## **International Commission for**



## the Northwest Atlantic Fisheries

Serial No. 3387 (D.a.73)

ICNAF Summ. Doc. 74/48

#### ANNUAL MEETING - JUNE 1974

#### ROMANIAN RESEARCH REPORT, 1973

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Romanian trawlers fished in Subareas 2, 3 and 5 and in Stat. Area 6 during 1973, taking a total of lo,544 tons, increasing slighthy from 9,355 tons, in 1972 (Table 1).

Table 1. Remanian catch in Northwest Atlantic, 1970-1973

Subarea	1970	1971	1972	1973
2	4,665	1,034	1,123	397
3	3,274	2,330	2,889	3,005
4	85	37	•••	-
5	2,258	5,026	2,797	1,196
6		3,669	2,546	5,946
Total	10,282	12,096	9,355	10,544

Principal species caught were mackerel (5,875 tons), cod (2,672 tons), redfish (31c tons), herring (296 tons) and american plaice (273 tons), in 1973.

#### Subarea 2

#### A. STATUS OF THE FISHERIES

The catch by romanian trawlers in Subarea 2 decreased from 1,123 tons in 1972 to \$97 tons, in 1973 (Table 2). All of the 1973 catch was taken in Dir. 2 J.

Table 2. Romanian catches in Subarea 2, 1972-1973

	1972	1973
	20, 2H, 2J	<b>2</b> J
Days fished	64	21
Catch per day (tons)	17.5	18.9
Hours fished	695	219
Catch per hour (tons)	1.6	i.8
Total catch (tons)	1,123	3 <del>9</del> 7
Uod	674	34o
Redfish	231	28
American plaice	42	
Greenland halibut	120	2 <u>3</u>
Other fish	46	í

### Subarea 3

## A. STATUS OF THE FISHERIES

In this aubarea the total catch was 3,005 tons, about loo tons higher than in 1972 (Table 3). Composition of catches were basically the same as in the previous year, cod.

Table 3. Romanian catches in Subarea 3, 1972-1973

	1972	1975
Days fished	177	177
Catch per day (tons)	i6.3	17.0
Hours fished	1,744	1,726
Catch per hour (tons)	1.6	1.7
Total catch (tons)	2,889	7 00F
od (tomb)	2,020	3,005
Redfish	142	2,331 282
American plaise	621	
Witch	OZZ	247
Greenland halibut	44	56
Yellowtail	***	75
Other fish	- 60	_4
	62	le

Significant changes in species composition from 1972 to 1973 were increases in the catches of cod, redfish and american plaice in Div. 3 K (Table 4).

Table 4. Romanian catches in Subarea 5 by division in 1972-1973

	<del>-</del>		1972				1	973	
Days fished Catch per day	103	24	20	25	2	3	162	11	4
(tons) Hours fished Catch per hour	19.6 950	9.6 218	16.5 266	11.1 276	12.0 19	6.1 15	17.8 1,588	5.9 103	10.5 35
(tons)	2.1	1.0	1.2	1.0	1.3	1.3	1.8	0.6	1.2
Total catch (tons)  Cod Redfish Amer.plaice Witch Gre.halibut Yellowtail Other fish	2,005 1,797 98 55 - 15 -	231 28 8 181 - 3 -	331 180 33 106 - 12	279 5 2 247 - 13 - 12	24 5 - 19 - -	20 6 - 14 - -	2,898 2,277 277 213 47 75 -	66 31 57 9 - 4	41 23 17 -

Length measurements for ced, redfish, american plaice, witch and yellowtail were made on board commercial trawler in Div. 3 K. In 1973 age determinations were made from scales.

1. Cod. The mean length of cod in Div.3 K was 45.62 cm, and larger fish of over 60 cm amounted to only 8% of the total number caught. About 85% of the cod were 4-7 years old (1966-1969 years-classes)(Fig.1 and Table 5).

