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Length and Age of Males of "Beaked" Redfish
(*Sebastes mentella* Travin) in the Kopytov Area

by

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Age samples and data on mass measurements of "beaked" redfish were collected by the R.V. "Tunets" and by scouting vessels in the Kopytov area in 1956-1958, 1960 and 1964-1966. Length was measured from the tip of the snout to the end of the caudal fin. Age was determined by scales by means of a micro-projector which provided a 35 fold enlargement.

This report is concerned with the changes observed in the size- and age-composition of wintering concentrations of "beaked" redfish males in the catches taken in the Kopytov area in 1956-1966.

Redfish fishery is mainly based on males which form commercial concentrations in the north of the Kopytov area in the last half of April, on the western slope from the end of March to the beginning of April.

In 1956, 1957, 1958 and 1960 the size-composition of wintering males in the catches taken in the Kopytov area remained stable, fish 30-40 cm in length were predominant (Figures 1 and 2). In 1960 fish of 29-30 cm belonging to the abundant 1950 year-class were also frequent. The curves of length frequencies of wintering males in the Kopytov area in 1964 and 1965 had two peaks: one represented 35-36 cm long fish and the other those 39-40 cm long.

In 1966 males, 37-38 cm in length, prevailed in the catches obtained on the western slope and those of 37-40 cm in length, in the northern part of the area (Figures 1 and 2). The average length of males in 1956-1958 varied between 36.9 and 38.4 cm on the northern slope and between 37.8 and 38.5 on the western slope.

In 1964-1966 the average length of males on the northern slope of the Kopytov area decreased to 34.7-35.1 cm and those on the western slope to 36.4-37.0 cm.

The age-composition of males also changed over the period mentioned above. In 1956-1960 fish, 13-18 years of age formed the bulk of the catches on the northern slope and those 14-17 years old on the western one (Tables 1 and 2).

In the subsequent years 12-16 year olds were mainly caught on the northern slope and 11-17 year olds on the western slope of the Kopytov area.

It is worth noting that the number of the youngest fish (12 years and older) increased, that of fish at ages 13-14 years increased considerably, while that of 17 and 18 year olds decreased. The amount of fish at ages 15-16 remained approximately the same and that of the youngest ones decreased slightly.

Conclusion

In the investigated period (1956-1966) the age- and size-compositions of wintering concentrations of "beaked" redfish males changed in the Kopytov area; in 1964-1966 the amount of younger fish increased in the catches.

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Table 1. Age-composition of "beaked" redfish on the northern slope of the Kopytov area in April 1956, 1957, 1958, 1964 and 1966.

Year of investigation	A g e																Mean age	
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
1956					10,6	8,8	11,6	10,2	11,2	15,7	13,4	14,0	1,6	2,9			8532	15,03
1957			4,7	1,8	2,4	8,0	12,2	10,7	17,3	20,7	13,0	8,2	0,5	0,5			4061	14,70
1958	0,3	1,6	-	-	0,8	4,4	9,5	12,8	15,8	10,3	17,2	14,5	4,2	4,4	4,2		1865	15,92
1964		7,3	3,8	8,7	10,6	15,5	11,5	13,9	7,1	15,2	3,4	2,6	0,4				10806	12,88
1966				1,7	4,5	14,8	15,9	15,8	15,2	14,7	7,2	5,0	2,2	1,9	0,7	0,4	1385	14,51

Table 2. Age-composition of "beaked" redfish on the western slope of the Kopytov area in April 1956, 1958, 1960, 1965 and 1966.

Year of investigation	A g e																Mean age	
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
1956			1,1	1,8	2,5	7,8	6,1	19,1	15,2	19,7	14,0	7,8	2,7	1,6	0,6		2424	15,13
1958						9,4	4,4	15,3	22,3	16,1	13,7	5,2	9,4	2,1	2,1		725	15,67
1960			4,4	16,9	11,3	9,1	10,4	11,7	15,8	7,1	10,9	2,4					3904	13,20
1965		3,4	1,3	3,5	9,3	10,0	17,3	13,2	10,5	12,5	10,4	4,0	2,6	1,4		0,6	1101	14,16
1966					11,1	3,5	15,6	15,1	21,0	15,8	10,6	4,4	2,0	0,9			4533	14,65

