

The German Salmon Fishery in the South-Eastern Baltic
in the Season 1961-62

by
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As pointed out in a report presented to the Council Meeting 1961 (no. 23), the fishing season 1960/61 ending in the first days of May, resulted in a total catch of 282 tons, i.e. 113 tons more than in the previous season 1959/1960. Thus the regular change between higher and lower salmon catches observed since 1954/55 continued owing to a rich smolt year-class which became fishable as A.2-years-old fish in the autumn of 1960. According to the scale reading by Fr. Thurow, the catches in January 1961 consisted of 49.0% age-group 3.2 and 18.6% age-group 2.2 being the most frequent ones. In spite of the large percentage of the 1959 smolt year-class passing the second winter in the sea (77%), the average weight of caught salmon was relatively high, 5.09 kg owing to the excellent growth of this year-class. The mean catch per trip amounted to 635 kg, an increase of 43% compared with that in 1959/60 whereas the total catch increased by 67% due to more intensive fishing (abt. 445 trips).

Table 1. Monthly landings of salmon in 1961-62 compared with
1960-61 and the average of 1955-60.

Month	1961/62		1960/61		1955/60	
	tons	%	tons	%	tons	%
September	3.6	1.1	3.2	1.1	0.5	0.2
October	25.8	7.6	11.5	4.1	9.4	3.9
November	73.7	21.7	55.8	19.8	49.4	20.7
December	94.4	27.8	63.9	22.6	60.5	25.0
January	43.4	12.8	50.7	18.0	35.7	14.9
February	23.0	6.8	52.4	18.6	19.3	7.7
March	36.2	10.7	20.4	7.2	31.9	13.3
April	13.5	4.0	20.7	7.3	19.4	8.1
May	19.6	5.8	3.5	1.3	13.0	5.4
June	5.9	1.7	-	-	1.4	0.6
Total	339.1	100.0	282.1	100.0	240.5	100.0

Surprisingly the last fishing season 1961-62 ending in June brought a further increase of the landings, instead of the expected decrease with regard to the regular change of rich and less good catches (Table 1.). The salmon fishery by nets began already in late August, and the main catches by drift lines were landed from October to January. Owing to good weather conditions the use of drift nets was possible already in the first months of 1962. The landings decreased in February but increased again in March, and May brought better catches than April. The total yield of the fishing season amounts to 339.1 tons, i.e. 57.0 tons (= 20%) more than the previous season 1960-61. As to the quantity of caught salmon, the fishing season 1961-62 was the second best one as it is only surpassed by the record season 1956-57 which yielded 375 tons (Figure 1).

The good catches in 1961-62 were caused by the abundance of the 1960 smolt year-class, probably more frequent than the preceding rich 1959 year-class. Owing to the high part of A. 2-year-old salmon (more than 80%) and their lower growth, the mean weight remarkably decreased from 5.1 kg in 1960-61 to 3.9 kg in 1961-62 (guttet weight). The mean catch per trip was fairly high, 800-900 kg in November/January, and about 600 kg in the other months, with the exception of April (350 kg only).

Table 2. Size composition of salmon landed at the Kiel Fish Market
in January 1961 - June 1962

Market category	I	II	III	IV	V	VI	Average weight, kg.
guttled weight, kg	>8	7-8	5-7	3-5	2-3	1-2	
	N u m b e r %						
Jan./Febr. 1961	10.7	8.2	24.5	53.1	3.4	0.1	5.15
March/April "	11.3	8.6	24.8	52.0	3.1	0.2	5.22
May "	3.8	3.2	20.3	64.6	8.1	-	4.42
Sept./Oct. "	4.8	3.3	8.3	59.8	22.9	0.9	3.93
Nov./Dec. "	6.2	3.5	8.9	55.7	23.0	2.7	3.99
Jan./Febr. 1962	5.1	2.6	6.6	52.9	29.2	3.6	3.69
March/April "	6.4	2.9	9.2	65.9	14.7	0.9	4.06
May/June "	5.3	1.8	9.5	69.2	15.7	0.5	3.88

The statistical data collected at the Kiel fish market illustrate the changes of the size composition and the average weight of salmon during the year 1961 owing to spawning migration of older fish and the appearance of the abundant 1960 year-class in the fishable stock, apart from the growth (Table 2). The percentage of larger salmon (>5 kg) heavily decreased, whereas the quantity of small fish (<3 kg) increased to the same extent. Only the part of medium sized fish (3-5 kg) remained nearly constant.

To complete this survey, the quantities of each market category landed at Kiel fish market since January 1960 may be discussed by means of Table 3.

Table 3. Salmon landed at the Kiel fish market in 1960-1962 (in tons)

Market category	I	II	III	IV	V	VI	Total
Jan./June 1960	19.8	8.9	8.0	24.6	6.5	0.4	68.2
Sept./Dec. "	16.4	9.2	27.6	42.3	2.4	0.1	98.0
Jan./June 1961	23.4	14.4	33.2	51.6	2.1	0.1	124.8
Sept./Dec. "	18.9	8.8	17.3	71.4	19.9	1.4	137.7
Jan./June 1962	14.5	5.5	13.3	64.9	16.9	1.1	116.2

For nearly all weight classes the landings in 1961 surpassed those in 1960, in the winter/spring as well as in the autumn. The increase is largest for the market categories IV and V in the autumn catches indicating the abundance of the 1960 smolt year-class. The development of the salmon fishery in 1961 and the first half-year of 1962 is characterized by the continuous decline of larger fish (I-III) and nearly constant quantities of small fish (IV-V).

Thus the detailed analysis of statistical data carefully collected throughout the years, gives a reliable insight in the changes of the size composition and fluctuations of the stock of salmon in the Baltic.

Figure 1. German salmon landings from the south-eastern Baltic, in 195c-1962. Hatched: salmon more than 5 kg (guttcd)

