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Polish Research Report, 1975

by

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Total Polish catch in the ICNAF Convention Area /Subarea 1-5/ and Statistical Subarea 6 decreases from 285 031 tons in 1974 to 187 647 tons in 1975. Detailed data concerning Polish catches of particular species in SA 1-6 in 1975 and 1974 are contained in table 1.

These data show that in 1975 in SA 1-6 mackerel constituted the largest share in Polish catches /74 281 tons/, then herring /38 473 tons/, sapelein /24 875 tons/, cod /16 384 tons/, greenland halibut /8 447 tons/, squids /6 846 tons/, witch /4 582 tons/, redfish /4 470 tons/ and butterflyfish /3 754 tons/. Other species were of a small significance in Polish catches.

The best catch results of Polish fisheries in 1975 came from fishing grounds of SA 5 /71 005 tons/ and SA 6 /56 255 tons/. Much lower catches were taken in SA 2 /34 159 tons/ and SA 3 /26 159 tons/. In SA 4 catches were insignificant /275 tons/. In 1975 likewise as in 1974 no catches were carried out in SA 1 by Polish trawlers.

The noted decrease in Polish catches in the ICNAF Area in 1975 was to the fact that the catch quotas fixed for cod in Div. 2GH and Div. 2J+3KL and mackerel in SA 5+6 were not attained. In table 2 the attained percent of the ICNAF catch quotas attributed to Poland in 1975 in the particular Stock-Divisions is given.

S U B A R E A 2

Status of the Fisheries

In 1975 Polish trawlers in SA 2 mainly operated in Div. 2J. On the fishing grounds of Div. 2H they almost exclusively fished in July. In 1975 no catches were performed in Div. 2G. In SA 2 a total of 34 159 tons of fish were caught.

In SA 2 the main fish component in 1975 was cod then Greenland halibut, redfish and witch, whereas roundnose grenadier and American plaice constituted an insignificant part only. In Div. 2J catches were mainly carried out from January to March and with a lower intensity from April to September. During the autumn period Polish catches in this division were relatively low. During the period from January to March mainly cod was caught and from April to September - Greenland halibut.

Besides the above mentioned species capelin was fished with pelagic otter trawl in Div. 2J.

The composition of Polish catches in SA 2 in 1975 broken down by species is shown in table 3.

C O D

Cod catches in SA 2 in 1975 reached only 8 502 tons whereas in 1974 they attained 24 002 tons. The total amount of cod catches in 1975 was taken in Div. 2J, whereas in 1974 as many as 900 tons came from Div. 2H.

The bulk of Polish cod catches /7 870 tons/ in Div. 2J was caught during the period from January to March /table 4/.

The biological research in 1974 was exclusively carried out in Div. 2J where a total of 6 630 fish was measured and 404 aged. The results of this research show that in January as well as in February the catch composed of 3-14 years old cod having a length of 21 to 95 cm /table 5/. The main fish component in January was cod of length of 48-59 cm /mean length - 54,0 cm/ being 6-8 years old /1970-1967 year classes/. It should be stressed that in 1975

catches too there was a predominance of cod of the abundant 1968 year class. In 1975 in comparison to 1974 and earlier years a percentage increase in the participation of cod older than 10 years is observed. In Div. 2J it was not observed any abundant year-classes younger than 1968 year class.

#### REDFISH

Redfish catches in SA 2 decreases from 1 088 tons in 1974 to 943 tons in 1975. In 1975, 833 tons, were caught in Div. 2J and only 110 tons in Div. 2H. In 1974 redfish catches in Div. 2H reached 242 tons.

In 1975 redfish in principle was caught during the period from January to July, mainly in February.

In Div. 2J, in January and February 1 198 redfish specimens were measured. In January catches were composed of 20-61 cm specimens /mean length - 29,8 cm/ with a prevalence of 26-31 cm specimens. In February the redfish caught was smaller than in January and was 20-51 cm long /mean length - 27,3 cm/ with a prevalence of fish of 25-28 cm.

#### GREENLAND HALIBUT

Greenland halibut catches in SA 2 amounted to 3 700 tons in 1975, of these 3 624 tons were caught in Div. 2J and 76 tons in Div. 2H.

In comparison with the 5 084 tons caught in 1974 the Polish catches in 1975 showed a significant decrease. This was connected with the higher catches of Greenland halibut in Div. 3K, in 1974.

