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During the ICNAF Juvenile Herring Surveys, in March 1973 - 1976, the night time was used for plankton sampling in the Georges Bank area. The herring larvae have been sorted out of these catches. This report shows the distribution and abundance of larval herring at that time in the years 1973 - 1976, and the length frequency distribution in 1974 - 1976.

Methods

Except the first cruise (R. V. Walther Herwig, 1973), where a 60 cm "Hydrobios Bongo" without a cylindrical net section and .300/.500 mm mesh size was used, the gear was an ICNAF standard Bongo net (.333/.505 mm). The tow procedure in all 4 years was according to the ICNAF larval herring programmes (see circular letters). In 1973 - 1975 the station grids mostly covered the Georges Bank and the Nantucket Shoals areas at 50 - 60 stations, while 1976, because of engine trouble on R. V. Anton Dohrn, only 31 plankton stations could be done.

Results

In 1973 only on few stations larval herring were found (Fig. 2). Unfortunately no samples could be

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taken at the central part of the Georges Bank, where in 1974 the highest proportion of larvae (28/10m²) was found (Fig. 3). On the cruise of Walther Herwig 1974, 102 herring larvae were taken out of the meshes of the bottom trawl for measurements of standard length. The length frequency distribution of these larvae compared to those caught with the Bongo net is shown in figure 1. In 1975 the highest concentration of herring larvae (150/10m²) was found on the southern part of the Georges Bank. The station grid 1976 did not cover the total area of larval distribution. The number of herring larvae in the sampling area do not differ greatly from 1975 and 1976.
Fig. 1: Length frequency distribution in Georges Bank area in March 1974 - 1976.

R.V. Walther Herwig
March 19 - April 3, 1974
- Local Herring caught with the 505 mm conical net (n = 154)
- " " taken from the bottom trawl (n = 102)

R.V. Walther Herwig
March 8 - 26, 1975

n = 292

R.V. Anton Dohrn
March 2 - 8, 1976

n = 236