RESTRICTED

INTERNATIONAL COMMISSION FOR



THE NORTHWEST ATLANTIC FISHERIES

Research Document No. 73

<u>rial No. 1542</u> (J. c. 4)

ANNUAL MEETING - JUNE 1965

## COD TAGGING CONDUCTED BY SOVIET

## SCIENTISTS IN THE WATERS OFF WEST

GREENLAND, 1960-64

by A. S. Bogdanov

Cod tagging in the waters off the West Greenland coast were started by Soviet scientists in 1960.

The main task of these investigations was to study the "istribution and seasonal migrations of cod.

Cod tagging was made with polyethylene hydrostatic tags "ampule type." Tags were fixed with polyethylene thread in front of the first dorsal fin.

The bulk of cod was tagged in the areas of Fyllas, Banan, Dana and Frederikshaab Banks during the spring time (April - June).

Throughout 1960-1964, 6,603 cod specimens were tagged in those areas. Tag returns for these years amounted to 4.5%. The greatest number of tag returns was observed during the year of tagging, and they noticeably reduced during the subsequent years (Table 1).

Table 1. Results of cod tagging in the West Greenland area

Year of tagging	Number of tagged fish (in speci- mens)	Year of capture (in %)				
		1960	1961	1962	1963	1964
1960	1041	4.9	3.2	0.7	0.3	
1961	587	_	2.0	1.4	0.5	
1962	1075	-		1.1	0.7	
1963	2259	-	-	-	1.0	
1964	1241	-	-	-	-	

Tag returns from the northern areas were much greater than those from the southern, and only three returns were observed from the East Greenland area.

The results of cod tagging obtained by the Soviet investigators during 1960-64 showed that post-spawners started their feeding migration to the northern banks in April - May. So, for example, cod tagged on southern banks in April - June, was caught in the central areas in July - August (Fyllas, Banan, Lille and Hellefiske Banks), and cod 'agged at the same time on Fyllas and Banan Banks, as a rule, was ught in Store Hellefiske Bank during June - July. The analysis of the age-length composition of the recaptures showed that the longest migrations in West Greenland coastal waters were performed by cod, from 60 to 80 cm in length. Specimens less than 60 cm and more than 80 cm in length were usually caught in the area of tagging or in 15 - 30 miles from that area.

The greatest number of recaptures in July - August was found in the Hellefiske Bank. This bank is the main feeding area for the West Greenland cod. Some species however migrate much further and come for feeding in the more northern fjords.

A few fish tagged in the areas of Banan and Fyllas Banks in April - June were caught in the area 69°N in September.

The return migrations of cod to the south, in the wintering and spawning areas begin in late September. But time of the beginning of cod retreatment from the feeding areas as well as their coming in these areas varies by years in relation to the oceanographical conditions of the year and to the physiological condition of fish. In certain years, cod assemble on the feeding grounds (Store-Hellefiske) already in May.

In autumn, during the warm years, cod keep off the feeding areas until the middle of December.