 0.1 | 0.2 | | | | 0.0 | | 0.4 | 0.05 | 0.1 | 0.01 | 0.4 | 43 |
| 44 | | | | 0.5 | 0.3 | | | | | 2.1 | | 0.1 | 0.1 | 0.9 | 0.02 | 0.2 | 44 |
| 45 | | | | 0.1 | | | | | | | | 0.02 | | | | 0.0 | 45 |
| 46 | | | | 0.4 | | | | | | | | 0.1 | | | | 0.1 | 46 |
| 47 | | | | 0.1 | | | | | | | | 0.02 | | | | 0.02 | 47 |
| 48 | | | | | | | | | | | | | | | | | 48 |
| 49 | | | | | | 0.1 | | | | | | | | | | 0.01 | 49 |
| 50 | | | | | | | | | | | | | | | | | 50 |
| 51 | | | | 0.9 | | | | | | | | 0.2 | | | | 0.2 | 51 |
| TOTAL | 370.4 | 629.6 | 216.8 | 783.2 | 313.9 | 686.1 | 494.3 | 505.7 | 253.8 | 748.2 | 333.4 | 666.6 | 303.1 | 696.9 | 329.3 | 670.7 | |
| N°. SAMPLES | | 4 | | 20 | | 4 | | 1 | | 8 | | 24 | | 13 | | 37 | |
| SAMPLING WEIGHT(Kg) | | 278 | | 1991 | | 391 | | 30 | | 175 | | 2269 | | 596 | | 2865 | |
| N°.F.MEASURED | 391 | 657 | 947 | 3694 | 232 | 581 | 43 | 44 | 109 | 320 | 1338 | 4351 | 384 | 945 | 1722 | 5296 | |
| MEAN LENGTH(cm) | 25.8 | 29.0 | 30.1 | 30.6 | 30.6 | 31.2 | 29.7 | 30.3 | 30.9 | 32.2 | 26.5 | 29.4 | 30.6 | 31.6 | 27.0 | 29.7 | |
| MEAN WEIGHT (g) | 253 | 379 | 407 | 448 | 426 | 465 | 390 | 433 | 427 | 512 | 277 | 399 | 421 | 485 | 295 | 411 | |
| MEAN WEIGHT(M+F) | | 333 | | 439 | | 453 | | 412 | | 490 | | 358 | | 466 | | 373 | |
| DEPTH RANGE (m) | | 336/929 | | 312/1240 | | 420/1287 | | 610/1268 | | 406/1229 | | 312/1240 | | 406/1287 | | 312/1287 | |

TABLE IX - D : RED-FISH (S.mentella), DIV. 3O , 1994: length composition of the trawl catches.

| LENGTH | MAR. = 1st Q. | | MAY = 2nd Q. | | TOTAL | | LENGTH |
|---|---|---|---|---|---|---|---|
| GROUP | M | F | M | F | M | F | GROUP |
| 16 | 26.6 | | | | 12.9 | | 16 |
| 17 | 39.9 | 52.6 | | | 19.3 | 25.4 | 17 |
| 18 | 65.9 | 52.6 | | | 31.8 | 25.4 | 18 |
| 19 | 65.7 | 13.3 | | | 31.8 | 6.4 | 19 |
| 20 | 26.4 | 13.2 | | | 12.8 | 6.4 | 20 |
| 21 | 65.6 | 39.4 | | | 31.7 | 19.0 | 21 |
| 22 | 65.6 | 65.5 | | | 31.7 | 31.6 | 22 |
| 23 | 65.8 | 65.8 | | | 31.8 | 31.8 | 23 |
| 24 | 39.5 | 39.6 | | | 19.1 | 19.2 | 24 |
| 25 | 39.5 | 39.4 | 50.8 | 29.3 | 45.3 | 34.2 | 25 |
| 26 | | 13.1 | 58.4 | 48.3 | 30.2 | 31.3 | 26 |
| 27 | 26.3 | 0.1 | 29.8 | 82.1 | 28.1 | 42.5 | 27 |
| 28 | 13.1 | 0.1 | 47.7 | 76.3 | 31.0 | 39.5 | 28 |
| 29 | | | 16.9 | 58.1 | 8.7 | 30.0 | 29 |
| 30 | | | 30.6 | 40.7 | 15.8 | 21.0 | 30 |
| 31 | | | 5.9 | 29.6 | 3.1 | 15.3 | 31 |
| 32 | | 13.1 | 31.0 | 36.3 | 16.0 | 25.1 | 32 |
| 33 | | | 12.6 | 18.7 | 6.5 | 9.7 | 33 |
| 34 | | | | 40.7 | | 21.0 | 34 |
| 35 | | 13.1 | 0.1 | 24.0 | 0.1 | 18.7 | 35 |
| 36 | | | 24.8 | 18.6 | 12.8 | 9.6 | 36 |
| 37 | | | 12.4 | 18.2 | 6.4 | 9.4 | 37 |
| 38 | | | 49.6 | 0.1 | 25.6 | 0.1 | 38 |
| 39 | | 13.1 | | 6.1 | | 9.5 | 39 |
| 40 | | 13.1 | 12.4 | 29.6 | 6.4 | 21.6 | 40 |
| 41 | | 13.1 | 12.4 | 36.2 | 6.4 | 25.1 | 41 |
| 42 | | | | 5.8 | | 3.0 | 42 |
| 43 | | | | | | | 43 |
| 44 | | | | 5.6 | | 2.9 | 44 |
| TOTAL | 539.9 | 460.1 | 395.5 | 604.5 | 465.3 | 534.7 | |
| Nº. SAMPLES | | 2 | | 3 | | 5 | |
| SAMPLING WEIGHT(Kg) | | 25 | | 92 | | 117 | |
| Nº.F.MEASURED | 90 | 63 | 68 | 169 | 158 | 232 | |
| MEAN LENGTH(cm) | 21.6 | 24.1 | 31.3 | 31.8 | 25.9 | 28.6 | |
| MEAN WEIGHT (g) | 155 | 254 | 468 | 510 | 293 | 404 | |
| MEAN WEIGHT(M+F) | | 201 | | 494 | | 352 | |
| DEPTH RANGE (m) | | 447/851 | | 253/578 | | 253/851 | |

TABLE IX - E : RED-FISH (S.mentella), DIV. 3M, 1994 : length composition of the gillnet catches.

| LENGTH GROUP | OCT. M | OCT. F | NOV. M | NOV. F | 4th Q. = TOTAL M | 4th Q. = TOTAL F | LENGTH GROUP |
|---|---|---|---|---|---|---|---|
| 26 | 1.3 | 0.7 | | | 0.7 | 0.4 | 26 |
| 27 | 2.2 | 1.8 | | | 1.2 | 0.9 | 27 |
| 28 | 2.4 | 1.7 | 5.9 | 4.1 | 4.0 | 2.8 | 28 |
| 29 | 9.1 | 6.8 | 5.7 | 4.3 | 7.5 | 5.6 | 29 |
| 30 | 7.1 | 5.7 | | | 3.8 | 3.0 | 30 |
| 31 | 32.5 | 33.8 | | | 17.1 | 17.8 | 31 |
| 32 | 22.9 | 18.2 | 11.2 | 8.8 | 17.4 | 13.7 | 32 |
| 33 | 32.2 | 36.1 | 23.6 | 26.4 | 28.1 | 31.5 | 33 |
| 34 | 31.8 | 25.6 | 16.6 | 13.4 | 24.6 | 19.8 | 34 |
| 35 | 41.8 | 38.1 | 26.2 | 23.8 | 34.4 | 31.3 | 35 |
| 36 | 37.0 | 35.8 | 20.3 | 19.7 | 29.1 | 28.1 | 36 |
| 37 | 58.1 | 54.3 | 31.0 | 29.0 | 45.3 | 42.3 | 37 |
| 38 | 45.8 | 45.7 | 50.1 | 49.9 | 47.8 | 47.7 | 38 |
| 39 | 53.6 | 57.4 | 48.3 | 51.7 | 51.1 | 54.7 | 39 |
| 40 | 27.5 | 27.1 | 60.5 | 59.5 | 43.2 | 42.4 | 40 |
| 41 | 18.7 | 21.6 | 51.1 | 58.9 | 34.1 | 39.2 | 41 |
| 42 | 14.3 | 22.8 | 30.8 | 49.2 | 22.1 | 35.3 | 42 |
| 43 | 14.9 | 24.7 | 26.3 | 43.7 | 20.3 | 33.7 | 43 |
| 44 | 17.8 | 23.2 | 21.7 | 28.3 | 19.7 | 25.6 | 44 |
| 45 | 13.3 | 13.5 | 14.9 | 15.1 | 14.0 | 14.3 | 45 |
| 46 | 7.0 | 8.5 | 9.0 | 11.0 | 7.9 | 9.7 | 46 |
| 47 | 2.0 | 2.3 | 13.9 | 16.1 | 7.6 | 8.8 | 47 |
| 48 | | | 10.8 | 9.2 | 5.1 | 4.4 | 48 |
| 49 | 0.8 | 0.7 | | | 0.4 | 0.4 | 49 |
| TOTAL | 494.0 | 506.0 | 477.9 | 522.1 | 486.4 | 513.6 | |
| Nº. SAMPLES | | 5 | | 1 | | 6 | |
| SAMPLING WEIGHT(Kg) | | 400 | | 93 | | 493 | |
| Nº.F.MEASURED | | 500 | | 100 | | 600 | |
| MEAN LENGTH(cm) | 37.4 | 37.9 | 39.8 | 40.2 | 38.5 | 39.0 | |
| MEAN WEIGHT (g) | 764 | 837 | 910 | 993 | 832 | 912 | |
| MEAN WEIGHT(M+F) | | 801 | | 954 | | 873 | |
| DEPTH RANGE (m) | | 371/1040 | | 540/550 | | 371/1040 | |

TABLE IX - F: RED-FISH (S.mentella), DIV. 3O, 1994: length composition of the gillnet catches.

| LENGTH GROUP | MAY = TOTAL M | MAY = TOTAL F | LENGTH GROUP |
|---|---|---|---|
| 23 | | 11.8 | 23 |
| 24 | 1.8 | 1.8 | 24 |
| 25 | 15.3 | 3.6 | 25 |
| 26 | 1.7 | | 26 |
| 27 | | 2.7 | 27 |
| 28 | 11.5 | 27.3 | 28 |
| 29 | 1.3 | 1.7 | 29 |
| 30 | 106.9 | 55.5 | 30 |
| 31 | 31.6 | 62.3 | 31 |
| 32 | 30.4 | 35.1 | 32 |
| 33 | 24.8 | 33.0 | 33 |
| 34 | 30.6 | 54.5 | 34 |
| 35 | 42.8 | 27.9 | 35 |
| 36 | 82.1 | 4.7 | 36 |
| 37 | 5.6 | 20.0 | 37 |
| 38 | 33.7 | 41.0 | 38 |
| 39 | 39.2 | 56.9 | 39 |
| 40 | 12.0 | 20.2 | 40 |
| 41 | 3.0 | 36.4 | 41 |
| 42 | 2.4 | 2.3 | 42 |
| 43 | 4.7 | 3.0 | 43 |
| 44 | 0.1 | 0.1 | 44 |
| 45 | 14.2 | 0.9 | 45 |
| 46 | | 1.4 | 46 |
| TOTAL | 495.8 | 504.2 | |
| Nº. SAMPLES | | 12 | |
| SAMPLING WEIGHT(Kg) | | 361 | |
| Nº.F.MEASURED | 246 | 234 | |
| MEAN LENGTH(cm) | 34.5 | 34.7 | |
| MEAN WEIGHT (g) | 607 | 650 | |
| MEAN WEIGHT(M+F) | | 629 | |
| DEPTH RANGE (m) | | 215/746 | |

TABLE IX - G: RED-FISH (S.marinus), DIV. 3M, 1994:
length composition of the trawl catches.

| LENGTH GROUP | JUN. = TOTAL M | F | LENGTH GROUP |
|---|---|---|---|
| 18 | | 4.9 | 18 |
| 19 | 0.9 | 12.3 | 19 |
| 20 | 1.9 | 12.8 | 20 |
| 21 | 2.9 | 9.7 | 21 |
| 22 | 9.1 | 11.6 | 22 |
| 23 | 10.5 | 10.9 | 23 |
| 24 | 11.1 | 14.7 | 24 |
| 25 | 8.3 | 14.7 | 25 |
| 26 | 12.8 | 21.4 | 26 |
| 27 | 8.0 | 23.8 | 27 |
| 28 | 12.1 | 50.7 | 28 |
| 29 | 20.0 | 33.0 | 29 |
| 30 | 33.8 | 25.8 | 30 |
| 31 | 33.4 | 22.9 | 31 |
| 32 | 29.3 | 30.1 | 32 |
| 33 | 30.0 | 24.8 | 33 |
| 34 | 15.3 | 37.4 | 34 |
| 35 | 11.4 | 27.0 | 35 |
| 36 | 13.4 | 18.2 | 36 |
| 37 | 10.5 | 34.3 | 37 |
| 38 | 4.9 | 40.2 | 38 |
| 39 | 2.8 | 32.9 | 39 |
| 40 | 8.4 | 32.9 | 40 |
| 41 | 2.8 | 25.9 | 41 |
| 42 | 2.5 | 18.7 | 42 |
| 43 | 0.9 | 28.3 | 43 |
| 44 | 2.5 | 21.6 | 44 |
| 45 | 0.9 | 20.4 | 45 |
| 46 | 0.9 | 8.6 | 46 |
| 47 | | 16.3 | 47 |
| 48 | | 9.2 | 48 |
| 49 | | 1.9 | 49 |
| 50 | | 0.9 | 50 |
| TOTAL | 301.2 | 698.8 | |
| Nº. SAMPLES | | 3 | |
| SAMPLING WEIGHT(Kg) | | 410 | |
| Nº.F.MEASURED | 200 | 426 | |
| MEAN LENGTH(cm) | 31.5 | 34.5 | |
| MEAN WEIGHT (g) | 477 | 695 | |
| MEAN WEIGHT(M+F) | | 629 | |
| DEPTH RANGE (m) | | 204/303 | |

TABLE IX - H: RED-FISH (S.marinus), DIV. 3O , 1994:
length composition of the gillnet catches.

| LENGTH GROUP | MAY = TOTAL M | F | LENGTH GROUP |
|---|---|---|---|
| 21 | | 3.7 | 21 |
| 22 | | | 22 |
| 23 | | | 23 |
| 24 | | | 24 |
| 25 | | | 25 |
| 26 | | | 26 |
| 27 | | | 27 |
| 28 | 6.2 | 2.1 | 28 |
| 29 | 8.8 | 14.4 | 29 |
| 30 | 106.2 | 39.9 | 30 |
| 31 | 74.2 | 66.4 | 31 |
| 32 | 50.6 | 56.5 | 32 |
| 33 | 45.3 | 60.8 | 33 |
| 34 | 38.6 | 64.0 | 34 |
| 35 | 110.1 | 63.9 | 35 |
| 36 | 18.1 | 15.7 | 36 |
| 37 | 13.5 | 61.2 | 37 |
| 38 | 12.7 | 22.0 | 38 |
| 39 | | 29.8 | 39 |
| 40 | | 12.7 | 40 |
| 41 | | | 41 |
| 42 | | | 42 |
| 43 | | | 43 |
| 44 | | | 44 |
| 45 | | | 45 |
| 46 | | | 46 |
| 47 | | | 47 |
| 48 | | | 48 |
| 49 | | | 49 |
| 50 | | | 50 |
| 51 | | | 51 |
| 52 | | | 52 |
| 53 | | | 53 |
| 54 | | | 54 |
| 55 | | | 55 |
| 56 | | | 56 |
| 57 | | | 57 |
| 58 | | | 58 |
| 59 | | 2.6 | 59 |
| TOTAL | 484.4 | 515.6 | |
| Nº. SAMPLES | | 9 | |
| SAMPLING WEIGHT(Kg) | | 115 | |
| Nº.F.MEASURED | 89 | 91 | |
| MEAN LENGTH(cm) | 33.2 | 34.5 | |
| MEAN WEIGHT (g) | 525 | 627 | |
| MEAN WEIGHT(M+F) | | 577 | |
| DEPTH RANGE (m) | | 237/746 | |

TABLE X - A : GREENLAND HALIBUT, DIV. 3N, 1994 : length composition of the trawl catches

| LENGTH GROUP | MAR. = 1st Q. | | APR. | | JUN. | | 2nd Q. | | TOTAL | | LENGTH GROUP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | |
| 26 | | | | | | 0.8 | | 0.5 | | 0.5 | 26 |
| 28 | 2.3 | | 0.2 | | 37.2 | 28.4 | 22.3 | 16.9 | 20.3 | 15.2 | 28 |
| 30 | 1.1 | 37.6 | 21.7 | 30.7 | 67.4 | 89.0 | 49.0 | 65.5 | 44.2 | 62.7 | 30 |
| 32 | 30.4 | 61.8 | 40.5 | 68.6 | 68.0 | 82.3 | 56.9 | 76.8 | 54.3 | 75.3 | 32 |
| 34 | 25.7 | 111.1 | 45.2 | 80.2 | 67.2 | 103.9 | 58.4 | 94.3 | 55.1 | 96.0 | 34 |
| 36 | 27.8 | 97.1 | 39.7 | 120.1 | 33.0 | 100.2 | 35.7 | 108.2 | 34.9 | 107.1 | 36 |
| 38 | 29.2 | 67.4 | 39.6 | 129.5 | 15.9 | 81.4 | 25.5 | 100.8 | 25.8 | 97.4 | 38 |
| 40 | 33.7 | 75.3 | 32.3 | 102.3 | 4.5 | 62.4 | 15.7 | 78.5 | 17.5 | 78.2 | 40 |
| 42 | 21.3 | 48.5 | 22.4 | 78.8 | 1.7 | 46.3 | 10.1 | 59.4 | 11.2 | 58.3 | 42 |
| 44 | 14.0 | 54.8 | 10.2 | 54.4 | | 41.8 | 4.1 | 46.9 | 5.1 | 47.7 | 44 |
| 46 | 9.8 | 53.9 | 7.2 | 38.5 | | 30.7 | 2.9 | 33.9 | 3.6 | 35.9 | 46 |
| 48 | 11.1 | 30.4 | 7.2 | 17.5 | | 14.3 | 2.9 | 15.6 | 3.7 | 17.1 | 48 |
| 50 | 6.4 | 35.5 | 1.6 | 6.8 | | 8.3 | 0.6 | 7.7 | 1.2 | 10.5 | 50 |
| 52 | 19.6 | 24.9 | 0.2 | 3.1 | | 9.5 | 0.1 | 6.9 | 2.0 | 8.7 | 52 |
| 54 | 2.9 | 30.9 | 0.3 | 0.9 | | 4.3 | 0.1 | 2.9 | 0.4 | 5.7 | 54 |
| 56 | 1.1 | 7.6 | 0.1 | | | 1.4 | 0.1 | 0.8 | 0.2 | 1.5 | 56 |
| 58 | | 18.1 | | 0.1 | | | | 0.04 | | 1.8 | 58 |
| 60 | | 3.8 | | | | | | | | 0.4 | 60 |
| 62 | | 1.1 | | | | | | | | 0.1 | 62 |
| 64 | | 3.4 | | | | | | | | 0.3 | 64 |
| TOTAL | 236.5 | 763.5 | 268.5 | 731.5 | 295.0 | 705.0 | 284.3 | 715.7 | 279.5 | 720.5 | |
| N°. SAMPLES | | 9 | | 24 | | 12 | | 36 | | 45 | |
| SAMPLING WEIGHT(Kg) | | 860 | | 3531 | | 590 | | 4121 | | 4981 | |
| N° F.MEASURED | 241 | 860 | 1489 | 4139 | 330 | 948 | 1819 | 5087 | 2060 | 5947 | |
| MEAN LENGTH(cm) | 41.0 | 41.7 | 37.9 | 39.3 | 33.4 | 37.8 | 35.1 | 38.4 | 35.6 | 38.8 | |
| MEAN WEIGHT (g) | 596 | 653 | 441 | 499 | 283 | 453 | 344 | 472 | 365 | 491 | |
| MEAN WEIGHT(M+F) | | 639 | | 484 | | 403 | | 436 | | 456 | |
| DEPTH RANGE (m) | | 312/1311 | | 345/1287 | | 315/1314 | | 315/1314 | | 312/1314 | |

