REPORT

OF THE

CANADIAN ARCTIC EXPEDITION 1913-18

VOLUME VII: CRUSTACEA

PART E: AMPHIPODS

By CLARENCE R. SHOEMAKER

OTTAWA
THOMAS MULVEY
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The Amphipods of the Canadian Arctic Expedition, 1913-18.

By Clarence R. Shoemaker

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The marine and freshwater amphipods collected by the naturalist of the southern party of the Canadian Arctic Expedition, Mr. Frits Johansen, are for the most part well-known arctic forms, but one, a species of *Synurella*, is new to science, this genus now appearing for the first time in American waters.

Katius obesus was known from the Atlantic only on the strength of two specimens, until thirty-five were taken off the southwestern coast of Greenland by the *Tjalfe* Expedition in 1908-9; it appears now for the first time in the Pacific.

The known ranges of several species have been greatly extended by the records in the collection under consideration; the details will be given under the species involved.

The collection contains fifty-three species included in forty-one genera which are distributed among eighteen families; the family Lysianassidæ, as would be expected in an arctic collection, is represented by the greatest number of genera, species, and individuals.

An appendix has been added consisting of data based upon specimens from the *Neptune* and other Canadian expeditions.

The color notes given under some of the species are based upon colored sketches made by Mr. Frits Johansen. The color nomenclature is based upon Ridgway's "Color Standards and Nomenclature."

Order Amphipoda.

Sub-order Gammaridea.

Family **LYSIANASSIDÆ.**

1. Anonyx nugax (Phipps).

1774. *Cancer nugax* Phipps, Voy. North Pole, p. 192, pl. 12, f. 2.
1906. *Anonyx nugax*+*A. lagena* Stebbing, Tierreich, Amph. I, p. 54, and synonymy.
1911. *Anonyx nugax* Stappers, Crust. Malacost., Campagne Arctique de 1907, du Duc d'Orléans, p. 8.
1913. *Anonyx nugax* Stephensen, Conspectus Crust. et Pycnog. Groenl., p. 115.

Station 29*f*: 70° 13′ N., 140° 50′ W., April 4, 1914, from stomach of *Phoca hispida* Schreber, water depth about 30 fathoms; 6 specimens.

Station 43*a*: Dolphin and Union strait (off Cockburn point), Northwest Territories, September 13, 1915, 50 fathoms, mud with pebbles, but no algæ; 2 specimens.

Station 46*e*: Dolphin and Union strait (off Bernard harbour), Northwest Territories, February 16, 1916, 6 fathoms; 300 specimens.

Station 46*g*: Dolphin and Union strait (Bernard harbour), Northwest Territories, May 4, 1916; from Eskimos; 7 specimens.

Distribution.—This species is very widely distributed, being found throughout the Arctic, North Atlantic, and North Pacific oceans.

2. Hippomedon holbölli (Kröyer).

1846. *Anonyx holbölli* Kröyer, Naturh. Tidsskr., ser. 2, vol. 2, p. 8, 38.
1906. *Hippomedon holbölli* Stebbing, Tierreich, Amph. I, p. 58, and synonymy.
1911. *Hippomedon holbölli* Stappers, Crust. Malacost., Campagne Arctique de 1907, du Duc d'Orléans, p. 6.

Station 29*f*: 70° 13′ N., 140° 50′ W., April 4, 1914. From stomach of *Phoca hispida* Schreber; water depth about 30 fathoms; 30 specimens.

Distribution.—Arctic ocean.

3. **Onisimus botkini** Birula.

1897. *Onesimus botkini* Birula, Annuaire du Musée Zoologique de l'Acad. Imp. des Sciences de St. Pétersbourg, vol. II, 1897, p. 105.

1909. *Onisimus botkini* Brüggen, Mém. de l'Acad. Imp. des Sciences de St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 7, pl. II, f. 20-25.

Station 27*e*: Lagoon-bay at Collinson point, Alaska, September 15, 1913, 0-1 foot water; 1 specimen.

Station 28*o*: Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb.; 7 specimens.

Station 28*r*: Bay at Collinson Point, Alaska, July 24, 1914; from stomach of *Cottus quadricornis* L., 3 fragments.

Station 30*c*: Demarcation point, Alaska, May 10, 1914, 3 fathoms, sandy mud; 200 specimens.

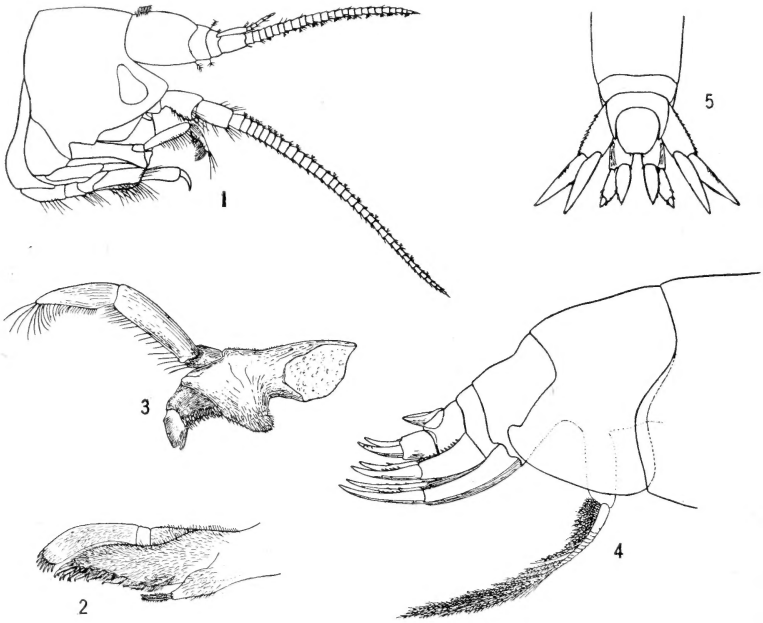

Figure 1. *Onisimus botkini* Birula ♂.

1 Head and antennae. *2* Maxilla 1. *3* Mandible. *4* 2d and 3d abdominal segments and urosome. *5* Telson, and 2d and 3d uropods.

The specimens examined by Birula and by von der Brüggen all came from shallow water in the Kara sea, so it is very interesting to see these very fine specimens from Alaska. As these specimens differ in a few minor details from those collected in the Kara sea, I here add a brief description and a few figures.

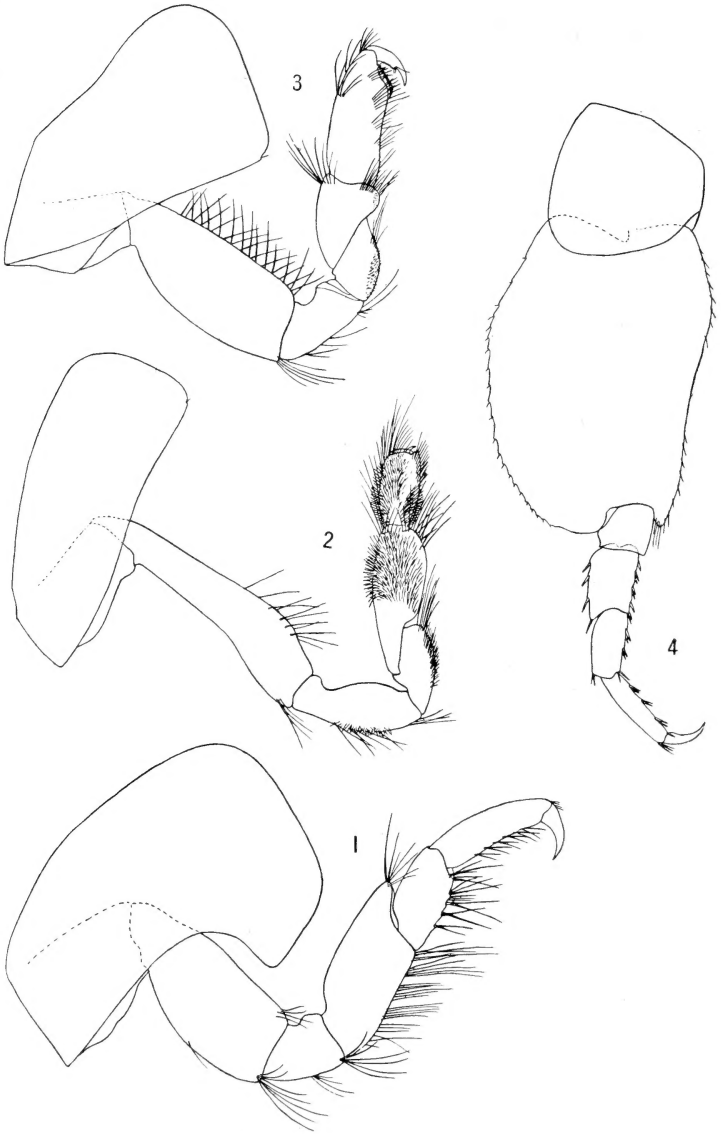

Figure 2. *Onisimus botkini* Birula ♂.

