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Icelandic Research Report for 1961 PART 2. <u>Redfish</u> by Dr. Jakob Magnusson.

In the Annual Proceedings for the year 1956-57, Vol. 7 a short note is given on the development of the Icelandic fishery for redfish at West Greenland.

During the year 1956 a very good catch was obtained off East Greenland, caused by a less intensive fishery for redfish at West Greenland. In 1957 still considerable catch was taken at Westand East Greenland. However, the catch was decreasing in spite of more intensive fishing. This trend continued in 1958.

Then it was decided to send an expedition to the banks off Labrador and Newfoundland in order to search for redfish.

On a cruise in July 1958 great concentrations of redfish were found and a great fishery for redfish was started from Iceland in Subdivision 2 J. A second cruise was made in September the same year and the fishery was extended to Sub-division 3 K. (See also Annual Proceedings for the year 1958-1959).

The fishery for redfish was continued throughout the year 1958 until the beginning of February 1959, when it was discontinued because of bad weather and unfavourable ice conditions. The fishery was resumed in May 1959. The catch was still excellent, but became poorer.

In July 1959 a cruise was made in order to search for redfish in the more southern regions, mainly on the NE slope of the Grand Bank and Flemish Cap. Some fishery was established on the NE slope of the Grand Bank.

In 1960 the catch was still poor with some exceptions. Two cruises to the region extended the fishery to a new place in Subdivision 3 K which gave somewhat more catch for a while. But very soon the catch became poor again.

In 1961 the catch was very poor at Newfoundland and the fishery for redfish was discontinued for the greater part of the year.

This very brief outline of the fishery for redfish from Iceland in the Newfoundland area needs some explanation. In 1958 and 1959 the concentrations of redfish at Sundáll and Ritubanki were enormous, and good fishery remained for one year. But the total quantity of redfish caught in the Newfoundland area in 1959 was smaller than in 1958 although the fishery in 1958 was only of 5 months duration.

During the period from July 1958 to 1961 the main fishery took place on two principal fishing grounds, Sundáll in Subdivision 2 J and Ritubanki in Subdivision 3 K. These fishing grounds are on the edge of the continental shelf. A few more limited grounds were discovered by the fishermen, and expeditions gave considerable catch for a while.

luring the peri	od 1958-1961:		·	
able I				
•	Subdiv: (catch in 1)			
Year	•	•		
	2 J	ЗК.	Others	Total
1958 1959 1960 1961	31.0 9.6 4.5 0.1	48.4 55.7 6.5 4.2	3.6 0.9 0.2	79.4 68.9 11.9 4.5
Total	45.2	114.8	4.7	164.7

During this period material on redfish was collected both on cruises and from commercial catch. Great variation in size of the redfish occurred from one place to another. Generally the redfish was of good commercial size from Ritubanki (in 3 K) and Sundáll (in 2 J). On the Hamilton Inlet Bank the redfish was infected with parasites and other defects in the flesh, and to such a great extent that fishery on this bank was not carried out on a large scale. In some places within these Subdivisions the redfish was so small that the trawlers stopped fishing in spite of good catch.

The average length distribution has been calculated for the two Subdivisions 2 J and 3 K separately for the years 1958 to 1961, and also the annual deviation from the average, but in these two Subdivisions the main fishery took place. The material from cruises and from the landed catch is kept separated.

Table II shows the material collected in Subdivisions 2 J and 3 K during the period 1958-1961.

Table II

		<u>Subd</u>	ivision 2	5 1		
	Cru	ises	_L،	anded	Tota	al
Year	Samı	. Nos.	Samp.	Nos.	Samp.	Nos.
1958 1959 1960	47 3 19	10,731 600 2,368	2 3 -	633 959 -	49 6 19	11,364 1,559 2,368
· · ·	69	13,699	5	1,592	74	5,291
		Subd	ivision	<u>3 K</u>		
	Cru	lises	Ŀ	anded	Tota	al
Year 1958 1959 1960 1961	Samr 29 8 20 2	5,666 5,666 1,659 398 201	Samp. 4 9 2	Nos. 1,303 2,951 408	Samp. 33 17 22 2	Nos. 6,969 4,610 4,389 201
	59	11,507	15	4,662	74 •	16,169

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The following table (Table I) gives some idea of the development of the fishery for redfish from Iceland at Newfoundland and Labrador during the period 1958-1961. In Figs. 1 and 2 the average length distribution and the deviation from the average for the years 1958-1961 are shown for the Subdivisions 2 J and 3 K respectively. The great variation in the deviation is to a great extent due to a fishery at different places within the Subdivision itself, where the size of the redfish varied very much from one place to another. E.g. at Sundáll (2J) in 1959 the fishery was mainly carried out in greater depths where the redfish was of a smaller size (see also A. Pr. 1958-59). But in 1960 again the trawling was carried on in shallower water and there the redfish still remained bigger than in the depth.