TABLE X - B: GREENLAND HALIBUT, DIV. 3M, 1994 : length composition of the gillnet catches.

| LENGTH GROUP | JUL. | | SEP. | | OCT. = 4th Q. | | 3rd Q. | | TOTAL | | LENGTH GROUP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | M | F | M | F | M | F | M | F | M | F | |
| 38 | | | 2.8 | 7.2 | 2.7 | 6.9 | 0.1 | 0.3 | 1.2 | 3.0 | 38 |
| 40 | | | | | 8.5 | 20.3 | | | 3.5 | 8.3 | 40 |
| 42 | | | 16.3 | 33.7 | 27.7 | 57.1 | 0.6 | 1.3 | 11.7 | 24.2 | 42 |
| 44 | | | 25.0 | 45.0 | 42.1 | 76.0 | 1.0 | 1.8 | 17.9 | 32.2 | 44 |
| 46 | | | 42.4 | 107.6 | 47.1 | 119.6 | 1.7 | 4.3 | 20.3 | 51.6 | 46 |
| 48 | | | 47.0 | 123.0 | 32.9 | 86.2 | 1.9 | 4.9 | 14.6 | 38.2 | 48 |
| 50 | | | 44.2 | 95.8 | 28.9 | 62.7 | 1.8 | 3.8 | 12.9 | 27.9 | 50 |
| 52 | | | 12.1 | 37.9 | 9.1 | 28.4 | 0.5 | 1.5 | 4.0 | 12.5 | 52 |
| 54 | 20.0 | 144.5 | 16.0 | 74.0 | 9.5 | 44.0 | 19.8 | 141.7 | 15.6 | 101.7 | 54 |
| 56 | 121.9 | 66.6 | 7.1 | 72.9 | 5.3 | 54.4 | 117.4 | 66.9 | 71.4 | 61.8 | 56 |
| 58 | 60.2 | 234.8 | 2.6 | 67.4 | 2.0 | 53.2 | 57.9 | 228.2 | 35.0 | 156.4 | 58 |
| 60 | 135.1 | 67.8 | 1.2 | 38.8 | 1.6 | 53.1 | 129.8 | 66.7 | 77.2 | 61.1 | 60 |
| 62 | | 10.3 | 0.4 | 19.6 | 0.7 | 37.9 | 0.01 | 10.7 | 0.3 | 21.8 | 62 |
| 64 | 125.8 | | 1.5 | 48.5 | 1.0 | 32.6 | 120.9 | 1.9 | 71.7 | 14.5 | 64 |
| 66 | 12.9 | | | 10.0 | | 6.6 | 12.4 | 0.4 | 7.3 | 2.9 | 66 |
| 68 | | | | | 0.1 | 9.3 | | | 0.04 | 3.8 | 68 |
| 70 | | | | | 0.3 | 8.2 | | | 0.1 | 3.4 | 70 |
| 72 | | | | | | 3.2 | | | | 1.3 | 72 |
| 74 | | | | | | 7.5 | | | | 3.1 | 74 |
| 76 | | | | | 0.2 | 4.3 | | | 0.1 | 1.8 | 76 |
| 78 | | | | | | 5.4 | | | | 2.2 | 78 |
| 80 | | | | | | | | | | | 80 |
| 82 | | | | | | | | | | | 82 |
| 84 | | | | | | 0.9 | | | | 0.4 | 84 |
| 86 | | | | | | 1.3 | | | | 0.5 | 86 |
| 88 | | | | | | 1.3 | | | | 0.5 | 88 |
| TOTAL | 475.9 | 524.1 | 218.4 | 781.6 | 219.6 | 780.4 | 465.7 | 534.3 | 364.8 | 635.2 | |
| N°. SAMPLES | | 5 | | 1 | | 5 | | 6 | | 11 | |
| SAMPLING WEIGHT(Kg) | | 112 | | 130 | | 790 | | 242 | | 1032 | |
| N° F.MEASURED | | 66 | | 100 | | 500 | | 166 | | 666 | |
| MEAN LENGTH(cm) | 60.7 | 58.0 | 49.2 | 52.9 | 47.9 | 53.1 | 60.5 | 57.7 | 57.4 | 55.4 | |
| MEAN WEIGHT (g) | 2011 | 1737 | 1067 | 1366 | 985 | 1437 | 1994 | 1716 | 1745 | 1575 | |
| MEAN WEIGHT(M+F) | | 1868 | | 1301 | | 1337 | | 1845 | | 1637 | |
| DEPTH RANGE (m) | | 564/1001 | | 440/790 | | 371/1040 | | 440/1001 | | 371/1040 | |

TABLE XI - A: AMERICAN PLAICE, DIV. 3L, 1994:
length composition of the trawl catches.

| LENGTH GROUP | MAY = TOTAL M | F | LENGTH GROUP |
|---|---|---|---|
| 28 | 0.6 | 3.6 | 28 |
| 30 | 14.9 | 18.2 | 30 |
| 32 | 45.4 | 100.7 | 32 |
| 34 | 46.6 | 109.6 | 34 |
| 36 | 24.9 | 109.6 | 36 |
| 38 | 19.0 | 115.9 | 38 |
| 40 | 18.0 | 107.2 | 40 |
| 42 | 13.8 | 82.4 | 42 |
| 44 | 6.7 | 38.4 | 44 |
| 46 | 1.8 | 39.1 | 46 |
| 48 | 0.6 | 25.3 | 48 |
| 50 | | 16.8 | 50 |
| 52 | | 17.4 | 52 |
| 54 | | 11.1 | 54 |
| 56 | | 8.8 | 56 |
| 58 | | 2.8 | 58 |
| 60 | | 0.7 | 60 |
| TOTAL | 192.4 | 807.6 | |
| N°. SAMPLES | | 9 | |
| SAMPLING WEIGHT(Kg) | | 501 | |
| N°.F.MEASURED | 185 | 631 | |
| MEAN LENGTH(cm) | 36.5 | 39.9 | |
| MEAN WEIGHT (g) | 486 | 659 | |
| MEAN WEIGHT(M+F) | | 626 | |
| DEPTH RANGE (m) | | 629/819 | |

TABLE XI - B: AMERICAN PLAICE, DIV. 3N, 1994 : length composition of the trawl catches.

| LENGTH | MAR. = 1st Q. | | APR. | | MAY | | JUN. | | 2nd Q. | | TOTAL | | LENGTH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GROUP | M | F | M | F | M | F | M | F | M | F | M | F | GROUP |
| 22 | 0.6 | 20.0 | | | | | | | | | 0.1 | 5.4 | 22 |
| 24 | 8.8 | 52.2 | 1.5 | 7.9 | | | | | 1.3 | 6.5 | 3.3 | 18.7 | 24 |
| 26 | 21.0 | 47.3 | 32.4 | 31.4 | | | | | 26.8 | 26.0 | 25.2 | 31.7 | 26 |
| 28 | 34.0 | 50.6 | 44.3 | 55.1 | 5.2 | 6.0 | 6.6 | 3.7 | 37.5 | 46.5 | 36.6 | 47.6 | 28 |
| 30 | 37.7 | 75.3 | 44.1 | 68.3 | 33.2 | 72.0 | 49.9 | 84.0 | 43.1 | 69.5 | 41.6 | 71.1 | 30 |
| 32 | 39.1 | 57.8 | 52.9 | 82.2 | 51.9 | 112.7 | 67.5 | 105.6 | 53.5 | 87.1 | 49.6 | 79.3 | 32 |
| 34 | 33.4 | 48.5 | 57.4 | 91.3 | 29.4 | 130.7 | 70.3 | 97.4 | 54.6 | 96.5 | 48.9 | 83.7 | 34 |
| 36 | 34.1 | 48.7 | 48.4 | 94.6 | 20.6 | 123.5 | 32.1 | 132.0 | 44.2 | 100.0 | 41.5 | 86.3 | 36 |
| 38 | 26.8 | 73.4 | 29.6 | 71.8 | 21.2 | 99.5 | 22.2 | 115.3 | 28.2 | 77.4 | 27.8 | 76.3 | 38 |
| 40 | 19.9 | 64.7 | 18.2 | 50.7 | 8.7 | 85.2 | 0.5 | 97.1 | 16.1 | 57.3 | 17.1 | 59.3 | 40 |
| 42 | 19.5 | 48.2 | 6.9 | 36.5 | 7.1 | 59.6 | | 52.6 | 6.6 | 40.2 | 10.0 | 42.3 | 42 |
| 44 | 8.6 | 40.6 | 6.6 | 23.9 | 5.5 | 40.6 | | 37.9 | 6.2 | 26.6 | 6.8 | 30.4 | 44 |
| 46 | 5.9 | 34.1 | 3.1 | 17.2 | 1.5 | 36.9 | | 20.6 | 2.7 | 19.8 | 3.6 | 23.6 | 46 |
| 48 | 2.0 | 17.1 | 1.2 | 11.3 | 3.6 | 21.4 | | 4.5 | 1.5 | 12.2 | 1.6 | 13.5 | 48 |
| 50 | 0.4 | 8.2 | 0.1 | 6.8 | | 5.5 | | | 0.1 | 6.3 | 0.2 | 6.8 | 50 |
| 52 | 1.1 | 8.9 | | 3.1 | | 9.2 | | | | 3.7 | 0.3 | 5.1 | 52 |
| 54 | | 4.5 | | 0.7 | | 4.8 | | | | 1.2 | | 2.1 | 54 |
| 56 | | 0.1 | | 0.03 | | 1.1 | | | | 0.2 | | 0.1 | 56 |
| 58 | | 1.4 | | 0.1 | | 1.1 | | | | 0.2 | | 0.6 | 58 |
| 60 | | 1.9 | | | | | | | | | | 0.5 | 60 |
| 62 | | 2.7 | | 0.2 | | 2.2 | | | | 0.5 | | 1.1 | 62 |
| 64 | | 0.6 | | 0.04 | | | | | | 0.03 | | 0.2 | 64 |
| TOTAL | 293.0 | 707.0 | 346.8 | 653.2 | 188.0 | 812.0 | 249.2 | 750.8 | 322.3 | 677.7 | 314.4 | 685.6 | |
| N°. SAMPLES | | 19 | | 25 | | 15 | | 6 | | 46 | | 65 | |
| SAMPLING WEIGHT(Kg) | | 1025 | | 1929 | | 604 | | 261 | | 2794 | | 3819 | |
| N°.F.MEASURED | 594 | 1459 | 2056 | 3808 | 222 | 928 | 142 | 470 | 2420 | 5206 | 3014 | 6665 | |
| MEAN LENGTH(cm) | 34.9 | 36.3 | 34.1 | 36.2 | 35.5 | 38.3 | 34.1 | 37.5 | 34.2 | 36.6 | 34.4 | 36.5 | |
| MEAN WEIGHT (g) | 443 | 531 | 403 | 493 | 451 | 580 | 389 | 529 | 406 | 508 | 415 | 514 | |
| MEAN WEIGHT(M+F) | | 505 | | 462 | | 556 | | 494 | | 475 | | 483 | |
| DEPTH RANGE (m) | | 312/1240 | | 345/1287 | | 610/1346 | | 406/1229 | | 345/1346 | | 312/1346 | |

TABLE XI - C: AMERICAN PLAICE, DIV. 3O, 1994 : length composition of the trawl catches.

| LENGTH GROUP | APR. M | APR. F | MAY M | MAY F | 2nd Q.= TOTAL M | 2nd Q.= TOTAL F | LENGTH GROUP |
|---|---|---|---|---|---|---|---|
| 24 | 0.8 | | | | 0.5 | | 24 |
| 26 | 10.9 | 13.7 | | | 7.1 | 8.9 | 26 |
| 28 | 42.6 | 35.5 | 1.3 | 10.9 | 28.3 | 26.9 | 28 |
| 30 | 48.8 | 77.3 | 25.3 | 71.3 | 40.7 | 75.2 | 30 |
| 32 | 71.0 | 101.8 | 34.7 | 133.7 | 58.4 | 112.9 | 32 |
| 34 | 67.9 | 78.1 | 10.9 | 174.5 | 48.1 | 111.6 | 34 |
| 36 | 46.5 | 94.6 | 23.8 | 159.8 | 38.6 | 117.2 | 36 |
| 38 | 29.0 | 81.5 | 1.3 | 132.4 | 19.4 | 99.2 | 38 |
| 40 | 13.4 | 85.7 | 2.6 | 80.8 | 9.6 | 84.0 | 40 |
| 42 | 6.7 | 28.2 | 5.9 | 41.7 | 6.4 | 32.9 | 42 |
| 44 | 5.9 | 12.5 | 4.7 | 43.8 | 5.5 | 23.4 | 44 |
| 46 | | 17.3 | | 15.5 | | 16.7 | 46 |
| 48 | | 9.0 | | 14.7 | | 10.9 | 48 |
| 50 | | 9.0 | | 3.6 | | 7.1 | 50 |
| 52 | | 8.2 | | 2.3 | | 6.1 | 52 |
| 54 | | 4.1 | | | | 2.7 | 54 |
| 56 | | | | 2.3 | | 0.8 | 56 |
| 58 | | | | | | | 58 |
| 59 | | | | 2.3 | | 0.8 | 59 |
| TOTAL | 343.7 | 656.3 | 110.4 | 889.6 | 262.7 | 737.3 | |
| Nº. SAMPLES | | 3 | | 3 | | 6 | |
| SAMPLING WEIGHT(Kg) | | 163 | | 138 | | 301 | |
| Nº.F.MEASURED | 159 | 331 | 35 | 247 | 194 | 578 | |
| MEAN LENGTH(cm) | 34.2 | 36.9 | 34.9 | 37.4 | 34.3 | 37.1 | |
| MEAN WEIGHT (g) | 399 | 520 | 424 | 528 | 403 | 523 | |
| MEAN WEIGHT(M+F) | | 478 | | 517 | | 492 | |
| DEPTH RANGE (m) | | 353/751 | | 253/578 | | 253/751 | |

TABLE XII : RED HAKE DIV. 3O , 1994:
length composition of the gillnet catches.

| LENGTH GROUP | JUN. = TOTAL | LENGTH GROUP |
|---|---|---|
| 45 | 31.8 | 45 |
| 46 | 16.7 | 46 |
| 47 | 23.9 | 47 |
| 48 | 51.5 | 48 |
| 49 | 57.3 | 49 |
| 50 | 81.7 | 50 |
| 51 | 50.5 | 51 |
| 52 | | 52 |
| 53 | 16.7 | 53 |
| 54 | | 54 |
| 55 | 78.0 | 55 |
| 56 | | 56 |
| 57 | 15.1 | 57 |
| 58 | 18.6 | 58 |
| 59 | 9.1 | 59 |
| 60 | 95.6 | 60 |
| 61 | 35.0 | 61 |
| 62 | 24.2 | 62 |
| 63 | 79.9 | 63 |
| 64 | 32.1 | 64 |
| 65 | 44.6 | 65 |
| 66 | 18.1 | 66 |
| 67 | 10.2 | 67 |
| 68 | 26.5 | 68 |
| 69 | 26.0 | 69 |
| 70 | 44.1 | 70 |
| 71 | 25.5 | 71 |
| 72 | 17.5 | 72 |
| 73 | 35.1 | 73 |
| 74 | 8.4 | 74 |
| 75 | | 75 |
| 76 | | 76 |
| 77 | 17.5 | 77 |
| 78 | | 78 |
| 79 | 8.4 | 79 |
| TOTAL | 1000 | |
| Nº. SAMPLES | 5 | |
| SAMPLING WEIGHT(kg) | 259 | |
| Nº.F.MEASURED | 117 | |
| MEAN LENGTH(cm) | 59.6 | |
| DEPTH RANGE (m) | 157/706 | |

TABLE XIII: ROUGHEAD GRENADIER, DIV. 3M,1994: length composition of the gillnet catches.

| LENGTH GROUP | JUL. M | JUL. F | AUG. M | AUG. F | 3rd Q.= TOTAL M | 3rd Q.= TOTAL F | LENGTH GROUP |
|---|---|---|---|---|---|---|---|
| 48 | 22.2 | 11.1 | | | 11.6 | 5.8 | 48 |
| 49 | | | | | | | 49 |
| 50 | 177.8 | 88.9 | 96.4 | 144.6 | 138.7 | 115.6 | 50 |
| 51 | | | | 24.1 | | 11.6 | 51 |
| 52 | 22.2 | 111.1 | | | 11.6 | 57.8 | 52 |
| 53 | | | | 156.6 | | 75.1 | 53 |
| 54 | 144.4 | 77.8 | | 168.7 | 75.1 | 121.4 | 54 |
| 55 | | | 216.9 | 24.1 | 104.0 | 11.6 | 55 |
| 56 | | | | | | | 56 |
| 57 | 44.4 | 22.2 | | | 23.1 | 11.6 | 57 |
| 58 | | | | | | | 58 |
| 59 | | | 24.1 | 96.4 | 11.6 | 46.2 | 59 |
| 60 | | | | | | | 60 |
| 61 | 111.1 | | | | 57.8 | | 61 |
| 62 | | | | | | | 62 |
| 63 | | | | | | | 63 |
| 64 | | 166.7 | | | | 86.7 | 64 |
| 65 | | | 12.0 | 24.1 | 5.8 | 11.6 | 65 |
| 66 | | | | | | | 66 |
| 67 | | | | | | | 67 |
| 68 | | | | | | | 68 |
| 69 | | | | | | | 69 |
| 70 | | | | 12.0 | | 5.8 | 70 |
| TOTAL | 522.2 | 477.8 | 349.4 | 650.6 | 439.3 | 560.7 | |
| Nº. SAMPLES | | 5 | | 5 | | 10 | |
| SAMPLING WEIGHT(Kg) | | 100 | | 78 | | 178 | |
| Nº.F.MEASURED | 43 | 47 | 29 | 54 | 72 | 101 | |
| MEAN LENGTH(cm) | 54.5 | 56.8 | 54.7 | 54.7 | 54.6 | 55.6 | |
| DEPTH RANGE (m) | | 710/1001 | | 619/1006 | | 619/1006 | |

