

Review of Contributions on Herring for Annales Biologiques 1965

The section on herring contains contributions by the following scientists:

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| Germany: | P.F. Meyer-Waarden K. Schubert |
| Iceland: | J. Jakobsson |
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In contrast to 1964 when herring fishery was good to excellent in most parts of the north-eastern Atlantic, the fishery in 1965 was not at all uniform in its results. There was a decrease in landings from most parts of the areas, except from the spectacular Norwegian Purse-Seine Fishery in the northern North Sea and the Skagerrak

The fishing on Norwegian late winter spawners was based on the year-classes 1959 and 1960, which are now fully recruited. Year-class 1950 still contributed to the spawning fishery off Møre. Echo-surveys and fishing proved that there are two distinct groups of Norwegian herring. One group, which consists of rather old herring (but with a considerable admixture of year-classes 1959 and 1960), is following the old pattern of migration between Iceland and the spawning grounds off Møre. The other group - mainly 5 - and 6 - year old herring) stays during most of the year in the Norwegian Sea north of Norway and spawns in the Vestfjord and on Røstbank. Both groups started spawning slightly earlier than in 1964, the Møre-group arriving in Norwegian waters in a rather advanced stage of maturity. This group seemed to be stronger than in 1964. Nevertheless and in spite of a strong increase in effort by the Norwegian fleet of purse-seiners, the total catch (and the catch per unit effort) of the Norwegian winter fishery was lower than in 1964.

The result of the fishery on juvenile herring in Norwegian waters and of surveys of Norwegian and Soviet research vessels indicates that year-class 1965 will be quite poor.

At the north and east coasts of Iceland the summer fishery was rather poor although fishing started quite early. Abnormal hydrographic conditions resulted in a very scattered distribution of Calanus finmarchicus and caused movement of the herring far to the north-east towards Jan Mayen. The Norwegian summer fishery was

considerably reduced in its effort as many purse-seiners preferred fishing in the northern North Sea. The Icelandic fleet continued fishing in autumn and was very successful in exploiting shoals which were on their migration to the overwintering area. In winter Icelandic purse-seiners were fishing in the overwintering area itself. It is mainly due to this fishery in September to December that the Icelandic landings reached 762,000 tons, the highest annual yield on record. For the first time German vessels were fishing on overwintering herring off Seydisfjörður using pelagic trawls.

Off the north and east coasts catches consisted mainly of Norwegian herring (94%) of year-class 1959 (~44%), 1950 (still 18%) and 1960 (only ~13%). Recruitment of the younger year-classes is quite poor. Icelandic spring-spawners - presently of very little importance - consisted mainly of the year-classes 1951, 1952 and 1956.

The summer fishery of small purse-seiners fishing around Vestmannaeyjar and off Ingólfshöfði was quite successful. It was mainly based on Icelandic summer spawners of year-class 1962 and 1961 and on juvenile herring of undetermined race. The herring fishery in autumn off the south-west coast of Iceland was even less successful than in 1964. The only reasonable catches were taken off the south and south-east coasts.

Reports on the Soviet fishery on Atlanto-Scandian herring in 1965 are not yet available. The report on the joint Icelandic-Norwegian-Soviet investigations in the Norwegian Sea in summer 1965 is under preparation.

A fair amount of Atlanto-Scandian herring was taken at the northern fringes of the North Sea (north of 59°N), where the catches consisted of 25-50% of spring spawners mainly of the 1961 year-class. There was a good summer fishery in the Shetland area, where Icelandic purse-seiners were particularly active, together with drifters and trawlers of other nations. It seems that considerable spawning takes place in late summer in the north-western North Sea.

Fishing was also good in the area off the Norwegian south-west coast, where only in spring and early summer some admixture of Atlanto-Scandian herring was found. Otherwise autumn-spawning herring of the year-classes 1960, 1961 and 1962 were by far dominant.

For the traditional herring fisheries in the North Sea, the reports indicate in general a decrease in landings and in catch per unit of effort.

The statement by Dutch experts: "The drift-net fishery of the Netherlands is a dying fishery", holds also for other countries where there was also a trend to abandon the drift-net fishery in favour of trawling at the bottom and in mid-water.

During the good winter fishery in the entrance of the Skagerrak, year-class 1963 proved to be very strong, as it was in the central North Sea. The English fishery on bank herring off Whitby and Haisborough and the German fishery in the Gut area took advantage of good recruitment of 3-year-olds (1962 year-class). As the year-class 1963 is obviously above average, the fisheries on bank herring will presumably improve in 1966. The fishery in the southern North Sea was the poorest on record, recruitment by year-class 1962 being very poor. It should be mentioned that the length and L_1 of recruits in the central and southern North Sea were far smaller than normal, possibly due to the strong winter 1962/63. In the northern North Sea growth was remarkably good.

The German oil herring fishery was at the level of 1964. Reports on the Danish fishery in the Bløden area are not yet available.

There is some information on the herring stocks and fisheries west of Scotland. The Minch fishery, based on year-classes 1960 and 1961, was slightly better than in 1964. The Clyde fishery was excellent again, a considerable part of the stock remaining in the area after spawning.

The abundance of herring off the Hebrides, St. Kilda and on Stanton Bank in the summer of 1965 - mainly of old autumn spawners - seemed to be lower than in 1964.

Some of the reports contain notes on tagging, on the horizontal and vertical distribution of herring in relation to water temperature and on the distribution of juvenile fish in coastal regions.

For the Baltic, we have information from Poland and Finland. In the Gulf of Gdańsk and in the Bornholm Basin, year-class 1959 still dominated the catches. Year-classes 1960 - 1963 are obviously poor; only year-class 1964 might provide good recruitment in the future. The quality of the spring-spawning Baltic herring was very good. A detailed study is given on the distribution, migration and spawning of Finnish spring spawners in 1964 and 1965 in relation to the hydrographical regime in the Finnish archipelago especially the influence of the warming up of the surface layer during summer. In the Gulf of Finland the total catch decreased slightly in 1964/65. In 1965 fish were in poorer condition than in 1964. Year-classes 1959, 1961, 1963, and 1964 are above average.