In Div. 2J Greenland halibut was caught during the period from January to September, mainly in August and also in April and May /Table 6/. In Div. 2H this species was exclusively caught in July.

From the 1 230 specimens of Greenland halibut measured in Div. 2J it results that during that period catches were composed

of specimens of 32-98 cm / average length - 58.1 cm/ where 52-59 cm specimens constituted the most significant part of the catches /according to A.Kosior/.

#### W I T C H

Polish catches of witch in SA 2 decreased from 3 732 tons in 1974 to 542 tons in 1975. This species was mainly fished in Div. 2J.

Witch was mainly caught during the first half of the year mainly during the period from February to April.

In 1975 in SA 2 no biological studies of witch were carried out.

#### A M E R I C A N   P L A I C E

Polish catches of American plaice in SA 2 during the year 1975 constituted a total of 22 tons only caught in Div. 2J. In 1974 total amount of this species taken in SA 2 was 79 tons. This species was caught as an insignificant by-catch in period from March to September.

In January 848 specimens of American plaice were measured and 105 aged in Div. 2J. In that sample length of fish was from 22 to 59 cm /mean length - 38,4 cm/ of an age of 3-15+ years. The bulk of the sample consisted of 32-45 cm specimens of an age above 10 years /according to A.Kosior/.

The majority of American plaice was 14 and 15 years old /year classes from the years 1961 and 1960/.

#### R O U N D N O S E   G R E N A D I E R

Catches of roundnose grenadier in SA 2 in 1975 reached 106 tons i.e. less than in 1974 when 178 tons of this species was fished. Roundnose grenadier was caught in Div. 2J as by-catch with Greenland halibut during the period from January to September.

No biological research of this species was performed in SA 2.

C A P E L I N

Catches of capelin in SA 2 increased from 2 586 tons in 1974 to 20 267 tons in 1975. Capelin was caught in Div. 2H where 5 375 tons were fished and in Div. 2J where the results attained 14 892 tons.

In Div. 2H catches of capelin were carried in September, October and December and in Div. 2J from July to November, mainly from September /Table 7/.

In 1975, in SA 2 no biological research of capelin was carried out.

SUBAREA 3

Status of the Fisheries

In 1975, in SA 3, Polish trawlers mainly operated, as in the previous years, in Div. 3K. Much worse catch results were attained in Div. 3L, 3M, 3N and 3O. In SA 3, in 1975 a total of 29 159 tons of fish were caught.

The main composed of bottom trawl catches in SA 3 in 1975 was cod before all, then Greenland halibut, witch and redfish. Roundnose grenadier and American plaice were fished in a much less quantity. Bottom trawl catches were carried out in Div. 3K, 3L, 3M and 3N. During the period from January to May and from September to December but it must be stressed that autumn catches were insignificant. In Div. 3K the main component of catches were cod and Greenland halibut and at a lesser degree witch and redfish. In Div. 3L witch and American plaice were mainly caught. In Div. 3M cod, in Div. 3N American plaice.

Pelagic otter trawl catches were concerned with capelin. They were performed in Div. 3L, 3M and 3O during the period of April to July. Polish catches in SA 3 in 1975 broken down by species and Divisions are shown in table 8.

### C O D

Cod catches in SA 3 in 1975 amounted to 7 401 tons in 1975 whereas in 1974 they had attained 9 181 tons. In 1975 they originated mainly from Div. 3K /6 665 tons of cod/. They were much less in Div. 3M /677 tons/, as to cod catches in Div. 3L and 3N were insignificant.

The main catches in Div. 3K were obtained in February and March /Table 5/. During the period of June to August no cod fishing was carried out in Div. 3K. In Div. 3M catches were carried from January to March and Div. 3L and 3N, exclusively in March.

Biological studies of cod were performed in Div. 3K only. In February 2 684 specimens were measured and 97 aged there. These studies show /Table 6/ that during the winter period 27-111 cm cod aged 3-13+ was caught /mean length - 53,2 cm/. The basic catches were constituted by 45-59 cm specimens, aged 5-8 years /1970-1967 year classes/. In Div. 3K as in Div. 2J a prevalence of 7 years old fish from the very prolific generation of 1968 was observed. It was also noted that the participation of cod older than 10 years as compared to the year 1974 and earlier was higher. In Div. 3K it was not observed that some of the younger year classes than from 1968 was abundant.

### R E D F I S H

In SA 3 redfish catches increased from 2 972 tons in 1974 to 3 296 tons in 1975. Catches were almost exclusively carried in Div. 3K /3 276 tons/. In Div. 3M and 3N a total of 20 tons was fished.