TABLE XIV - A : COD, DIV. 3M, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = 1st Q. AGE COMP. | MAR. = 1st Q. MEAN LENGTH | MAR. = 1st Q. MEAN WEIGHT | JUN. = 2nd Q. AGE COMP. | JUN. = 2nd Q. MEAN LENGTH | JUN. = 2nd Q. MEAN WEIGHT | DEC. = 4th Q. AGE COMP. | DEC. = 4th Q. MEAN LENGTH | DEC. = 4th Q. MEAN WEIGHT | TOTAL AGE COMP. | TOTAL MEAN LENGTH | TOTAL MEAN WEIGHT | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | 0.1 | 25.0 | 0.142 | 0.003 | 25.0 | 0.142 | 1 |
| 2 | 42.4 | 32.2 | 0.314 | 47.0 | 31.6 | 0.296 | 25.0 | 30.8 | 0.279 | 45.6 | 31.6 | 0.295 | 2 |
| 3 | 811.5 | 38.1 | 0.544 | 758.4 | 39.8 | 0.628 | 902.6 | 40.3 | 0.644 | 767.4 | 39.8 | 0.628 | 3 |
| 4 | 98.7 | 49.8 | 1.244 | 191.0 | 49.2 | 1.201 | 71.5 | 46.9 | 1.047 | 183.3 | 49.2 | 1.198 | 4 |
| 5 | 0.9 | 46.8 | 1.008 | 3.6 | 53.1 | 1.592 | 0.8 | 48.7 | 1.179 | 3.5 | 53.0 | 1.585 | 5 |
| 6 | | | | | | | | | | | | | 6 |
| 7 | | | | | | | | | | | | | 7 |
| 8 | 46.5 | 88.0 | 7.258 | | | | | | | 0.3 | 88.0 | 7.258 | 8 |
| TOTAL | 1000 | | | 1000 | | | 1000 | | | 1000 | | | |
| No FISH AGED | | | | | | | | | | 1664 | | | |

TABLE XIV-B : COD, DIVISION 3N, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | FEB. | | | MAR. | | | APR. | | | 1st Q. | | | TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 3 | 8.8 | 32.4 | 0.284 | 68.1 | 32.1 | 0.276 | 20.3 | 33.7 | 0.318 | 62.4 | 32.1 | 0.277 | 60.6 | 32.2 | 0.277 | 3 |
| 4 | 558.9 | 39.5 | 0.526 | 622.6 | 37.5 | 0.455 | 518.3 | 38.3 | 0.484 | 616.4 | 37.7 | 0.461 | 612.2 | 37.7 | 0.462 | 4 |
| 5 | 388.7 | 45.9 | 0.844 | 260.0 | 46.2 | 0.866 | 339.8 | 47.3 | 0.931 | 272.4 | 46.2 | 0.863 | 275.3 | 46.2 | 0.867 | 5 |
| 6 | 24.2 | 52.9 | 1.317 | 26.5 | 54.9 | 1.470 | 59.6 | 56.4 | 1.595 | 26.3 | 54.7 | 1.456 | 27.7 | 54.9 | 1.469 | 6 |
| 7 | 17.6 | 56.1 | 1.577 | 20.5 | 56.9 | 1.634 | 51.7 | 58.7 | 1.807 | 20.2 | 56.8 | 1.629 | 21.5 | 57.0 | 1.647 | 7 |
| 8 | 0.9 | 72.0 | 3.354 | 1.2 | 65.7 | 2.539 | 5.9 | 67.8 | 2.785 | 1.1 | 66.2 | 2.601 | 1.3 | 66.5 | 2.636 | 8 |
| 9 | 0.9 | 59.1 | 1.806 | 1.0 | 61.9 | 2.118 | 3.8 | 65.7 | 2.543 | 1.0 | 61.7 | 2.091 | 1.1 | 62.2 | 2.156 | 9 |
| 10 | | | | 0.03 | 79.0 | 4.399 | | | | 0.03 | 79.0 | 4.399 | 0.03 | 79.0 | 4.399 | 10 |
| 11 | | | | | | | | | | | | | | | | 11 |
| 12 | | | | 0.1 | 94.0 | 7.521 | | | | 0.1 | 94.0 | 7.521 | 0.1 | 94.0 | 7.521 | 12 |
| 13 | | | | | | | | | | | | | | | | 13 |
| 14 | | | | 0.05 | 70.0 | 3.029 | 0.6 | 70.0 | 3.029 | 0.04 | 70.0 | 3.029 | 0.1 | 70.0 | 3.029 | 14 |
| TOTAL | 1000 | | | 1000 | | | 1000 | | | 1000 | | | 1000 | | | |
| No FISH AGED | | | | | | | | | | | | | 310 | | | |

TABLE XIV - C : COD, DIV. 3O, 1994:
age composition (‰), mean length (cm) and
mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = TOTAL | | | AGE |
|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 3 | 14.5 | 33.9 | 0.327 | 3 |
| 4 | 260.2 | 40.8 | 0.585 | 4 |
| 5 | 451.9 | 52.7 | 1.314 | 5 |
| 6 | 88.0 | 65.1 | 2.488 | 6 |
| 7 | 56.8 | 70.9 | 3.287 | 7 |
| 8 | 93.3 | 79.3 | 4.556 | 8 |
| 9 | 25.0 | 90.2 | 6.731 | 9 |
| 10 | 6.5 | 92.3 | 7.540 | 10 |
| 11 | 1.5 | 73.0 | 3.448 | 11 |
| 12 | 2.2 | 94.0 | 7.521 | 12 |
| TOTAL | 1000 | | | |
| Nº FISH AGED | 255 | | | |

TABLE XIV - D : COD, DIV. 3M , 1994: age composition (‰ ), mean length (cm) and mean weight (Kg) at age of the gillnet catches.

| AGE | SEP. = 1st Q. | | | NOV. | | | DEC. | | | 4th Q. | | | TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 3 | 25.1 | 46.9 | 1.013 | 59.3 | 45.7 | 0.940 | 10.2 | 47.0 | 1.026 | 38.2 | 45.9 | 0.950 | 38.1 | 45.9 | 0.950 | 3 |
| 4 | 480.9 | 57.6 | 1.965 | 601.8 | 57.7 | 1.968 | 261.0 | 59.0 | 2.113 | 455.2 | 58.0 | 2.004 | 455.3 | 58.0 | 2.004 | 4 |
| 5 | 215.8 | 65.9 | 2.955 | 144.8 | 64.1 | 2.713 | 340.5 | 66.9 | 3.079 | 229.0 | 65.9 | 2.947 | 228.9 | 65.9 | 2.947 | 5 |
| 6 | 147.6 | 69.8 | 3.532 | 50.1 | 70.1 | 3.572 | 312.8 | 69.4 | 3.451 | 163.1 | 69.5 | 3.472 | 163.0 | 69.5 | 3.472 | 6 |
| 7 | 13.0 | 74.6 | 4.331 | 5.1 | 74.7 | 4.352 | 11.8 | 73.5 | 4.126 | 8.0 | 73.9 | 4.208 | 8.0 | 73.9 | 4.209 | 7 |
| 8 | 111.9 | 78.8 | 5.152 | 74.5 | 84.1 | 6.405 | 51.3 | 79.6 | 5.388 | 64.5 | 82.6 | 6.057 | 64.7 | 82.6 | 6.051 | 8 |
| 9 | 3.7 | 80.6 | 5.500 | 41.6 | 92.5 | 8.526 | 9.1 | 90.2 | 7.889 | 27.6 | 92.2 | 8.436 | 27.5 | 92.2 | 8.435 | 9 |
| 10 | 1.9 | 82.0 | 5.798 | 18.0 | 101.7 | 11.472 | 3.5 | 98.9 | 10.543 | 11.8 | 101.3 | 11.354 | 11.7 | 101.3 | 11.350 | 10 |
| 11 | | | | | | | | | | | | | | | | 11 |
| 12 | | | | 4.8 | 120.1 | 19.213 | | | | 2.7 | 120.1 | 19.213 | 2.7 | 120.1 | 19.213 | 12 |
| TOTAL | 1000 | | | 1000 | | | 1000 | | | 1000 | | | 1000 | | | |

No FISH AGED 1764

TABLE XIV - E : COD, DIV. 3O , 1994:
age composition (‰), mean length (cm) and mean weight (Kg) at age of the gillnet catches.

| AGE | MAY = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 5 | 591.1 | 62.3 | 2.149 | 5 |
| 6 | 304.7 | 64.7 | 2.393 | 6 |
| 7 | 42.0 | 66.5 | 2.640 | 7 |
| 8 | 55.2 | 73.4 | 3.663 | 8 |
| 9 | 7.0 | 76.0 | 3.904 | 9 |
| TOTAL | 1000 | | | |
| Nº FISH AGED | 60 | | | |

TABLE XV - A: REDFISH S.mentella (males), DIV. 3M, 1994:
age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 5 | 1.7 | 20.5 | 2.4 | 5 |
| 6 | 11.1 | 21.0 | 15.6 | 6 |
| 7 | 93.1 | 23.6 | 130.8 | 7 |
| 8 | 187.1 | 25.5 | 262.9 | 8 |
| 9 | 59.1 | 27.0 | 83.1 | 9 |
| 10 | 8.1 | 26.9 | 11.4 | 10 |
| 11 | 1.2 | 27.5 | 1.7 | 11 |
| 12 | 1.2 | 27.5 | 1.7 | 12 |
| TOTAL | 362.6 | | | |
| Nº FISH AGED | 370 | | | |

TABLE XV- B: REDFISH S.mentella (females), DIV. 3M, 1994:
age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 5 | 7.8 | 20.5 | 0.126 | 5 |
| 6 | 65.6 | 21.1 | 0.139 | 6 |
| 7 | 200.3 | 23.3 | 0.187 | 7 |
| 8 | 123.6 | 25.9 | 0.257 | 8 |
| 9 | 75.9 | 26.9 | 0.292 | 9 |
| 10 | 72.7 | 27.6 | 0.317 | 10 |
| 11 | 36.3 | 30.6 | 0.425 | 11 |
| 12 | 26.8 | 31.3 | 0.452 | 12 |
| 13 | 13.7 | 30.6 | 0.433 | 13 |
| 14 | 11.8 | 29.5 | 0.385 | 14 |
| 15 | 1.4 | 33.1 | 0.536 | 15 |
| 16 | 1.4 | 33.1 | 0.536 | 16 |
| TOTAL | 637.4 | | | |
| Nº FISH AGED | 362 | | | |

TABLE XV - C : REDFISH S.mentella (males), DIV. 3M , 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the gillnet catches.

| AGE | OCT. AGE COMP. | OCT. MEAN LENGTH | OCT. MEAN WEIGHT | NOV. AGE COMP. | NOV. MEAN LENGTH | NOV. MEAN WEIGHT | 4th Q. = TOTAL AGE COMP. | 4th Q. = TOTAL MEAN LENGTH | 4th Q. = TOTAL MEAN WEIGHT | AGE |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 2.3 | 35.5 | 0.632 | 1.5 | 35.5 | 0.632 | 1.9 | 35.5 | 0.632 | 6 |
| 7 | 2.0 | 32.3 | 0.481 | 1.0 | 32.5 | 0.487 | 1.5 | 32.4 | 0.483 | 7 |
| 8 | 1.1 | 27.0 | 0.282 | 0.7 | 28.5 | 0.330 | 0.9 | 27.5 | 0.300 | 8 |
| 9 | 5.1 | 28.4 | 0.326 | 3.9 | 28.8 | 0.340 | 4.5 | 28.5 | 0.332 | 9 |
| 10 | 5.3 | 29.5 | 0.367 | 3.8 | 29.0 | 0.346 | 4.6 | 29.3 | 0.359 | 10 |
| 11 | 18.9 | 32.1 | 0.480 | 4.8 | 33.2 | 0.534 | 12.2 | 32.3 | 0.490 | 11 |
| 12 | 18.2 | 31.9 | 0.463 | 4.6 | 32.6 | 0.493 | 11.8 | 32.0 | 0.468 | 12 |
| 13 | 36.2 | 33.0 | 0.513 | 16.0 | 33.8 | 0.546 | 26.6 | 33.2 | 0.522 | 13 |
| 14 | 30.0 | 33.7 | 0.544 | 15.7 | 34.0 | 0.559 | 23.2 | 33.8 | 0.549 | 14 |
| 15 | 51.3 | 35.9 | 0.656 | 30.0 | 35.8 | 0.651 | 41.2 | 35.9 | 0.654 | 15 |
| 16 | 48.4 | 35.8 | 0.651 | 26.8 | 35.7 | 0.649 | 38.2 | 35.8 | 0.650 | 16 |
| 17 | 23.1 | 36.6 | 0.696 | 16.6 | 37.5 | 0.744 | 20.0 | 36.9 | 0.715 | 17 |
| 18 | 13.8 | 37.5 | 0.745 | 12.9 | 37.8 | 0.764 | 13.4 | 37.6 | 0.754 | 18 |
| 19 | 37.8 | 37.5 | 0.743 | 25.4 | 37.7 | 0.755 | 31.9 | 37.6 | 0.748 | 19 |
| 20 | 16.1 | 37.5 | 0.744 | 14.0 | 37.8 | 0.764 | 15.1 | 37.6 | 0.753 | 20 |
| 21 | 21.6 | 40.5 | 0.942 | 52.6 | 41.3 | 0.989 | 36.3 | 41.0 | 0.974 | 21 |
| 22+ | 162.6 | 41.7 | 1.026 | 247.7 | 42.4 | 1.080 | 202.9 | 42.1 | 1.057 | 22+ |
| TOTAL | 494.0 | | | 477.9 | | | 486.4 | | | |
| Nº FISH AGED | | | | | | | 370 | | | |

TABLE XV - D : REDFISH S.mentella (females), DIV. 3M, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the gillnet catches.

| AGE | OCT. AGE COMP. | OCT. MEAN LENGTH | OCT. MEAN WEIGHT | NOV. AGE COMP. | NOV. MEAN LENGTH | NOV. MEAN WEIGHT | 4th Q. = TOTAL AGE COMP. | 4th Q. = TOTAL MEAN LENGTH | 4th Q. = TOTAL MEAN WEIGHT | AGE |
|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 0.1 | 28.5 | 0.341 | 0.2 | 28.5 | 0.341 | 0.1 | 28.5 | 0.341 | 6 |
| 7 | 1.1 | 31.8 | 0.477 | 0.4 | 32.5 | 0.507 | 0.8 | 32.0 | 0.485 | 7 |
| 8 | 1.5 | 27.9 | 0.321 | 0.3 | 28.5 | 0.341 | 0.9 | 28.0 | 0.324 | 8 |
| 9 | 2.4 | 28.6 | 0.347 | 1.4 | 28.8 | 0.354 | 1.9 | 28.7 | 0.349 | 9 |
| 10 | 4.9 | 29.3 | 0.371 | 4.8 | 29.0 | 0.358 | 4.8 | 29.1 | 0.365 | 10 |
| 11 | 29.4 | 31.8 | 0.474 | 6.8 | 32.5 | 0.509 | 18.7 | 31.9 | 0.480 | 11 |
| 12 | 39.8 | 32.9 | 0.527 | 14.6 | 33.9 | 0.578 | 27.9 | 33.1 | 0.540 | 12 |
| 13 | 22.0 | 33.4 | 0.550 | 14.0 | 33.5 | 0.554 | 18.3 | 33.4 | 0.551 | 13 |
| 14 | 21.8 | 33.9 | 0.579 | 10.8 | 34.3 | 0.601 | 16.6 | 34.0 | 0.586 | 14 |
| 15 | 30.9 | 36.3 | 0.713 | 20.5 | 36.5 | 0.729 | 26.0 | 36.4 | 0.719 | 15 |
| 16 | 26.5 | 35.9 | 0.691 | 14.7 | 35.9 | 0.687 | 20.9 | 35.9 | 0.689 | 16 |
| 17 | 39.3 | 37.4 | 0.776 | 31.9 | 37.7 | 0.796 | 35.8 | 37.5 | 0.785 | 17 |
| 18 | 43.3 | 37.7 | 0.796 | 30.8 | 38.0 | 0.812 | 37.4 | 37.8 | 0.802 | 18 |
| 19 | 61.1 | 38.4 | 0.849 | 74.5 | 39.6 | 0.927 | 67.5 | 39.0 | 0.890 | 19 |
| 20 | 47.0 | 40.0 | 0.954 | 72.0 | 40.7 | 1.002 | 58.9 | 40.4 | 0.982 | 20 |
| 21 | 11.8 | 40.0 | 0.946 | 17.6 | 40.2 | 0.962 | 14.6 | 40.1 | 0.955 | 21 |
| 22 | 7.2 | 41.5 | 1.060 | 19.6 | 41.5 | 1.060 | 13.1 | 41.5 | 1.060 | 22 |
| 23 | 30.3 | 40.9 | 1.019 | 52.2 | 41.5 | 1.065 | 40.7 | 41.3 | 1.047 | 23 |
| 24 | 54.3 | 43.5 | 1.223 | 77.7 | 43.6 | 1.231 | 65.4 | 43.5 | 1.228 | 24 |
| 25+ | 31.4 | 44.8 | 1.350 | 57.2 | 46.1 | 1.472 | 43.6 | 45.6 | 1.426 | 25+ |
| TOTAL | 506.0 | | | 522.1 | | | 513.6 | | | |
| Nº FISH AGED | | | | | | | 362 | | | |

TABLE XV - E: REDFISH S.marinus (males), DIV. 3M, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | JUN. = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 5 | 0.1 | 20.2 | 0.120 | 5 |
| 6 | 8.0 | 21.7 | 0.149 | 6 |
| 7 | 28.9 | 24.4 | 0.215 | 7 |
| 8 | 25.2 | 26.1 | 0.256 | 8 |
| 9 | 28.1 | 28.5 | 0.331 | 9 |
| 10 | 35.2 | 30.5 | 0.402 | 10 |
| 11 | 24.4 | 31.5 | 0.444 | 11 |
| 12 | 43.9 | 32.5 | 0.488 | 12 |
| 13 | 18.6 | 32.6 | 0.494 | 13 |
| 14 | 35.8 | 35.3 | 0.626 | 14 |
| 15 | 9.3 | 35.9 | 0.655 | 15 |
| 16 | 19.5 | 35.4 | 0.634 | 16 |
| 17 | 5.9 | 39.9 | 0.896 | 17 |
| 18 | 7.8 | 39.2 | 0.850 | 18 |
| 19 | | | | 19 |
| 20+ | 10.4 | 43.4 | 1.148 | 20+ |
| TOTAL | 301.2 | | | |
| Nº FISH AGED | 318 | | | |