The impression from this material is that even within the same Subdivision the size of the redfish can vary very much from one place to another and/or according to depths. Further, that the differences in size from one year to another are more due to that fact than to a general trend or influence from the fishing. However, there might be an exception for the biggest redfish (over 50 cm) in 3K, which was mainly caught on Ritubanki.

In Table III the mean size of redfish is given, for comparison, in all Subdivisions where Icelandic trewlers fished for redfish during the period 1958-1961. (Two samples from 1957 and 1962 are also included).

The mean sizes for redfish caught on cruises and from commercial catches are calculated separately.

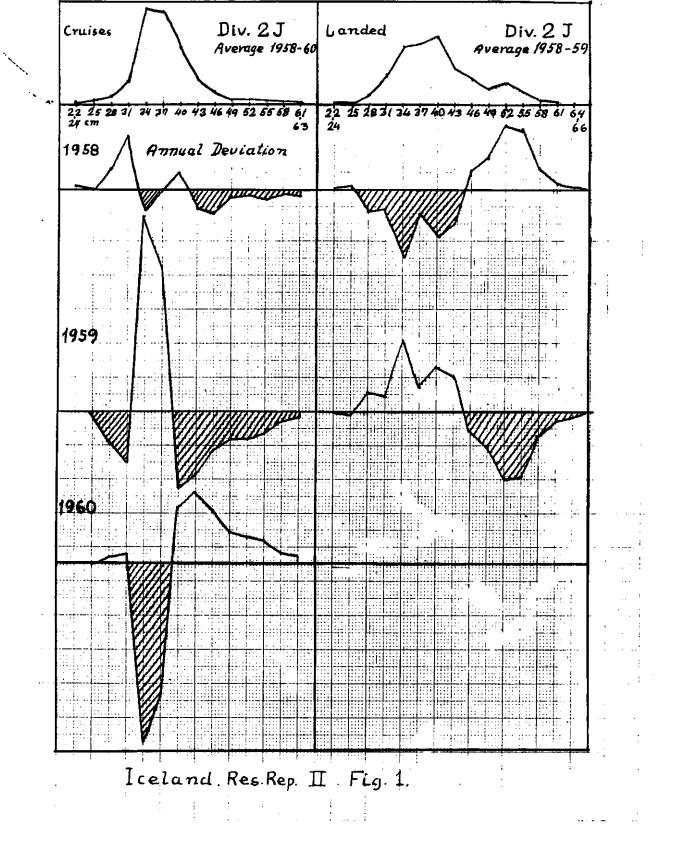
Table III

	10	1B	1 E	1 D	2 G	2 H	2 J		3 K	
Year	Cruise	Cruise	Land.	Land.	Cruise	Cruise	Cruise	Land.	Cruise	Land.
1957 1958 1959	45.05 4 38.98	2.72	44.56 41.92 41.92		35.76	38.15	38.04 37.13	43.06 39.18	41.03	37.25 37.91

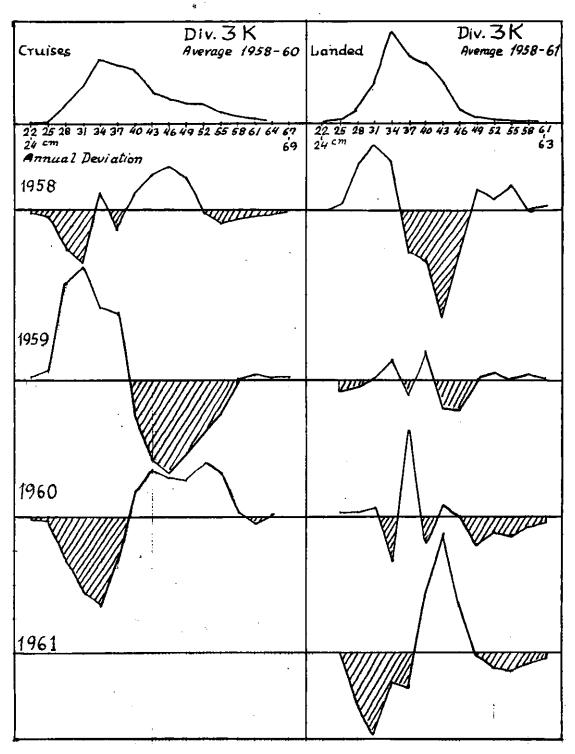
	3 L	3 M
Year	Cruise	Cruise
1957 1958 1959 1960 1961 1962	36.26	35.16

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Iceland. Res. Rep. II. Fig. 2.