In 1975, in Div. 3K redfish was caught during the period from January to May and in September, October and December. The principal season of catches of this species was during the period from February to April.

In Div. 3K, in February and March a total of 1 188 redfish were measured. In February the length of redfish caught was in

a range of 18 to 58 cm /mean length - 28,7 cm/ where the main significant length was 25-30 cm. In March much bigger fish was caught namely of length of 32-60 cm /mean length 42,4 cm/ with a serious prevalence of 38-40 cm. specimens.

#### GREENLAND HALIBUT

In 1975 in SA 3 Greenland halibut was exclusively caught in Div. 3K. Catches of this species increased from 2 972 tons in 1974 to 4 747 tons in 1975.

Greenland halibut was fished during the period from January to May and December. The largest quantity /1 141 tons/ was caught in March /Table 6/. In February and March in Div. 3K, a total of 1957 tons of Greenland halibut were measured. From these measurements it results /according to A.Kosior/ that in the February catches there occurred fish of a length of 30-62 cm /mean length 41,7 cm/ with a prevalence of 38-43 cm specimens. In March, however, bigger fish were caught which were of length of 30-92 cm /mean length 48,9 cm/ with a prevalence of 50-57 cm long specimens.

#### WITCH

In SA 3 Polish catches of witch increased from 2 470 tons in 1974 to 4 041 tons in 1975. They mainly came from Div. 3K /3 832 tons/ and in a smaller quantity from Div. 3L /209 tons/.

In Div. 3K witch was caught during the period of January to May and in December but mainly from March to May. In Div. 3L it was caught in March /199 tons/ and a lesser degree in February too /10 tons/.

The study of witch in 1975 concerned exclusively length measurements in Div. 3K where in March 950 specimens were measured. The length of these /according to A.Kosior/ ranged from 32 to 69 cm /mean length 48,9 cm/ with a prevalence of 46-59 cm fish.

### AMERICAN PLAICE

Polish catches of American plaice in SA 3 increased from 627 tons in 1974 to 610 tons in 1975. Catches essentially came from Div. 3H /382 tons/ and in a smaller quantity from Div. 3L /155 tons/ and Div. 3K /73 tons/.

In SA 3, American plaice was caught during the period of January to May and December but mainly in February and March.

Biological research of American plaice was carried out in Div. 3K in March. It consisted of 703 measured and 110 aged specimens. In Div. 3K catches in March consisted of 22-72 cm long fish /mean length 38,9 cm/ and aged 3-15+ /according to A.Kosior/. The basic significance was shown by 30-43 cm specimens aged 9-12 /year classes 1966-1963/. In Div. 3H, in February American plaice of a length of 22-67 cm /mean length 38,7 cm/ and an age of 4-15+ was caught. The most significant was fish of a length of 34-39 cm and age of 10-15+ /year classes 1965-1960 and older/.

### ROUNDNOSE GRENADE

Polish catches of roundnose grenadier in SA 3, in 1975 amounted to 1 393 tons, whereas in 1974 they attained 3 tons only.

This species was exclusively caught in Div. 3K during the period from February to May and mainly in November and December. In 1975 no biological research was performed concerning the roundnose grenadier.

### CAPLIN

Catches of capelin in SA 3 decreased from 6 890 tons in 1974 to 4 608 tons in 1975. of these, 3 881 tons were caught in Div. 3O, 425 tons in Div. 3H and 302 tons in Div. 3L /Table 7/. In Div. 3O catches were carried during the period of May to July /mainly in June and July/ in Div. 3H catches were performed in June and in Div. 3L in April and May. No biological research on capelin was carried out.

#### SUBAREA 4

##### Status of the fisheries

In SA 4 Polish catches in 1975 amounted to 275 tons only and they were performed in Div. 4W; in 1975, however, they amounted to 921 tons. In 1975 they consisted of 230 tons of redfish caught in February and December, and 45 tons of by-catch containing a variety of other fish. In 1975 no biological research was carried out in SA 4.

#### SUBAREA 5 and 6

##### Status of the fisheries

In 1975 the activities of the Polish fisheries in SA 5 concentrated mainly in Subdiv. 5Ze where the prevailing mass of herring and mackerel was taken during the second half of the year. Both these species constituted more than 90% of the catches; Squid *Illex* constituted about 4% of catches /Table 9/, the remaining species such as butterfish, sea robins, alewife, cod, silver hake and others occurred in small quantity and as by-catch only.