TABLE XV - F: REDFISH S.marinus (females), DIV. 3M, 1994 age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | JUN. = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 4 | 3.7 | 30.5 | 0.418 | 4 |
| 5 | 6.5 | 19.5 | 0.109 | 5 |
| 6 | 31.2 | 20.3 | 0.123 | 6 |
| 7 | 44.3 | 25.0 | 0.243 | 7 |
| 8 | 56.6 | 26.4 | 0.273 | 8 |
| 9 | 53.6 | 28.6 | 0.345 | 9 |
| 10 | 49.0 | 29.6 | 0.384 | 10 |
| 11 | 34.7 | 31.5 | 0.462 | 11 |
| 12 | 37.6 | 33.8 | 0.575 | 12 |
| 13 | 77.9 | 36.2 | 0.714 | 13 |
| 14 | 36.7 | 34.6 | 0.615 | 14 |
| 15 | 90.8 | 39.0 | 0.889 | 15 |
| 16 | 21.6 | 44.5 | 1.309 | 16 |
| 17 | | | | 17 |
| 18 | 42.2 | 40.9 | 1.019 | 18 |
| 19 | 50.6 | 42.8 | 1.166 | 19 |
| 20 | 33.3 | 44.9 | 1.363 | 20 |
| 21 | | | | 21 |
| 22 | 8.2 | 45.5 | 1.400 | 22 |
| 23 | 4.1 | 45.5 | 1.400 | 23 |
| 24 | 4.6 | 48.5 | 1.698 | 24 |
| 25+ | 11.5 | 47.8 | 1.627 | 25+ |
| TOTAL | 698.8 | | | |
| Nº FISH AGED | 305 | | | |

TABLE XVI-A : GREENLAND HALIBUT (males), DIVISION 3N, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = 1st Q. | | | APR. | | | JUN. | | | 2nd Q. | | | TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 3 | 4.2 | 36.1 | 0.356 | 6.5 | 36.0 | 0.353 | 7.6 | 35.7 | 0.344 | 7.1 | 35.8 | 0.347 | 6.8 | 35.9 | 0.347 | 3 |
| 4 | 43.7 | 35.3 | 0.341 | 75.4 | 34.5 | 0.315 | 161.1 | 31.9 | 0.240 | 126.6 | 32.5 | 0.258 | 118.3 | 32.6 | 0.261 | 4 |
| 5 | 76.6 | 38.4 | 0.462 | 100.8 | 37.1 | 0.403 | 101.1 | 34.8 | 0.318 | 100.9 | 35.7 | 0.352 | 98.5 | 35.9 | 0.361 | 5 |
| 6 | 79.6 | 43.4 | 0.684 | 72.5 | 41.7 | 0.592 | 19.9 | 37.7 | 0.417 | 41.1 | 40.6 | 0.541 | 44.9 | 41.1 | 0.567 | 6 |
| 7 | 17.9 | 46.5 | 0.883 | 13.0 | 42.5 | 0.656 | 5.4 | 35.8 | 0.349 | 8.5 | 39.9 | 0.538 | 9.4 | 41.2 | 0.604 | 7 |
| 8 | 14.6 | 53.2 | 1.298 | 0.3 | 54.0 | 1.367 | | | 0.000 | 0.1 | 54.0 | 1.367 | 1.6 | 53.3 | 1.303 | 8 |
| TOTAL | 236.5 | | | 268.5 | | | 295.0 | | | 284.3 | | | 279.5 | | | |
| Nº FISH AGED | | | | | | | | | | | | | 102 | | | |

TABLE XVI - B : GREENLAND HALIBUT (females), DIVISION 3N, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = 1st Q. | | | APR. | | | JUN. | | | 2nd Q. | | | TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 3 | 5.1 | 33.0 | 0.263 | 5.7 | 33.0 | 0.263 | 36.1 | 29.7 | 0.187 | 23.8 | 30.0 | 0.194 | 22.0 | 30.1 | 0.196 | 3 |
| 4 | 134.5 | 34.0 | 0.298 | 138.3 | 34.4 | 0.310 | 194.7 | 33.2 | 0.275 | 172.0 | 33.6 | 0.286 | 168.2 | 33.6 | 0.287 | 4 |
| 5 | 238.6 | 37.2 | 0.399 | 286.8 | 37.9 | 0.423 | 247.0 | 37.0 | 0.393 | 263.1 | 37.4 | 0.406 | 260.6 | 37.4 | 0.406 | 5 |
| 6 | 136.2 | 41.7 | 0.595 | 174.1 | 41.3 | 0.567 | 120.2 | 41.1 | 0.563 | 141.9 | 41.2 | 0.565 | 141.3 | 41.2 | 0.568 | 6 |
| 7 | 136.9 | 47.0 | 0.878 | 112.4 | 45.3 | 0.767 | 84.8 | 45.9 | 0.806 | 95.9 | 45.6 | 0.788 | 100.0 | 45.8 | 0.800 | 7 |
| 8 | 66.7 | 51.8 | 1.198 | 13.5 | 49.1 | 1.012 | 18.3 | 50.7 | 1.119 | 16.4 | 50.2 | 1.083 | 21.4 | 50.7 | 1.119 | 8 |
| 9 | 20.3 | 57.2 | 1.662 | 0.5 | 53.6 | 1.332 | 2.7 | 55.0 | 1.458 | 1.8 | 54.8 | 1.444 | 3.7 | 56.1 | 1.565 | 9 |
| 10 | 25.2 | 59.1 | 1.865 | 0.3 | 55.7 | 1.513 | 1.1 | 55.0 | 1.450 | 0.8 | 55.1 | 1.460 | 3.2 | 58.2 | 1.779 | 10 |
| TOTAL | 763.5 | | | 731.5 | | | 705.0 | | | 715.7 | | | 720.5 | | | |
| Nº FISH AGED | | | | | | | | | | | | | 156 | | | |

TABLE XVII - A : AMERICAN PLAICE (males), DIV. 3L, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAY = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 5 | 2.0 | 32.3 | 0.324 | 5 |
| 6 | 9.1 | 33.0 | 0.352 | 6 |
| 7 | 28.0 | 33.9 | 0.379 | 7 |
| 8 | 46.4 | 34.5 | 0.401 | 8 |
| 9 | 70.0 | 37.0 | 0.502 | 9 |
| 10 | 19.6 | 40.0 | 0.637 | 10 |
| 11 | 9.2 | 41.8 | 0.714 | 11 |
| 12 | 6.5 | 43.2 | 0.788 | 12 |
| 13 | 1.5 | 41.9 | 0.717 | 13 |
| TOTAL | 192.4 | | | |
| Nº FISH AGED | 263 | | | |

TABLE XVII - B: AMERICAN PLAICE (females), DIV. 3L, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAY = TOTAL AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE |
|---|---|---|---|---|
| 5 | 5.4 | 32.6 | 0.337 | 5 |
| 6 | 26.2 | 33.2 | 0.354 | 6 |
| 7 | 97.1 | 34.6 | 0.402 | 7 |
| 8 | 156.5 | 36.7 | 0.490 | 8 |
| 9 | 250.3 | 38.9 | 0.581 | 9 |
| 10 | 99.6 | 41.8 | 0.726 | 10 |
| 11 | 54.2 | 44.0 | 0.839 | 11 |
| 12 | 56.3 | 46.3 | 0.993 | 12 |
| 13 | 20.2 | 48.1 | 1.101 | 13 |
| 14 | 13.5 | 51.8 | 1.384 | 14 |
| 15 | 5.7 | 52.3 | 1.403 | 15 |
| 16 | 5.9 | 53.4 | 1.515 | 16 |
| 17+ | 16.8 | 55.6 | 1.693 | 17+ |
| TOTAL | 807.6 | | | |
| Nº FISH AGED | 535 | | | |

TABLE XVII - C : AMERICAN PLAICE (males), DIV. 3N, 1994: age composition (‰ ), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = 1st Q. | | | APR. | | | MAY | | | JUN. | | | 2nd Q. | | | TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 5 | 26.5 | 27.3 | 0.197 | 26.6 | 28.1 | 0.214 | 3.7 | 31.4 | 0.298 | 5.0 | 31.4 | 0.298 | 22.7 | 28.2 | 0.217 | 23.7 | 27.9 | 0.211 | 5 |
| 6 | 34.0 | 29.8 | 0.260 | 44.6 | 29.8 | 0.259 | 14.9 | 32.0 | 0.318 | 21.8 | 32.0 | 0.318 | 39.8 | 30.0 | 0.264 | 38.3 | 29.9 | 0.263 | 6 |
| 7 | 45.6 | 32.1 | 0.325 | 61.8 | 32.2 | 0.329 | 33.1 | 33.0 | 0.350 | 51.7 | 33.2 | 0.356 | 57.7 | 32.3 | 0.332 | 54.5 | 32.3 | 0.331 | 7 |
| 8 | 56.0 | 33.8 | 0.381 | 76.0 | 33.7 | 0.377 | 48.4 | 33.9 | 0.380 | 74.2 | 33.9 | 0.379 | 72.5 | 33.7 | 0.377 | 68.1 | 33.7 | 0.378 | 8 |
| 9 | 79.0 | 37.3 | 0.519 | 97.4 | 36.5 | 0.480 | 58.4 | 36.4 | 0.480 | 79.8 | 35.1 | 0.420 | 91.7 | 36.4 | 0.478 | 88.3 | 36.6 | 0.487 | 9 |
| 10 | 25.6 | 40.7 | 0.671 | 23.6 | 39.4 | 0.609 | 16.9 | 40.1 | 0.648 | 13.6 | 37.0 | 0.493 | 22.3 | 39.4 | 0.609 | 23.2 | 39.8 | 0.627 | 10 |
| 11 | 12.9 | 42.0 | 0.730 | 9.3 | 41.0 | 0.677 | 6.3 | 41.4 | 0.697 | 3.0 | 38.3 | 0.543 | 8.6 | 41.0 | 0.676 | 9.8 | 41.3 | 0.695 | 11 |
| 12 | 11.4 | 45.1 | 0.915 | 6.3 | 43.9 | 0.830 | 5.4 | 45.2 | 0.911 | 0.1 | 41.0 | 0.668 | 5.8 | 44.0 | 0.839 | 7.3 | 44.5 | 0.871 | 12 |
| 13 | 1.9 | 42.1 | 0.723 | 1.2 | 41.6 | 0.699 | 0.8 | 42.0 | 0.718 | 0.02 | 41.0 | 0.668 | 1.1 | 41.6 | 0.701 | 1.3 | 41.8 | 0.710 | 13 |
| TOTAL | 293.0 | | | 346.8 | | | 188.0 | | | 249.2 | | | 322.3 | | | 314.4 | | | |
| Nº FISH AGED | | | | | | | | | | | | | | | | 263 | | | |

TABLE XVII - D : AMERICAN PLAICE (females), DIV. 3N, 1994: age composition (‰ ), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | MAR. = 1st Q. | | | APR. | | | MAY | | | JUN. | | | 2nd Q. | | | TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 5 | 70.6 | 27.1 | 0.194 | 39.5 | 28.6 | 0.227 | 13.0 | 31.7 | 0.309 | 13.3 | 31.5 | 0.303 | 34.9 | 28.8 | 0.233 | 44.4 | 28.1 | 0.216 | 5 |
| 6 | 61.4 | 28.8 | 0.238 | 50.8 | 30.7 | 0.284 | 39.5 | 32.7 | 0.337 | 39.6 | 32.6 | 0.334 | 48.8 | 31.0 | 0.292 | 52.2 | 30.3 | 0.275 | 6 |
| 7 | 137.0 | 30.1 | 0.278 | 130.7 | 32.4 | 0.336 | 129.2 | 33.9 | 0.381 | 122.6 | 33.9 | 0.379 | 130.1 | 32.7 | 0.344 | 131.9 | 32.0 | 0.325 | 7 |
| 8 | 110.1 | 35.3 | 0.442 | 142.2 | 35.2 | 0.432 | 176.7 | 35.9 | 0.459 | 173.4 | 36.0 | 0.461 | 148.1 | 35.3 | 0.438 | 137.9 | 35.3 | 0.439 | 8 |
| 9 | 147.9 | 39.1 | 0.593 | 166.8 | 38.0 | 0.544 | 240.4 | 38.3 | 0.558 | 240.6 | 38.3 | 0.557 | 179.6 | 38.1 | 0.547 | 171.1 | 38.3 | 0.558 | 9 |
| 10 | 63.5 | 42.3 | 0.752 | 55.1 | 40.9 | 0.682 | 86.8 | 41.3 | 0.704 | 81.6 | 40.6 | 0.665 | 60.4 | 40.9 | 0.685 | 61.2 | 41.3 | 0.704 | 10 |
| 11 | 40.5 | 44.3 | 0.856 | 27.1 | 43.8 | 0.827 | 47.1 | 44.1 | 0.845 | 39.7 | 43.1 | 0.786 | 30.2 | 43.8 | 0.828 | 33.0 | 44.0 | 0.837 | 11 |
| 12 | 39.7 | 46.1 | 0.972 | 24.9 | 45.5 | 0.934 | 44.3 | 45.8 | 0.954 | 29.6 | 43.8 | 0.825 | 27.5 | 45.5 | 0.932 | 30.8 | 45.7 | 0.946 | 12 |
| 13 | 13.6 | 47.9 | 1.091 | 8.2 | 47.5 | 1.058 | 14.2 | 47.4 | 1.052 | 6.8 | 45.3 | 0.909 | 8.9 | 47.4 | 1.051 | 10.1 | 47.6 | 1.066 | 13 |
| 14 | 7.6 | 50.2 | 1.265 | 3.7 | 49.0 | 1.162 | 7.8 | 50.1 | 1.260 | 2.6 | 46.3 | 0.966 | 4.1 | 49.2 | 1.179 | 5.1 | 49.6 | 1.213 | 14 |
| 15 | 3.6 | 53.9 | 1.569 | 1.5 | 51.4 | 1.338 | 3.1 | 52.5 | 1.437 | 0.2 | 49.0 | 1.148 | 1.6 | 51.7 | 1.361 | 2.2 | 52.7 | 1.453 | 15 |
| 16 | 3.3 | 53.0 | 1.496 | 1.1 | 50.1 | 1.249 | 3.1 | 52.1 | 1.413 | 0.6 | 47.0 | 1.011 | 1.3 | 50.6 | 1.292 | 1.8 | 51.8 | 1.391 | 16 |
| 17+ | 8.5 | 58.0 | 1.952 | 1.6 | 54.2 | 1.582 | 6.9 | 56.9 | 1.837 | | | | 2.2 | 55.2 | 1.681 | 3.9 | 56.9 | 1.840 | 17+ |
| TOTAL | 707.0 | | | 653.2 | | | 812.0 | | | 750.8 | | | 677.7 | | | 685.6 | | | |
| Nº FISH AGED | | | | | | | | | | | | | | | | 535 | | | |

TABLE XVII - E : AMERICAN PLAICE (males), DIV. 3O, 1994: age composition (‰), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | APR. | | | MAY | | | 2nd Q. = TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 5 | 17.1 | 29.0 | 0.236 | 2.2 | 31.8 | 0.310 | 11.9 | 29.2 | 0.241 | 5 |
| 6 | 39.0 | 30.5 | 0.279 | 9.0 | 31.6 | 0.304 | 28.6 | 30.7 | 0.281 | 6 |
| 7 | 65.4 | 32.6 | 0.338 | 21.8 | 33.0 | 0.349 | 50.3 | 32.6 | 0.340 | 7 |
| 8 | 85.4 | 33.8 | 0.377 | 30.7 | 33.7 | 0.372 | 66.4 | 33.7 | 0.376 | 8 |
| 9 | 101.7 | 35.9 | 0.457 | 33.5 | 35.8 | 0.457 | 78.1 | 35.9 | 0.457 | 9 |
| 10 | 22.3 | 38.7 | 0.574 | 7.2 | 39.8 | 0.632 | 17.0 | 38.9 | 0.582 | 10 |
| 11 | 8.0 | 40.5 | 0.650 | 3.5 | 41.7 | 0.714 | 6.4 | 40.7 | 0.662 | 11 |
| 12 | 3.8 | 42.5 | 0.750 | 2.0 | 43.4 | 0.795 | 3.2 | 42.7 | 0.760 | 12 |
| 13 | 1.0 | 41.7 | 0.706 | 0.4 | 42.5 | 0.743 | 0.8 | 41.9 | 0.713 | 13 |
| TOTAL | 343.7 | | | 110.4 | | | 262.7 | | | |
| Nº FISH AGED | | | | | | | 263 | | | |

TABLE XVII - F : AMERICAN PLAICE (females), DIV. 3O, 1994: age composition (‰ ), mean length (cm) and mean weight (Kg) at age of the trawl catches.

| AGE | APR. | | | MAY | | | 2nd Q. = TOTAL | | | AGE |
|---|---|---|---|---|---|---|---|---|---|---|
| | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | AGE COMP. | MEAN LENGTH | MEAN WEIGHT | |
| 5 | 24.2 | 29.7 | 0.255 | 14.8 | 31.8 | 0.312 | 20.9 | 30.2 | 0.269 | 5 |
| 6 | 46.1 | 31.5 | 0.305 | 45.5 | 32.8 | 0.341 | 45.9 | 31.9 | 0.317 | 6 |
| 7 | 123.1 | 33.0 | 0.352 | 157.2 | 34.0 | 0.384 | 135.0 | 33.4 | 0.365 | 7 |
| 8 | 147.2 | 35.4 | 0.442 | 216.6 | 35.9 | 0.455 | 171.3 | 35.6 | 0.447 | 8 |
| 9 | 180.6 | 38.1 | 0.544 | 279.9 | 37.9 | 0.535 | 215.1 | 38.0 | 0.540 | 9 |
| 10 | 60.5 | 40.6 | 0.667 | 83.9 | 40.4 | 0.656 | 68.6 | 40.5 | 0.662 | 10 |
| 11 | 26.9 | 43.1 | 0.792 | 40.2 | 43.5 | 0.808 | 31.5 | 43.3 | 0.799 | 11 |
| 12 | 26.2 | 45.8 | 0.960 | 32.3 | 44.7 | 0.883 | 28.3 | 45.3 | 0.929 | 12 |
| 13 | 8.6 | 48.5 | 1.130 | 8.3 | 46.8 | 1.012 | 8.5 | 47.9 | 1.090 | 13 |
| 14 | 4.6 | 50.3 | 1.258 | 4.3 | 49.0 | 1.175 | 4.5 | 49.9 | 1.230 | 14 |
| 15 | 2.5 | 52.1 | 1.389 | 1.5 | 52.9 | 1.482 | 2.2 | 52.3 | 1.412 | 15 |
| 16 | 2.1 | 52.2 | 1.411 | 0.6 | 47.9 | 1.077 | 1.6 | 51.6 | 1.364 | 16 |
| 17+ | 3.6 | 53.4 | 1.495 | 4.5 | 58.0 | 1.937 | 3.9 | 55.2 | 1.670 | 17+ |
| TOTAL | 656.3 | | | 889.6 | | | 737.3 | | | |
| Nº FISH AGED | | | | | | | 535 | | | |