1 Peraeopod 2. *2* Gnathopod 2. *3* Gnathopod 1. *4* Peraeopod 5.

Head; lateral lobes narrowly rounded. Eyes; pear-shaped, red. Antenna 1; 1st joint about twice as long as 2nd and 3rd combined, slightly produced at the upper, inside, anterior edge, and provided on the upper, inside, posterior end with a few plumose setæ, flagellum in ♂, 24 to 30 joints, in ♀, 14 to 18 joints, accessory flagellum, 5-7 joints, of which the first joint is about as long as all the rest combined. Antenna 2 not much longer than 1, ultimate joint slightly shorter than penultimate, flagellum in ♂, 30 to 38 joints, in ♀, 18 to 23 joints.

Side-plate 1 expanded below, the lower anterior corner produced and broadly rounded, the lower edge nearly straight, a slight notch bearing a minute seta at lower posterior corner. Side-plates 2 and 3 with the sides nearly parallel, slightly wider below, the lower edge nearly straight. Side-plate 4 deeply and broadly emarginate behind, the lower part wide, and the lower edge nearly straight.

Gnathopod 1, 6th joint about one-third longer than 5th with front edge slightly convex and back edge slightly concave, palm oblique and provided throughout its entire length with a single row of fine, sharp teeth and several spines, dactyl curved, with a single small tooth or spine in the centre of the inside edge, back of this tooth a row of very fine serrations, 4th and 5th joints provided on their under surface with mats of fine setæ. Gnathopod 2 as in *O. edwardsii* or *O. plautus*, except that 5th and 6th joints are much more setose.

The peraeopods are rather short and stout. Third abdominal segment produced at the lower posterior corner into a small rounded lobe which varies much in size.

Telson a little longer than wide, sides convex, posterior border very slightly emarginate and bearing two minute setæ.

The largest specimens measure about 19 mm.

4. Onisimus brevicaudatus Hansen.

1886. *Onisimus brevicaudatus* Hansen, Dijmphna-Togtets Ubd., p. 216, pl. 21, f. 7-7e.
1906. *Onisimus brevicaudatus* Stebbing, Tierreich, Amph. I, p. 27, and synonymy.

Station 29*f*: Lat. 70° 13′ N., long. 140° 50′ W., April 4, 1914, from stomach of *Phoca hispida* Schreber. Water depth about 30 fathoms. 6 specimens.

The specimens which Hansen described came from the Kara sea.

5. Onisimus plautus (Kröyer).

1845. *Anonyx plautus* Kröyer, Naturh. Tidsskr., ser. 2, vol. I, p. 629.
1906. *Onisimus plautus* Stebbing, Tierreich, Amph. I, p. 26, and synonymy.
1911. *Onisimus plautus* Stappers, Crust. Malacost., Campagne Arctique de 1907, du Duc d'Orleans, p. 16.

Station 46*c*: Dolphin and Union strait, Northwest Territories (off Bernard harbour), pelagic, over 38 feet water; February 19, 1916; 3 specimens.

Distribution.—Arctic ocean, North Atlantic, and North sea, Skagerrak (Bohuslän).

6. Orchomenella groenlandica (Hansen).

1887. *Anonyx groenlandicus* Hansen, Vid. Meddel., ser. 4, vol. 9, p. 72, pl. 2, f. 5-5g.
1906. *Orchomenella groenlandica* Stebbing, Tierreich, Amph. I, p. 83, and synonymy.
1913. *Orchomenella groenlandica* Stephensen, Meddel. om Grønland, vol. XXII, p. 123.

Station 41: Bernard harbour, Northwest Territories (outer harbour), July 20, 1915, 5 fathoms, sandy mud with algæ; 1 specimen.

Distribution.—Arctic ocean, East Greenland, Finland.

7. **Orchomenella minuta** (Kröyer).

1846. *Anonyx minutus* Kröyer, Naturh. Tidsskr., ser. 2, vol. 2, p. 23.
1906. *Orchomenella minuta* Stebbing, Tierreich, Amph. I, p. 82, and synonymy.
1909. *Orchomenella minuta* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 13.
1916. *Orchomenella minuta* Stephensen, Meddel. om Grønland, vol. LIII, p. 285.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms of water; 2 specimens.

Station 46*c:* Dolphin and Union strait, Northwest Territories, February 19, 1916, pelagic, over 38 feet water (off Bernard harbour); 1 specimen.

Distribution.—Arctic Ocean, North Atlantic, North Sea, Greenland.

8. **Pseudalibrotus glacialis** G. O. Sars.

1900. *Pseudalibrotus glacialis* G. O. Sars, in Nansen, Norwegian North Polar Exp., vol. I, No. 5, p. 31, pl. 6.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb.; 3 specimens.

Station 57*a:* Cape Smyth (point Barrow), Alaska, August 8, 1916, pelagic, over 1 fathom of water; 1 specimen.

The specimens described by Sars were obtained north of Franz Josef land in 1894. The present specimens, coming from Alaska, indicate a wide distribution for the species.

9. **Pseudalibrotus litoralis** (Kröyer).

1845. *Anonyx litoralis* Kröyer, Naturh. Tidsskr., ser. 2, vol. I, p. 621.
1906. *Pseudalibrotus litoralis* Stebbing, Tierreich, Amph. I, p. 33.
1911. *Pseudalibrotus litoralis* Stappers, Crust. Malacost., Campagne Arctique de 1907 du Duc d'Orleans, p. 14.

Station 27*h:* Lagoon-bay at Collinson point, Alaska, September 18, 1913, 0-1 foot water; 1 specimen.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb.; 10 specimens.

Stations 37*r*, *u:* Bernard harbour, Northwest Territories, October 16-20, 1914, pelagic, over 1 fathom of water; 37 specimens.

Station 40*m:* Bernard harbour, Northwest Territories, June 25, 1915, from stomach of *Xema sabini* (J. Sabine); 2 specimens.

Station 41*g:* Bernard harbour, Northwest Territories (outer harbour), August 1, 1915, surface; 2 specimens.

Station 41*u:* Bernard harbour, Northwest Territories, end of August, 1915, from stomach of *Salvelinus malma* Walb.; 44 specimens.

Station 42*h:* Bay at Bernard harbour, Northwest Territories, September 22, 1915, beach water; 12 specimens.

Station 46*g:* Dolphin and Union strait (Bernard harbour), Northwest Territories, May 4, 1916, from Eskimos; 20 specimens.

Station 61*a:* South of Armstrong point, Victoria island, Prince of Wales strait, Northwest Territories, October, 1915, J. Hadley collector; 200 specimens.

Distribution.—A very abundant species found throughout the Arctic ocean.

10. **Pseudalibrotus nanseni** G. O. Sars.

1900. *Pseudalibrotus nanseni* G. O. Sars, in Nansen, Norwegian North Polar Exp., vol. I No. 5, p. 26, pl. 4,5.

Station 57*a:* Cape Smyth (point Barrow), Alaska, August 8, 1916, pelagic, over 1 fathom of water; 1 specimen.

The specimens described by Sars were collected by the Norwegian North Polar Expedition in 1894 and 1896 north of the New Siberian islands, and farther to

the west. The discovery of this specimen at point Barrow extends the range o this species considerably to the east.

Juvenile specimens of some form of *Pseudalibrotus* were obtained at Station 40*r*, 50*b* (both in Dolphin and Union strait), and 56*a*, (Harrison bay, Alaska), but any specific identification of such specimens would be very doubtful.

11. **Socarnes bidenticulatus** (Bate).

1835. *Gammarus nugax* J. C. Ross, in Ross's Second voyage, Appendix, p. 87.
1906. *Socarnes bidenticulatus* Stebbing, Tierreich, Amph. I, p. 56, and synonymy.
1909. *Socarnes bidenticulatus* Brüggen, Mém. Acad. Imp. Sci. de St. Pétersbourg, sér. 8, vol 18, No. 16, p. 12.
1912. *Socarnes bidenticulatus* Stephensen, Report on the Malacost., Pycnogonida, etc., collected by the Danmark Exped. to Northeast Greenland, p. 527.
1913. *Socarnes bidenticulatus* Stephensen, Account Crust. etc. collected by Dr. V. Nordmann in Summer 1911 from West Greenland, p. 65.

Station 42*u:* Bernard harbour, Northwest Territories, October 22, 1915, from stomach of *Erignathus barbatus* (Erxleben); 5 specimens.

Distribution.—Arctic ocean, east and west coast of Greenland.

12. **Tmetonyx gulosus** (Kröyer).