In SA 6 the bulk of catches was obtained in Div. 6A during the first quarter of the year. About 80% of catches in that period consisted of mackerel /Table 10/. Squid *Loligo*, whose catches amounted to about 7% of the total was fished in the first quarter of the year mainly. The spring catches of herring were lower than in the previous years and practically, together with such species as butterfish, alewife, sea robins, cod and alia they constituted only a by-catch in the mackerel fishery.

#### MACKEREL

Polish catches of mackerel in 1975 amounted to 74 281 tons which means a decrease of 21 822 tons as compared to the 1974 catches, and 15 719 tons less than the allocated quota for 1975.

This decrease in catch was caused by a decrease in catch per effort as well as a diminution of the fishing effort by the Polish fishing fleet. The highest catch results were obtained in the first and fourth quarter of the year /Table 11/. Likewise as in 1974 about 2/3 of the catches came from SA 6.

The age composition of catches were subjected to significant changes as compared to 1974, in connection with the recruitment into exploited part of the stock the abundant year classes 1973 and 1974 /according to S.Hciński/. As a result of this the participation of one year and two year old fish increased to 66.2% in comparison to 45.9% of the previous year /Table 12/. At the same time there occurred a significant decrease in the mean individual weight of fish in catch, and this together with the decrease in abundance of older ages caused the decrease in catch per effort.

The occurrence of good year classes 1974 and 1973 was confirmed by age composition and good fishing results in January and February 1976. In 1975 20 311 specimens were collected for length measurements and 4 159 specimens for aging both from commercial and research catches.

### H E R R I N G

Herring catches in 1975 totalled to 38 463 tons which means that they were at the level of allocated quota. During the spawning time, September-October, in Subdivision 5Ze due to a significant fishing intensity, 87% of the yearly catches was taken. The catches in the first half year were lower than in the similar period in 1974 /Table 13/.

As in the two previous years the age composition of the catch /according to M.Giedz/ showed a significant prevalence of the very abundant year class 1970 /82.5%/ /Table 14/. The share in catches of the two younger year class /3 and 4 year old fish/ was exceptionally small. The abundance of 2 year old fish in catches made it still impossible to estimate the strength of this year class due to the uncomplete recruitment into fishery.

During survey cruises 4 055 specimens of herring were measured and <sup>the</sup> 422 specimens were collected for age reading. From the commercial catches 16 048 and 1 509 specimens were gathered respectively.

### S Q U I D S

Total catches of squids in SA 5 and 6 amounted to 6 836 tons of which 3 051 tons came from SA 5 and consisted of Squid Illex /the bulk of catches were obtained in the second quarter of the year/ and 3 785 tons came from SA 6 and consisted of Squid Loligo /the bulk of catches were taken in the first and fourth quarter of the year/ /Table 15/.

Measurements of mantle length /ML/ performed on board a commercial vessel in May and June /according to M. Lipiński/ showed that catches of Squid Illex consisted of 8-22 cm ML specimens /mean length about 15 cm/; 5 792 specimens were measured. Squid Loligo commercial catches in May were composed of 5-33 cm ML specimens; 488 specimens were measured.

The data concerning the length of squids were also collected during the survey cruise of R/v "Wieczno" in March and April /163 specimens of squid Illex and 7 070 specimens of squid Loligo were measured/. The length range /data from "Wieczno"/ were: Illex 8-24 cm, Loligo 2-45 cm. Mean length of Illex was 18 cm, mean length of Loligo were 9, 10, 11, 13 cm.

### O T H E R F I N F I S H

The three species discussed earlier /mackerel, herring, squids/ constitute the only object of directed fisheries of the Polish fishing fleet in SA 5 and 6. The catches of remaining species taken as a by-catch amounted to 7 680 tons in 1975, that is not much more than 6% of the total catches in these subareas. About 80% of total by-catches compromise 10 species of finfish broken down in tables 9 and 10. The other 20% /1 533 tons/ are unidentified species. Among these latter on the first place was butterfish /3 754

tons/ then sea robins /852 tons/ cod /481 tons/, silver hake /384 tons/, sea breams /256 tons/ and dogfish /115 tons/. Catches of the remaining three species were insignificant.