# APPENDIX

COD, divisions 3L, 3N and 3O

$$\log w = -5.2106 + 3.034 \log l$$ (Hodder, 1964 )

COD, division 3M

$$w = 0.006065 * l^{3.1249}$$ (Vazquez, 1994 )

REDFISH, divisions 3L, 3M, 3N and 3O

males $w = 0.01659 * l^{2.9548}$

females $w = 0.01372 * l^{3.0210}$ (Power and Atkinson, 1990)

AMERICAN PLAICE, divisions 3L , 3N and 3O

$$\text{Log } w = -5.080 + 3.041 \log l$$ (Pitt, 1978)

GREENLAND HALIBUT, division 3N

$$w = 0.002184 * l^{3.3454}$$ (Bowering and Stansbury, 1984)

GREENLAND HALIBUT, division 3M

$$w = 0.002985 * l^{3.3339}$$ (Vazquez, 1994 )

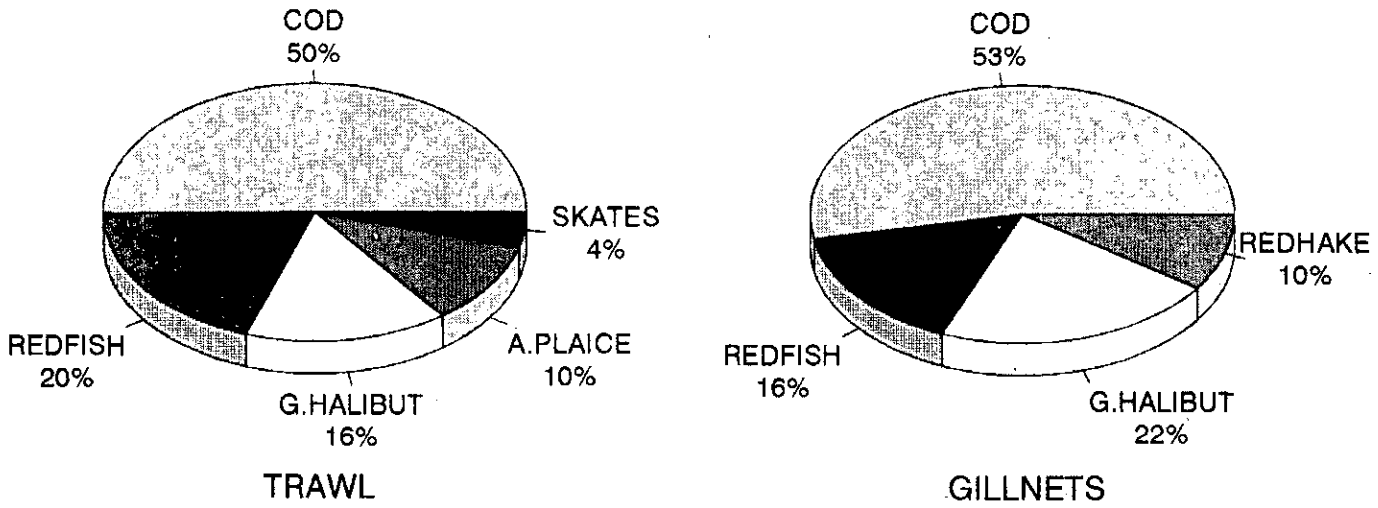



Fig.1: Breakdown of the 1994 Portuguese directed effort by species

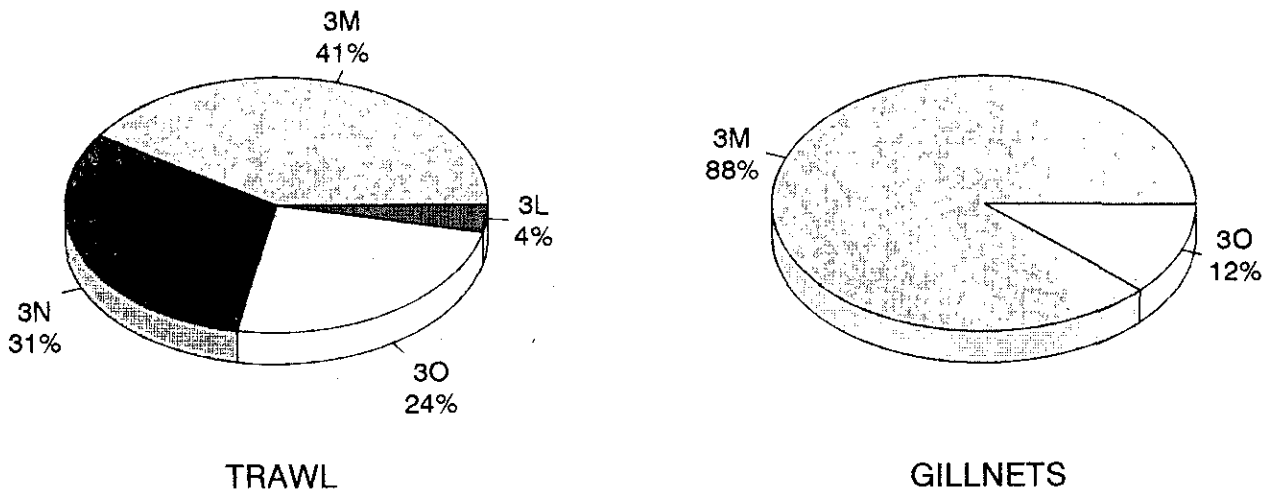
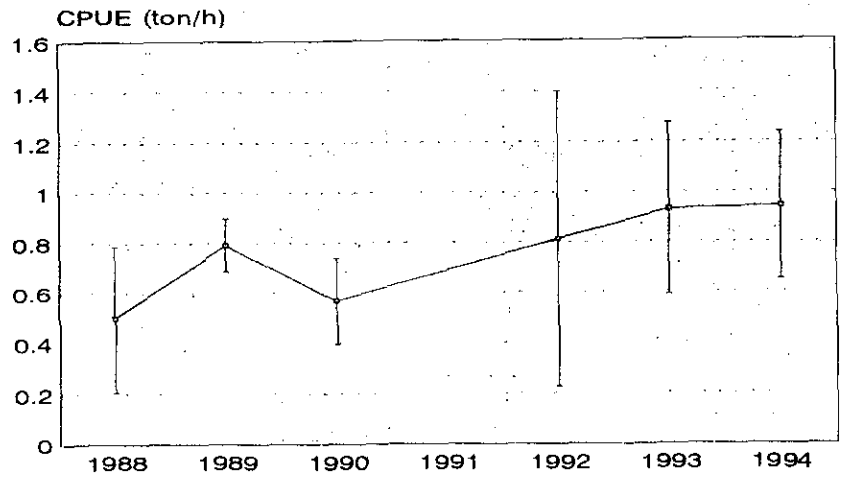
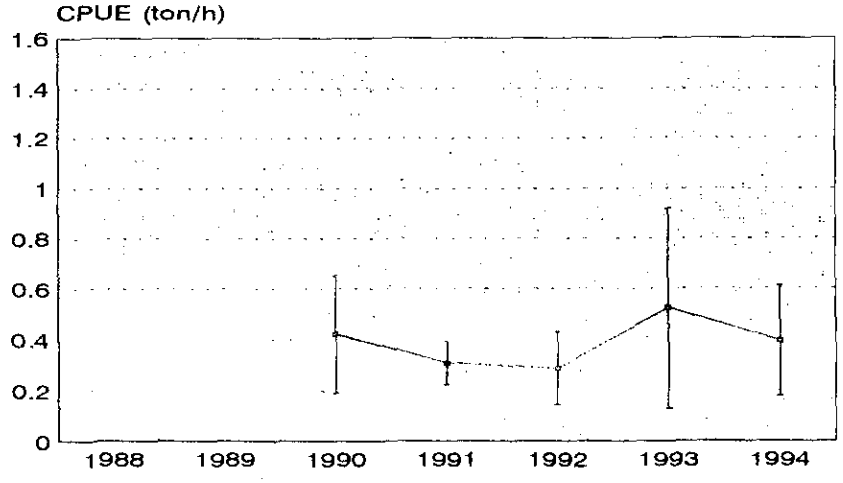



Fig.2: Breakdown of the 1994 Portuguese directed effort by division




Div. 3M




Div. 3NO

Fig 3: Cod trawl catch rates by division, 1988 - 1994.

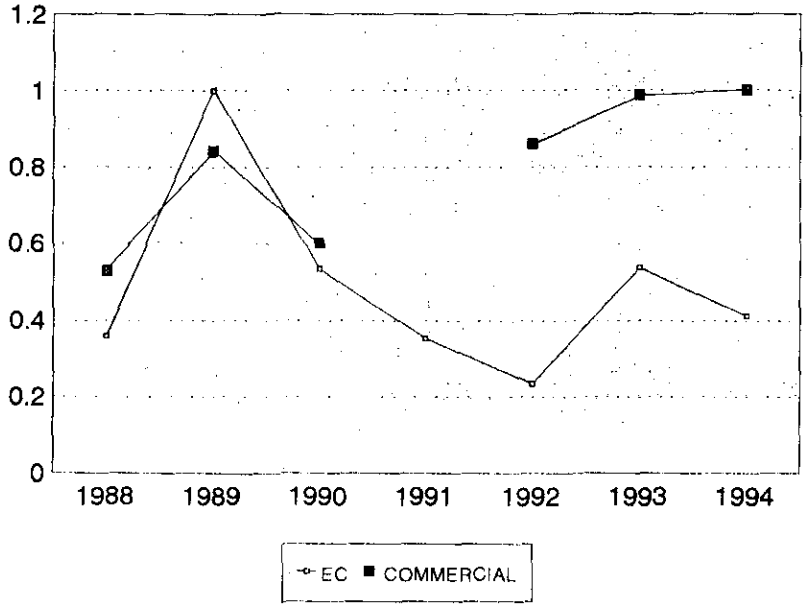
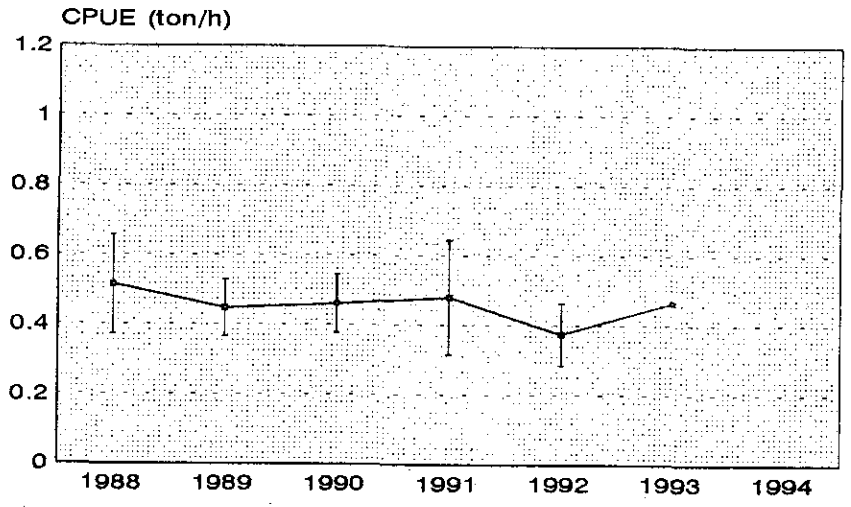
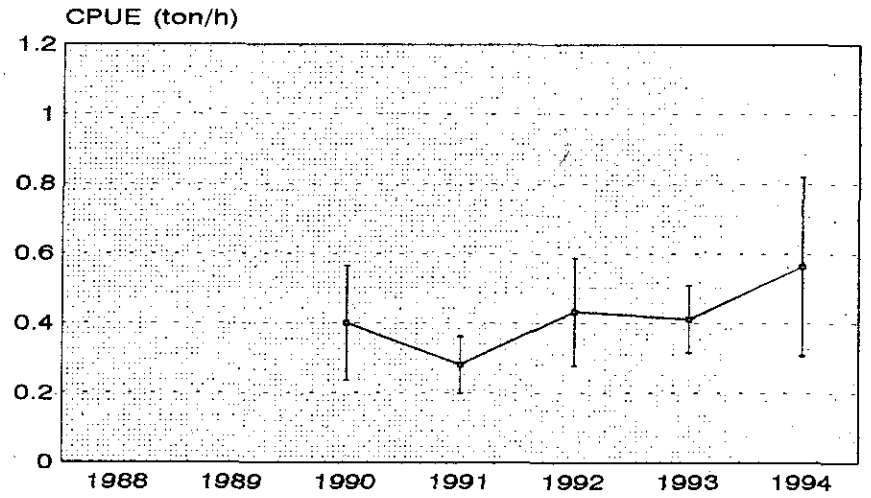


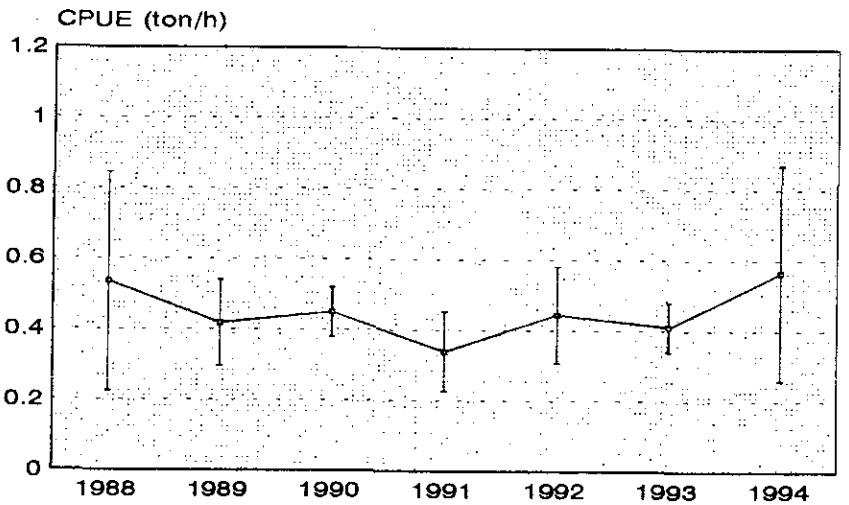

Fig. 3A: Comparison between 3M cod commercial catch rates and 3M cod trawlable biomass indices from the EC surveys (relative values presented as a proportion of the highest value of each series)



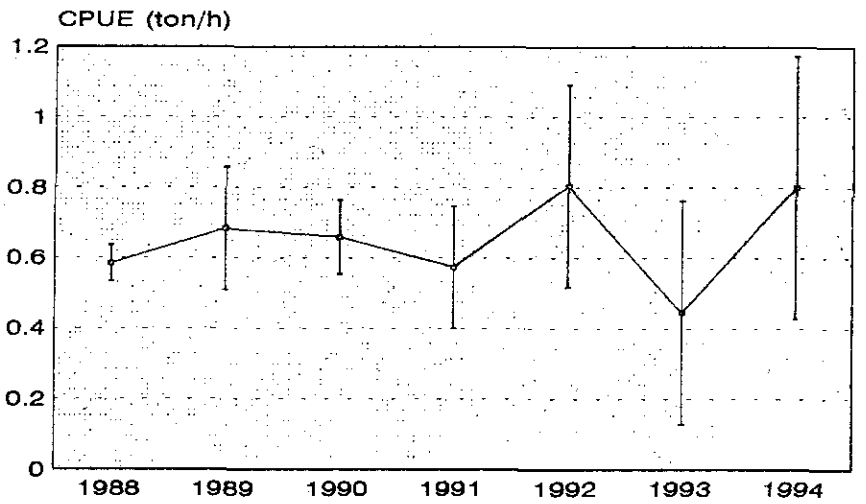

Div. 3L




Div. 3NO




Div. 3LNO




Div. 3M



Fig 4: Redfish trawl catch rates by division, 1988 - 1994.

