



SCIENTIFIC COUNCIL MEETING – JUNE 2012

On historical experience of the Ukraine fishery in the Northwest Atlantic

Paramonov V.V., Korzun Yu.V., Rebik S.T., Kukharev N. N.
Southern Scientific Research Institute of Marine Fisheries and Oceanography (YugNIRO), Kerch, Ukraine

Abstract

Soviet trawlers have exploited the fishery resources of the Northwestern Atlantic (NWA) since the late 1950's. Vessels which were based in the Ukrainian ports Ilyichevsk, Odessa, Sevastopol and Kerch were an essential part of fishery and searching fleet of the USSR. The Soviet vessels based in Ukraine carried out the most active fishery in the NWA from 1971 till 1977 within the International Commission of the Northwest Atlantic Fisheries – ICNAF. During this period, between 2 and 25 Ukrainian trawlers carried out their annual fishery in the NWA. They belonged to the Soviet state concern «Yugryba», and their total catch varied between 28.0-132.4 thousand tons, amounting to 2-12 % of the Soviet catch in NWA. The greater part of those catches consisted of capelin, mackerel and hake. Herring, squid, cod, flounder and rockfish were also caught. In the period from 1991 when Ukraine became an independent state the vessels of the Ukrainian ship-owners carried out their fishery for northern shrimp in NWA under the flags of other countries. Having joined NAFO in 1999 Ukraine gained access to NWA resources within NAFO and its vessels continued their fishery under the Ukrainian flag. Also, Ukrainian scientists investigated fishery resources of NWA both on research and fishing vessels. Given this historical presence, the Ukraine fleets have established itself as a fishing country in NWA

Introduction

Soviet trawlers have started exploitation of fishery resources of the Northwest Atlantic (NWA) since the late 1950's. Vessels which were based in the Ukrainian ports Ilyichevsk, Odessa, Sevastopol and Kerch were the essential part of fishery and searching fleet of the USSR. With the break up of the Soviet Union, Russia and the Baltic States became the only assignees in NAFO of the USSR allocation. This paper will document the historical presence of Ukrainian fishers in the NWA

Materials and methods

In the present paper, the statistical data on operations of fishing and search vessels of the Ministry of Fisheries of the USSR were used. Those vessels belonged to the Soviet state concern «Yugryba», their ports of registry being located in territory of the modern Ukraine (Ilyichevsk, Odessa, Sevastopol, and Kerch). Besides, the authors used historical data of the Department of Searching and Research Fleet of the Southern basin «Yugrybpromrazvedka» up to 1989, which operated as the fishing company «Yugrybpoisk» from 1993 as well as data of the Southern Scientific Research Institute of Marine Fisheries and Oceanography (YugNIRO, Ukraine, Kerch) and the published information.

Results

Fishery of the Ukrainian vessels

Before 1991 Ukraine was a part of the Soviet Union, and, accordingly, all the catches of Ukraine were accounted by FAO statistics as catches of the USSR. Ukraine began to submit to FAO its national fishery statistics from 1991 when it became an independent state. Subsequently, YugNIRO workers used historical data of «Yugrybpromrazvedka» and fishing company «Yugrybpoisk» and picked out the catch of fishing vessels based in the territory of Ukraine from the total Soviet statistics, the NWA region included.

Fishery by the Soviet vessels based in Ukraine was carried out in the Northwest Atlantic in several stages. For the first time the trawlers based in Ukraine began their fishery operations in the Northwest Atlantic in 1971 and continued with them till 1979. During this period, before introduction of the economic zones, the vessels operated on the fishery grounds of New England, Norfolk, Nova Scotia, Labrador, Newfoundland under the International Commission of the Northwest Atlantic Fisheries - ICNAF [1]. The annual catch of those vessels varied from 28.0 to 132.4 thousand tons (Table 1). These catches accounted for 2 to 12 % of the Soviet catch in NWA. The catch per a

vessel-day of fishing varied from 23 to 73 t. The main fishery species were capelin, mackerel and hake (Table 2). Herring, short-finned squid, cod, flounder and rockfish were also caught. In total more than 37 species of fish and commercial invertebrates were captured.