1845. *Anonyx gulosus* Kröyer, Naturh. Tidsskr., ser. 2, vol. I, p. 611.
1906. *Tmetonyx cicada* Stebbing, Tierreich, Amph. I, p. 74, and synonymy.
1909. *Tmetonyx cicada* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 13.
1911. *Tmetonyx gulosus* Stappers, Crust. Malacost., Campagne Arctique de 1907 du Duc d'Orléans, p. 11, and synonymy.

Station 29*f:* Lat. 70° 13′ N., long. 140° 50′ W., April 4, 1914, from stomach of *Phoca hispida* Schreber, over about 30 fathoms; 4 specimens.

Station 42*u:* Bernard harbour, Northwest Territories, October 22, 1915, from stomach of *Erignathus barbatus* (Erxleben); 1 specimen.

Station 43*a:* Dolphin and Union strait (off Cockburn point), Northwest Territories, September 13, 1915, over about 50 fathoms of water, mud with pebbles, but no algæ; 2 specimens.

Station 62*a:* Liddon gulf, Melville island, Northwest Territories, July, 1916, A. Castel collector; 2 specimens.

Distribution.—Arctic ocean, north Atlantic, North sea, France.

13. **Katius obesus** Chevreux.

1905. *Katius obesus* Chevreux, Description d'un Amphipode (*Katius obesus* nov. gen. et sp.) Bull. Mus. Océanogr. Monaco, No. 35, 1915 (with figs).
1906. *Katius obesus* Tattersall, Fisheries, Ireland, Sci. Invest. 1905, IV. 1906, p. 29.
1912. *Katius obesus* Stephensen, Vidensk. Meddel. fra den Naturh. Foren., Bd. 64, p. 89.

Station 8*a:* Lat. 55° 13′ N., long. 140° 21′ W., June 26, 1913, surface; 1 specimen.

This species is represented by a single badly preserved specimen which differs only slightly from Chevreux's figure. His specimen was 12 mm. long, while those obtained on the *Tjalfe* Expedition were 25 mm. The present specimen measures about 5 mm. which indicate that it is quite immature. The presence of a double row of calceoli on each antenna would seem to indicate a male. Chevreux's specimen apparently did not have the calceoli, but he was not certain that it was a male. The eyes in our specimen are not present, as nearly all of the internal organs have disappeared, leaving the interior entirely empty. The 3rd uropods have the rami much narrower and the inner ramus proportionately shorter than in Chevreux's figure. The type specimen was obtained off the Azores, in water 0–3000 meters depth; the specimen obtained by the *Helga* came from the west coast of Ireland, 1,200 fathoms, and the specimens collected by the *Tjalfe* Expedition were from the southern coast of Green-

land, in water 500–2000 meters depth. The discovery of this specimen in the North Pacific upon the surface greatly extends its range, both geographically and bathymetrically.

Family **STEGOCEPHALIDÆ.**

14. **Stegocephalus ampulla** (Phipps).

1774. *Cancer ampulla* Phipps, Voy. North Pole, p. 191, pl. 12, f. 3.
1906. *Phippsia ampulla* Stebbing, Tierreich, Amph. I, p. 89, and synonymy.
1909. *Stegocephalus ampulla* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 14; pl. I, fig. 1; pl. III, figs. 11-19.

Station 42*u:* Bernard harbour, Northwest Territories, October 22, 1915, from stomach of *Erignathus barbatus* (Erxleben); 1 specimen.

Distribution.—Arctic ocean.

15. **Stegocephalus inflatus** Kröyer.

1842. *Stegocephalus inflatus* Kröyer, Naturh. Tidsskr., vol. 4, p. 150.
1906. *Stegocephalus inflatus* Stebbing, Tierreich, Amph. I, p. 91, and synonymy.
1909. *Stegocephalus inflatus* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 14.
1911. *Stegocephalus inflatus* Stappers, Crust. Malacost., Campagne Arctique de 1907 du Duc d'Orléans, p. 28.
1912. *Stegocephalus inflatus* Stephensen, Vidensk. Meddel. fra den Naturh. Foren., Bd. 64, p. 89.
1912. *Stegocephalus inflatus* Stephensen, Meddel. om Grønland, vol XLV, p. 532.
1913. *Stegocephalus inflatus* Stephensen, Meddel. om Grønland, vol. LI, p. 66.
1916. *Stegocephalus inflatus* Stephensen, Meddel. om Grønland, vol. LIII, p. 286.

Station 29*f:* Lat. 70° 13′ N., long. 140° 50′ W., April 4, 1914, from stomach of *Phoca hispida* Schreber, about 30 fathoms; 6 specimens.

Station 42*u:* Bernard harbour, Northwest Territories, October 22, 1915, from stomach of *Erignathus barbatus* (Erxleben); 10 specimens.

Station 43*a*: Dolphin and Union strait (off Cockburn point), Northwest Territories, September 13, 1915. 100 meters; sandy mud with pebbles but no algae; 1 specimen.

Distribution.—Arctic Ocean; north Atlantic (west-Norway, Shetland Isles, Nova Scotia, Labrador, Massachusetts); north Pacific (Japan, sea of Okhotsk); Bering sea.

Family **AMPELISCIDÆ.**

16. **Ampelisca eschrichtii** Kröyer.

1842. *Ampelisca eschrichtii* Kröyer, Naturh. Tidsskr., vol. 4, p. 155.
1906. *Ampelisca eschrichtii* Stebbing, Tierreich, Amph. I, p. 100, and synonymy.
1906. *Ampelisca eschrichtii* Chevreux, Amph. Exped. Antarct. franc., p. 20.
1909. *Ampelisca eschrichtii* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 16.
1911. *Ampelisca eschrichtii* Stappers, Crust. Malacost. Campagne Arctique de 1907 du Duc d'Orléans, p. 19, pl. 1, fig. 1,9, 14-16.
1917. *Ampelisca eschrichtii* Chilton, Journal of Zool. Research, May, 1917, vol. II, No. 2, p. 87.

Station 43*a:* Dolphin and Union strait (off Cockburn point), Northwest Territories, September 13, 1915; about 50 fathoms, mud with pebbles but no algæ; 1 specimen.

Distribution.—Arctic ocean, north Atlantic, North and South Pacific, Bay of Biscoe, Anvers Island (about Lat. 64° S. Long. 64° W.)

17. **Haploops tubicola** Lilljeborg.

1855. *Haploops tubicola* Lilljeborg, Öfv. Ak. Förh., vol. 12, p. 135, 136.
1906. *Haploops tubicola* Stebbing, Tierreich, Amph. I, p. 117, and synonymy.
1908. *Haploops tubicola* Holmes, Proc. U.S.N.M., vol. XXXV, p. 518.

1909. *Haploops tubicola* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 19.
1913. *Haploops tubicola* Stephensen, Meddel. om Grønland, vol. LI, p. 67.
1916. *Haploops tubicola* Stephensen, Meddel. om Grønland, vol. LIII, p. 294.

Station 43*b:* Dolphin and Union strait (off Stapylton bay), Northwest Territories, September 14, 1915, 25-30 fathoms, sandy mud with pebbles but no algæ; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North Pacific.

Family **HAUSTORIIDÆ.**

18. **Pontoporeia affinis** Lindström.

1855. *Pontoporeia affinis* Lindström, Öfv. Ak. Förh., vol. 12, p. 63.
1906. *Pontoporeia affinis* Stebbing, Tierreich, Amph. I, p. 128, and synonymy.
1909. *Pontoporeia affinis* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 21.

Station 27*o:* Collinson point, Alaska, September 20, 1913, pelagic, over about 1 foot of water (9-inch ice); 2 specimens.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb.; 5 specimens.

Distribution.—Fresh-water lakes (Norway, Sweden, Russia, North America); Baltic, Kattegat, Kara sea, North Atlantic (France).

19. **Pontoporeia femorata** Kröyer.

1842. *Pontoporeia femorata* Kröyer, Naturh. Tidsskr., vol. 4, p. 153.
1906. *Pontoporeia femorata* Stebbing, Tierreich, Amph. I, p. 128, and synonymy.
1909. *Pontoporeia femorata* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 20.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over about 2 fathoms of water; 1 specimen.

Station 41*u:* Bernard harbour, Northwest Territories, end of August, 1915, from stomach of *Salvelinus malma* Walb.; 2 specimens.

Distribution.—Arctic ocean, North Atlantic, Baltic.

20. **Priscillina armata** (Boeck).

1861. *Pontoporeia armata* Boeck, Forh. Skand. Naturf., Møde 8, p. 648.
1906. *Priscillina armata* Stebbing, Tierreich, Amph. I, p. 126, and synonymy.
1913. *Priscilla armata* Stephensen, Meddel. om Grønland, vol. XXII, p. 129.

Station 48*b:* Banks peninsula, Bathurst inlet, Northwest Territories, May 18, 1916, from stomach of *Gadus* sp.; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, Greenland, West Norway?

