# REPORT

5

052287

32

OF THE

# CANADIAN ARCTIC EXPEDITION 1913-18

Vol. VII: CRUSTACEA

PART A: DECAPOD CRUSTACEANS

By MARY J. RATHBURN.



OTTAWA J. de LABROQUERIE TACHÉ PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1919

Issued August 18 1919



# REPORT

OF THE

# CANADIAN ARCTIC EXPEDITION 1913-18

Vol. VII: CRUSTACEA

PART A: DECAPOD CRUSTACEANS

By MARY J. RATHBURN.

SOUTHERN PARTY-1913-16



OTTAWA J. de LABROQUERIE TACHÉ PRINTER TO THE KING'S MOST EXCELLENT MAJESTY 1919

Vol. iii-46454-1

Issued August 18, 1919

Digitized by the Internet Archive in 2007 with funding from Microsoft Corporation

http://www.archive.org/details/arcticreportsa07canauoft

# The Decapod Crustaceans of the Canadian Arctic Expedition 1913-18.

# By MARY J. RATHBUN,

# Associate in Zoology, United States National Museum.

The known range of several species is extended by the specimens obtained by the Canadian Arctic Expedition. Five of the species of *Spirontocaris* are shown to have a more complete circumpolar distribution, while *Paralithodes camtschaticus* is recorded for the first time from the Arctic (occurrence possibly accidental), and *Pagurus brandti* seems to reach as far north in Bering sea as Norton sound. Attention is called to the distributional charts of von Hofsten (see bibliography) in some of which notable gaps are filled or reduced by the new data here published.

As nearly all of the species of shrimps collected by the Canadian Arctic Expedition were described and their synonymy worked out in the author's report on the decapod crustaceans of the Harriman Alaska expedition (see bibliography), a reference to that work is made under each of those species in the list below.

It may be noted that the care with which the specimens were obtained and preserved is due to Mr. Frits Johansen, naturalist of the expedition.

LIST OF THE SPECIES.

# Order DECAPODA.

Suborder NATANTIA.

# Superfamily PANDALOIDA.

# Family PANDALIDÆ.

# Genus Pandalus Leach.

# Pandalus goniurus Stimpson.

(Rathbun, 1904, p. 38, pl. I, fig. 3.).

Off point Lay, Arctic Alaska; lat. 69° 35′ N., long. 163° 27′ W.; 11–12 fathoms; rock and sand, with algæ; August 17, 1913; station 22; twelve specimens.

DISTRIBUTION.—Arctic coast of Alaska southward through Bering sea to Okhotsk sea and to Puget sound. 3–100 fathoms.

Superfamily PALAEMONOIDA.

# Family HIPPOLYTIDÆ.

### Genus Spirontocaris Bate.

#### Spirontocaris grœnlandica (J. C. Fabricius).

(Rathbun, 1904, p. 61.)

West of Cockburn point, Dolphin and Union strait, Northwest Territories; 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915; station 43c; three specimens.

Vol. vii-46454-11

Bernard harbour, Northwest Territories; from stomach of *Erignathus* barbatus; October 22, 1915; station 42*u*; three specimens.

DISTRIBUTION.—Arctic coast of America; Bering sea to Puget sound; Kamchatka; Okhotsk sea; Atlantic coast of America from East and West Greenland to Narragansett bay, Rhode island; Norway. 1–117 fathoms.

# Spirontocaris spina (Sowerby).

(Rathbun, 1904, p. 63, pl. III, fig. 5.)

North of the Alaskan boundary; lat.  $70^{\circ}$  13' N., long.  $140^{\circ}$  50' W.; about 30 fathoms mud; from stomach of *Phoca hispida*; April 4, 1914; station 29f. One specimen and fragments of three others.

Bernard harbour, Northwest Territories; from stomach of *Erignathus* barbatus; October 22, 1915; station 42*u*; two specimens.

DISTRIBUTION.—From Arctic Alaska (off point Hope), through Bering strait, Bering sea, Aleutian islands and Alaska peninsula to Lituya bay, Alaska. Arctic North America, from Ellesmere Land, Jones sound, and Melville peninsula, eastward to Greenland, Iceland, and Nova Zembla, and southward to Massachusetts bay, Faeroe islands, and Kattegat; 3–240 fathoms.

For table of distribution, see von Hofsten, 1916, fig. 1.

The two localities of the Canadian Arctic Expedition are at wide intervals between those previously recorded in Alaska and Arctic Canada.

# Spirontocaris arcuata Rathbun.

# (Rathbun, 1904, p. 64, pl. III, fig. 4.)

West of Cockburn point, Dolphin and Union strait, Northwest Territori es 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915; station 43c; one specimen.

DISTRIBUTION.—Hitherto known only from Pribilof islands, Bering sea to strait of Juan de Fuca. Its occurrence in Arctic Canada considerably extends the range.

# Spirontocaris phippsii (Kröyer).

# (Rathbun, 1904, p. 70.)

West of Cockburn point, Dolphin and Union strait, Northwest Territories; 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915; station 43c; three specimens.

Bernard harbour, Northwest Territories; from stomach of *Erignathus* barbatus; October 22, 1915; station 42*u*; anterior half of one specimen.