### Special Research Studies

#### E n v i r o n m e n t a l   S t u d i e s

From the two trips of R/v "Wieczno" in 1975 planned by the Sea Fisheries Institute to perform environmental and biological surveys in the frame of ICNAF research programs, only one trip took place during the months of March and April. In autumn, due to the prolongation of R/v "Wieczno" repair, it was not possible to carry out larval herring and environmental surveys.

During the period of March and April research was carried on the American shelf in the frame of the Groundfish Survey Project /GSP/ as well as hydrographic, plankton and hydroacoustic surveys.

Within the GSP 61 half hours tows were performed where 23 500 specimens of fish and squids were measured. Samples were also collected to estimate the abundance and distribution of mackerel, herring and squids.

Table I. Polish catches in the ICNAF Subareas 1-5 and Statistical Area 6 broken down by species in 1975 and 1974 (in metric tons).

| Species              | 1975           |              | 1974           |              |
|----------------------|----------------|--------------|----------------|--------------|
|                      | metric tons    | %            | metric tons    | %            |
| Mackerel             | 74 281         | 39.6         | 96 104         | 44.7         |
| Herring              | 38 463         | 20.6         | 39 513         | 18.4         |
| Capelin              | 24 875         | 13.3         | 9 476          | 4.4          |
| Cod                  | 16 384         | 8.7          | 33 749         | 15.7         |
| Greenland halibut    | 8 447          | 4.5          | 7 105          | 3.3          |
| Atlantic halibut     | -              | -            | 3              | +            |
| Witch                | 4 583          | 2.4          | 6 202          | 2.9          |
| Redfish              | 4 470          | 2.4          | 4 865          | 2.3          |
| Butterfish           | 3 754          | 2.0          | 3 508          | 1.6          |
| Roundnose grenadier  | 1 499          | 0.8          | 181            | 0.1          |
| American plaice      | 632            | 0.3          | 706            | 0.3          |
| Silver hake          | 384            | 0.2          | 140            | 0.1          |
| Pollock              | 17             | +            | 4              | +            |
| Searobins            | 852            | 0.5          | 542            | 0.2          |
| Wolfishes            | 21             | +            | -              | -            |
| Bluefish             | 19             | +            | 56             | +            |
| Alewife              | 62             | +            | 1 088          | 0.5          |
| Rough scad           | -              | -            | 11             | +            |
| Dogfish              | 115            | 0.1          | 3 848          | 1.8          |
| Tuna                 | -              | -            | 3              | +            |
| Squid Illex          | 3 051          | 1.6          | -              | -            |
| Squid Loligo         | 3 785          | 2.0          | 6 709          | 3.1          |
| Sea breams           | 256            | 0.1          | 181            | 0.1          |
| Other species SA 2-4 | 164            | 0.1          | 1 148          | 0.5          |
| Other species SA 5-6 | 1 533          | 0.8          |                |              |
| <b>Total</b>         | <b>187 647</b> | <b>100.0</b> | <b>215 142</b> | <b>100.0</b> |

Table 2. Polish catch quota and catches in 1975 in the ICNAF Area.

| Species           | Stocks Divisions | Catch quota for 1975 | Catches in 1975 | Percent catches as to the quota |
|-------------------|------------------|----------------------|-----------------|---------------------------------|
| Cod               | 2 GH             | 4 500                | 0               | 0                               |
|                   | 2J+3KL           | 37 000               | 15 203          | 41.1                            |
|                   | 3 M              | 800                  | 677             | 84.6                            |
|                   | 5 Z              | 487                  | 275             | 56.5                            |
| Redfish           | 2 + 3K           | 4 000                | 4 219           | 105.5                           |
|                   | 3 LN             | 0                    | 19              |                                 |
|                   | 4 VWX            | 970                  | 230             | 23.7                            |
| American plaice   | 3 LNO            | 900                  | 537             | 59.7                            |
| Witch             | 2J + 3KL         | 4 600                | 4 583           | 99.6                            |
| Greenland halibut | 2 + 3KL          | 8 400                | 8 447           | 100.6                           |
| Herring           | 5Z + 6           | 38 400               | 38 392          | 100.0                           |
| Mackerel          | 5 + 6            | 90 000               | 74 281          | 82.5                            |
| Squids            | 5 + 6            | 6 800                | 6 836           | 100.5                           |
| Other species     | 5 + 6            | 10 000               | 6 797           | 68.0                            |

Table 3. Polish catches in Subarea 2 broken down by species and divisions in 1975 (in metric tons).

