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Distribution of the Offshore Shrimp Fishery in Division 1A-1B in 1980 in Relation to Previously Known Grounds and to the 12 Nautical Miles limit

by

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Besides the continued northward displacement the fishery by Greenland vessels in 1980 has been characterized by occupying hitherto unexploited areas of which a major part is found outside those potential grounds described by Carlsson and Smidt (1978). The distribution of these grounds in relation to the 12 nautical miles limit was described by Horsted (1978) who concluded that 6.4% of the area of the offshore grounds were situated inside the 12 miles limit.

In order to estimate the distribution of the shrimp biomass it is necessary to include the density of shrimp on the various grounds or fractions of grounds in the calculation. The relative density of shrimp on the various grounds does, however, seem to fluctuate between seasons and from year to year so that any such description would be valid for a specific period only.

Some very rough estimates of the distribution of the new areas fished by the Greenland trawlers in Div. 1A-1B in 1980, and of the catches obtained is presented in the following.

Figure 1 shows the Div. 1A situation. The hatched areas are those grounds previously described. The northernmost ground (Nordostbugten, ground No. I) was estimated by Horsted (1978) to cover an area of 1500 km² of which 600 km² (40%) was located inside the said limit. New statistical rectangles occupied in 1980 have a total area of around 3400 km² of which approximately 2500 (73%) are inside the limit. It should be noted that virtually no activity took place in the previously mapped ground (this information covers only the trawlers of the Royal Greenland Trade Department).

The catch in this area was at least 1500 tons by November 1980. Figure 1(h) in Carlsson (1980) indicates that the 70% is likely to be an underestimate of that part of the catch, which was taken inside the line.

The ground in the lower part of Fig. 1 (west of Blafjeld) was estimated by Horsted (1978) to cover 6300 km² of which about 350 km² (6%) were inside the limit. The area of statistical rectangles fished in 1980 outside the ground is about 3400 km² of which approximately 800 km² (24%) are inside the limit. Figure 1(H) in Carlsson (1980) suggests that this proportion may also be a reasonable estimate of the distribution of the catch in 1980 in this area. The total offshore catch in Div. 1A by November 1980 is about 7000 tons so that with a catch of at least 1500 tons round ground I the catch round the Blafjeld ground could be up to 5500 tons.

For the offshore fisheries in Div. 1A in 1980 the figures given above suggest that of a total catch of about 7000 tons approximately 2400 tons (34%) were taken inside the 12 miles limit.

Figure 2 shows the 1980 situation in the northern part of Div. 1B. The ground as previously described (ground No. III) was estimated by Horsted (1978) to cover 14300 km², all outside the 12 miles limit. The total area of new rectangles fished in 1980 covers about 6500 km² of which about 1450 km² (22%) were inside the 12 miles limit. Figure 1(g) in Carlsson (1980) shows that in contrast to what was the case around grounds I and II the fishery in Div. 1B occupied new areas as well as the previously mapped ground. A very rough estimate by looking at Fig. 1(g) in Carlsson (1980) is that as much as half the Div. 1B catch by Greenland trawlers could have been taken in the new areas. Total Greenland catch in Div. 1B by November 1980 is about 13600 tons. It is thus suggested that about 6800 tons were taken in new grounds and that about 1500 tons of these were taken inside the 12 miles limit.

Of the total Div. 1A-1B catch by Greenland in 1980 (about 20600 tons) probably around 3900 tons or 19% may have been taken inside the 12 miles limit.

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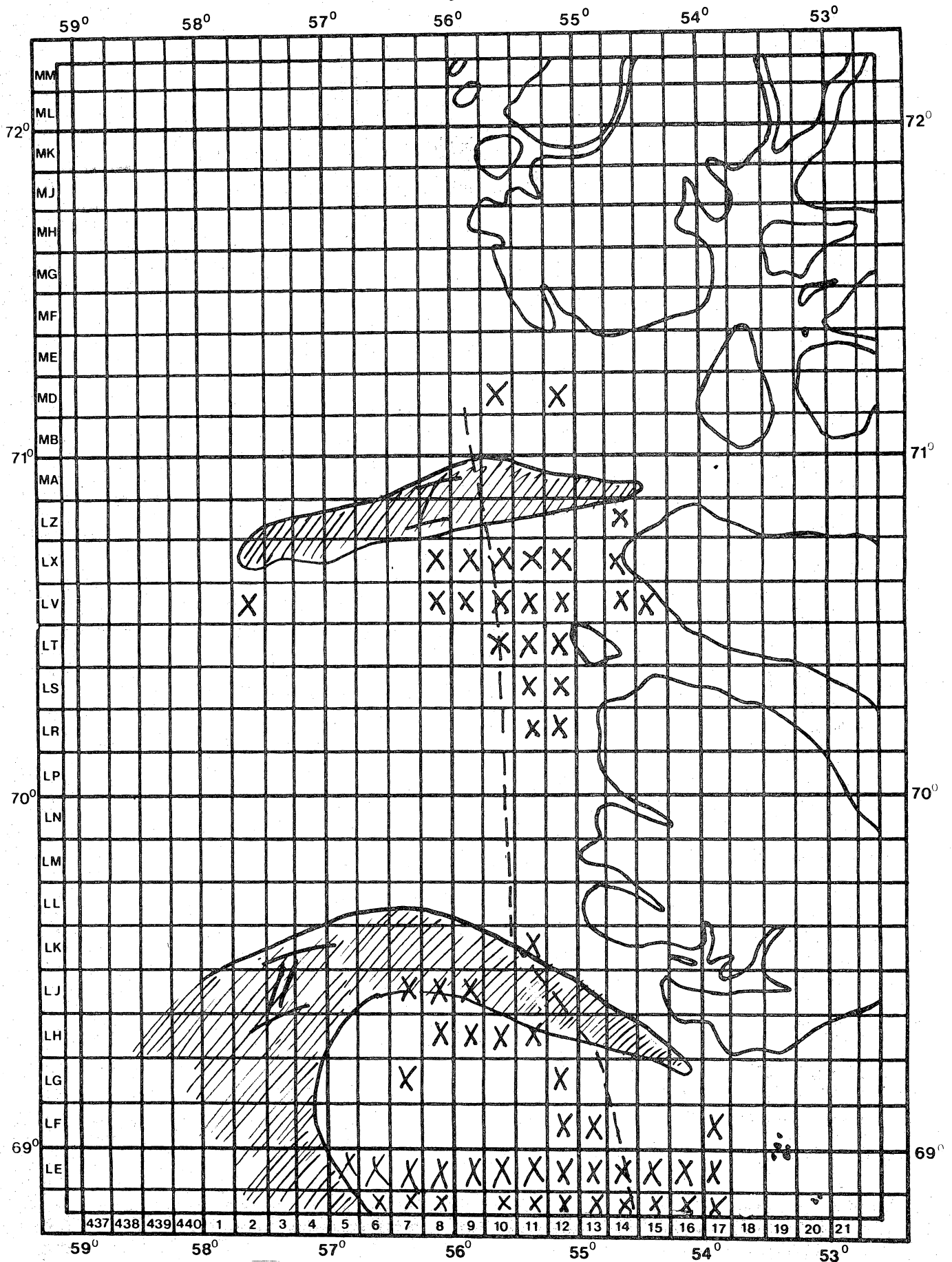