Family **ACANTHONOTOZOMATIDÆ.**

21. **Acanthonotozoma inflatum** (Kröyer).

1842. *Acanthonotus inflatus* Kröyer, Naturh. Tidsskr., vol. 4, p. 161.
1906. *Acanthonotozoma inflatum* Stebbing, Tierreich, Amph. I, p. 219 and synonymy.
1909. *Acanthonotozoma inflatum* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 23.

Station 28*d:* Collinson point, Alaska, October 18, 1913, about 1 fathom; 1 specimen.

Station 28*e:* Collinson point, Alaska, October 21, 1913, pelagic, over about 1 fathom; 1 specimen.

Distribution.—Arctic ocean, Greenland.

Family **OEDICEROTIDÆ.**

22. **Acanthostephia malmgreni** (Goës).

1866. *Amphitonotus malmgreni* Goës, Öfv. Ak. Förh., vol. 22, p. 526, pl. 39, f. 17.
1906. *Acanthostephia malmgreni* Stebbing, Tierreich, Amph. I, p. 254, and synonymy.
1909. *Acanthostephia malmgreni* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 25.

Station 43*b:* Dolphin and Union strait, Northwest Territories (off Stapylton bay), September 14, 1915, 25-30 fathoms; sandy mud with pebbles, but no algæ; 1 specimen.

Distribution.—Arctic ocean, Greenland.

23. **Acanthostephia pulchra** Miers.

1881. *Acanthostephia pulchra* Miers, Ann. Nat. Hist., ser. 5, vol. 7, p. 47, pl. 7, f. 1, 2.
1909. *Acanthostephia pulchra* Stebbing, Tierreich, Amph. I, p. 254, and synonymy.

Station 25*a:* Off Cooper island (point Barrow), Alaska, pelagic, over 0–2 fathoms, August 27, 1913; 5 specimens.

Station 27*s:* Collinson point, Alaska, October 3, 1913, about 3 fathoms; 1 specimen.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb; 13 specimens.

Station 41*c:* Bernard harbour, Northwest Territories, July 28, 1915, about 5 fathoms, sandy mud with algæ; 3 specimens.

Station 41*u:* Bernard harbour, Northwest Territories, end of August, 1915, from stomach of *Salvelinus malma* Walb.; 2 specimens.

Station 59*a:* Off Cape Kellett, Banks island, Northwest Territories, September 7, 1914, 5-6 fathoms, sand with algæ; G. H. Wilkins, collector; 2 specimens.

Color.—Entire animal light grayish vinaceous with the body segments each transversely barred with dark purple-drab, joints of peduncles of antennae transversely barred with dark purple-drab.

Distribution.—Arctic ocean (Franz Josef land, Siberia).

24. **Aceroides latipes** (G. O. Sars).

1882. *Halicreion latipes* Sars, Forh. Selsk. Christian., nr. 18. p. 97, t. 4, f. 10.
1906. *Aceroides latipes* Stebbing, Tierreich, Amph. I, p. 255, and synonymy.
1909. *Aceroides latipes* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 24.

Station 27*s:* Collinson point, Alaska, October 3, 1913, about 3 fathoms, mud with algæ; 1 specimen.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb.; 1 specimen.

Distribution.—Arctic ocean, Greenland, Norway.

25. **Arrhis phyllonyx** (M. Sars).

1858. *Leucothoë phyllonyx* M. Sars, Forh. Selsk. Christian., p. 148.
1906. *Arrhis phyllonyx* Stebbing, Tierreich, Amph. I, p. 248, and synonymy.
1909. *Arrhis phyllonyx* Brüggen, Mém. Acad. Imp. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 25.

Station 43*b:* Dolphin and Union strait (off Stapylton bay), Northwest Territories, September 14, 1915, 25-30 fathoms, sandy mud with pebbles, but no algæ; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North sea, Greenland, Iceland, Norway.

26. **Monoculodes longirostris** (Goës).

1866. *Oediceros longirostris* Goës, Öfv. Ak. Förh., vol. 22, p. 526, pl. 39, f. 20.
1906. *Monoculodes longirostris* Stebbing, Tierreich, Amph. I, p. 260, and synonymy.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms water; 1 specimen.

Distribution.—Arctic ocean (Spitzbergen, Finmark, Tromsö), Kattegat.

27. **Monoculodes schneideri** G. O. Sars.

1895. *Monoculodes schneideri* Sars, Crust. Norway., vol. I, p. 692, pl. VI, f. 1.
1906. *Monoculodes schneideri* Stebbing, Tierreich, Amph. I, p. 263.

Station 57*a:* Cape Smyth (point Barrow), Alaska, August 8, 1916, pelagic, over 1 fathom water; 2 specimens.

Distribution.—Arctic ocean (Tromsö).

One immature specimen of some form of *Monoculodes* was obtained at station 41*n* (Bernard harbour).

28. **Monoculopsis longicornis** (Boeck).

1871. *Monoculodes longicornis* Boeck, Forh. Selsk. Christian., 1870, p. 165.
1906. *Monoculopsis longicornis* Stebbing, Tierreich, Amph., I, p. 258, and synonymy.
1912. *Monoculopsis longicornis* Stephensen, Meddel. om Grønland, vol. XLV, p. 595.

Station 41*n:* Bernard harbour, Northwest Territories, (inner harbour), August 9, 1915, surface; 2 specimens.

Distribution.—Arctic ocean, North Atlantic, North sea, Greenland.

29. **Paroediceros lynceus** (M. Sars).

1858. *Oediceros lynceus* Sars, Forh. Selsk. Christian., p. 143.
1906. *Paroediceros lynceus* Stebbing, Tierreich, Amph. I, p. 246, and synonymy.
1909. *Paroediceros lynceus* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 23.
1911. *Paroediceros lynceus* Stappers, Crust. Malacost. Campagne Arctique de 1907, du Duc d'Orléans, p. 32.
1912. *Paroediceros lynceus* Stephensen, Meddel. om Grønland, vol. XLV, p. 532.
1913. *Paroediceros lynceus* Stephensen, Meddel. om Grønland, vol. LI, p. 66.
1916. *Paroediceros lynceus* Stephensen, Meddel. om Grønland, vol. LIII, p. 287.

Station 27*s:* Collinson point, Alaska, October 3, 1913, 3 fathoms, mud with algæ; 1 specimen.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb; 2 specimens.

Distribution.—Arctic ocean (Greenland, Iceland, Spitzbergen, Murman coast, Siberian Polar sea, Labrador, Finland).

Family **CALLIOPIIDÆ.**

30. **Apherusa glacialis** (H. J. Hansen).

1887. *Apherusa glacialis* Hansen, Vid. Meddel, ser. 4, vol. 9, p. 137, pl. 5, f. 6-6c.
1906. *Apherusa glacialis* Stebbing, Tierreich, Amph. I, p. 307, and synonymy.
1909. *Apherusa glacialis* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 28.
1911. *Apherusa glacialis* Stappers, Crust. Malacost., Campagne Arctique de 1907 du Duc d'Orléans, p. 61.
1912. *Apherusa glacialis* Stephensen, Vidensk. Meddel. fra den Naturh. Foren., København, Bd. 64, p. 96.
1912. *Apherusa glacialis* Stephensen, Meddel. om Grønland, vol. XLV, p. 537.
1916. *Apherusa glacialis* Stephensen, Meddel. om Grønland, vol. LIII, p. 289.

Station 25*b, c:* Off Cooper island, (point Barrow), Alaska, August 27, 1913, surface; 1 specimen.

Station 41*r:* Beach at Bernard harbour, Northwest Territories, August 14, 1915; 2 specimens.

Station 56*a:* Harrison bay, Alaska, August 6, 1916, surface; 1 specimen.

Station 57*a:* Cape Smyth (point Barrow), Alaska, August 8, 1916, pelagic, over 1 fathom of water; 3 specimens.

Distribution.—Arctic ocean, Greenland.

31. **Apherusa megalops** (Buchholz).

1874. *Paramphithoë megalops* Buchholz, Zweite Deutsche Nordpolarfahrt, vol. 2, p. 369, pl. 12.
1906. *Halirages megalops* Stebbing, Tierreich, Amph. I, p. 293, and synonymy.
1912. *Amphithopsis megalops* Stephensen, Meddel. om Grønland, vol. XLV, p. 584.
1913. *Amphithopsis megalops* Stephensen, Meddel. om Grønland, vol. XXII, p. 176.
1916. *Amphithopsis megalops* Stephensen, Meddel. om Grønland, vol. LIII, p. 290.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms of water; 2 specimens.

Station 41*:* Bernard harbour, Northwest Territories (outer harbour), July 20, 1915, 5 fathoms; 1 specimen.