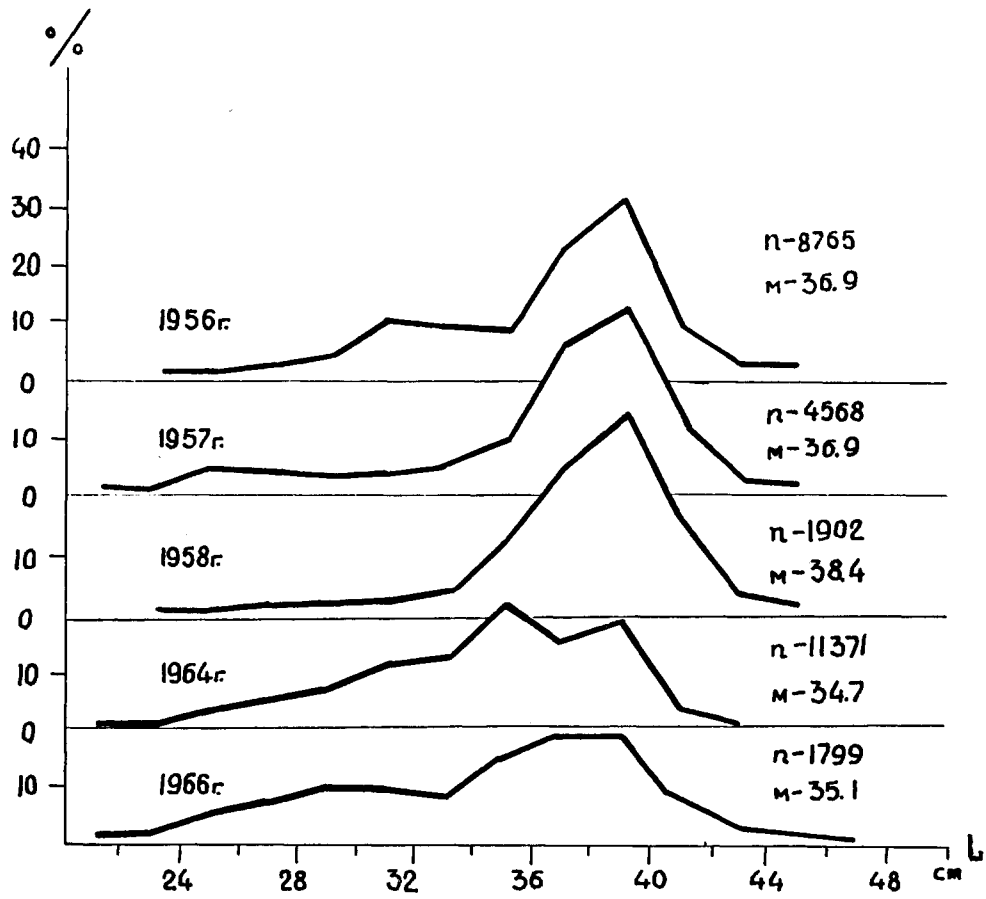


Figure 1. Size composition of wintering concentrations of "beaked" redfish males in the north of the Kopytov area".

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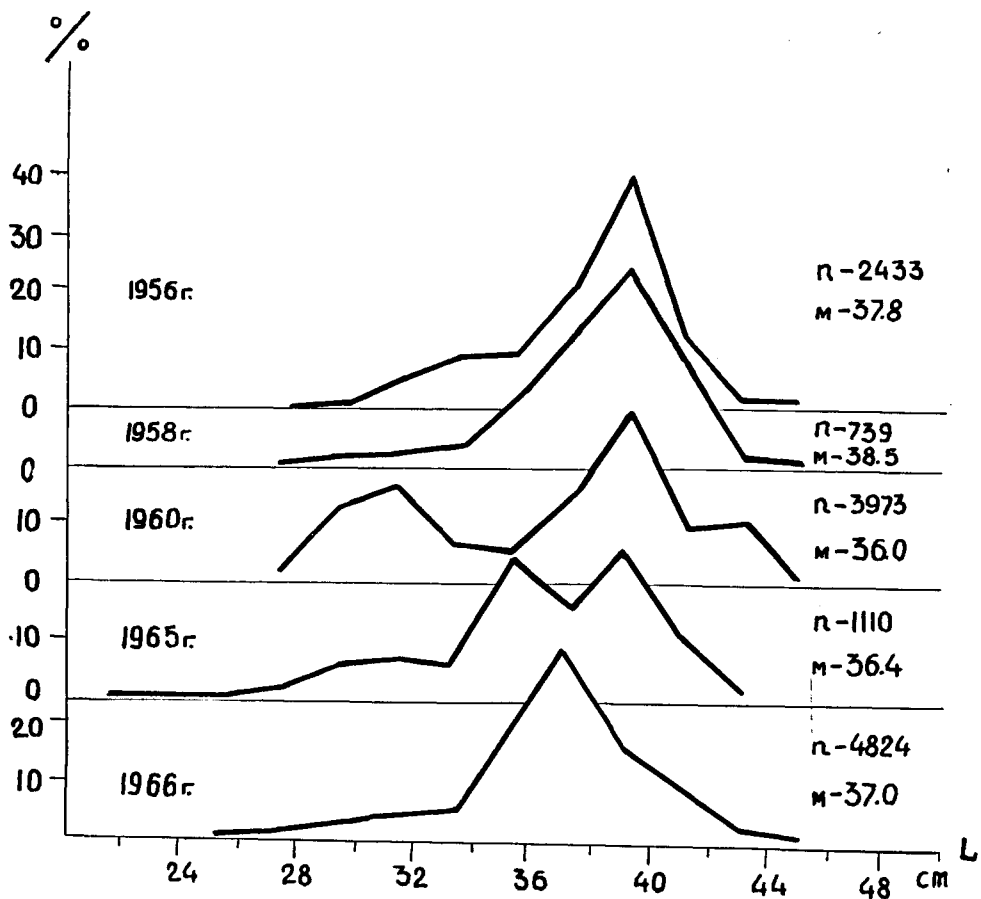


Figure 2. Size composition of wintering concentrations of "beaked" redfish males on the western slope of the Kopytov area.

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