Table 5. Age composition of cod catches in Subarea 3, in 1973

Year-class Age	1970 3	1969 4	1968 5	1967 6	1966 7	1965 8	1964 9	1963 10
%	2	13	<b>36</b>	24	12	6	5	2
Mean length	31.0	36.4	41.8	46.1	51.3	57.1	59.8	67.8

2. Redfish. Length of redfish ranged from 22 to 58 cm and the mean length was 31.8 cm and the mean weight, 576 g.

The most numerous component in the catches were fish of 24 to 32 cm and 7 to 10 years (Fig.1).

- 3. American plaice. In Div.3 K 184 fish were measured in February. The length ranges were 18-55 cm with fish of 26-37 cm being the most numerous. The mean length was 32.7 cm (Fig.2).
- 4. Witch. Length of witch range was 31-63 cm. However, fish of 44-49 cm were most numerous. The mean length was 48.4 cm (Fig. 2).
- 5. Yellowtail. The length of the fish in Div. 3 K varied from 27 to 45 cm but were mainly 37-42 cm and weight 450-620 grams (Fig. 2).

#### Subarea 5

#### A. STATUS OF THE FISHERIES

In this subarea the fishery was carried out by only 6 vessels; romanian catch decreased from 2,797 tons in 1972 to 1,196 tens in 1973. Mackerel was the most important species taken, followed by considerably smaller catches of herring (Table 6).

Table 6. Romanian catches in Subarea 5. in 1972-1973

	1972	1973
Days fished	161	61
Catch per day (tons)	17.3	19.6
Hours fished	2,222	467
Catch per hour(tons)	1.2	2.5
Total catch (tons)	2,797	1,196
Herring	2,052	57
Mackerel	514	9 <b>0</b> 5
Haddock	14	-
Redfish	14	_
Yellowtail	31	_
Silver hake	<u>-</u>	_ K
Butterfish	-	5 <b>5</b> 7
Scup	-	ší
Other fish	172	91

About 60% of the total catch was the most taken during April, only 15% in March and the remainder in February, About the same catch were taken in Subdiv.5 Ze and 5 Zw, in 1973 (Table 7).

Table 7. Romanian catches in Subarea 5 by division, in 1972-1973

	19	72	1973		
	5 Z <b>●</b>	5 Zw	5 Ze	5 2₩	
Days fished Catch per day (tons) Hours fished Catch per hour (tons)	149 18.0 2,103 1.3	12 9.2 119 0.9	35 16.9 282 2.1	26 23.1 185 3.2	
Total catch (tons) Herring Mackerel Haddock Redfish Yellowtail Silver hake Butterfish Scup Other fish	2,686 2,047 458 14 14 31 -	111 5 56 - - - - - - 50	593 36 474 - - - 4 30 18 31	603 22 431 - - 1 26 63 60	

## Statistical Area 6

## A. STATUS OF THE FISHERIES

The catch by the trawl fleet was about 3,000 tons more than in 1972 (Table 8).

Table 8. Romanian catches in Statistical Area 6, in 1972-1973

	1972	1973
Days fished	143	272
Catch per day (tons)	17.7	21.7
Hours fished	1,533	2,414
Catch per hour (tons)	1.7	2.4
Total catch (tons)	2 <b>,5</b> 45	5,946
Mackerel	2,003	5,9 <del>46</del> 4,971
Herring	96	239
Silver hake	168	44
Red hake	43	-
Butterfish	3	96
Seup	12	294
Yellowtail	42	-
Sharks	-	56
Other fish	112	96
Squid	66	150

The remanian fleet operated in Div.6 A and 6 B with most of the catch being taken in the latter division, only in 1973 (Table 9).