DISTRIBUTION.—Arctic Alaska (west of point Franklin) southward to Plover bay, Siberia, and to the Shumagins, Alaska peninsula; Ellesmere Land and Jones sound to Eastern Greenland, southward via Labrador to cape Cod; Iceland, the Faeroes, and Spitzbergen, eastward to Kara strait and southward to Skagerak; Middle Arctic Siberia; shallow water to 200 fathoms.

For table of distribution, see von Hofsten, 1916, fig. 2.

The two localities of the Canadian Arctic Expedition are near together and remote from those on either side which have been previously recorded.

# Spirontocaris polaris (Sabine).

## (Rathbun, 1904, p. 73.)

Off point Lay, Arctic Alaska; lat.  $69^{\circ}$  35' N., long.  $163^{\circ}$  27' W.; 11-12 fathoms; rock and sand, with many algæ; August 17, 1913; station 22; one specimen.

#### Decapods

West of Cockburn point, Dolphin and Union strait, Northwest Territories; 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915; station 43c; one specimen, with bopyrid parasite in left branchial chamber.

Outer harbour, Bernard harbour, Northwest Territories; about 5 fathoms; sandy mud, with algæ; July 20, 1915; station 41; five specimens.

Outer harbour, Bernard harbour, Northwest Territories; about 5 fathoms; mud with algæ (mostly loose); July 28, 1915; station 41*c*; three specimens  $(1 \diamond 2 \diamond)$ . The male and one female have purplish antennal scales and purple dot-markings on antennae, eye-stalks, and legs; telson more orange, carapace flammeate.

Outer harbour, Bernard harbour, Northwest Territories; about 3 fathoms; mud with brown algæ; August 1, 1915; station 41f; one ovigerous female, one young.

Bernard harbour, Northwest Territories; from stomach of big  $\circ$  Erignathus barbatus; September 3, 1915; station 42e; one specimen.

Bernard harbour, Northwest Territories; from stomach of Erignathus barbatus; October 22, 1915; station 42u; one specimen.

DISTRIBUTION—From Arctic ocean, north of Bering strait, southward to the Aleutian islands and Kadiak on the American side, and to Okhotsk sea on the Asiatic side; Arctic America from Melville island southward to cape Cod, Massachusetts, and eastward via Greenland and Iceland to New Siberia islands; southward on the European coast to the Hebrides and Skagerak; 1–553 fathoms.

For table of distribution, see von Hofsten, 1916, fig. 3.

The two general localities where this species was taken by the Canadian Expedition are intermediate between those previously recorded.

## Spirontocaris fabricii (Kröyer).

### (Rathbun, 1904, p. 85.)

Off point Lay, Arctic Alaska; lat. 69° 35' N., long. 163° 27' W.; 11-12 fathoms; rock and sand, with many algæ; August 17, 1913; station 22; two ovigerous.

West of Cockburn point, Dolphin and Union strait, Northwest Territories; 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915; station 43c; twenty-three specimens.

DISTRIBUTION.—Arctic coast of Alaska southward through Bering sea to Okhotsk sea and Alaska (Cook inlet); Arctic Canada (see above); Atlantic coast of America from West Greenland southward to Massachusetts bay. Low water to 100 fathoms.

# Spirontocaris gaimardii belcheri (Bell).

(Rathbun, 1904, p. 86, pl. III, figs. 3, 3a.)

Off Icy cape, Arctic Alaska; lat. 70° 24′ N., long. 161° 25′ W.; 9–10 fathoms; mud, with pebbles; August 19, 1913; station 23; one ovigerous  $\varphi$  and fragments of one  $\varphi$ , one  $\varphi$ .

Off Stapylton bay, Dolphin and Union strait, Northwest Territories; 25–30 fathoms; sandy mud, with pebbles; September 14, 1915; station 43b; one 3.

DISTRIBUTION.—Nova Zembla, Kara sea, Arctic Siberia and Alaska, thence south to Sitka; Dolphin and Union strait, Arctic Canada (see above); Western Greenland and Labrador;  $3\frac{1}{2}$ -37 fathoms.

The distribution of the species, *S. gaimardii*, with all its variations is much more extensive (see von Hofsten, 1916, fig. 4), including Eastern Greenland, Iceland and Northern Europe, thence southward to Scotland and Kiel bay.

Superfamily CRAGONOIDA.

# Family CRAGONIDÆ.

# Genus Crago Lamarck.

# Crago septemspinosus (Say).

#### (Crangon septemspinosa Rathbun, 1904, p. 116, text-fig. 55.)

Near Grantley harbour, Port Clarence, Alaska; 2–3 fathoms; mud, with many algæ; August 4, 1913; station 20g; one specimen.

DISTRIBUTION.—Arctic coast of Alaska at Eschscholtz bay southward along the eastern shore of Bering sea to the Shumagins; east coast of North America from eastern Florida (Say) northward; shallow water to 435 fathoms (off Delaware).

# Genus Sclerocrangon Sars.

#### Sclerocrangon boreas (Phipps).

(Rathbun, 1904, p. 133.)

Off point Lay, Arctic Alaska; lat. 69° 35′ N., long. 163° 27′ W.; 11–12 fathoms; rock and sand, with many algæ; August 17, 1913; station 22; thirty-one specimens.