The second stage of fishery and research activity of the vessels based in Ukraine began in 1990, after an 11-years break, and proceeded till 1999 when Ukraine joined NAFO. During this period the Ukrainian vessels carried out their fishery in the NAFO area under the flags of the USSR, Russia, Latvia and Lithuania as Ukraine was not a NAFO member. Thus, in 1990 research vessel «Ignat Pavlyuchenkov» (the port of registry is Kerch, Ukraine) carried out researches on the Flemish Cap bank under the Soviet flag, and in 1996-2000 two Ukrainian owned fishing trawlers fished for shrimp on bank Flemish Cap under the Russian flag (Tables 3 and 4).

The third stage started in 1999 when Ukraine became a full member of NAFO and began fishing in the NRA under its own state flag. From 2001 till 2006 one medium-capacity and one large-capacity trawlers fished for shrimp on the Grand Banks of Newfoundland and the Flemish Cap bank (Tables 3 and 4). The combined catch of the above mentioned vessels were 15-581 t a year. There has been no fishing in the NAFO area by vessels under the Ukraine flag since 2007.

Scientific research

The Ukrainian scientists investigated NWA fishery resources both on research and fishing vessels. Thus, in 1990 research vessel «Ignat Pavlyuchenkov» based in Ukraine with a group of the Spanish and Ukrainian experts onboard carried out bottom trawling survey on the Flemish Cap bank.

With the recommendations of NAFO Scientific Council and Conservation and Enforcement Measures, scientist from the Laboratory of the Bioresources of the World Ocean in YugNIRO have conducted hydrometeorological, biological and fishery monitoring in the NWA. Beginning in 2001, Ukrainian scientists Yu. Korzun, V. Lednichenko, V. Paramonov served as NAFO scientific observers onboard Ukrainian, Latvian and Lithuanian vessels. The results of this research were submitted in scientific publications (Korzun 2006 a&b, 2007, 2009) and reports of observers to NAFO Secretariat.

Discussion and the conclusion

The vessels based in Ukraine under different flags carried out fishery in NWA from 1971 till 2006. In the specified period those vessels caught almost 450 thousand tons of fish and commercial invertebrates, and research operations were also carried out.

There has not been a Ukrainian fishery conducted in the NWA Since 2007. The discontinuation of the Ukraine fishing activity in NWA is driven by economic reasons, in particular, doubling of fuel cost over the last number of years, no increase in price of the industrial fish, no national subsidizes, coupled with the extremely low level of quotas in the NAFO zone.

This paper has illustrated the historical presence of the Ukraine fleet in the NWA as part of the old Soviet Union and under flags of other countries prior to its entrance into NAFO. Given this historical presence, the Ukraine fleets have established itself as a fishing country in NWA

References

1. Anderson E. D.. 1993. The ICNAF/NAFO History from 1945 to 1997 J. Northw. Atl. Fish. Sci., Vol.23: 75-94
 2. Anyanova E. 2008. Rescuing the Inexhaustible... (The Issue of Fisheries Subsidies in the International Trade policy)//Journal of International Commercial Law and Technology. Vol. 3, Issue 3 (2008)
- Korzun Yu.V., 2006. Some data on biology of northern shrimp (*Pandalus borealis* Kroyer) on the Flemish Cap bank // Abstracts of VII All-Russian Scientific Conference on commercial invertebrates. - Murmansk. – 2 p. (In Russian)
- Korzun Yu.V., 2006. On biology of short-finned squid (*Illex illecebrosus* LeSueur) on the Flemish Cap bank // Abstracts of VII All-Russian Scientific Conference on commercial invertebrates. - Murmansk. – 2 p. (In Russian)
- Korzun Yu.V., 2007. Some features of biology of north shrimp *Pandalus borealis* on the Newfoundland bank during period preceding molting//Marine commercial invertebrates and algae (biology and fishery). To 70-th anniversary of B.G. Ivanov: VNIRO Proceedings / Editor-in-Chief V.I. Socolov. – M.: VNIRO Publishing. – V. 147. – P. 226-229. (In Russian)