| Species             | Subarea 2    |               | Total         |
|---------------------|--------------|---------------|---------------|
|                     | 2H           | 2J            |               |
| Cod                 | -            | 8 502         | 8 502         |
| Redfish             | 110          | 833           | 943           |
| Greenland halibut   | 76           | 3 624         | 3 700         |
| Witch               | -            | 542           | 542           |
| American plaice     | -            | 22            | 22            |
| Roundnose grenadier | 1            | 105           | 106           |
| Capelin             | 5 375        | 14 892        | 20 267        |
| Wolffishes          | -            | 11            | 11            |
| Other species       | -            | 66            | 66            |
| <b>Total</b>        | <b>5 562</b> | <b>28 597</b> | <b>34 159</b> |

Table 4. Polish cod catches in Subareas 2 and 3 in 1975 (in metric tons).

| Divisions    | Months      |             |             |            |            |            |          |          |            |            |            |            | Total         |
|--------------|-------------|-------------|-------------|------------|------------|------------|----------|----------|------------|------------|------------|------------|---------------|
|              | Jan.        | Feb.        | Mar.        | Apr.       | May        | June       | July     | Aug.     | Sep.       | Oct.       | Nov.       | Dec.       |               |
| 2J           | 3046        | 3464        | 1360        | 191        | 30         | 104        | -        | 3        | 32         | -          | 41         | 231        | 8 502         |
| 3K           | 139         | 2562        | 2479        | 630        | 105        | -          | -        | -        | 98         | 197        | 237        | 218        | 6 665         |
| 3L           | -           | -           | 36          | -          | -          | -          | -        | -        | -          | -          | -          | -          | 36            |
| 3M           | 201         | 305         | 171         | -          | -          | -          | -        | -        | -          | -          | -          | -          | 677           |
| 3N           | -           | -           | 23          | -          | -          | -          | -        | -        | -          | -          | -          | -          | 23            |
| <b>Total</b> | <b>3185</b> | <b>6026</b> | <b>3875</b> | <b>821</b> | <b>135</b> | <b>104</b> | <b>-</b> | <b>3</b> | <b>130</b> | <b>197</b> | <b>278</b> | <b>449</b> | <b>15 203</b> |

Table 5. Percentage age composition of Polish cod catches in Div. 2J and 3K in 1975 (in %).

| Divisions | Months | Year-classes and age groups |      |      |      |      |      |      |      |      |      |              |      |      | Total % |
|-----------|--------|-----------------------------|------|------|------|------|------|------|------|------|------|--------------|------|------|---------|
|           |        | 1972                        | 1971 | 1970 | 1969 | 1968 | 1967 | 1966 | 1965 | 1964 | 1963 | 1962         | 1961 | 1960 |         |
|           |        | 3                           | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13           | 14   | 15   |         |
| 2J        | Jan.   | 0.5                         | 0.6  | 3.9  | 20.3 | 37.2 | 22.3 | 7.3  | 4.9  | 1.5  | 0.6  | 0.3          | 0.5  | 0.1  | 100.0   |
|           | Feb.   | 0.4                         | 4.6  | 13.9 | 23.4 | 28.8 | 15.0 | 5.0  | 3.9  | 2.3  | 0.7  | 0.6          | 0.5  | -    | 100.0   |
| 3K        | Feb.   | 0.1                         | 2.4  | 13.1 | 22.0 | 32.4 | 14.6 | 5.8  | 5.8  | 1.5  | 0.6  | 1.2<br>/13+1 | -    | -    | 100.0   |

Table 6. Polish Greenland halibut catches in Subareas 2 and 3 in 1975 (in metric tons).

| Divisions | Jan. | Feb. | Mar. | Apr. | May  | June | July | Aug. | Sep. | Oct. | Nov. | Dec. | Total |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 2H        | 1    | -    | -    | -    | -    | -    | 70   | -    | 5    | -    | -    | -    | 76    |
| 2J        | 272  | 325  | 388  | 555  | 581  | 234  | 72   | 767  | 422  | 8    | -    | -    | 3 624 |
| 3K        | 831  | 270  | 1141 | 872  | 706  | -    | -    | -    | 3    | -    | -    | 924  | 4 747 |
| Total     | 1104 | 595  | 1529 | 1427 | 1287 | 234  | 142  | 767  | 430  | 8    | -    | 924  | 8 447 |

Table 7. Polish capelin catches in Subareas 2 and 3 in 1975 (in metric tons).

