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The Icelandic shrimp (*Pandalus borealis*) fishery in Denmark Strait in 1984

by

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In 1984 the Icelandic shrimp fishery in the Denmark Strait, i.e. east of the Iceland-Greenland midline, commenced in June and lasted throughout the year. The total catch was 363 tons, the mean catch per trawling hour was about 93 kg.

Table I shows the effort, catch and catch per trawling hour of the Icelandic shrimp fishery in the Denmark Strait since 1981 to 1984 by months, except in 1982 when no fishery was carried out.

In 1984, the Icelandic fishery in the Denmark Strait amounted to 2.6 % of the total Icelandic offshore shrimp fishery.

Altogether, only 8 samples are available in 1984 (totally 688 animals examined). Judging from the samples which were taken from the 19th of October to the 7th of December, all females that might have been green in head in early summer are supposed to have spawned, most likely in July to August as discussed before. (see Jonsson and Hallgrímsson 1981). In the October sample (111 animals) no females were found green in head, whereas a small proportion (about 4 % of the females) was pale-green in head in the samples (507 specimens) taken from the 18th to the 23rd of November. In a sample (70 specimens) taken on the 7th of December about 25 % of the females were found to be green in head (darker-green than in November). This might indicate a slow development of ovaries of females in this region where sea temperatures are most often just above 0°C.

Fig. 1 shows the length distribution of shrimp by sex in November 1984 (507 animals). There are no small sized specimens found in the sample, the mean carapace length being 28.14 mm. The males seem to be composed of three yearclasses, while the females with spines seem possibly to consist of two yearclasses. The length distribution of females without spines looks rather unimodal, but may consist of several yearclasses.

Fig. 2 shows the length distribution by years and seasons of nearly all Icelandic samples of shrimp from the Denmark Strait area, a part of which has been published previously (Hallgrímsson 1981). There are no drastic changes in the mean length according to this material.

References:

- Jónsson, E., and Hallgrímsson, I. 1981. The Icelandic shrimp (*P.borealis*) fishery in the Denmark Strait. Int.Comm. Explor.Sea. C.M.1981)K:7.
- Hallgrímsson, I. 1981. Preliminary Information on the Icelandic Shrimp (*P.borealis*) fishery in the Denmark Strait in 1981. NAFO WP 81/XI/52.

Table I

	<u>Trawling hrs</u>	<u>Catch (tons)</u>	<u>kg/hr</u>
<u>1981</u>			
June	688	68.0	99.0
July	603	47.3	78.5
August	245	9.6	39.1
<u>Total</u>	<u>1536</u>	<u>124.9</u>	<u>81.4</u> (mean)
<u>1983</u>			
June	52	5.1	98.6
October	80	13.8	172.4
November	158	24.5	155.3
<u>Total</u>	<u>290</u>	<u>43.4</u>	<u>149.8</u> (mean)
<u>1984</u> (preliminary)			
June	59	2.5	42.2
July	283	19.2	68.0
August	62	4.7	75.0
September	1280	126.5	98.8
October	1000	125.2	125.1
November	952	58.0	70.0
December	273	27.3	100.3
<u>Total</u>	<u>3337</u>	<u>363.4</u>	<u>93.0</u> (mean)