Table 9. Romanian catches in Statistical Area 6 by division, in 1972-1973

	1972		1973	
	6 A	6 B	6 A	6 B
Days fished	111	32	19	253
Catch per day (tons)	19,9	13.5	24.5	21.6
Hours fished	1,237	296	204	2,210
Catch per hour (tons)	1.7	1.5	2.7	2.2
Total catch (tons)	2,112	433	466	5,480
Mackerel	1,687	315	327	4.644
Herring	74	22	22	217
Silver heke	163	5	6	<b>38</b>
Red hake	43	-	_	-
Butterfish	3	_	16	80
Scup	12	-	28	2 <b>6</b> 6
Yellowtail	59	4	_	_
Sharks	***	_	23	33
Other fish	35	77	26	33 7•
<b>S</b> quid	56	lo	18	132

Length measurements were carried out on mackerel on board commercial trawlers in April only (most catch - 2,809 tons on the 2,615 tons in Div.6 B), considering the characteristic of the sise composition in 1973. The mean length was 32.5 cm and the mean weight 359 grams. The length range was 21-42 cm, fish of 31-35 cm being the most numerous (Fig.3).

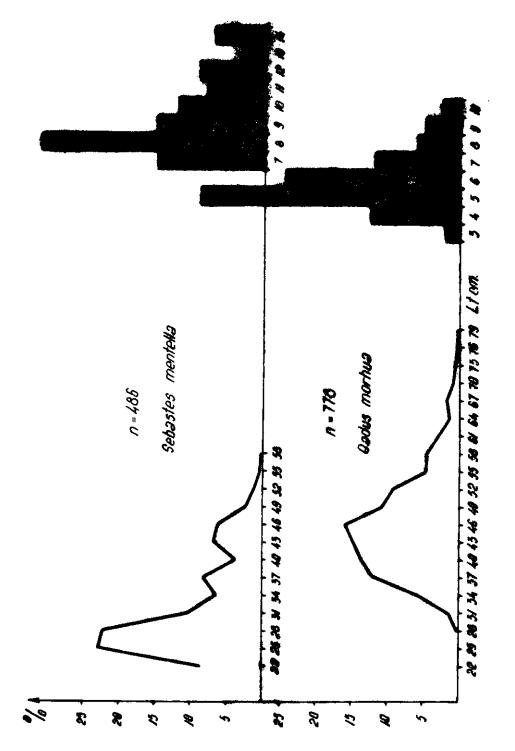


Fig.1 - Age and size composition of redfish and cod in Div. 5K from commercial trawler, Frebruary 1973.

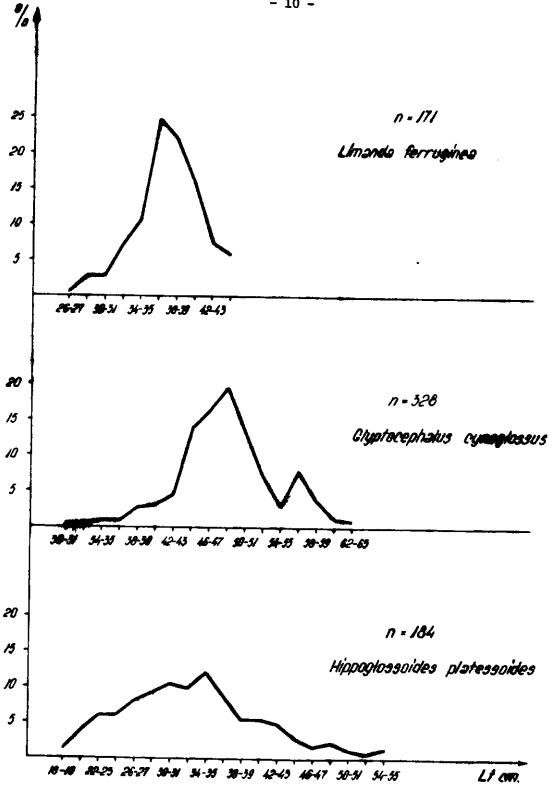


Fig. 2 - Size composition of yellowtail (3L), with (3L) and american plaine (3 Ry Grem commercial trawler, Rebruary 1973.