| Divisions    | M o n t h s |      |      |      |     |      |      |      |      |      |      |      | Total  |
|--------------|-------------|------|------|------|-----|------|------|------|------|------|------|------|--------|
|              | Jan.        | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep. | Oct. | Nov. | Dec. |        |
| 2H           | -           | -    | -    | -    | -   | -    | -    | -    | 3073 | 1497 | -    | 805  | 5 375  |
| 2J           | -           | -    | -    | -    | -   | -    | 971  | 960  | 4879 | 4063 | 4019 | -    | 14 892 |
| 3L           | -           | -    | -    | 202  | 100 | -    | -    | -    | -    | -    | -    | -    | 302    |
| 3N           | -           | -    | -    | -    | -   | 425  | -    | -    | -    | -    | -    | -    | 425    |
| 3O           | -           | -    | -    | -    | 330 | 2154 | 1397 | -    | -    | -    | -    | -    | 3 881  |
| <b>Total</b> | -           | -    | -    | 202  | 430 | 2579 | 2368 | 960  | 7952 | 5560 | 4019 | 805  | 24 875 |

Table 8. Polish catches in Subarea 3 broken down by species and divisions in 1975 (in metric tons).

| Species             | S u b a r e a 3 |     |     |     |      | Total  |
|---------------------|-----------------|-----|-----|-----|------|--------|
|                     | 3K              | 3L  | 3M  | 3N  | 3O   |        |
| Cod                 | 6665            | 36  | 677 | 23  | -    | 7 401  |
| Redfish             | 3276            | -   | 1   | 19  | -    | 3 296  |
| Greenland halibut   | 4747            | -   | -   | -   | -    | 4 747  |
| Witch               | 3832            | 209 | -   | -   | -    | 4 041  |
| American plaice     | 73              | 155 | -   | 382 | -    | 610    |
| Roundnose grenadier | 1393            | -   | -   | -   | -    | 1 393  |
| Capelin             | -               | 302 | -   | 425 | 3881 | 4 608  |
| Wolffishes          | 10              | -   | -   | -   | -    | 10     |
| Other species       | 9               | -   | 37  | 7   | -    | 53     |
| <b>Total</b>        | 20005           | 702 | 715 | 856 | 3881 | 26 159 |

Table 9. Polish catches in Subarea 5 broken down by species and divisions in 1975 (in metric tons).

| Species       | Subarea 5     |            | Total         |
|---------------|---------------|------------|---------------|
|               | 5 Z           | 5 Y        |               |
| Mackerel      | 28 372        | 127        | 28 499        |
| Herring       | 35 673        | 71         | 35 744        |
| Cod           | 275           | -          | 275           |
| Redfish       | 1             | -          | 1             |
| Silver hake   | 125           | 243        | 368           |
| Pollock       | 17            | -          | 17            |
| Bluefish      | 19            | -          | 19            |
| Butterfish    | 1 680         | -          | 1 680         |
| Dogfish       | 46            | -          | 46            |
| Squid Illex   | 3 051         | -          | 3 051         |
| Sea breams    | 31            | -          | 31            |
| Sea robins    | 370           | -          | 370           |
| Other species | 698           | -          | 698           |
| <b>Total</b>  | <b>70 358</b> | <b>441</b> | <b>70 799</b> |

Table 10. Polish catches in Statistical Area 6 broken down by species and divisions in 1975 (in metric tons).

| Species       | Subarea       |               |            | Total         |
|---------------|---------------|---------------|------------|---------------|
|               | 6A            | 6B            | 6C         |               |
| Mackerel      | 34 350        | 11 240        | 192        | 45 782        |
| Herring       | 2 523         | 196           | -          | 2 719         |
| Cod           | 183           | 23            | -          | 206           |
| Sea robins    | 269           | 213           | -          | 482           |
| Butterfish    | 1 136         | 889           | 49         | 2 074         |
| Alewife       | 37            | 25            | -          | 62            |
| Silver hake   | 13            | 3             | -          | 16            |
| Dogfish       | 9             | 60            | -          | 69            |
| Sea breams    | 218           | 7             | -          | 225           |
| Squid Loligo  | 1 257         | 2 528         | -          | 3 785         |
| Other species | 734           | 101           | -          | 835           |
| <b>Total</b>  | <b>40 729</b> | <b>15 285</b> | <b>241</b> | <b>56 255</b> |

Table 11. Polish mackerel catches in Subarea 5 and Statistical Area 6 in 1975 (in metric tons).