This is not the *Apherusa megalops* described by G. O. Sars in 1882 from Norway, but the species described by R. Buchholz in 1874 as *Paramphithoë megalops* from Northeast Greenland. Heretofore this species has not been recorded outside of Greenland.

32. **Calliopius læviusculus** (Kröyer).

1838. *Amphithoe læviuscula* Kröyer, Danske Selsk. Afh., vol. 7, p. 281, pl. 3, f. 13 a-h.
1906. *Calliopius læviusculus* Stebbing, Tierreich, Amph. I, p. 296, and synonymy.
1912. *Calliopius læviusculus* Stephensen, Meddel. om Grønland, vol. XLV, p. 597, 617.
1913. *Calliopius læviusculus* Stephensen, Meddel. om Grønland, vol. XXII, p. 179.

Station 7*a:* Lat. 55° 42′ N., long. 136° 20′ W., June 25, 1913, surface (among floating algæ); 3 specimens.

Station 13*a, b, c:* Lat. 54° 30′ N., long. 159° 42′ W., July 1, 1913, surface; 1 specimen.

Station 13*g, h:* Lat. 54° 30′ N., long. 159° 42′ W., July 1, 1913, surface; 2 specimens.

Station 14: Lat. 54° 23′ N., long. 164° 45′ W., July 2, 1913, surface; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North sea, Greenland, Labrador, Norway, British Isles, North Pacific.

33. **Calliopius rathkii** (Zaddach).

1844. *Amphitoe rathkii* Zaddach, Synops. Crust. Pruss., p. 6.
1906. *Calliopius rathkii* Stebbing, Tierreich, Amph. I, p. 296, and synonymy.
1912. *Calliopius rathkei* Stephensen, Meddel. om Grønland, vol. XLV, p. 597.
1913. *Calliopius rathkei* Stephensen, Meddel. om Grønland, vol. XXII, p. 180.
1916. *Calliopius rathkei* Stephensen, Meddel. om Grønland, vol. LII, p. 292.

Station 41*s:* Bernard harbour, Northwest Territories (inner harbour), August 24, 1915, surface; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North sea, and Skagerrak, Norway, France, Great Britain.

34. **Halirages nilssoni** Ohlin.

1895. *Halirages nilssoni* A. Ohlin, Acta Univ. Lund., vol. 31, No. 6, p. 44, pl., f. 1-6.

Station 41: Bernard harbour, Northwest Territories (outer harbour), July 20, 1915, 5 fathoms, sandy mud with algæ; 3 specimens.

This species was first obtained from Baffin bay in 1894 by the Peary Auxiliary Expedition. The present specimens from Bernard harbour make the second record, and extend the range considerably to the west.

Family **ATYLIDÆ.**

35. **Atylus carinatus** (Fabricius).

1793. *Gammarus carinatus* Fabricius, Ent. Syst., vol. 2, p. 515.
1906. *Atylus carinatus* Stebbing, Tierreich, Amph. I, p. 328, and synonymy.
1909. *Atylus carinatus* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 32.
1912. *Atylus carinatus* Stephensen, Meddel. om Grønland, vol. XLV, p. 540, 605.
1913. *Atylus carinatus* Stephensen, Meddel. om Grønland, vol. XXII, p. 171.

Station 20*b, c:* Grantley harbour (port Clarence), Alaska, July 30, 1913, 2-3 fathoms, sandy mud with many algæ; 5 specimens.

Station 20*g:* Port Clarence, Alaska, August 4, 1913, 2-3 fathoms, mud with many algæ, 2 specimens.

Station 27*r:* Collinson point, Alaska, October 2, 1913, pelagic, over 1 fathom water; 3 specimens.

Station 27*s:* Collinson point, Alaska, October 3, 1913, 3 fathoms, mud with algæ; 5 specimens.

Station 28*d:* Collinson point, Alaska, October 18, 1913, pelagic; 2 specimens.

Station 28*e:* Collinson point, Alaska, October 21, 1913, pelagic, over 1 fathom water; 1 specimen.

Station 28*f:* Collinson point, Alaska, October 25, 1913, 1½ fathoms, sand with algæ; 2 specimens.

Station 40*u:* Bernard harbour, Northwest Territories, July 6-8, 1915, from stomach of *Erignathus barbatus* (Erxleben); 1 specimen.

Station 41*:* Bernard harbour, Northwest Territories (outer harbour), July 20, 1915, 5 fathoms, sandy mud with many algæ; 21 specimens.

Color.—Entire animal tawny-olive with a sepia spot on the lower part of the body segments, carina marked in front with sepia, second joint of peduncle of the first and second antennae darker than the rest.

Distribution.—Arctic ocean (widely distributed).

Family **EUSIRIDÆ.**

36. **Rhachotropis aculeata** (Lepechin).

1780. *Oniscus aculeata* Lepechin, Acta Ac. Petrop., 1778*i*, p. 247, pl. 8, f. 1.
1906. *Rhachotropis aculeata* Stebbing, Tierreich, Amph. I, p. 348, and synonymy.
1909. *Rhachotropis aculeata* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 34.
1916. *Rhachotropis aculeata* Stephensen, Meddel. om Grønland, vol. LIII, p. 292.

Station 29*f:* Lat. 70° 13′ N., long. 140° 50′ W., April 4, 1914, from stomach of *Phoca hispida* (Schreber), 30 fathoms; 1 specimen.

Distribution.—Arctic ocean (widely distributed, circumpolar).

A fragment of some species of *Rhachotropis* was collected at station 28*f,* Collinson point, Alaska.

37. **Rozinante fragilis** (Goës).

1866. *Paramphithoë fragilis* Goës, Öfv. Ak. Förh., vol. 22, p. 524, pl. 39, f. 16.
1906. *Rozinante fragilis* Stebbing, Tierreich, Amph. I, p. 354, and synonymy.
1909. *Rozinante fragilis* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 35.
1911. *Rozinante fragilis* Stappers, Crust. Malacost., Campagne Arctique de 1907, du Duc d'Orléans, p. 56, pl. III, f. 1-4.

Station 27*s:* Collinson point, Alaska, October 3, 1913, 3 fathoms, mud with algæ. (Bottom and pelagic); 2 specimens.

Station 28*e:* Collinson point, Alaska, October 21, 1913, pelagic, over 1 fathom of water; 2 specimens.

Distribution.—Arctic ocean (Greenland, Spitzbergen, Barents sea).

Family **PONTOGENEIIDÆ.**

38. **Pontogeneia inermis** (Kröyer).

1838. *Amphithoe inermis* Kröyer, Danske Selsk. Afh., vol. 7, p. 275, pl. 3, f. 11 a-g.
1838. *Amphithoe crenulata* Kröyer, ibid., p. 278, pl. 3, f. 12 a-g.
1906. *Pontogeneia inermis* Stebbing, Tierreich, Amph. I, p. 359, and synonymy.
1912. *Pontogeneia inermis* Stephensen, Meddel. om Grønland, vol. XLV, p. 539, 606.
1913. *Pontogeneia inermis* Pearse, Proc. U.S.N.M., vol. 45, p. 573.
1913. *Pontogeneia inermis* Stephensen, Meddel. om Grønland, vol. XXII, p. 173.
1916. *Pontogeneia inermis* Stephensen, Meddel. om Grønland, vol. LIII, p. 289.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms water; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North Pacific, North sea, Greenland, West Norway, Siberia.

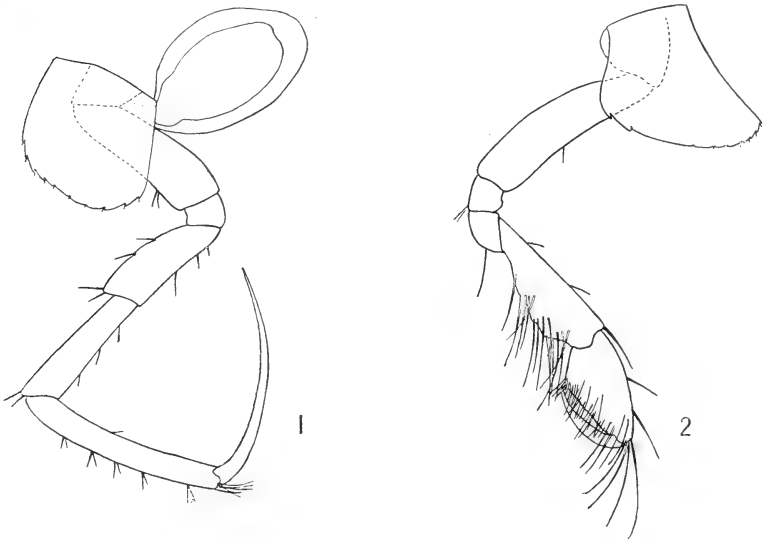

Figure 3. *Rozinante fragilis* (Goës).