Fig. 1. Areas fished by Greenland trawlers in Div. 1A in 1980.

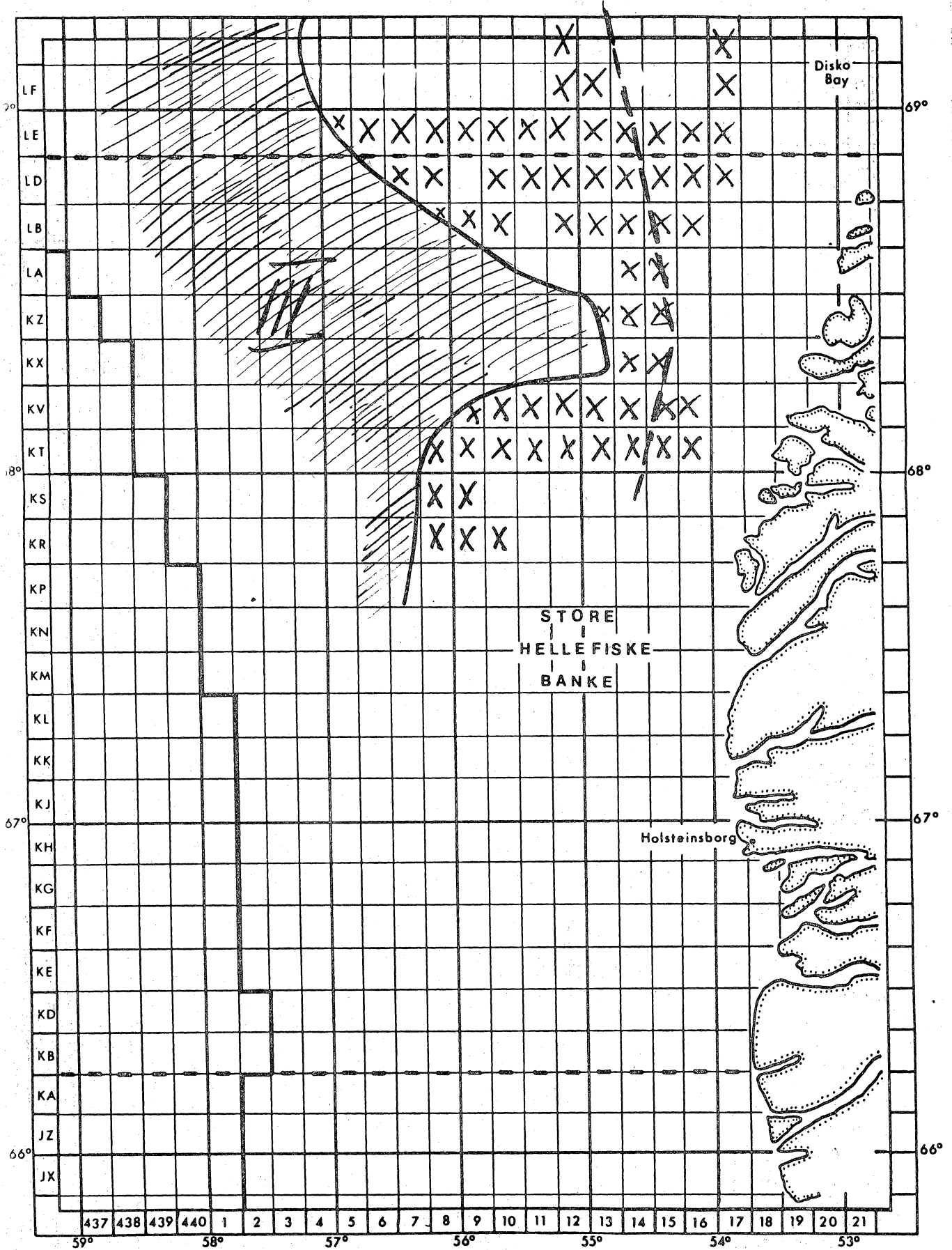


Fig. 2. Areas fished by Greenland trawlers in Div. 1B in 1980.