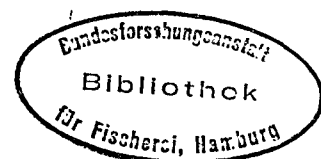


Catch Composition of the German Shrimp Fishery in 1962
by

P.F. Meyer-Waarden & K. Tiews



In continuation of previous studies (1), in 1962, 401 random samples of unsorted catch of about 5 kg each (total weight = 2,063 kg) were examined as to species and length composition. The work being carried out in Büsum, Cuxhaven, Neuharlingersiel and Dornumersiel again served the purpose to assess the size of by-catches of undersized protected fish contained in the German shrimp fishery for Crangon.

In 1962 the total catch of the German shrimp fishery amounted to 27,336 tons (19,959 tons industrial shrimps; 4,125 tons edible shrimps and 3,152 tons industrial by-catches). The total shrimp catch (24,184 tons) was the second lowest since 1950. It was lower only in 1960 (23,879 tons). Among the factors responsible for the poor catches in 1962, the cool and wet summer on the German North Sea coast is the most important one.

In 1962, a remarkable decline in the size of by-catches of undersized protected fish can be recorded. The by-catches of undersized protected fish amounted to 1,571 tons only and were lowest since the beginning of the investigations in 1954. They had a share of 6.8% on the total industrial catch and were less than half as high as in 1959 when the most unfavourable picture was obtained, i.e. 3,310 tons (Table 1).

Table 1. By-catches of undersized protected Annex II fish species in the German shrimp fishery

	1962	1961	1960	1959	1958	1957	1956	1955	1954
in tons	1,571	2,089	2,449	3,310	2,173	2,016	1,707	2,255	1,988
in % of the catches utilized for industrial purposes	6.8	7.8	9.3	9.9	7.1	5.3	5.2	4.8	5.5

While the 1962 by-catches of undersized soles were a little above those obtained in 1961, all other fish species were caught in smaller quantities.

The greatest decline amounting to 237 tons was observed in the by-catches of whiting. The catches of dab decreased by 175 tons, of plaice by 90 tons and of cod by 36 tons (Table 2).

Table 2. Catches of undersized protected fish as mentioned in Annex II of the North Sea Convention made by the German shrimp fishery

	1954	1955	1956	1957	1958	1959	1960	1961	1962
Plaice	1,086	1,084	805	1,166	1,308	1,149	1,126	857	767 t
Sole	419	610	322	364	398	659	350	239	259 t
Dab	418	503	279	95	235	399	551	497	322 t
Whiting	65	58	301	235	152	964	343	430	193 t
Cod	-	-	-	156	81	140	79	66	30 t
Total	1,988	2,255	1,707	2,016	2,174	3,311	2,449	2,089	1,571 t

A different picture is being obtained when considering the number of fish instead of the weight of fish caught. In this case more plaice and especially much more sole were caught in 1962 than in 1961, while dab, whiting and cod were caught in considerable smaller numbers (Table 3).

Table 3 Number (millions) of Annex II fish species caught by the German shrimp fishery

	1954	1955	1956	1957	1958	1959	1960	1961	1962	
Plaice	247.4	136.4	138.2	247.1	259.1	281.1	171.6	140.4	159.9	Mill.
Sole	87.5	73.8	55.1	47.0	93.9	76.5	65.8	44.8	112.0	ind.
Dab	69.9	35.3	38.6	38.7	36.6	53.5	66.8	96.4	27.4	
Whiting	3.1	3.9	9.0	22.6	9.0	109.1	32.0	40.1	12.3	
Cod	-	-	-	14.2	5.3	9.4	3.0	5.6	0.6	

The catch of sole was higher than in all previous years of the investigation, i.e. 112 mill. fish, or in 1962 $2\frac{1}{2}$ times as many fish as in 1961 were caught. The presence of an extraordinary rich sole year-class 1962 on the German shrimp fishing grounds can be seen.

In the case of the dab the situation was contrary. While in 1961 a maximum by-catch of 96 mill. fish was obtained, the 1962 figure was with 27 mill. fish the lowest since 1954. The low figure is due to the abnormal small occurrence of recruit year-class 1962.

The occurrence of plaice on the fishing grounds was found to be normal. It is also noteworthy to mention that the distribution of whiting on the fishing grounds has been normalized again. Only 12 mill. whiting were caught, which is only $\frac{1}{9}$ of the catch made in 1959, when the unusual rich whiting year-class 1959 had invaded the German shrimp fishing grounds.

References

- (1) Meyer-Waarden, P.F. & K.Tiewis 1962 "Further results of the German shrimp research".
 ICES, C.M. 1962, Special Meeting on Crustacea, No. 35.