1 Peraeopod 2. *2* Gnathopod 2.

Family **GAMMARIDÆ.**

39. **Gammaracanthus loricatus** (Sabine).

1821 and 24. *Gammarus loricatus* E. Sabine, in W. E. Parry, J. Voy., Suppl., p. 53, pl. I, f. 7; p. 231, pl. I, f. 7.
1906. *Gammaracanthus loricatus* Stebbing, Tierreich, Amph. I, p. 508, and synonymy.
1909. *Gammaracanthus loricatus* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 35.
1912. *Gammaracanthus loricatus* Stephensen, Meddel. om Grønland, vol. XLV, p. 503, 543, 589
1913. *Gammaracanthus loricatus* Stephensen, Meddel. om Grønland, vol. XXII, p. 197.

Station 28*c:* Collinson point, Alaska, October 14, 1913, sandy mud with scattered algæ, 1 fathom; 1 specimen.

Station 29*f:* Lat. 70° 13′ N., long. 140° 50′ W., April 4, 1914, water depth 30 fathoms, from stomach of *Phoca hispida* Schreber; 2 specimens.

Station 28*o:* Collinson point, Alaska, July 8, 1914, from stomach of *Salvelinus malma* Walb.; 2 specimens.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms water; 4 specimens.

Station 37*r, u:* Bernard harbour, Northwest Territories, October 16-20, 1914, pelagic, over 1 fathom of water; 1 specimen.

Station 40*u:* Bernard harbour, Northwest Territories, July 6-8, 1915, from stomach of *Erignathus barbatus* (Erxleben); 1 specimen.

Station 41: Bernard harbour, Northwest Territories (outer harbour), July 20, 1915, sandy mud with many algæ, 5 fathoms; 3 specimens.

Distribution.—Arctic Ocean (Greenland, Spitzbergen, Franz Josef land, Nova Zembla, Siberia.)

40. **Gammarus limnæus** Smith.

1871. *Gammarus lacustris* S. I. Smith, Amer. J. Sci., ser. 3, vol. 2, p. 453.
1874. *Gammarus limnæus,* S. I. Smith, 7th Rept. U.S. Geol. Survey, p. 609; Rept. U.S. Fish Com. 1872-73, p. 651.
1874. *Gammarus robustus* S. I. Smith, 7th Rept. U.S. Geol. Survey, p. 610.
1907. *Gammarus limnæus* A. L. Weckel, Proc. U.S.N.M., vol. XXXII, p. 42, f. 9.

Station 28*h:* Warm creek, tributary to Sadlerochit river, about 25 miles inland from Camden bay, Alaska, November 6-7, 1913; 30 specimens.

Station 40*g:* Bernard harbour, Northwest Territories, lake or creek, from stomach of *Cristivomer namaycush* Walb., June 28, 1915; 17 specimens.

Station 40n^1: Lake, inland at Bernard harbour, Northwest Territories, June 23, 1915, pelagic, over 4 meters of water, ice 2 meters; 11 specimens.

Station 40n^2: Pond at Bernard harbour, Northwest Territories, July 16, 1915, pelagic; 3 specimens.

Station 42*r:* Lake at Bernard harbour, Northwest Territories, October 2, 1915, from stomach of *Salvelinus marstoni* Garm.; 5 specimens.

Station 42*v:* Lake at Bernard harbour, Northwest Territories, December, 1915, from stomach of *Salvelinus marstoni* Garm.; 7 specimens.

Station 50*g:* Lake at Bernard harbour, Northwest Territories, April, 1906, from stomach of *Cristivomer namaycush* Walb.; 4 specimens.

Station 54*h:* Pond on north side of east end of Herschel island, Yukon Territory, August 1, 1916; 28 specimens.

This Amphipod has been found throughout the northeastern and western parts of the United States, and these records now from Bernard harbour and Alaska indicate that it inhabits the fresh-waters of the United States, Canada, and Alaska.

41. **Gammarus locusta** (Linné).

1758. *Cancer locusta* Linné, Syst. Nat., ed. 10, p. 634.
1906. *Gammarus locusta* Stebbing, Tierreich, Amph. I, p. 476, and synonymy.
1909. *Gammarus locusta* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 35.
1911. *Gammarus locusta* Stappers, Crust. Malacost., Campagne Arctique de 1907 du Duc d'Orléans, p. 68.
1913. *Gammarus locusta* Pearse, Proc. U.S.N.M., vol. 45, p. 571.
1916. *Gammarus locusta* Stephensen, Meddel. om Grønland, vol. LIII, p. 293.

Station 20*b, c:* Grantley harbour (port Clarence), Alaska, July 30, 1913, 2-3 fathoms, sandy mud with many algæ; 2 specimens.

Station 20*h:* Port Clarence, Alaska, August 4, 1913, 2-3 fathoms, surface, attached to floating algæ; 3 specimens.

Station 27*a:* Collinson point, Alaska, September 5, 1913, sandy mud with scattered algæ, from stomach of *Cottus quadricornis* L.; 2 specimens.

Station 27*c:* Lagoon-bay at Collinson point, Alaska, September 15, 1913, 0-1 foot water; 1 specimen.

Station 27*h:* Lagoon-bay at Collinson point, Alaska, 0–1 foot water, September 18, 1913; 15 specimens.

Station 27*o:* Collinson point, Alaska, September 20, 1913, pelagic, over 1 foot of water (9-inch ice); 1 specimen.

Station 28*c:* Collinson point, Alaska, October 14, 1913, 1 fathom, sandy mud with scattered algæ; 35 specimens.

Station 28*l:* Beach at Collinson point, Alaska, June, 1914; 2 specimens.

Station 28*o:* Collinson point, Alaska, from stomach of *Salvelinus malma* Walb., July 8, 1914; 14 specimens.

Station 28*r:* Bay at Collinson point, Alaska, July 24, 1914; from stomach of *Cottus quadricornis* L. 2 fragments.

Station 37*a:* Bernard harbour, Northwest Territories, August 24, 1914, from stomach of *Erignathus barbatus* (Erxleben); 5 specimens.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms water; 1 specimen.

Station 37*r, u:* Bernard harbour, Northwest Territories, October 16-20, 1914, pelagic, over 1 fathom water; 6 specimens.

Station 40*d:* Dolphin and Union strait (Bernard harbour), Northwest Territories, June 8, 1915. Pelagic over 9 fathoms; 1 specimen.

Station 40*h:* Dolphin and Union strait (Bernard harbour), Northwest Territories, June 25, 1915, pelagic, over 2½ fathoms water; 5 specimens.

Station 40*m:* Bernard harbour, Northwest Territories, June 25, 1915, from stomach of *Xema sabini* (J. Sabine); 1 specimen.

Station 40*p:* Bernard harbour, Northwest Territories, July 1, 1915, pelagic, in littoral region; 20 specimens.

Station 40*u:* Bernard harbour, Northwest Territories, July 6-8, 1915, from stomach of *Erignathus barbatus* (Erxleben), F.; 4 specimens.

Station 48*b:* Banks peninsula, Bathurst inlet, Northwest Territories, May 18, 1916, from stomach of *Gadus* sp.; 10 specimens.

Station 50*d:* Young point, Northwest Territories (Dolphin and Union strait), July 21, 1916, among loose algæ, in littoral region; 6 specimens.

Color.—Entire animal maize yellow, eyes berlin blue, legs and antennae banded with light russet-vinaceous, each of the body segments with a dark, transverse dorsal band, the last two thoracic and the abdominal segments marked on their lower portions with scarlet.

Distribution.—Arctic ocean, North Atlantic, North Pacific.

Immature species of *Gammarus* were obtained at station 40*v*, 41*g*, (both Dolphin and Union strait), and 56*a* (Harrison Bay, Alaska).

42. **Synurella johanseni,** new species.

Type specimen: Catalogue No. 1380; paratypes, Nos. 1381-3, Victoria Memorial Museum, Ottawa, Canada.

Station 20*i:* Pond in the tundra at Teller, Alaska, August 6, 1913; 21 specimens.

Station 20*i:* Brackish pond at Teller, Alaska, August 3, 1913; 1 specimen (juvenile).

Description.—Body rather stout, not much compressed. Head with front edge broadly rounded. Eyes rather small, irregularly oval, composed of few elements, brownish black.

Pleon segments 1 and 2 with posterior lateral corners slightly produced; segment 3, with posterior lateral corners evenly rounded or with a very slight production of the lower posterior margin. Posterior edge of pleon segment 3 with shallow notch bearing a minute seta just above the lower margin.

Antenna 1 is about half as long as the body; the joints of the peduncle becoming consecutively shorter; 1st joint much the stoutest; flagellum of about

12 joints; accessory flagellum 2-jointed, but not as long as the 1st joint of primary.

Antenna 2 with 4th joint of peduncle longest; flagellum 6-jointed, and about as long as the 4th joint of peduncle.