Off Icy cape, Arctic Alaska; lat. 70° 24′ N., long. 161° 25′ W.; 9–10 fathoms; mud, with pebbles; August 19, 1913; station 23; one small specimen.

West of Cockburn point, Dolphin and Union strait, Northwest Territories; 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915; station 43c; six specimens.

Bernard harbour, Northwest Territories; from stomach of *Erignathus* barbatus; July 6–8, 1915; station 40*u*; fragments of one specimen.

Bernard harbour, Northwest Territories; from stomach of big ? *Erignathus* barbatus; September 3, 1915; station 42e; fragments of three specimens.

Bernard harbour, Northwest Territories; from stomach of *Erignathus* barbatus; August 24, 1914; station 37*a*; third abdominal somite of a very large specimen.

DISTRIBUTION.—Arctic Siberia near Bering strait, and Arctic Alaska, southward via Bering sea to Killisnoo, Alaska, and strait of Georgia, British Columbia (Lenz); Sakhalin island and vicinity, Eastern Siberia; islands of Arctic America southward to cape Cod; Greenland, Iceland, Northern Europe, eastward to Kara sea and southward to the Faeroe islands and to lat. 67° 15′ N. on the coast of Norway; 0 to 200 fathoms.

For table of distribution, see von Hofsten, 1916, fig. 7.

#### Genus Nectocrangon Brandt.

#### Nectocrangon lar (Owen).

## (Rathbun, 1904, p. 137, text-figs. 74 and 75.)

Off point Lay, Arctic Alaska; lat. 69° 35' N., long. 163° 27' W.; 11-12 fathoms; rock and sand, with many algæ; August 17, 1913; station 22; two specimens.

Near Grantley harbour, port Clarence, Alaska; 2–3 fathoms; mud, with many algæ; August 4, 1913; station 20g; one specimen.

DISTRIBUTION.—Arctic coast of Alaska and Siberia southward to Sitka and Kurile islands; Western and Eastern Greenland southward to Nova Scotia; 0 to 220 fathoms.

#### Decapods

# Genus Sabinea Owen.

# Sabinea septemcarinata Sabine.

(Hansen, 1908, p. 52.)

North of the Alaskan boundary; lat.  $70^{\circ}$  13' N., long.  $140^{\circ}$  50' W.; from stomach of *Phoca foetida*; depth of water about 30 fathoms; mud; April 4, 1914; station 29*f*; fragments of two specimens.

Off Stapylton bay, Dolphin and Union strait, Northwest Territories; 25–30 fathoms; sandy mud, with pebbles, no algæ; September 14, 1915; station 43b; four small specimens.

Off Cockburn point, Dolphin and Union strait, Northwest Territories; about 50 fathoms; mud, with pebbles, but no algæ; September 13, 1915; station 43*a*; five specimens.

Bernard harbour, Northwest Territories; from stomach of *Erignathus* barbatus; July 6-8, 1915; station 40*u*; one specimen.

Bernard harbour, Northwest Territories; from stomach of big  $\circ$  *Erignathus* barbatus; September 3, 1915; station 42e; one specimen.

Bernard harbour, Northwest Territories; from stomach of Erignathus barbatus; October 22, 1915; station 42u; anterior half of one specimen.

DISTRIBUTION.—Arctic America from the Alaskan boundary eastward to the American islands, thence southward to cape Cod; western and eastern Greenland, Iceland, Faeroes, northern Europe and Siberia, eastward to long. 170° 17' E., and southward to Saltenfjord, Norway; 0 to 246 fathoms.

For table of distribution, see von Hofsten, 1916, fig. 8.

#### Suborder REPTANTIA.

# Tribe ANOMURA.

Superfamily PAGURIDEA.

# Family PAGURIDÆ.

#### Genus Pagurus Fabricius.

#### Pagurus trigonocheirus (Stimpson).

(Stimpson, Proc. Acad. Nat. Sci. Philadelphia, vol. X, 1858, p. 249 [87].)

Off Icy cape, Arctic Alaska; lat. 70° 24′ N., long. 161° 25′ W.; 9–10 fathoms; mud, with pebbles, but no algæ; August 19, 1913; station 23; one  $\circ$  ovigerous, one young.

DISTRIBUTION.—Arctic coast of Alaska and Siberia southward through Bering sea to Aleutian islands and Kamchatka; 3 to 100 fathoms.

#### Pagurus capillatus (Benedict).

(Benedict, Proc. U. S. Nat. Mus., vol. XV, 1892, p. 8. Rathbun, 1904, p. 157, pl. IV, fig. 3.)

Near Grantley harbour, port Clarence, Alaska; 2-3 fathoms; mud, with many algæ; August 4, 1913; station 20g; one specimen.

DISTRIBUTION.—Arctic ocean southward through Bering strait to Kamchatka and California (lat. 36° 55′ N.); 3 to 240 fathoms.

#### Pagurus brandti (Benedict).

(Benedict, Proc. U. S. Nat. Mus., vol., XV, 1892, p. 9. Rathbun, 1904, p. 157, pl. IV, fig. 4.)

Norton sound, Alaska; lat. 63° 43′ N., long. 165° 24′ W.; surface; July 8, 1913; station 19; one right chela.