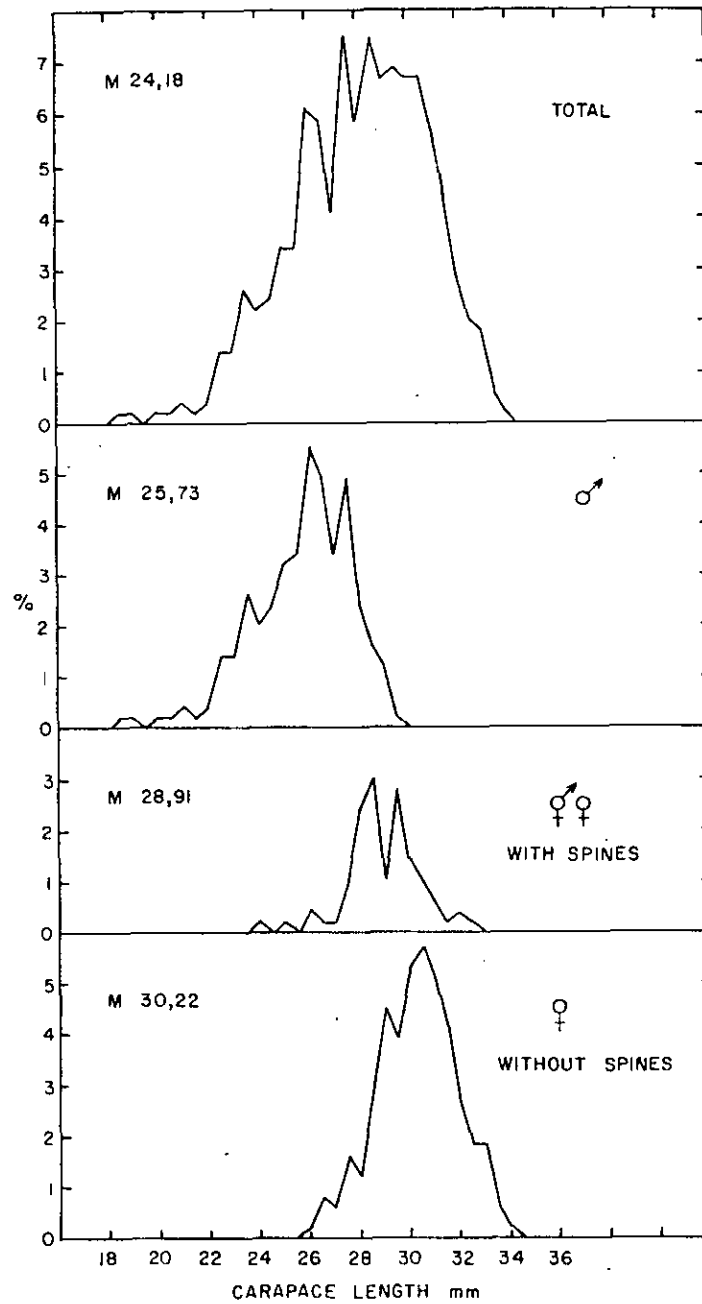


Fig. 1 The length distribution of 507 specimens (Nov. 1984) by sex and sternal spines. The mean length is designated by M.

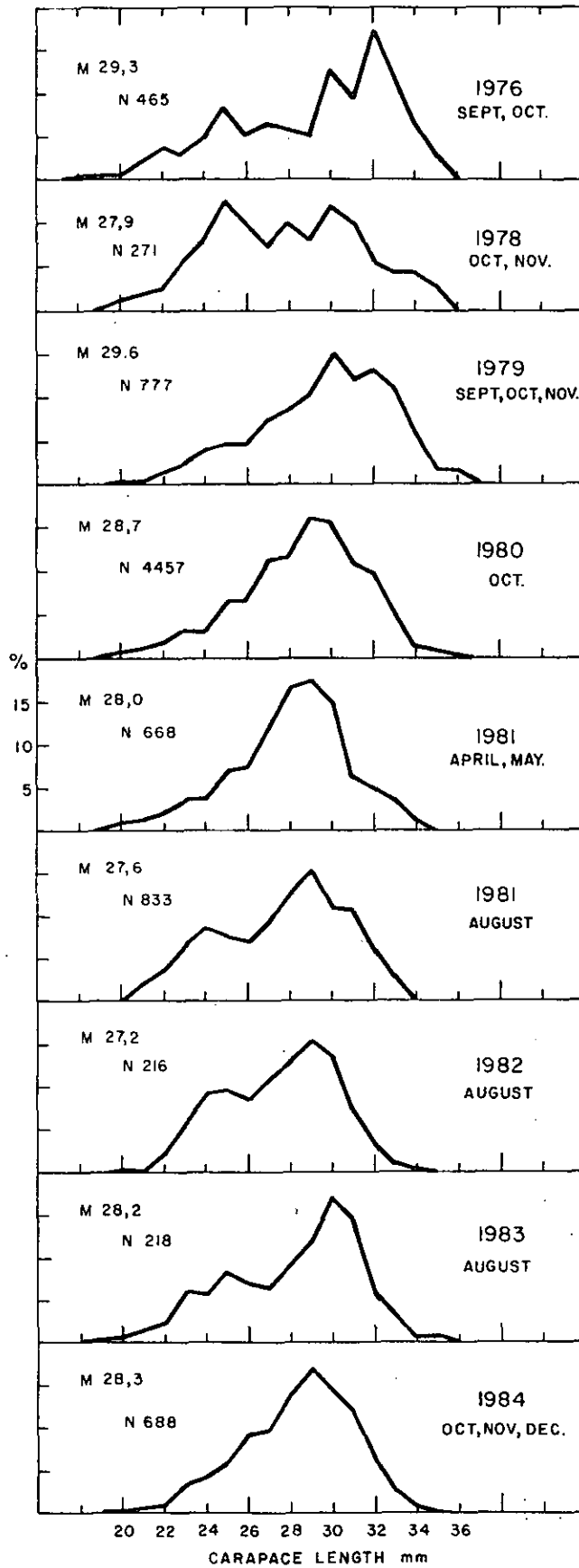


Fig. 2 The length distribution of *Pandalus* from the Icelandic catch. The number is designated by N and the mean length by M.