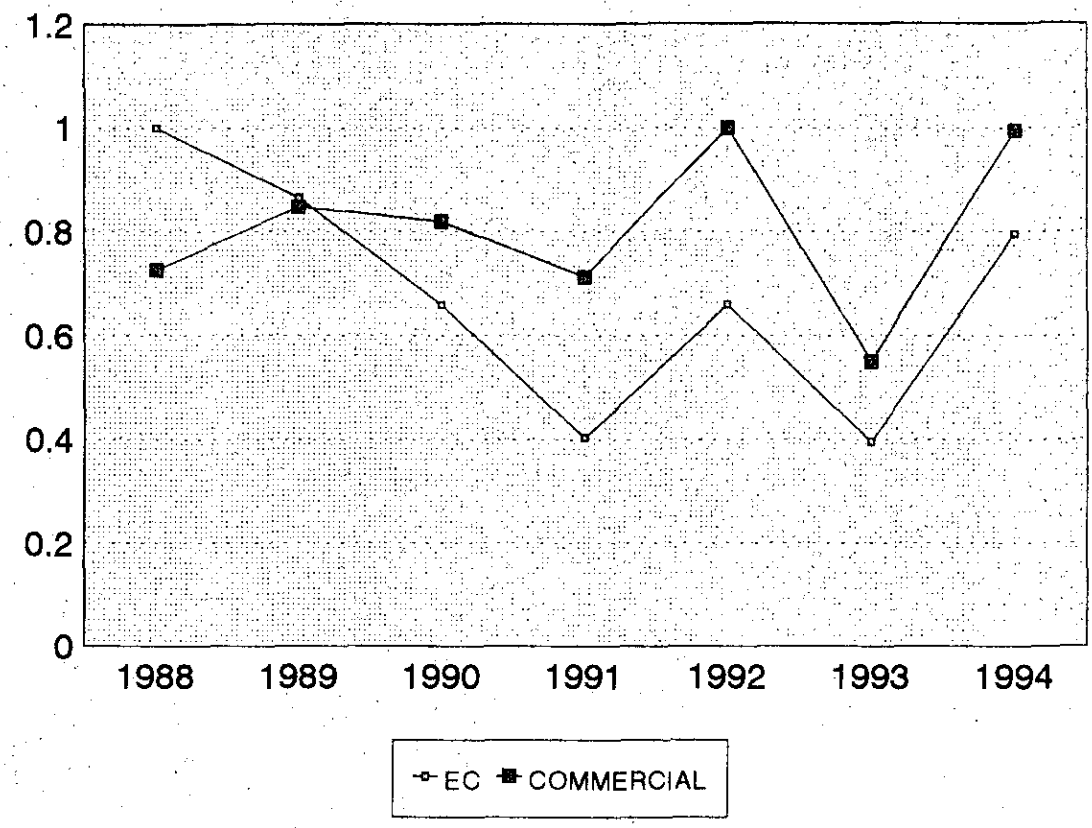
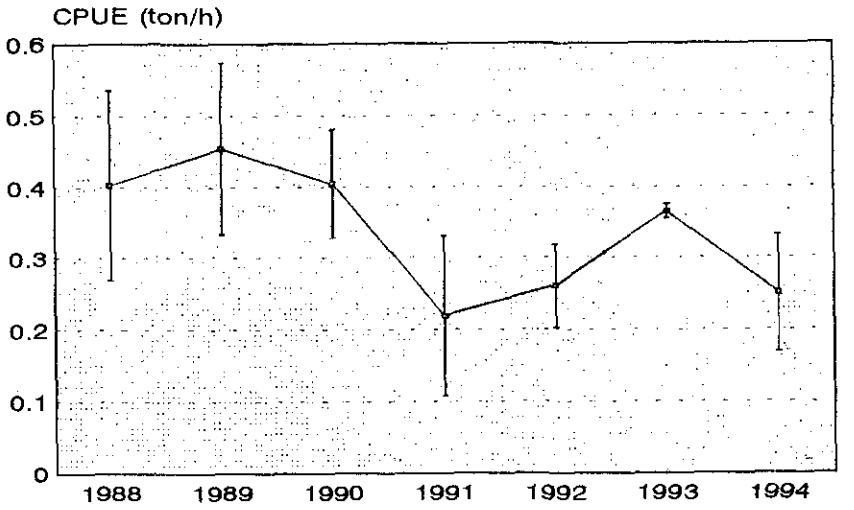
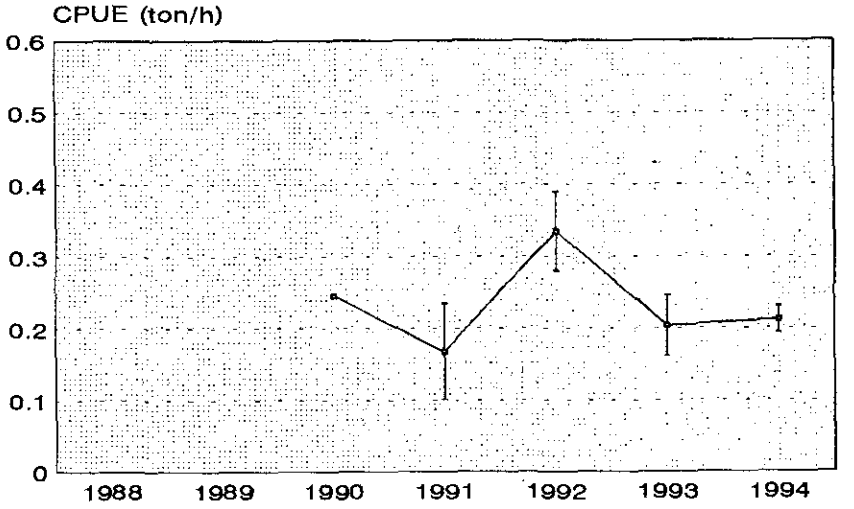


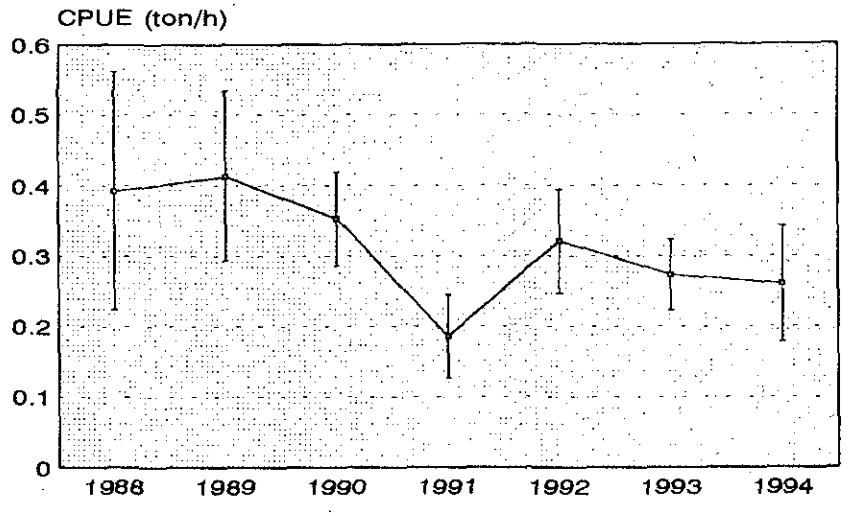

Fig. 4A: Comparison between 3M redfish commercial catch rates and 3M redfish trawlable biomass indices from the EC surveys (relative values presented as a proportion of the highest value of each series)




Div. 3L




Div. 3N




Div. 3LN

Fig 5: Greenland halibut trawl catch rates by division, 1988 - 1994.

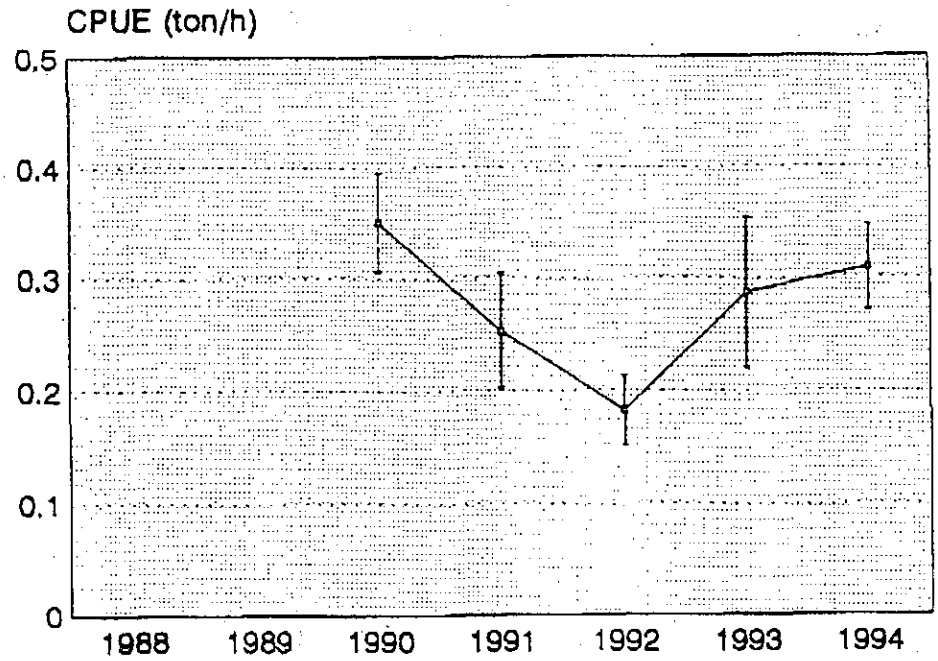



Fig. 5A. American plaice trawl catch rates in Div. 3LNO.

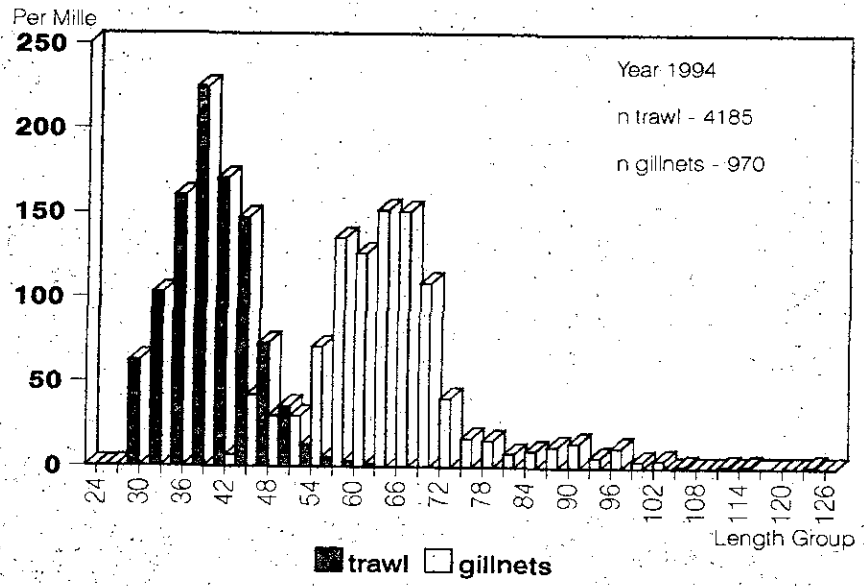



Fig. 6 - Annual length composition of Cod in Division 3M, trawl and gillnet fisheries in 1994.

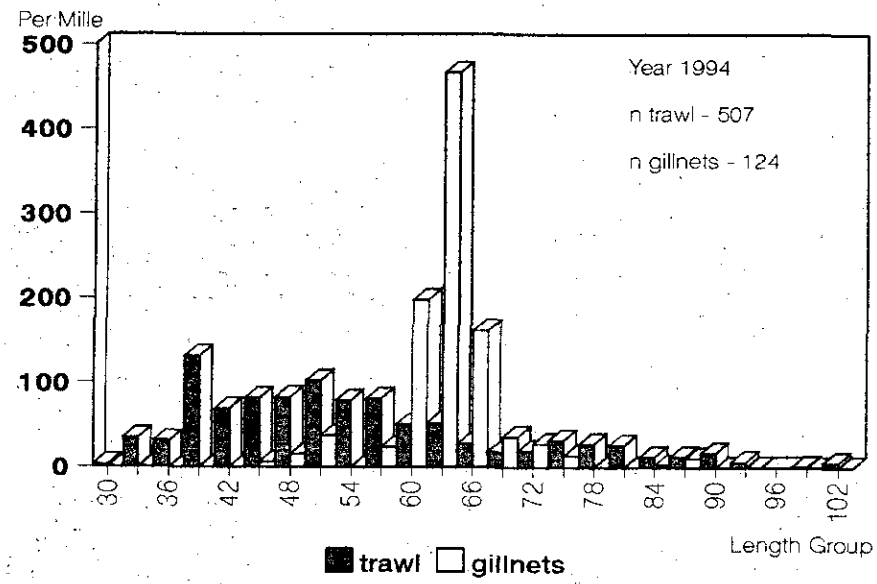



Fig. 7 - Annual length composition of Cod in Division 3O, trawl and gillnet fisheries in 1994.

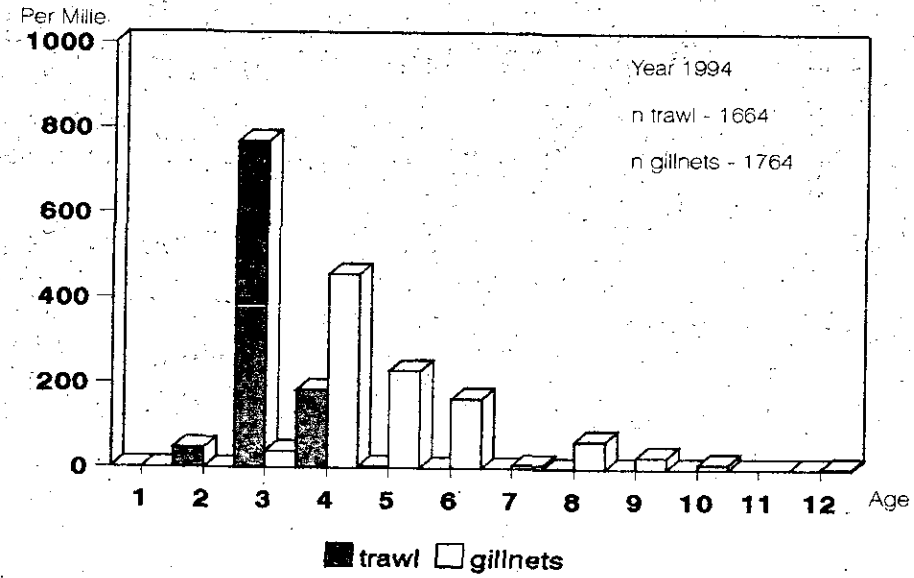



Fig. 8 - Annual age composition of Cod in Division 3M, trawl and gillnet fisheries in 1994.

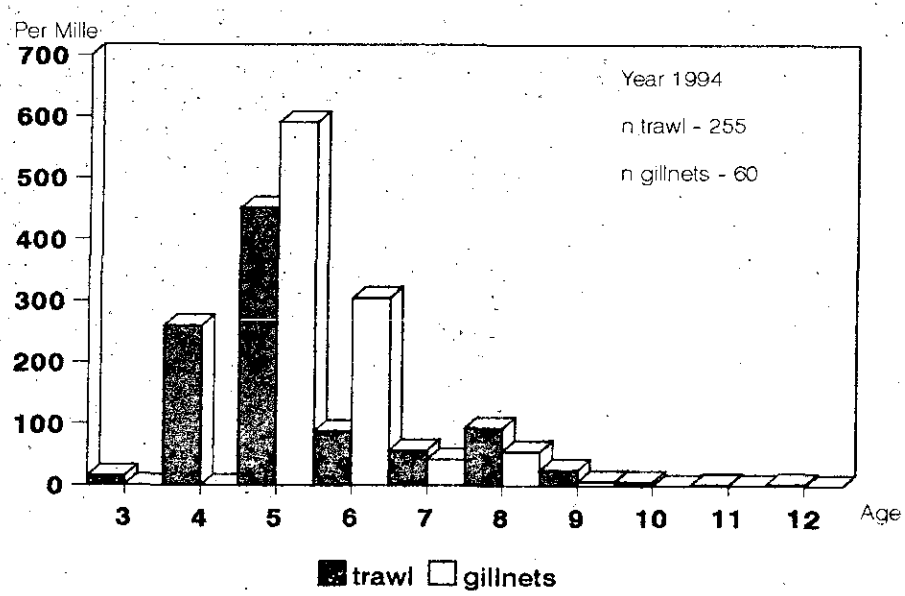



Fig. 9 - Annual age composition of Cod in Division 3O, trawl and gillnet fisheries in 1994.

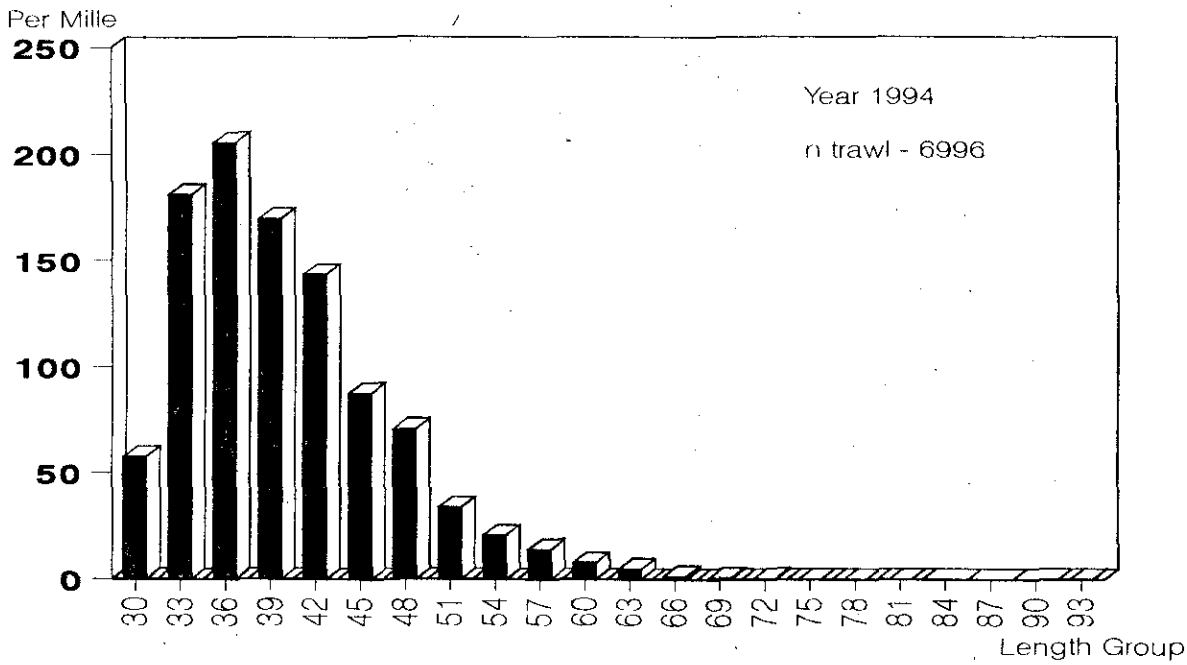



Fig.10 - Annual length composition of Cod in Division 3N, trawl fishery in 1994.

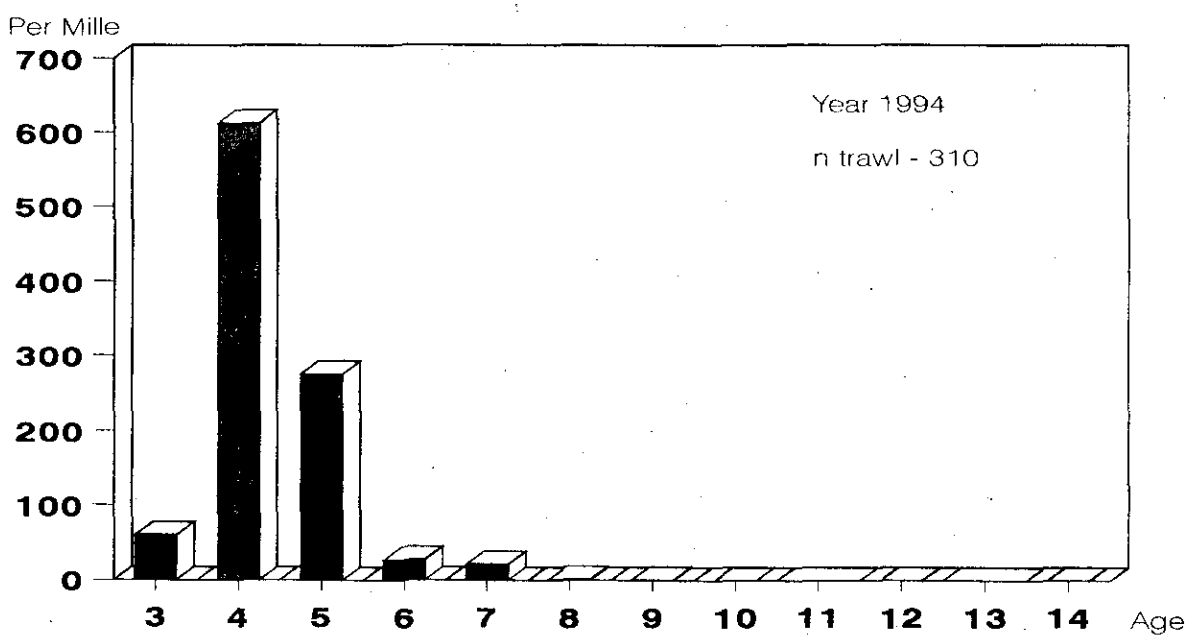



Fig.11 - Annual age composition of Cod in Division 3N, trawl fishery in 1994.