DISTRIBUTION.—Bering sea southward to Oregon; 9 to 121 fathoms; hitherto the latitude of the Pribilof islands was the farthest north known for this species. The specimen from Norton sound, if the identification be correct, extends the range.

# Pagurus splendescens Owen.

(Owen, in Zool. of Capt. Beechey's Voyage, 1825-28, London, 1839, p. 81, pl. XXV, figs. 1, 1a.)

Off Icy cape, Arctic Alaska; lat. 70° 24′ N., long. 161° 25′ W.; 9–10 fathoms; mud, with pebbles, but no algæ; August 19, 1913; station 23; two small specimens.

DISTRIBUTION.—Arctic coast of Alaska (point Barrow) westward through Bering sea to Kamchatka and Washington; below low water to 225 fathoms.

# Pagurus sp. indet.

Off cape Lisburne, Arctic Alaska; lat.  $68^{\circ} 48'$  N., long.  $165^{\circ} 10'$  W.; surface; August 16, 1913; station 21*d*, *e*, *f*; two specimens of the megalops stage.

#### Family LITHODIDÆ.

# Genus Paralithodes Brandt.

#### Paralithodes camtschaticus (Tilesius).

(Bouvier, Ann. Sci. Nat., Zool., ser. 8, vol. I, 1896, p. 23.)

Point Barrow, Alaska; on sand spit; beach; August 22, 1913; station 24; propodus of left cheliped of a specimen of medium size.

DISTRIBUTION.—Point Barrow, Arctic Alaska (see above); Bering sea (from Norton sound) to Aleutian islands to Orca, Prince William sound; Skidegate, Queen Charlotte islands, British Columbia (Geological Survey of Canada); Kamchatka; Okhotsk sea; Japan; low tide to 49 fathoms.

# Tribe BRACHYURA.

## Subtribe BRACHYGNATHA.

Superfamily BRACHYRHYNCHA.

# Family ATELECYCLIDÆ.

#### Genus Telmessus White.

#### Telmessus cheiragonus (Tilesius).

(Benedict, Proc. U. S. Nat. Mus., vol. XV, 1892, p. 224, pl. XXV, pl. XXVI, figs. 2-4.)

Beach at Teller, Port Clarence, Alaska; July 31, 1913; station 20d; one  $\sigma$ , two  $\circ$ , and five carapaces.

Beach at Nome, Alaska; July 12, 1913; station 20*o*; one  $\varphi$  and five carapaces. DISTRIBUTION.—Northeastern Siberia; Kamchatka; Kurile islands; Bering sea to California (Holmes); low water to 20 fathoms.

# Family CANCRIDÆ.

#### Genus Cancer Linnæus.

### Cancer magister Dana.

(Dana, Proc. Acad. Nat. Sci. Philadelphia, 1852, p. 73; Crust. U. S. Exploring Exped., part I, 1852, p. 151; atlas, 1855, pl. VII, figs. 1a-d.)

Beach at Orea (Cordova), Southeastern Alaska; September 5, 1916; station 60*a*; one carapace.

DISTRIBUTION.—Unalaska to Magdalena bay, Lower California; low water to 50 fathoms.

Superfamily OXYRHYNCHA.

# Family INACHIDÆ.

# Genus Hyas Leach.

### Hyas coarctatus Leach.

# (Rathbun, Proc. U. S. Nat. Mus., vol. XVI, 1893, p. 69.)

Off Icy cape, Arctic Alaska; lat. 70° 24′ N., long. 161° 25′ W.; 9–10 fathoms; mud, with pebbles, but no algæ; August 19, 1913; station 23; four  $\sigma$ , four  $\varphi$ .

Langton bay (East of Mackenzie river), Northwest Territories; October 26, 1910; Dr. R. M. Anderson; fifteen specimens (Amer. Mus. Nat. Hist.), two of which were taken in the net in 8 fathoms of water. A note accompanying the crabs states that they are known to the Kotzebue sound Eskimos as 'Pu-tu-ri-ak,' but are unknown to the people east of the Mackenzie.<sup>1</sup>

DISTRIBUTION (including Hyas coarctatus alutaceus Brandt).—Arctic Siberia to Langton bay; Bering sea to Aleutian islands; Kamchatka; Okhotsk sea to Korea (lat.  $37^{\circ} 02'$  N.); Baffins bay and Eastern Greenland to Hudson strait and bay; and southward to off cape Hatteras, North Carolina; Iceland: Northern Europe southward to about lat.  $49 \cdot 5^{\circ}$  N. (Dons); shallow water to 906 fathoms.<sup>2</sup>

Various larvæ from the following stations have been referred to this species: Off Cooper island, point Barrow, Alaska; surface; August 27, 1913; stations 25 b, c; three zoeæ.

Off cape Lisburne, Arctic Alaska; lat.  $68^{\circ} 48'$  N., long.  $165^{\circ} 10'$  W.; surface; August 16, 1913; stations 21 c, d, e, f; three specimens of zoeæ, more than twenty-five specimens of megalopa, first form, with three-spined front, eight specimens of megalopa which may be a development from the preceding and from which the median or rostral spine has disappeared.

Off Nunivak island, Bering sea; lat. 60° 09' N., long. 167° 38' W.; surface; July 6, 1913; about 50 zoeæ.