| Subarea | Months |       |      |      |      |      |      |      |      |      |      |       | Total  |
|---------|--------|-------|------|------|------|------|------|------|------|------|------|-------|--------|
|         | Jan.   | Feb.  | Mar. | Apr. | May  | June | July | Aug. | Sep. | Oct. | Nov. | Dec.  |        |
| 5       | 914    | 1923  | 904  | 45   | 126  | 161  | 311  | 224  | 1262 | 3745 | 9253 | 9631  | 28 499 |
| 6       | 17640  | 8633  | 7630 | 3845 | 1459 | -    | -    | -    | -    | -    | -    | 6575  | 45 782 |
| Total   | 18554  | 10556 | 8534 | 3890 | 1585 | 161  | 311  | 224  | 1262 | 3745 | 9253 | 16206 | 74 281 |

Table 12. Age composition of Polish mackerel catches in Subarea 5 and Statistical Area 6 in 1975<sup>x/</sup> (by numbers).

| Year-classes | 1975 | 1974  | 1973   | 1972  | 1971  | 1970  | 1969  | 1968  | 1967 | 1966 | -   | Total<br>/x10 <sup>3</sup> / |
|--------------|------|-------|--------|-------|-------|-------|-------|-------|------|------|-----|------------------------------|
| Age-groups   | 0    | 1     | 2      | 3     | 4     | 5     | 6     | 7     | 8    | 9    | 9+  |                              |
| No.          | -    | 76309 | 147211 | 29037 | 38829 | 15869 | 11817 | 11817 | 4727 | 1688 | 337 | 337 641                      |
| %            | -    | 22.6  | 43.6   | 8.6   | 11.5  | 4.7   | 3.5   | 3.5   | 1.4  | 0.5  | +   | 100.0                        |

<sup>x/</sup> The age composition is based on data from January to June period. Some changes are to be expected when additional data for later months are included.

Table 13. Polish herring catches in Subarea 5 and Statistical Area 6 in 1975 (in metric tons).

| SA    | Months |      |      |      |     |      |      |      |       |       |      |      | Total  |
|-------|--------|------|------|------|-----|------|------|------|-------|-------|------|------|--------|
|       | Jan.   | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep.  | Oct.  | Nov. | Dec. |        |
| 5     | 15     | 23   | 132  | 189  | 79  | 1    | 1160 | 1695 | 16602 | 13659 | 1786 | 403  | 35 744 |
| 6     | 112    | 303  | 1188 | 745  | 334 | 28   | -    | -    | -     | -     | -    | 9    | 2 719  |
| Total | 127    | 326  | 1320 | 934  | 413 | 29   | 1160 | 1695 | 16602 | 13659 | 1786 | 412  | 38 463 |

Table 14. Age composition of Polish herring catches in Subarea 5 in 1975 (by numbers).

| Year-classes | 1973 | 1972 | 1971  | 1970    | 1969   | 1968  | 1967  | -     | Total               |
|--------------|------|------|-------|---------|--------|-------|-------|-------|---------------------|
| Age groups   | 2    | 3    | 4     | 5       | 6      | 7     | 8     | 8+    | /x10 <sup>3</sup> / |
| No.          | 51   | 385  | 7 391 | 133 558 | 13 845 | 4 193 | 1 359 | 1 162 | 161 944             |
| %            | -    | 0.2  | 4.6   | 82.5    | 8.6    | 2.6   | 0.8   | 0.7   | 100.0               |

Table 15. Polish squid catches in Subarea 5 and Statistical Area 6 in 1975 (in metric tons).

| Species         | Subarea | Months |      |      |      |      |      |      |      |      |      |      |      | Total |
|-----------------|---------|--------|------|------|------|------|------|------|------|------|------|------|------|-------|
|                 |         | Jan.   | Feb. | Mar. | Apr. | May  | June | July | Aug. | Sep. | Oct. | Nov. | Dec. |       |
| Squid<br>Illex  | 5       | -      | -    | -    | 40   | 1032 | 1524 | 416  | 37   | 2    | -    | -    | -    | 3 051 |
| Squid<br>Loligo | 6       | 940    | 756  | 179  | 122  | 23   | -    | 3    | 147  | 9    | 3    | 412  | 1191 | 3 785 |
| Total           | 5+6     | 940    | 756  | 179  | 162  | 1055 | 1524 | 419  | 184  | 11   | 3    | 412  | 1191 | 6 846 |