Side-plates 1-3 about as deep as their segments, with sides parallel and lower edges evenly rounded and provided with setæ. Side-plate 4 deepest, with upper half of posterior border rather deeply emarginate, and lower border and lower half of posterior border provided with setæ.

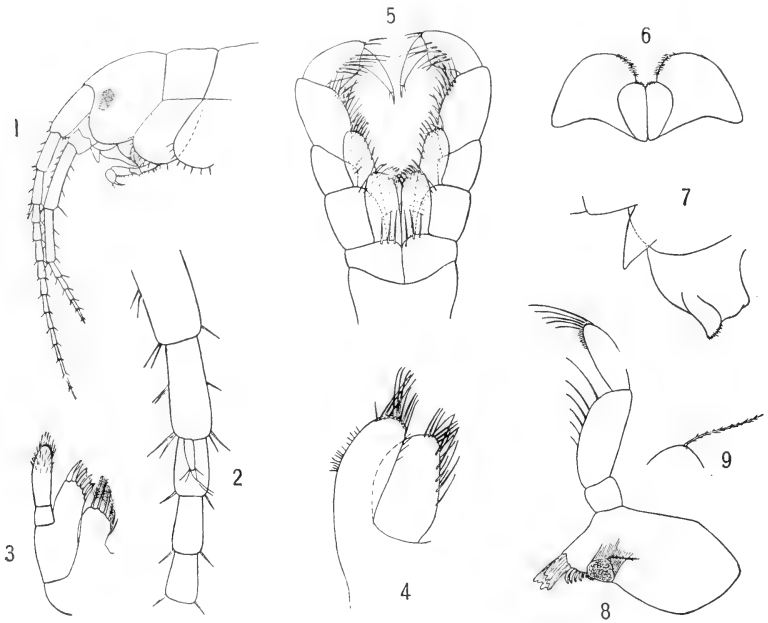

Figure 4. *Synurella johanseni*, n. sp.

1 Head and antennae. *2* Accessory flagellum enlarged. *3* Maxilla 1. *4* Maxilla 2. *5* Maxillipeds. *6* Lower lip. *7* Upper lip. *8* Mandible. *9* Seta of molar enlarged.

Mandible; 3rd joint of palp a little shorter than 2nd, armed at apex with 4 or 5 long bristles and at the upper part of the front edge with a row of fine bristles; front edge of 2nd joint with 5 or 6 long bristles. Molar projecting considerably from surface of mandible, and provided on inner edge of grinding surface with a very finely pinnate seta which is as long as the molar; on edge opposite seta is a group of minute spines; grinding surface covered with fine, sharp teeth. Maxilla 1; inner plate with 6 or 7 plumose setæ; outer plate with 7 stout spines, some of which are notched; palp with row of spines at apex, below which are scattered setules. Maxilla 2; inner plate with seta on apex and on inner margin; outer plates with setæ at apex. Maxillipeds; inner plates with notched spines at apex; outer plates with spines at apex and on inner edges. Lower lip normal.

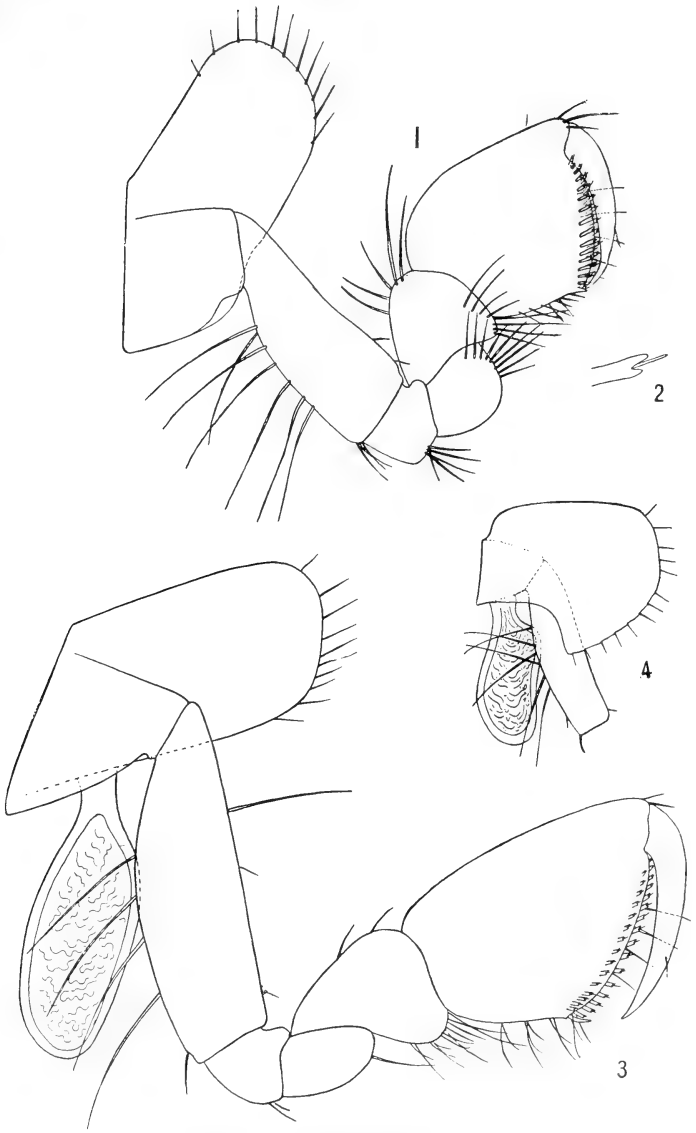

Figure 5. *Synurella johanseni*, n. sp.

1 Gnathopod 1, left, inside view. *2* Notched spine of palm. *3* Gnathopod 2, left, inside view. *4* Side-plate 4

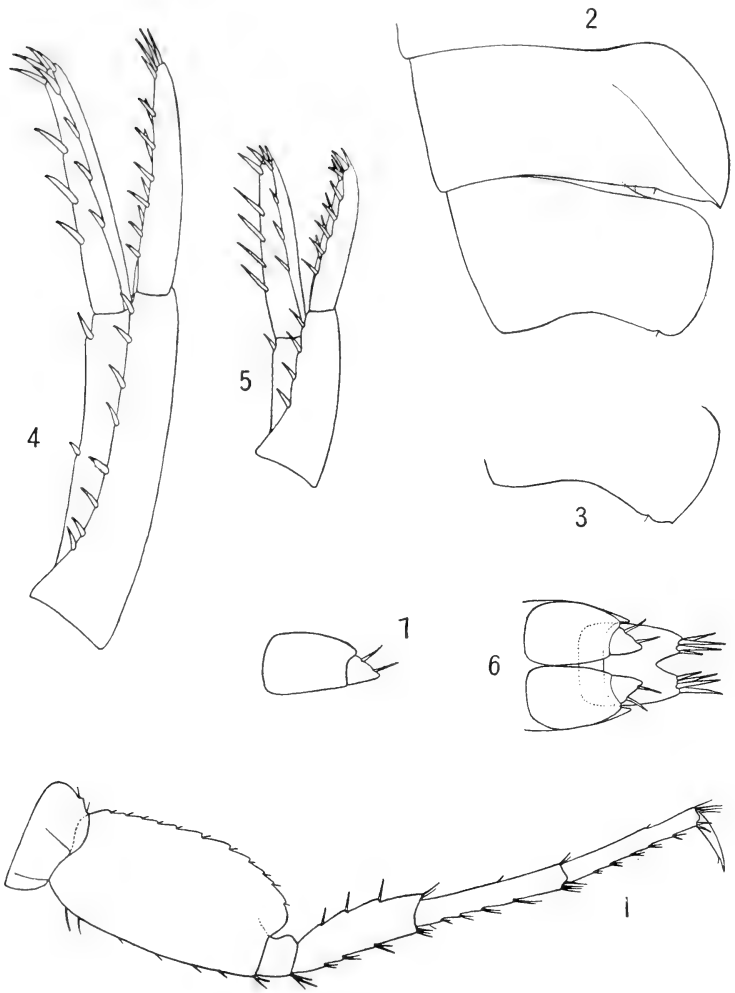

Figure 6. *Synurella johanseni*, n. sp.

1 Peraeopod 5. *2* 2nd and 3rd abdominal segments. *3* 3rd abdominal segment showing slight production of lower posterior corner. *4* Uropod 1. *5* Uropod 2. *6* Telson and 3rd uropods. *7* 3rd uropod.

Gnathopods short and strong. Gnathopod 1; joints 3-6 about as broad as long; 6th joint with sides parallel; palm nearly transverse, slightly convex and provided with a double row of notched spines and a few bristles. Dactyl reaching to end of palm. Gnathopod 2; 6th joint longer than broad and slightly widening distally; palm oblique, evenly convex and provided with a double row of notched spines and a few bristles; dactyl reaching to end of palm.