South of Shumagin islands; lat.  $54^{\circ}$  30' N., long.  $159^{\circ}$  42' W.; surface; July 1, 1913; stations 13 a, b, c; three megalopa, second form.

The zoeæ and first megalops resemble those of *Hyas araneus* "areneus" described and figured by Williamson, Fisheries Board, Scotland, Sci. Invest., 1909, I (Dec., 1910), pp. 15–16, pl. I, figs. 1 and 2. Williamson considered that his megalopa moulted into the first crab stage. The rostrum of a similar megalops, but with longer median spine, is figured as *H. coarctatus* by Bjorck, Acta Reg. Soc. Physiog. Lundensis, n.f., vol. XXIV, 1913, p. 22, text-figs. 1 and 2

<sup>&</sup>lt;sup>1</sup>These specimens have been identified by Dr. W. G. Van Name and the information communicated by Dr. Roy W. Miner, of the American Museum of Natural History.

<sup>&</sup>lt;sup>2</sup>A station label indicating this great depth accompanies the specimen so recorded (see Hansen, Danish Ingolf-Expedition, III, 2, 1903, p. 16), but an error may, of course, have been made at the time of collection.

# Genus Chionœcetes Kröver.

# Chionœcetes opilio (O. Fabricius).

(Rathbun, Proc. U. S. Nat. Mus., vol. XVI, 1893, p. 74, pl. IV, figs. 5-7.)

Off Icy cape, Arctic Alaska; lat. 70° 24' N., long. 161° 25' W.; 9-10 fathoms; mud, with pebbles, but no alga; August 19, 1913; station 23; 2 young 3, one voung Q.

According to Mr. Frits Johansen (in a letter) Dr. R. M. Anderson reports that several years ago one of the Eskimos caught a big "devil-crab" or "spidercrab" in a gill-net at Herschel island.

Dr. Roy W. Miner writes that there is in the American Museum of Natural History a specimen of Chionacetes opilio collected at point Barrow, Alaska, by V. Stefansson in July or August, 1912.

DISTRIBUTION. -From British Columbia northward to Bering strait, thence eastward to Greenland, thence southward to Casco bay, Maine; Kamchatka; Okhotsk sea (off Robben island); Nagasaki, Japan; littoral to 350 fathoms.

LIST OF LOCALITIES WITH THE DECAPODS FOUND AT EACH.

Station 13a, b, c. South of Shumagin islands; lat. 54° 30' N., long. 159° 42' W.; surface; July 1, 1913.

Hyas coarctatus Leach. Larvæ.

Station 19. Norton sound, Alaska; lat. 63° 43' N., long. 165° 24' W.: surface; July 8, 1913.

Pagurus brandti (Benedict).

Station 20d. Beach at Teller, port Clarence, Alaska; July 31, 1913.

Telmessus cheiragonus (Tilesius).

Station 20q. Near Grantley harbour, port Clarence, Alaska; 2–3 fathoms; mud, with many algae; August 4, 1913.

Crago septemspinosus (Say).

Nectocrangon lar (Owen).

Pagurus capillatus (Benedict).

Station 200. Beach at Nome, Alaska; July 12, 1913.

Tellmessus cheiragonus (Tilesius).

Station 21c. Off cape Lisburne, Arctic Alaska; lat. 68° 48' N., long. 165° 10' W.; surface; August 16, 1913.

Hyas coarctatus Leach. Larvæ.

Station 21*d*, *e*, *f*. Off cape Lisburne, Arctic Alaska; lat. 68° 48' N.; long. 165° 10' W.; surface; August 16, 1913. Pagurus sp. indet. Larvæ. Huas coarctatus Leach. Larvæ.

Station 22. Off point Lay, Arctic Alaska; lat. 69° 35' N., long. 163° 27' W.; 11-12 fathoms; rock and sand, with alga; August 17, 1913.

Pandalus goniurus Stimpson.

Spirontocaris polaris (Sabine). Spirontocaris fabricii (Kröyer).

Sclerocrangon boreas (Phipps).

Nectocrangon lar (Owen).

Station 23. Off Icy cape, Arctic Alaska; lat. 70° 24' N., long. 161° 25' W.;

9–10 fathoms; mud, with pebbles, but no alga; August 19, 1913.

Spirontocaris gaimardii belcheri (Bell).

Sclerocrangon boreas (Phipps).

Pagurus trigonocheirus (Stimpson).

Pagurus splendescens Owen.

Hyas coarctatus Leach.

Chionæcetes opilio (O. Fabricius).

Station 24. Point Barrow, Alaska; on sand spit; beach; August 22, 1913. Paralithodes camtschaticus (Tilesius).

Stations 25b, c. Off Cooper island, point Barrow, Alaska; surface; August 27, 1913.

Hyas coarctatus Leach. Larvæ.

Station 29f. North of Alaskan boundary; lat. 70° 13' N., long. 140° 50'

W.; from stomach of Phoca hispida; about 30 fathoms; mud; April 4, 1914.

Spirontocaris spina (Sowerby).

Sabinea septemcarinata Sabine.

Station 37a. Bernard harbour, Northwest Territories; from stomach of *Erignathus barbatus;* August 24, 1914.

Sclerocrangon boreas (Phipps).

Station 40*u*. Bernard harbour, Northwest Territories; from stomach of *Erignathus barbatus*; July 6–8, 1915.