4. Korzun Yu.V., 2009. Shrimp fishery in the North-Western Atlantic Ocean. – Kerch: YugNIRO. – V. 47. – P. 190-205. (In Russian)
5. Korzun Yu.V., at all, 2009. On availability of the World Ocean bioresources for Ukrainian fishery. – Kerch: YugNIRO. – V. 47. – P. 112-135. (In Russian)

Research Documents

1. Korzun Yu.V., 2006. The Ukrainian shrimp fishery on Flemish Cap (Division 3M) and division 3L in 2006. NAFO SCR Doc. 06/77, 4 p.
2. Paramonov V.V., 2007. The Latvian Redfish Fishery in NAFO regulatory Area in 2006. NAFO, SCR Doc. 07/02, 3 p.
3. Paramonov V.V., 2007. Migrations of adult beaked redfish (*Sebastes mentella*) in North Atlantic in Periods of Fishing. NAFO, SCR Doc. 07/04, 9 p.
4. Paramonov V.V., 2008. Migrations of adult beaked redfish (*Sebastes mentella*) in North Atlantic in 2007. NAFO, SCR Doc. 08/04, 5 p.
5. Paramonov V.V., 2009. Comparative length-weight characteristics of beaked redfish *Sebastes mentella* in the different regions of fishing in the opened part of North Atlantic. NAFO SCR Doc. 09/04, 40 p.
6. Paramonov V.V., 2010. Infestation of beaked redfish *Sebastes mentella* by copepod *Sphyrion lumpi* in the different regions of fishing in the opened part of North Atlantic. NAFO SCR Doc. 10/2, 17 p.
8. Paramonov V.V., 2010. Pigmented patches of beaked redfish *Sebastes mentella* in the different regions of fishing in the opened part of North Atlantic. NAFO SCR Doc. 10/3, 19 p.
9. Paramonov V.V., 2011. Depth of catch of redfish (*Sebastes mentella*) and dependence of CPUE and length-weight characteristics from the depth of catch in North Atlantic. NAFO SCR Doc. 11/002, 23 p.

Table 1. Number of Soviet vessels trawlers of the Ukrainian basing and total catch in Northwest Atlantic in 1971-1977

Type of vessel	1971	1972	1973	1974	1975	1976	1977
RTMA*	1-7	1-7	3		1-7	1-5	1
RTMT*	1-2	1-2	1-5	1-6	1-10	2-5	1-5
RTMS*					2	1-3	1
PPR*			1	1-5	2-5	1-3	1-3
BMRT*					1	1	
Total vessels	2-9	2-9	5-9	2-11	7-25	6-17	4-10
Total catch, ton	40777	31871	27971	63664	132442	101637	46276

*- see Table 5

Table 2. Catch composition of the fleet of Ukrainian basing in Northwest Atlantic in 1971-1977 (ton)