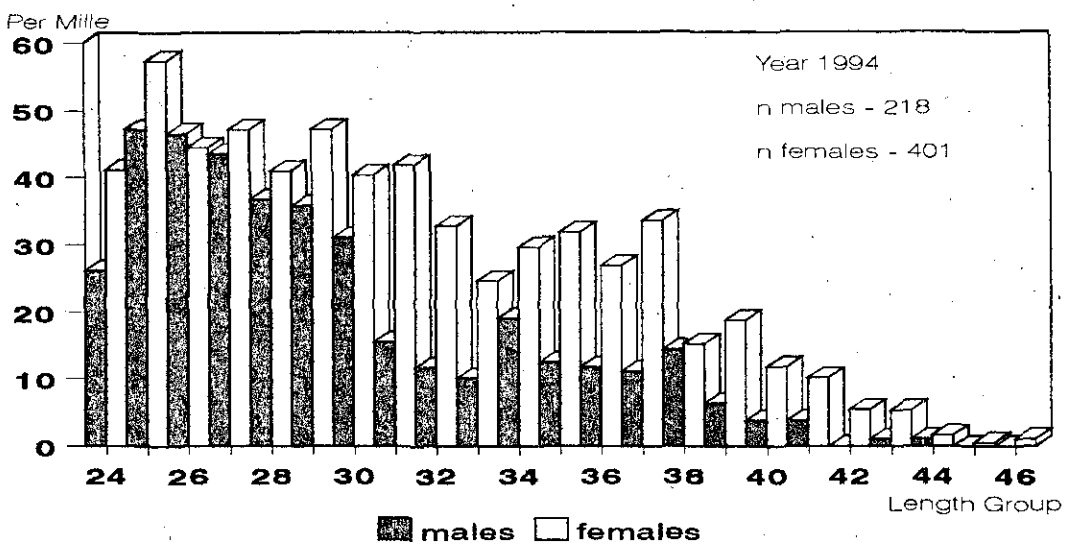



Fig.12 - Annual length composition of Redfish, S.mentella in Division 3L,trawl fishery in 1994.

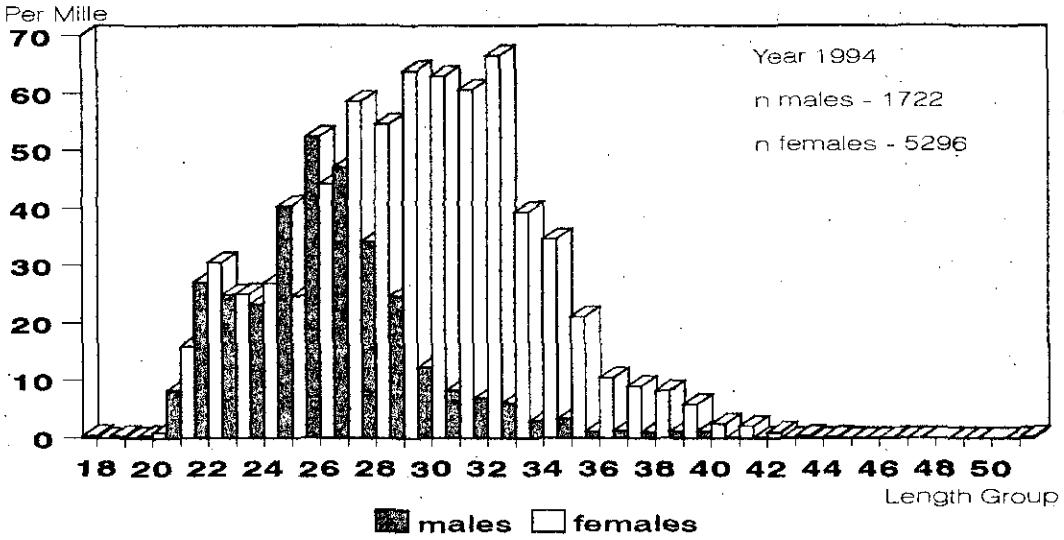



Fig.13 - Annual length composition of Redfish, S.mentella in Division 3N, trawl fishery in 1994.

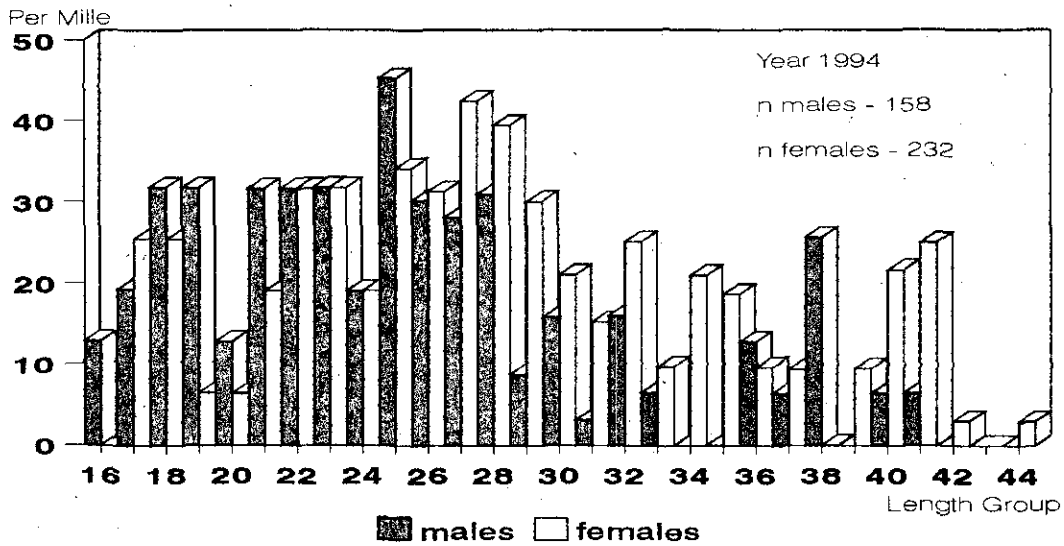



Fig.14 - Annual length composition of Redfish, S.mentella in Division 3O, trawl fishery in 1994.

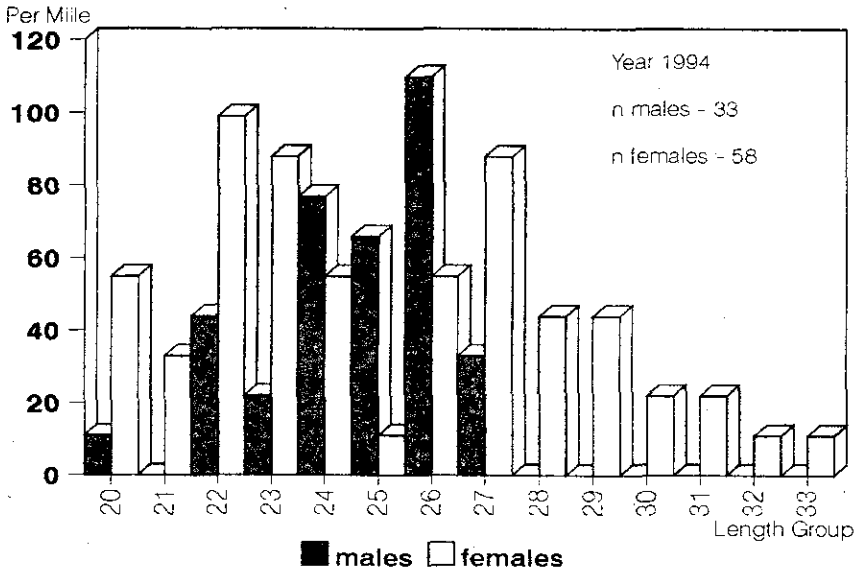



Fig.15 - Annual length composition of Redfish, S.mentella in Division 3M, trawl fishery in 1994.

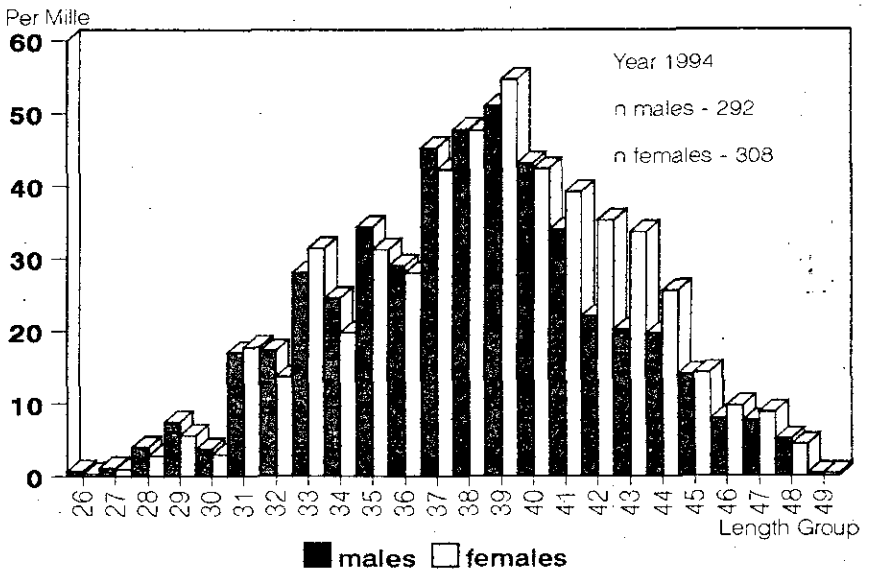



Fig.16 - Annual length composition of Redfish, S.mentella in Division 3M, gillnet fishery in 1994.

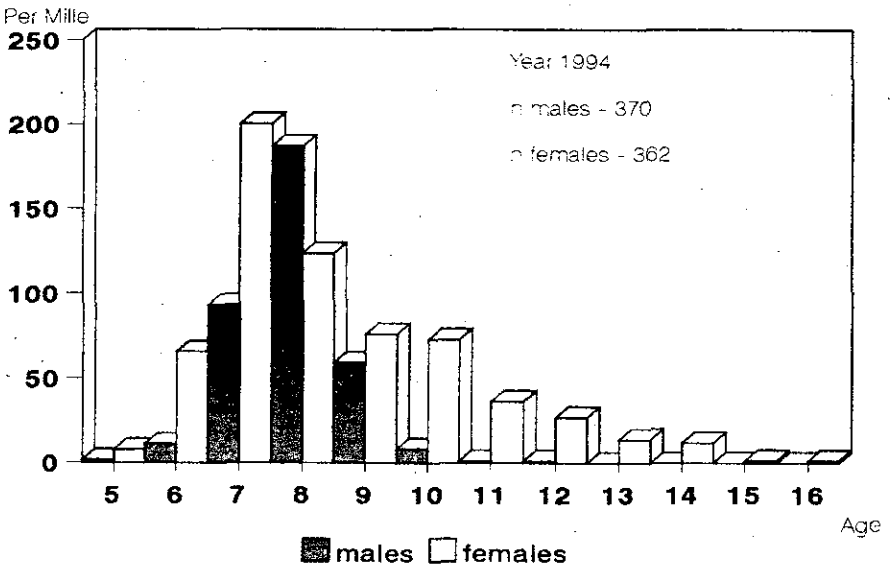



Fig. 17 - Annual age composition of Redfish, S.mentella in Division 3M, trawl fishery in 1994.

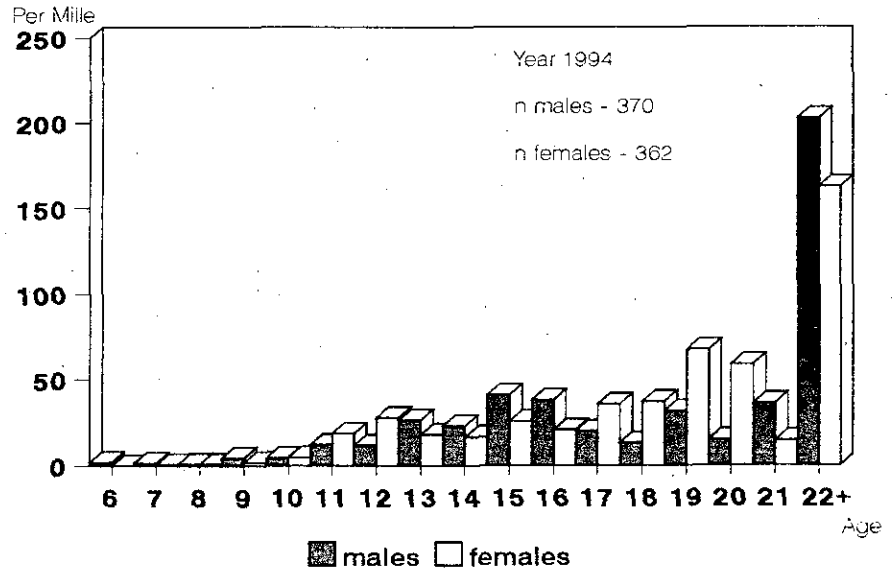



Fig. 18 - Annual age composition of Redfish, S.mentella in Division 3M, gillnet fishery in 1994.

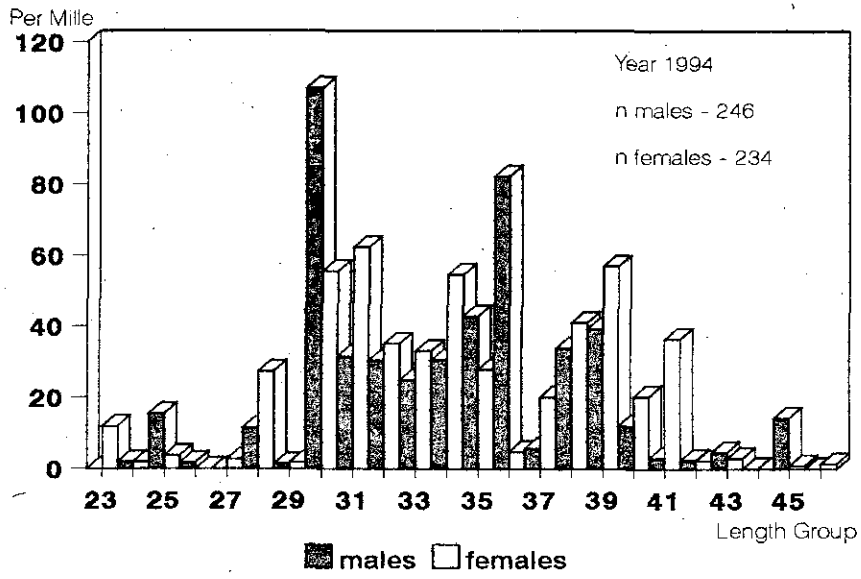



Fig.19 - Annual length composition of Redfish, S.mentella in Division 3O, gillnet fishery in 1994.

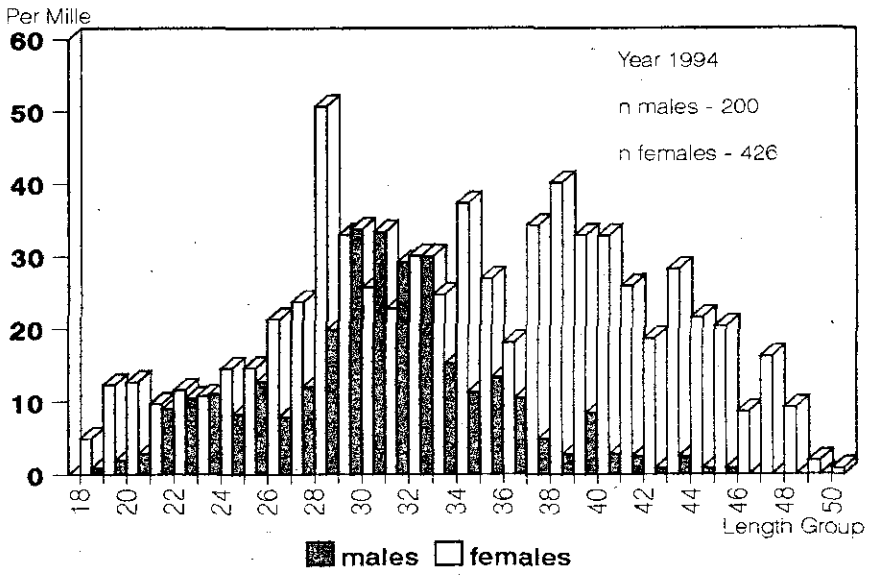



Fig.20 - Annual length composition of Redfish, S.marinus in Division 3M, trawl fishery in 1994.

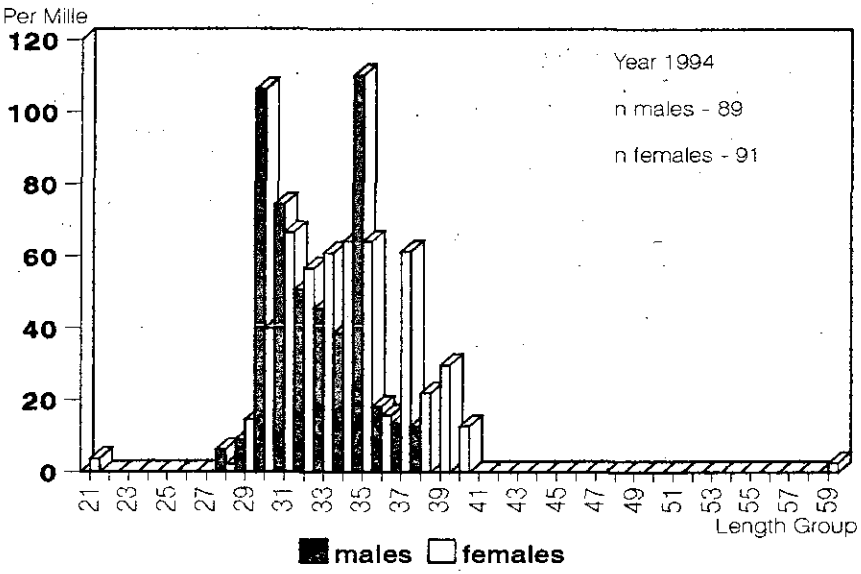



Fig.21 - Annual length composition of Redfish, S.marinus in Division 3O, gillnet fishery in 1994.