Sclerocrangon boreas (Phipps).

Sabinea septemcarinata Sabine.

Station 41. Outer harbour, Bernard harbour, Northwest Territories; about 5 fathoms; sandy mud, with algæ; July 20, 1915.

Spirontocaris polaris (Sabine).

Station 41c. Outer harbour, Bernard harbour, Northwest Territories; about 5 fathoms; mud, with algæ (mostly loose); July 28, 1915.

Spirontocaris polaris (Sabine).

Station 41f. Outer harbour, Bernard harbour, Northwest Territories, about 3 fathoms; mud, with brown algæ; August 1, 1915.

Spirontocaris polaris (Sabine).

Station 42e. Bernard harbour, Northwest Territories; from stomach of big e Erignathus barbatus; September 3, 1915.

Spirontocaris polaris (Sabine).

Sclerocrangon boreas (Phipps).

Sabinea septemcarinata Sabine.

Station 42u. Bernard harbour, Northwest Territories; from stomach of *Erignathus barbatus*; October 22, 1915.

Spirontocaris grænlandica (J. C. Fabricius).

Spirontocaris spina (Sowerby).

Spirontocaris phippsii (Kröyer).

Spirontocaris polaris (Sabine).

Sabinea septemcarinata Sabine.

Station 43a. Off Cockburn point, Dolphin and Union strait, Northwest Territories: about 50 fathoms: mud. with pebbles, but no algæ: September 13, 1915.

Sabinea septemcarinata Sabine.

Station 43b. Off Stapylton bay, Dolphin and Union strait, Northwest Territories; 25–30 fathoms; sandy mud, with pebbles, no algæ; September 14, 1915.

Spirontocaris gaimardii belcheri (Bell).

Sabinea septemcarinata Sabine.

Station 43c. West of Cockburn point, Dolphin and Union strait, Northwest Territories; 15–20 fathoms; sandy mud, with stones and algæ; September 14, 1915.

Spirontocaris granlandica (J. C. Fabricius).

Spirontocaris arcuata Rathbun.

- Spirontocaris phippsii (Kröyer).

Spirontocaris polaris (Sabine).

Spirontocaris fabricii (Kröyer).

Sclerocrangon boreas (Phipps).

Station 60a. Beach at Orea (Cordova), Southeastern Alaska; September 5, 1916.

Cancer magister Dana.

Off Nunivak island, Bering sea; lat. 60° 09′ N., long. 167° 38′ W., surface; July 6, 1913.

Hyas coarctatus Leach. Larvæ.

#### BIBLIOGRAPHY.

#### Appellof, A.

Die Dekapoden Crustaceen. Meeresfauna von Bergen, Heft 2 u. 3, 1906.

#### Birula, A.

Beiträge zur Kenntnis der Decapoden-Krebse der eurasiatischen Arctis. Mém. de l'Acad. Imp. Sci. St. Pétersbourg, ser. 8, vol. XXIX, 1910.

#### Doflein, F.

Die dekapoden Krebse der arktischen Meere. Fauna Arctica, Band I, Lief. 2, Jena, 1900.

## Dons, Carl.

Slegten Hyas. Tromsö Museums Aarshefter 34, Tromsö, 1912–13.

#### Dons, Carl.

Nord-Norges Decapoder. Tromsö Museums Aarshefter 37, Tromsö, 1914 (1915).

# Hansen, H. J.

The Danish Ingolf-Expedition. Vol. III. 2. Crustacea Malacostraca. I. Copenhagen, 1908.

#### Hofsten, Nils von.

 Zoologische Ergebnisse der Schwedischen Expedition nach Spitzbergen 1908. Teil II. 7 Die Decapoden Crustaceen des Eisfjords.
 Kongl. Svenska Vetensk. Akad. Handl., Band 54, No. 7, Stockholm, 1916.

#### Murdoch, John.

Marine Invertebrates, in P. H. Ray, Report of the International Polar Expedition to Point Barrow, Alaska.

House of Representatives, 48th Congress, 2d Session, Ex. Doc. No. 44, Washington, 1885.

#### Ohlin, Axel.

Bidrag till Kännedomen om Malakostrakfaunan i Baffin Bay och Smith Sound. Acta Reg. Soc. Physiog. Lundensis, Handlingar, ny följd, Bd. 6, Lund, 1895.

# Rathbun, Mary J.

Decapod Crustaceans of the Northwest Coast of North America. Harriman Alaska Expedition, vol. X, New York, 1904.

#### Stappers, Louis.

Duc d'Orleans. Campagne Arctique de 1907. Crustacés Malacostracés, par le Dr. Louis Stappers. Bruxelles, 1911.

#### Stephensen, K.

Report on the Malacostraca Pycnogonida and some Entomostraca collected by the "Danmark" Expedition to North-east Greenland. Meddelelser om Grönland, vol. xlv, Köbenhavn, 1912.

#### Stephensen, K.

Grönlands Krebsdyr og Pycnogonider (Conspectus Crustaceorum et Pycnogonidorum Groenlandiae).

Meddelelser om Grönland, vol. XXII, Köbenhavn, 1913.