English name	Scientific name	1971	1972	1973	1974	1975	1976	1977	Total
Atlantic argentine	<i>Argentina silus</i>	58	429	1	9	565			1062
Righteye flounders (NS)	<i>Pleuronectes spp.</i>	665	121	183	91	680	48	300	2088
American plaice	<i>Hippoglossoides platessoides</i>	60	6						66
Greenland halibut	<i>Reinhardtius hippoglossoides</i>	27		19	4	19	17		86
Atlantic cod	<i>Gadus morhua</i>	96	462	123	49	840	57	117	1744
Haddock	<i>Melanogrammus aeglefinus</i>	15	166	32	36	77	46		372
Pollock (=Saithe)	<i>Pollachius virens</i>	14	132	29	4	69			248
Blue whiting	<i>Micromesistius poutassou</i>	2							2
Red hake	<i>Urophycis chuss</i>	3092	478	1400	403	286	254	851	6764
White hake	<i>Urophycis tenuis</i>						120	2	122
Silver hake	<i>Merluccius bilinearis</i>	11334	3088	7542	16007	31151	16817	13262	99201
Gadiformes (NS)	<i>Gadiformes</i>	3572	775	116	85				4548
Atlantic herring	<i>Clupea harengus</i>	3751	826	1842	1816	1188	423	578	10424
Round sardinella	<i>Sardinella aurita</i>	485	11						496
Horse mackerels	<i>Trachurus spp.</i>	8	16	256	37				317
Atlantic butterflyfish	<i>Peprilus triacanthus</i>	52	5	116	25	47			245
Atlantic mackerel	<i>Scomber scombrus</i>	8331	13455	4120	23334	27812	20234	6400	103686
Black scabbard-fish	<i>Aphanopus carbo</i>	6	30	5					41
Atlantic redfishes	<i>Sebastes sp.</i>	51		101	178	1155	698	4547	6730
Porgies	<i>Sparidae</i>	42	533	790	141	290	701		2497
Atlantic searobins	<i>Prionotus spp.</i>	3	117	256		53		248	677
Ocean pout	<i>Macrozoarces americanus</i>	29	2	50					81
Bluefish	<i>Pomatomus saltatrix</i>	3							3
Croakers, Drums (NS)	<i>Sciaenidae</i>		66			10	164		240
Capelin	<i>Mallotus villosus</i>			420	10100	45645	41431	11251	108847
Various sharks (NS)	<i>Selachimorpha</i>			89	15		58	869	1031
John dory	<i>Zeus faber</i>			24					24
Baird's slickhead	<i>Alepocephalus bairdii</i>			5					5
Roundnose grenadier	<i>Coryphaenoides rupestris</i>					62			62
Wolffishes	<i>Anarhichas spp.</i>					24			24
Skates (NS)	<i>Raja spp.</i>					514			514
American angler	<i>Lophius americanus</i>							101	101
Finfishes (NS)	<i>Pisces</i>	8317	10620	9023	10096	19795	10239	3534	71624
Short-finned squid	<i>Illex illecebrosus</i>	745	533	1429	234	2152	10330	4216	19639
Long-finned squid	<i>Loligo pealei</i>				1000				1000
American lobster	<i>Homarus americanus</i>	19							19
Northern prawn	<i>Pandalus borealis</i>					8			8
All species		40777	31871	27971	63664	132442	101637	46276	444638

Table 3. Total Catch of Ukrainian fleet in Northwest Atlantic in 1990-2006 (ton)

Type of vessel	1990	1996	1997	1999	2000	2001	2003	2004	2006
BMRT*							1	1	1
TSM*						1			
SRTM*		2	2	2	2				
Total vessels	1	2	2	2	2	1	1	1	1
Total catch	15	504,2	20,7	188	309,4	405	389	581	397

* - see Table 5

Table 4. Catch composition of Ukrainian fleet in Northwest Atlantic in 1990-2006 (ton)

English name	Scientific name	1990	1996	1997	1999	2000	2001	2003	2004	2006	Total
Greenland halibut	<i>Reinhardtius hippoglossoides</i>								0,2		0,2
White hake	<i>Urophycis tenuis</i>								0,2		0,2
Atlantic redfishes	<i>Sebastes spp.</i>							6	6,7		12,7
Croakers, Drums (NS)	<i>Sciaenidae</i>								0,1		0,1
Wolffishes	<i>Anarhichas spp.</i>							1	0,5		1,5
Raja rays (NS)	<i>Raja spp.</i>								0,2		0,2
American plaice	<i>Hippoglossoides platessoides</i>								79,7		79,7
Anchovy	<i>Anchoa mitchilli</i>								0,8		0,8
Yellowtail flounder	<i>Limanda ferruginea</i>							1	32,9		33,9
Northern prawn	<i>Pandalus borealis</i>	15	504,2	20,7	188	309,4	405	381	459,6	397	2679,9
Total		15	504,2	20,7	188	309,4	405	389	580,9	397	2809,2

Table 5. Fishing descriptions Types of Ukrainian commercial Fishing Ships

Abbreviation in Russian	Description	GRT
RTMA	Fishing freezing trawler type "Atlantic"	2660
RTMT	Fishing freezing trawler type "Tropic"	2400
RTMS	Fishing freezing trawler type "Super"	3000
PPR	Fishing proceeding refrigerator (trawler)	4700-5000
BMRT	Big fishing freezing trawler	2700-3100
TSM	Freezing trawler-seiner	1900
SRTM	Middle fishing freezing trawler	660