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HERRING LARVAE SURVEY IN THE SKAGERRAK,  
AUTUMN 1966

by  
Steinar Haraldsvik<sup>x</sup>

At the ICES meeting in Copenhagen in 1966 it was recommended to carry out co-operative studies on distribution and abundance of herring larvae in the northern North Sea, the Skagerrak and the Kattegat. Norway agreed to a larval survey covering the area on the West- and Jutland-banks, the western entrance of the Skagerrak and the whole Skagerrak.

In autumn 1966 the investigation took place during a cruise with R.V. "Johan Hjort" in the period 21 October - 1 November (Haraldsvik 1967). The positions of the plankton stations are plotted on the chart in Figure 1. Clarke-Bumpus plankton sampler was used and oblique hauls were taken in: 50-30 m and 25-5 m. Vertical hauls were carried out with Juday net, hauled from 200 m or from bottom to the surface.

Alltogether a number of 25 herring larvae were caught on this survey. Except for one larvae at station 397, all the specimens were found in the eastern part of the Skagerrak, immediate to the entrance of the Kattegat (Table 1).

The length of the herring larvae ranged from 9 - 18 mm (Table 1), and they had all resorbed the yolk sack. These larvae were most likely from the spawning grounds in the northern Kattegat (Kobbergrund). It is impossible to indicate the abundance of larvae in 1966 for the Kattegat autumn spawning stock before the Danish material from the spawning grounds in Kattegat is available.

Not a single herring larvae was caught on, or in the vicinity of the spawning grounds on the West- and Jutlandbanks.

The bottom temperature on these banks varied between 12.5 - 13.2°C, which is considered to be above the optimum for spawning of North Sea autumn-herring. According to the data available it is concluded that in 1966, as in 1965 (Postuma 1966), no spawning took place on these banks.

The Norwegian larvae investigations will be continued for some years

<sup>x</sup>Mr. S. Haraldsvik, Fiskeridirektoratets Havforskningsinstitutt, Nordnesparken 2, Bergen, Norway.

in these areas, and from autumn 1967 onwards the Gulf III Sampler will be used as the standard sampling instrument for herring larvae.

References

- Haraldsvik, S. 1967. Sildeundersøkelser i Nordsjøen og Skagerak med F/F "Johan Hjort" 18.oktober - 5.november 1966. Fiskets Gang 22 : 361-365.
- Postuma, K.H. 1966. On the spawning herring of the West- and Jutland-banks. Coun.Meet.Int.Coun.Explor.Sea, 1966. H:6, 1-3 (Mimeo.).

Table 1. Catch of herring larvae, Skagerrak autumn 1966

Station no.	Date	Hour	Gear	Depth	Range	$\bar{L}$ mm	N
397	22. X	0152	Clarke-Bumpus	25 - 5	11.0	11.0	1
449	22. X	2252	Juday 0/80	80 - 0	10.0-10.0	10.0	4
"	"	"	Clarke-Bumpus	50 - 30	9.0-14.0	11.5	2
"	"	"	" "	25 - 5	10.0-18.0	12.6	5
450	29. X	0428	Juday 0/80	85 - 0	15.0	15.0	1
"	"	"	Clarke-Bumpus	50 - 30	10.0	10.0	1
"	"	"	" "	25 - 5	9.0-10.0	9.5	2
451	29. X	0602	Juday 0/80	40 - 0	10.0-18.0	14.0	2
"	"	"	Clarke-Bumpus	25 - 5	10.0-13.0	11.5	2
452	29. X	0725	" "	25 - 5	10.0-13.0	11.5	4
455	31. X	0532	" "	25 - 5	11.0	11.0	1

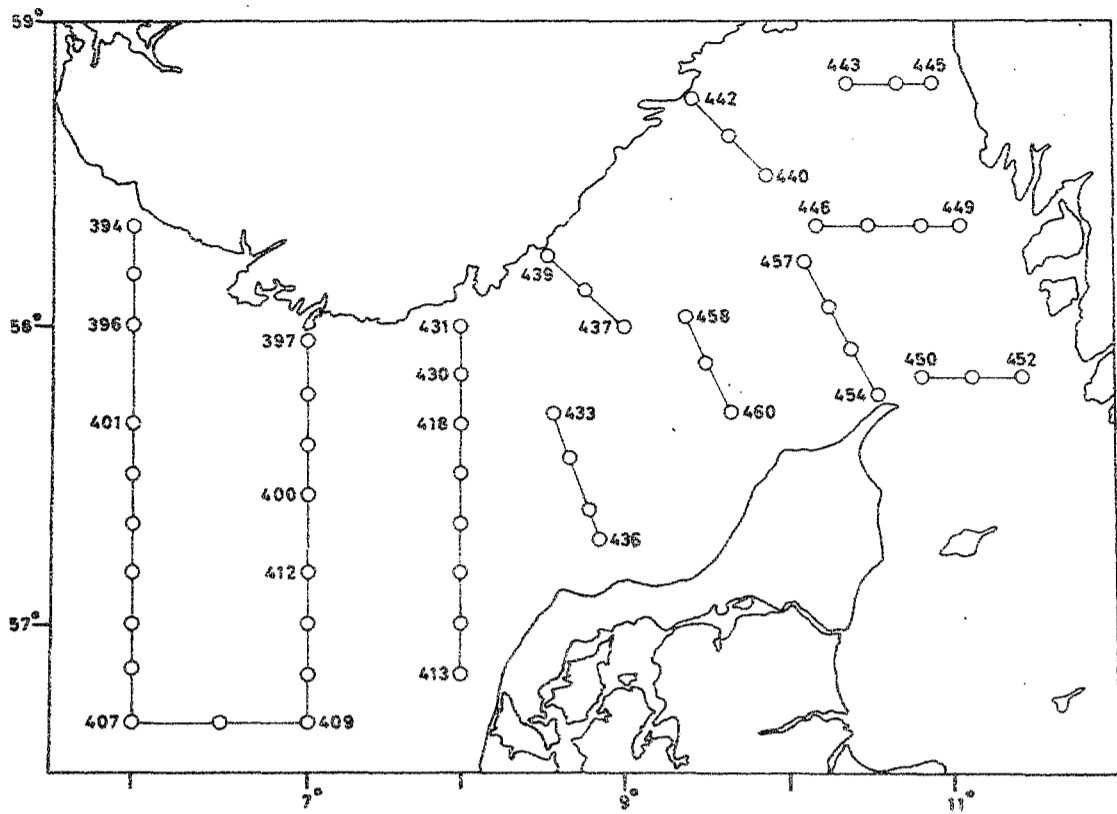


Fig. 1. Plankton stations, autumn 1966