# Decapods

# Hitherto unpublished Records of Decapod Crustaceans collected by other Canadian Expeditions and Explorers.<sup>1</sup>

By MARY J. RATHBUN.

The material from which this list was made is in the Museum at Ottawa, and was sent to the United States National Museum for identification.

Spirontocaris granlandica (J. C. Fabricius).

Spirontocaris spina (Sowerby).         Port Burwell, Ungava, "Neptune" Expedition, 1903-4.       1 specimen.         Spirontocaris liljeborgii (Danielssen).         Port Burwell, Ungava. "Neptune" Expedition, 1903-4.       1 specimen.         Spirontocaris phippsii (Kröyer).         Port Burwell, Ungava. "Neptune" Expedition, 1903-4.       23 specimens.         Near mouth of Povungnituk river, east side of Hudson bay, August, 1898.       1 specimen.         Spirontocaris polaris (Sabine).       1 specimen.         Fullerton, west side of Hudson bay, Northwest Territories, September 19, 1904.       1 specimen.         "Neptune" Expedition.       1 specimen.         Fullerton, west side of Hudson bay, Northwest Territories, from stometh       6 specimens.         Fast of Blacklead island, Cumberland gulf, Northwest Territories, from stometh       1 specimen.         Port Burwell, Ungava. "Neptune" Expedition, 1903-4.       1 specimen.         "Neptune" Expedition.       2 specimens.         Near mouth of Povungnituk river, east side of Hudson bay, August, 1898.       1 specimens.         Near mouth of Povungnituk river, east side of Hudson bay, August, 1898.       1 specimen.         Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)       2 specimens.         Port Burwell, Ungava. "Neptune" Expedition, 1903-4.       1 specimen.         Spirontocaris gaimardii Milne	<ul> <li>Port Burwell, Ungava. "Neptune" Expedition, 1903–4</li></ul>	<ul><li>12 specimens.</li><li>1 fragment.</li><li>1 specimen.</li></ul>
Port Burwell, Ungava, "Neptune "Expedition, 1903-4	Spirontocaris spina (Sowerby).	
Spirontocaris liljeborgii (Danielssen).         Port Burwell, Ungava. "Neptune" Expedition, 1903–4	Port Burwell, Ungava, "Neptune" Expedition, 1903-4	1 specimen.
Port Burwell, Ungava. "Neptune" Expedition, 1903–4	Spirontocaris liljeborgii (Danielssen).	
Spirontocaris phippši (Kröyer).       23 specimens.         Port Burwell, Ungava. "Neptune" Expedition, 1903-4	Port Burwell, Ungava. "Neptune" Expedition; 1903-4	1 specimen.
Port Burwell, Ungava. "Neptune" Expedition, 1903-4	Spirontocaris phippsii (Kröyer).	
Spirontocaris polaris (Sabine).         Fullerton, west side of Hudson bay, Northwest Territories, September 19, 1904. "Neptune" Expedition. Port Burwell, Ungava, Northwest Territories, 1903–4. "Neptune" Expedition. Near mouth of Povungnituk river, east side of Hudson bay, August, 1898. A. P. Low. Spirontocaris fabricii (Kröyer).       1 specimen. 2 specimens. 2 specimens. Spirontocaris fabricii (Kröyer).         Port Burwell, Ungava. "Neptune" Expedition, 1903–4. Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)       17 specimens. 1 specimen. 2 opsecimens. Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)         Port Burwell, Ungava. "Neptune" Expedition, 1903–4. Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)       20 specimens. 1 specimen. 1 specimen. Sclerocrangon borcas (Phipps).         Ponds inlet, north side of Cockburn island, June, 1907. "Aretic" Expedition. Sclerocrangon borcas (Phipps). Ponds inlet, north side of Cockburn island, June, 1907. "Aretic " Expedition. Sclerocrangon borcas (Phipps). Ponds inlet, north side of Cockburn island, June, 1907. "Aretic " Expedition. Sclerocrangon borcas (Phipps). Ponds inlet, north side of Cockburn island, June, 1907. "Aretic " Expedition. Sclerocrangon borcas (Phipps). Ponds inlet, north side of Cockburn island, June, 1907. "Aretic " Expedition. Sclerocrangon borcas (Phipps). Ponds inlet, north side of Cockburn island, June, 1907. "Aretic " Expedition. Sclerocrangon borcas (Phipps). Port Burwell, Ungava, Northwest Territories. "Neptune" Expedition, 1903–4. Sclerocrangon borcas (Phipps). Port Burwell, Ungava, Northwest Territories. "Neptune" Expedition, 1903–4. Sclerocrangen borcas (Phipps). Port Burwell, Ungava, Northwest Territories. "Neptune" Expedition, 1903–4. Sclerocrangen	Port Burwell, Ungava. "Neptune" Expedition, 1903-4 Near mouth of Povungnituk river, east side of Hudson bay, August, 1898. A. P. Low.	<ul><li>23 specimens.</li><li>1 specimen.</li></ul>