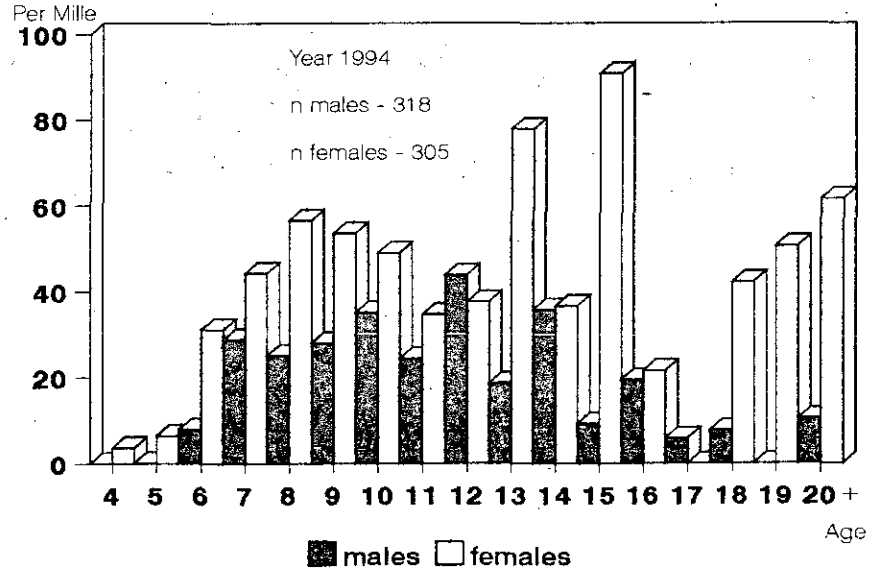



Fig. 22 - Annual age composition of Redfish, S.marinus in Division 3M, trawl fishery in 1994.

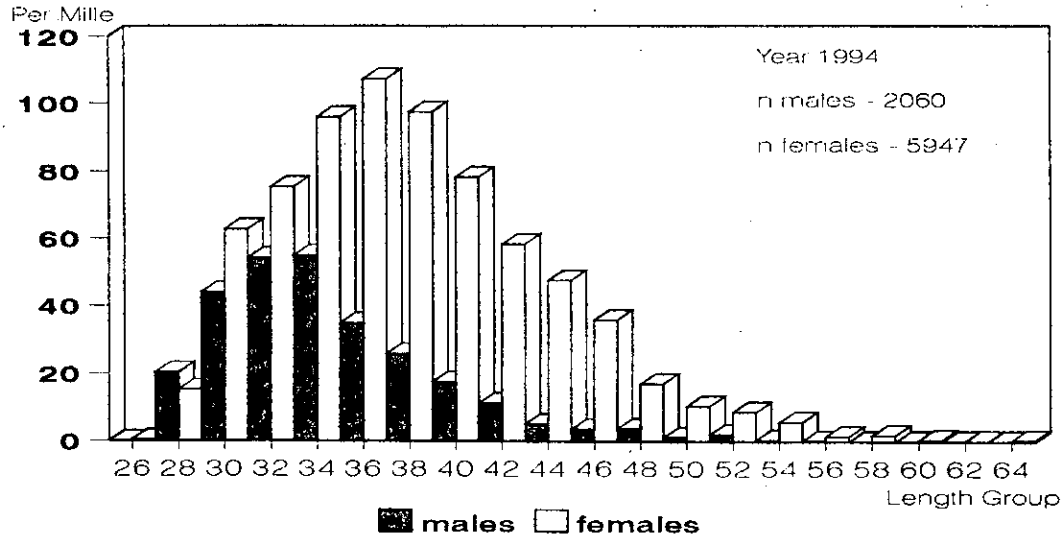



Fig.23 - Annual length composition of Greenland halibut, in Division 3N, trawl fishery in 1994.

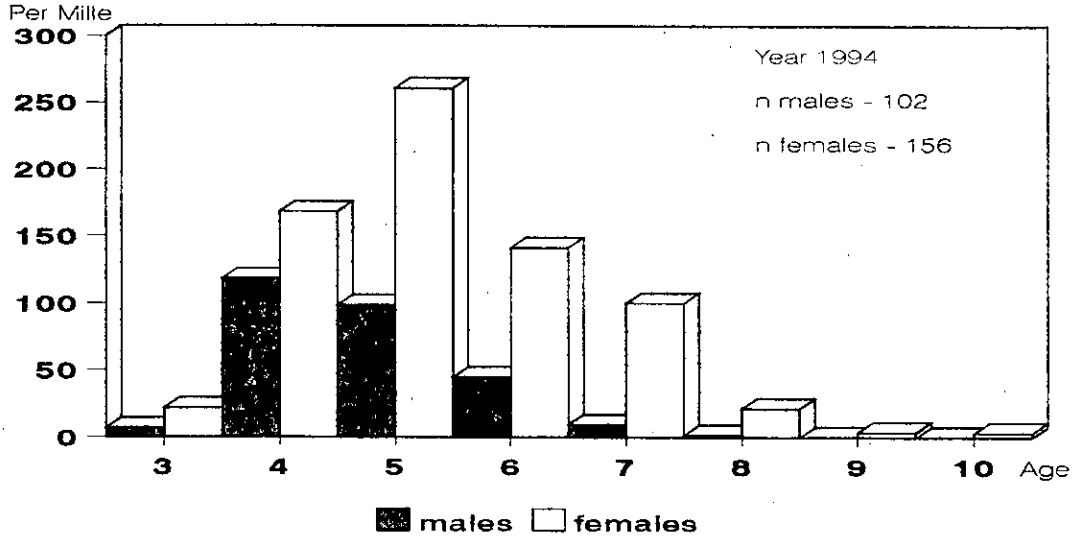



Fig.24 - Annual age composition of Greenland halibut, in Division 3N, trawl fishery in 1994.

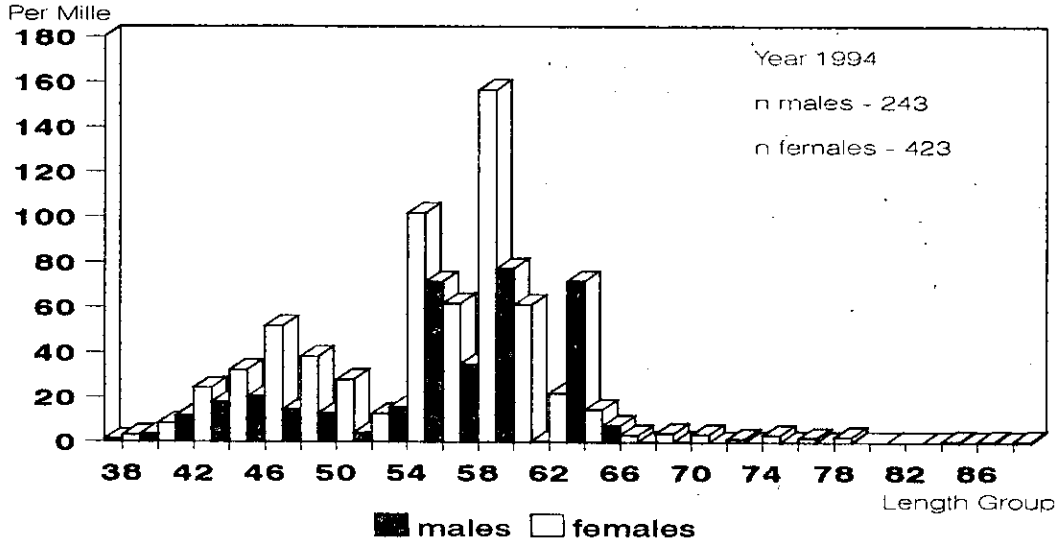



Fig.25 - Annual length composition of Greenland halibut, in Division 3M, gillnet fishery in 1994.

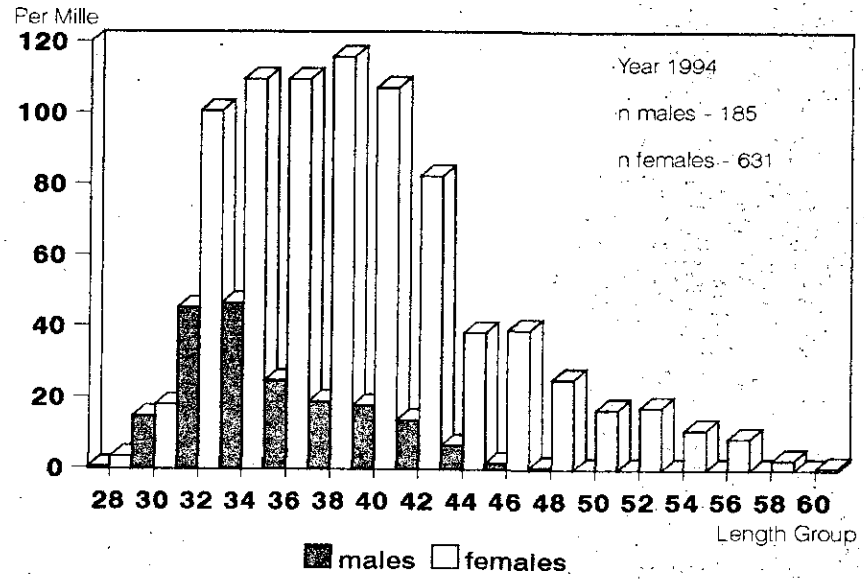



Fig.26 - Annual length composition of American plaice, in Division 3L, trawl fishery in 1994.

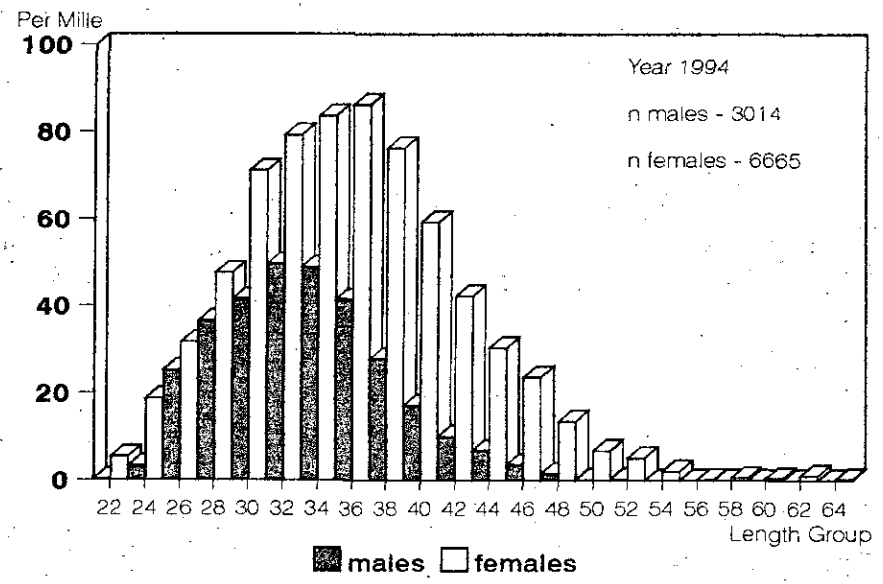



Fig.27 - Annual length composition of American plaice, in Division 3N, trawl fishery in 1994.



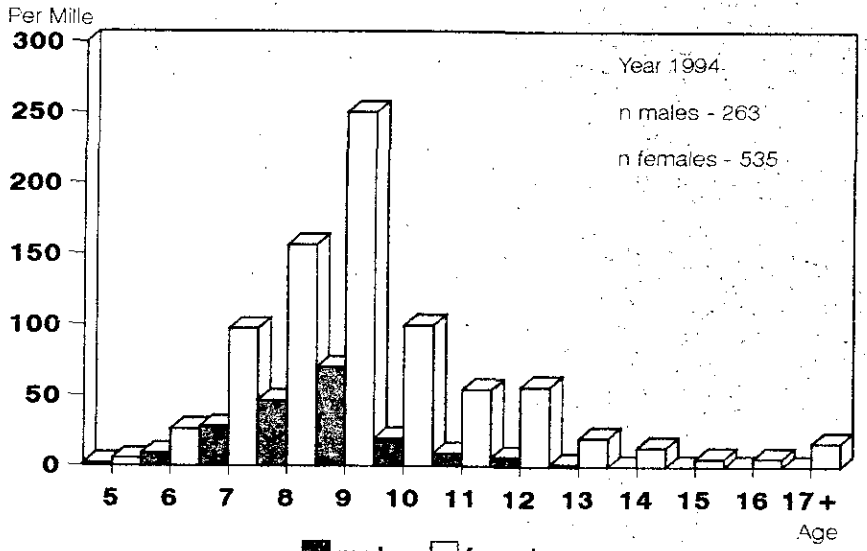



Fig.28 - Annual age composition of American plaice, in Division 3L, trawl fishery in 1994.

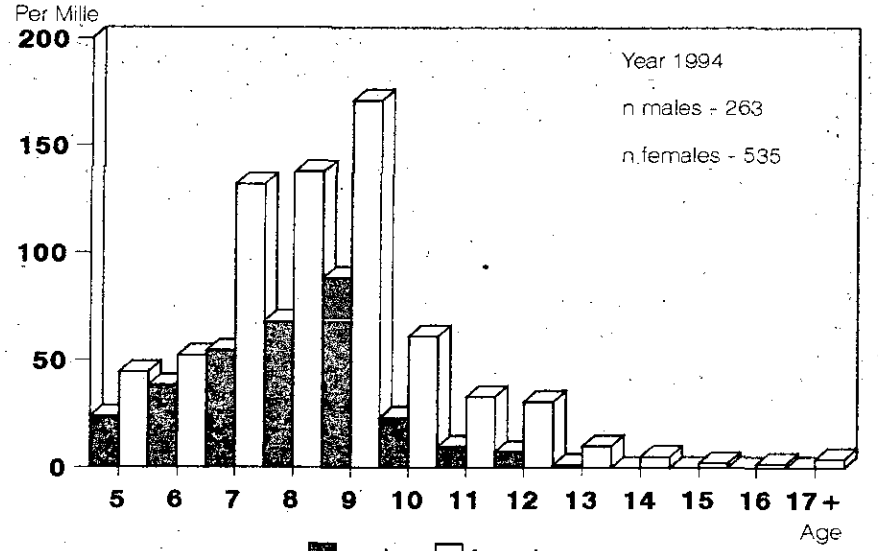



Fig.29 - Annual age composition of American plaice, in Division 3N, trawl fishery in 1994.

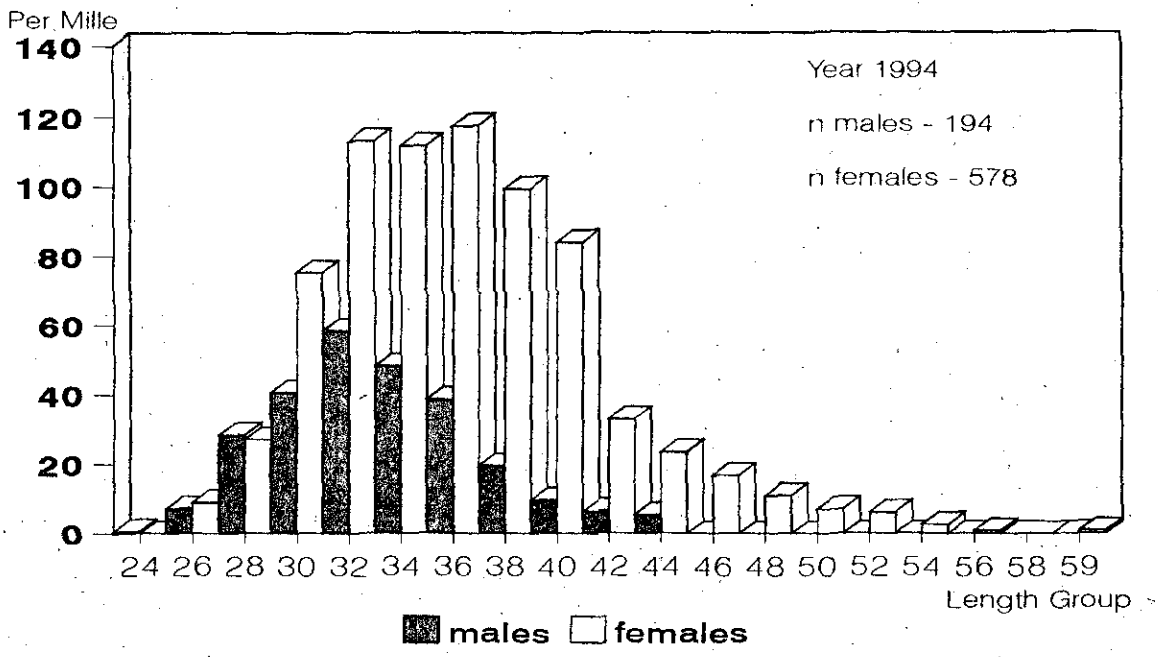



Fig.30 - Annual length composition of American plaice, in Division 3O, trawl fishery in 1994.

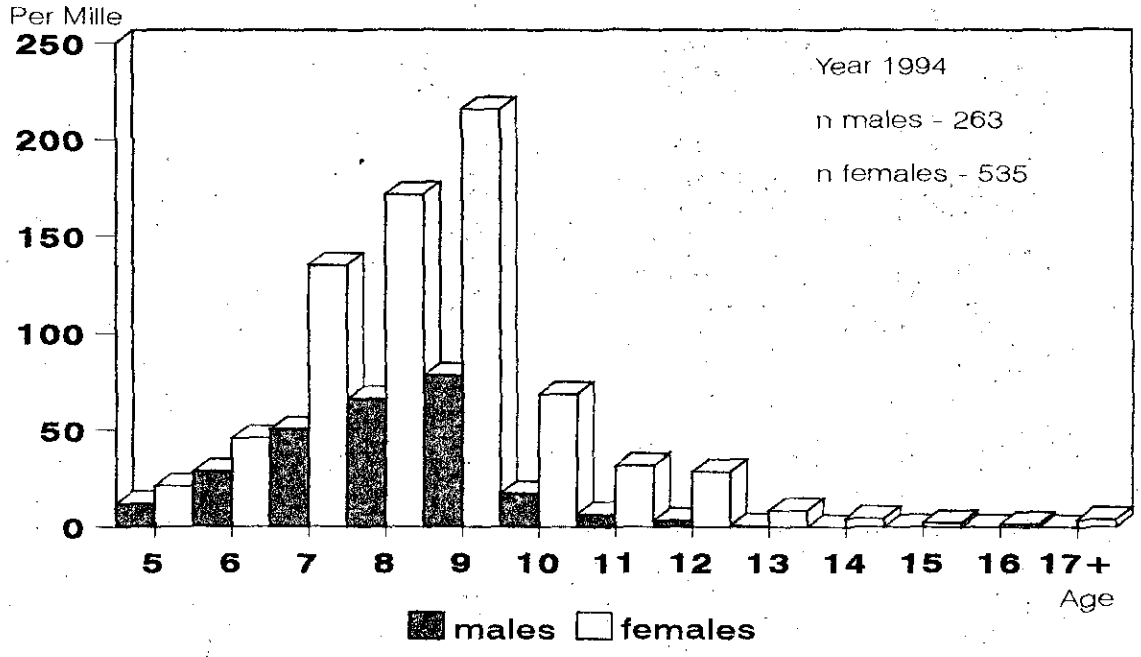



Fig.31 - Annual age composition of American plaice, in Division 3O, trawl fishery in 1994.