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TITLE

**Decapod Crustaceans of Newfoundland, Labrador
and the
Canadian Eastern Arctic**

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Maturity. It has been observed by various authors (Dawson, 1954) that the American lobster carries eggs for 11 months and that egg laying in individuals occurs only in alternate years. Measurements of ova indicate that females carrying eggs ready to hatch will not lay eggs until the following year. Non-ovigerous females with large ova ready to be laid comprised about 60% of the mature females, a much higher percentage than the ovigerous females found in catches the following spring (Table XXXV). The ovigerous lobsters may not trap so readily as the non-ovigerous ones (Templeman and Tibbo, 1945).

Table XXXV. Maturity of sexual products in female Homarus americanus during June-July, 1961 and 1962, from samples caught in lobster traps at Boswarlos, Port au Port Bay. All specimens are larger than the length at first maturity.

	1961		1962		1963	
	June	July	June	July	June	July
Numbers examined	79	57	39	35	46	85
% with small ova ^a	9	12	23	49	11	47
% with large ova ^a	84	74	49	40	61	29
% ovigerous	8	14	28	26	28	24

^aNon-ovigerous

DECAPODA ANOMURA

Family: GALATHEIDAE

Munida tenuimana G. O. Sars, 1871. Hansen, 1908; Selbie, 1914.

This decapod is greyish pink in colour and has three long and sharp frontal spines. It is small but lobster-like in appearance since it is flattened dorso-ventrally. It has a sub-cylindrical carapace which is rough in appearance and has scale-like imbricate ridges. The abdomen is slightly longer than the carapace. The sternal plates are smooth and not ridged as in M. bamffica.

It is reported from the Adriatic and North Africa, southwest of Ireland, off Norway, Iceland and Greenland, and from Davis Strait to the Grand Banks.

It was collected from east of Baffin Island, in Davis Strait, off Labrador (Makkovik) and east of the Grand Bank in depths from 440-650 m and temperatures of 3.5 to 4.4°C (Fig. 40).

Lebbeus polaris, Pasiphaea tarda, Pandalus propinquus and Pontophilus norvegicus were present in catches with this species (Fig. 6).

Most stomachs were empty but sponge spicules and a pycnogonid were found in one stomach.

The molar process is comparatively small and lies behind the large curved blade of the incisor process. It is subtriangular in surface outline and has three rounded cusps along the outer edge and seven small pointed cusps along the inner edge. The incisor process is separated from the molar by a shallow notch. Its large blade has a rounded tooth near the centre and a small pointed tooth at the outer corner. The palp has three sections. The proximal section is longer than the middle section and together they are about equal in length to the distal section. On the outside and terminally the distal section is fringed with a double row of short setae (Fig. 41).

The size of the male was 21 mm in cl, and the average size of the females was 24 mm in cl (range 21-31 mm).

Munidopsis curvirostra Whiteaves, 1874. Selbie, 1914; Rathbun, 1929.

This species is rough in appearance, greyish white in colour and with a long, curved and slightly flattened spine-like rostrum. The carapace is flattened somewhat and measures about one-third the total length of the animal: it is usually shorter than the chelipeds. The arrangement of the mid-dorsal spines on the carapace varies. Most of those caught had spines grouped in the order 2, 1, 1, 1, 1 but occasionally a grouping of 2, 1, 1, 2, 2 was found.

This species has been found in the North Atlantic only, from northwest Africa, the British Isles, Iceland, Greenland and as far south as North Carolina in America. Depths 135-2360 m.

Its local distribution was east of Baffin Island, in Hermitage Bay, in the Gulf of St. Lawrence and off the Nova Scotian Shelf (Fig. 40). It was taken in depths from 245-770 m and at temperatures of 1.5 to 3.6°C (Fig. 7 and 8).

Decapod species also in the catches were Pandalus propinquus, AcanthePHYra pelagica, Pandalus borealis, Sabinea sarsi and Lebbeus polaris (Fig. 6).

In the stomach contents, phytobenthos, foraminiferans and crustaceans were frequent in occurrence. Polychaetes and small pelycopod shells were occasionally present.

The mandibles are similar to those of Munida (Fig. 44), but the molar process is comparatively larger in Munidopsis. The centre tooth of the incisor process is smaller and the outer corner of the incisor is without a tooth.

Males and females both averaged 11 mm in cl and the ranges of carapace lengths were 8-12 mm and 5-15 mm, respectively.

Most females were ovigerous in March and one out of the two females caught in August. All the ovigerous and large non-ovigerous females had large ova in the ovaries. They were ovigerous for the first time at a length of 9 mm. Eggs were 1.5 mm in diameter. Males were first mature (carrying spermatophores) at 8 mm in cl.

Tribe: THALASSINIDEA

Family: AXIIDAE

Calocaris templemani, H. J. Squires, 1965.

This small pink decapod has 2 carinae with 3 spines each forming the arm of a "V" on the front of the carapace and coming close at the front to form a short pointed rostrum with 4 or 5 spines on each side. A low mid-dorsal carina extends the full length of the carapace and continues well out on the rostrum (Fig. 41 A). The eyes have no dark pigment and the chelae are large as in C. macandreae which it resembles closely (Table XXXVI). There is a relatively large open notch posteriorly on the sternal plate of the 3rd pair of pereopods; 2 dorsal carinae on the telson have only rudimentary or small spines; the outside edge of the outer uropods has only 4 spinules, and the outside edge of the inner uropod has 3 spinules (Fig. 41 D).

The maxillae and maxillipeds are quite similar in C. macandreae to those of C. templemani except that the second maxilla has no distal seta-like projection on the scaphognathite. Its mouth parts are shown in Figure 42 and are described as follows:

The mandibles are large and heavily calcified. The incisor process has an almost entire and regular edge, is slightly curved and has one small tooth at the inner end. It is separated at the inner end by a shallow notch from the large molar process which has a slightly hollowed elliptical surface for grinding. The palp is 3-sectioned. The distal section is about equal in length to the other two, half the outer edge is fringed with bristles and there is a tuft of long bristles proximally (Fig. 43, Mnd).

First maxilla. Precoxa and coxa are half as long as the basis and have a few setae. The basis has short stout bristles on the ventro-distal edge and a fringe of setae laterally. The endopod is in two parts: the proximal part has a few setae to the inside and the distal part which is recurved, has 2 plumose setae to the inside of the bend and distally 2 simple setae (Fig. 42, Mx₁).

Second maxilla. The precoxa is short and wide; the coxa, which is bilobed, has a triple fringe of setae on the large proximal lobe; the central fringe is on the pointed edge of the lobe and the other two originate at about one-third the length from its base and form an arc toward its apex on both the outside and inside of the lobe. The smaller lobe has a setal fringe which is longest at its tip. There is a setal fringe also on the edges of both lobes of the basis which is attached to the coxa. The endopod which is attached to the basis and coxa has a few long setae, most of them distal and to the inside. The exopod is attached to the basis and precoxa. It has a fringe of plumose setae the longest of which are distal. It has a triangular extension proximally, the scaphognathite, which also has a fringe of plumose setae (Fig. 42, Mx₂).