Fullerton, west side of Hudson bay, Northwest Territories, September 19, 1904.       1 specimen.         "Neptune" Expedition       1 specimen.         Port Burwell, Ungava, Northwest Territories, 1903–4.       "Neptune" Expedition.         East of Blacklead island, Cumberland gulf, Northwest Territories; from stomach of Cottus (Myozocephalus) grænlandicus (Cuv. & Val.), September 4, 1904.       1 specimen.         "Neptune" Expedition.       1 specimen.         Near mouth of Povungnituk river, east side of Hudson bay, August, 1898.       2 specimens.         Spirontocaris fabricii (Kröyer).       1 specimen.         Port Burwell, Ungava.       "Neptune" Expedition, 1903–4.       17 specimens.         Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)       1 specimen.         Port Burwell, Ungava.       "Neptune" Expedition, 1903–4.       1 specimen.         Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)       20 specimens.         Port Burwell, Ungava.       "Neptune" Expedition, 1903–4.       1 specimen.         Fullerton, west side of Hudson bay.       "Neptune" Expedition.       1 specimen.         Sclerocrangon boreas (Phipps).       1 specimen.       1 specimen.         Ports Burwell, Ungava, Northwest Territories.       "Neptune" Expedition, 1903–4.       1 specimen.         Sclerocrangon boreas (Phipps).       1 specimen.       1 s	Spirontocaris polaris (Sabine).	
A. P. Low	<ul> <li>Fullerton, west side of Hudson bay, Northwest Territories, September 19, 1904.</li> <li>"Neptune" Expedition.</li> <li>Port Burwell, Ungava, Northwest Territories, 1903–4. "Neptune" Expedition</li> <li>East of Blacklead island, Cumberland gulf, Northwest Territories; from stomach of Cottus (Myozocephalus) grænlandicus (Cuv. &amp; Val.), September 4, 1904.</li> <li>"Neptune" Expedition.</li> <li>Neptune in Expedition.</li> </ul>	1 specimen. 6 specimens. 1 specimen.
Spirontocaris fabricii (Kröyer).         Port Burwell, Ungava. "Neptune" Expedition, 1903–4	A. P. Low.	2 specimens.
Port Burwell, Ungava. "Neptune" Expedition, 1903–4	Spirontocaris fabricii (Kröyer).	
Spirontocaris gaimardii Milne Edwards, varying towards S. g. belcheri(Bell.)         Port Burwell, Ungava. "Neptune" Expedition, 1903-4	Port Burwell, Ungava. "Neptune" Expedition, 1903–4 Near mouth of Poyungnituk river, east side Hudson bay, August, 1898. A. P. Low	17 specimens. 1 specimen.
Port Burwell, Ungava. "Neptune" Expedition, 1903-4.       20 specimens.         Fullerton, west side of Hudson bay. "Neptune" Expedition, 1903-4.       1 specimen.         Sclerocrangon boreas (Phipps).       1 specimen.         Ponds inlet, north side of Cockburn island, June, 1907. "Arctic" Expedition.       1 specimen.         Winter harbour, Melville island, Northwest Territories, May 28, 1909. "Arctic"       1 specimen.         "Neptune" Expedition.       1 specimen.         "Neptune" Expedition, (?), 1903-4.       1 soft shell.         Port Burwell, Ungava, Northwest Territories. "Neptune" Expedition, 1903-4.       1 specimen.	Spirontocaris gaimardii Milne Edwards, varying towards S. g. beleheri(	Bell.)
Sclerocrangon boreas (Phipps).       1 specimen.         Ponds inlet, north side of Cockburn island, June, 1907. "Arctie" Expedition       1 specimen.         Winter harbour, Melville island, Northwest Territories, May 28, 1909. "Arctie"       1 specimen.         "Neptune" Expedition	Port Burwell, Ungava. "Neptune" Expedition, 1903-4 Fullerton, west side of Hudson bay. "Neptune" Expedition, 1903-4	20 specimens. 1 specimen.
Ponds inlet, north side of Cockburn island, June, 1907. "Arctic" Expedition       1 specimen.         Winter harbour, Melville island, Northwest Territories, May 28, 1909. "Arctic"       1 specimen.         "Expedition"       1 specimen.         "Neptune" Expedition, (?), 1903–4	· Sclerocrangon boreas (Phipps).	
	<ul> <li>Ponds inlet, north side of Cockburn island, June, 1907. "Arctic" Expedition</li> <li>Winter harbour, Melville island, Northwest Territories, May 28, 1909. "Arctic" Expedition</li> <li>"Neptune" Expedition, (?), 1903–4.</li> <li>Port Burwell, Ungava, Northwest Territories. "Neptune" Expedition, 1903–4.</li> </ul>	1 specimen. 1 specimen. 1 soft shell. 1 specimen.

<sup>1</sup>For additional records already published, see Whiteaves, J. F., Catalogue of the Marine Invertebrata of Eastern Canada. Published by the Geological Survey of Canada, Ottawa, 1901. Also various lists published in the "Diana" Expedition report and in the Geological Survey of Canada publications.

#### Pagurus kroyeri Stimpson.

#### Hyas coarctatus Leach.

Some of the Decapod-Crustacea collected by the "Neptune" Expedition, 1903–4, were sent in 1905 to Prof. G. O. Sars, Christiania, Norway, for identification; and are published in the report of the Canadian Fisheries Museum, Ottawa, for 1905 (Department of Marine and Fisheries, Ottawa, Canada).

As these specimens are still in Christiania, they have not been examined in the U. S. National Museum, Washington, nor included in the list above. Professor Sars's determinations follow:—

-