Peraeopods slender; 1st and 2nd shorter than rest; 4th longest, proportionately longer in ♂; 3rd, 4th, and 5th peraeopods with 2nd joint moderately expanded and bearing shallow serrations on posterior border; dactyls each bearing a setule on the inner edge near extremity.

Gnathopod 2, and peraeopods 1-3 each provided with a single, lamellar branchia; peræopods 4 and 5 each provided with two cylindrical branchiæ; pleon segment 1 in ♀ with a single, small, cylindrical branchia on each side.

Uropod 1 longest; peduncle a little longer than the subequal rami. Uropod 2 with peduncle as long as the subequal rami. Uropod 3 and telson in their normal position project at right angles to the urosome; uropod 3 in this position not reaching end of telson; peduncle broad and flat, and the single ramus small and triangular with 2 stout spines on outer margin; no spines on peduncle.

Telson as broad as long; the slightly convex sides somewhat converging; end emarginate, depression reaching about one-third length of telson; lobes each provided at apex with 4 or 5 stout spines.

Length.— 6 mm.

Remarks.—To the middle of the ventral surface of each of the 2nd, 3rd and 4th thoracic segments is attached an elongated, papilliform process about half the length of the branchiæ. Appendages probably of a similar nature were first observed and described by G. O. Sars in 1867 in the fresh water species *Gammaracanthus lacustris* Sars and *Pontoporeia affinis* Lindström. S. I. Smith in 1874 also observed them in a species of *Pontoporeia* from the Great Lakes. These appendages, the function of which is not known, have apparently been observed only in fresh water species.

This is the first appearance of the genus *Synurella* in America; the two other species of the genus having been found in Germany and Russia. The closely related genus *Boruta* was discovered in Hungary so that in all probability these genera will be found to occur throughout Russia, Siberia and northern North America.

43. **Weyprechtia pinguis** (Kröyer).

1838. *Gammarus pingvis* Kröyer, Danske Selsk. Afh., vol. 7, p. 252, pl. I, f. 5.
1906. *Weyprechtia pinguis* Stebbing, Tierreich, Amph. I, p. 382, and synonymy.
1909. *Weyprechtia pinguis* Brüggen, Mém. Acad. Imp. Sci. St. Pétersbourg, sér. 8, vol. 18, No. 16, p. 36.

Station 41*c:* Bernard harbour, Northwest Territories (outer harbour), July 28, 1915, 5 fathoms, sandy mud with many algæ; 1 specimen.

Station 41*u:* Bernard harbour, Northwest Territories, end of August, 1915, from stomach of *Salvelinus malma* Walb.; 16 specimens.

Colour.—Dorsal parts of head and body segments dark vinaceous-brown. Sides of body segments and side-plates mottled with dark vinaceous brown and light grayish vinaceous. Antennæ striped with bordeaux and light grayish vinaceous. Gnathopods, peraeopods, pleopods, uropods, and telson light grayish vinaceous.

Distribution.—Arctic ocean (circumpolar).

Family **PHOTIDÆ.**

44. **Protomedia fasciata** Kröyer.

1842. *Protomedia fasciata* Kröyer, Naturh. Tidsskr., vol. 4, p. 154.
1906. *Protomedia fasciata* Stebbing, Tierreich, Amph. I, p. 623, and synonymy.
1913. *Protomedia fasciata* Stephensen, Meddel. om Grønland, vol. XXII, p. 206.

Station 43*b:* Dolphin and Union strait (off Stapylton bay), Northwest Territories, 25-30 fathoms, sandy mud with pebbles, but no algæ; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North sea, Skagerrak, Kattegat, Greenland, Spitzbergen, Iceland, Finmark (Norway), Sweden, Denmark.

Family **AMPITHOIDÆ.**

45. **Ampithoe rubricata** (Montagu).

1808. *Cancer (Gammarus) rubricatus* Montagu, Tr. Linn. Soc. London, vol. 9, p. 99, pl. 5, f. 1.
1906. *Amphithoe rubricata* Stebbing, Tierreich, Amph. I, p. 639, and synonymy.

Station 14*:* Lat. 54° 23′ N., long. 164° 45′ W., July 2, 1913, surface; 1 specimen.

Station 20*b, c:* Grantley harbour (port Clarence), Alaska, July 30, 1913, 2-3 fathoms, sandy mud with algæ; 1 specimen.

Distribution.—North Atlantic, with adjoining seas (Europe).

These records greatly extend the range of this species northward and westward.

An immature specimen of some species of *Ampithoe* was obtained at Station 20*a*, Grantley harbour, Alaska.

Family **ISCHYROCERIDÆ.***

46. **Ischyrocerus anguipes** Kröyer.

1838. *Ischyrocerus anguipes* Kröyer, Danske Selsk. Afh., vol. 7, p. 283, pl. 3, f. 14 a-m.
1906. *Ischyrocerus anguipes* Stebbing, Tierreich, Amph. I, p. 658, and synonymy.
1913. *Ischyrocerus anguipes* Tattersall, Proc. Roy. Irish Acad., vol. XXXI, Part 42, p. 18.
1916. *Ischyrocerus anguipes* Stephensen, Meddel. om Grønland, vol. LIII, p. 294.

Station 37*j:* Bernard harbour, Northwest Territories, September 1, 1914, pelagic, over 2 fathoms of water; 6 specimens.

Station 41*s:* Bernard harbour, Northwest Territories (inner harbour), August 24, 1915, surface; 1 specimen.

Station 41*u:* Bernard harbour, Northwest Territories, end of August, 1915, from stomach of *Salvelinus malma* Walb.; 1 specimen.

Station 42*z:* Bernard harbour, Northwest Territories (Dolphin and Union strait), December 12, 1915 (midnight), 0-3 fathoms; 1 specimen.

Distribution.—Arctic ocean (widely distributed), North Atlantic, North sea, Norway, West Baltic.

Family **COROPHIIDÆ.**

47. **Corophium bonellii** M.-Edw.

1830. *Corophia bonellii* H. Milne Edwards, Ann. Sci. Nat., vol. 20, p. 385.
1906. *Corophium bonellii* Stebbing, Tierreich, Amph. I, p. 691, and synonymy.

Station 20*b, c:* Grantley harbour (port Clarence), Alaska, July 30, 1913, 2-3 fathoms, sandy mud with many algæ; 5 specimens.

Five specimens (1 male and 4 females) which appear to be *Corophium bonellii* were taken at Grantley harbour, Alaska. The females agree quite

* I have used the family name Ischyroceridæ rather than Jassidæ as the latter was created by Fieber in 1866 for a family of Hemiptera.

closely with Sars's figure. As the male has not been described, I give here a description of the specimen taken on this expedition.

Head with rostrum long and spear-shaped; lateral lobes short, apically rounded. Eyes dark, not very prominent.

Antenna 1 reaching about middle of 5th joint of antenna 2; 1st joint of peduncle not very thick, flattened dorsally and armed below with one terminal spine and one near centre; 2nd joint thinner and a little shorter, 3rd joint a little thinner than 2nd and not quite half as long; flagellum about $\frac{2}{3}$ length of peduncle and composed of 7 joints. Antenna 2; 2nd joint reaching very little beyond lateral lobes of head; 3rd joint equal in length to 2nd; 4th joint thickened and equal in length to 5th joint plus flagellum; lower distal corner of 4th joint produced into a strong, forward-pointing tooth above which is a much shorter one; 5th joint slender and slightly curved, inner distal edge produced into a blunt rounded lobe; no tooth on under side of 5th joint; flagellum composed of 3 joints, the last very short, bearing 2 curved spines and several setæ.

Gnathopods, peraeopods, uropods, and telson as in female.

Length.— 4 mm.

Distribution.—North Atlantic, North sea, Skagerrak, and English channel, Norway, West France.

The present record marks a considerable western extension of the range of this species.

Family **PODOCERIDÆ.**

48. **Dulichia porrecta** (Bate).

1857. *Dyopedos porrectus* Bate, Ann. Nat. Hist., ser. 2, vol. 19, p. 151.
1906. *Dulichia porrecta* Stebbing, Tierreich, Amph. I, p. 712, and synonymy.
1913. *Dulichia porrecta* Stephensen, Meddel. om Grønland, vol. XXII, p. 218.

Station 57*a:* Cape Smyth (point Barrow), Alaska, August 8, 1916, pelagic, over 1 fathom water; 1 specimen.

Distribution.—Arctic ocean, North Atlantic, North sea, West Greenland, Iceland, Lofoten island, South and West Norway, Danish waters, Shetlands.

Sub-order Caprellidea.

Family **CAPRELLIDÆ.**

49. **Caprella drepanochir** Mayer.

1890. *Caprella drepanochir* Mayer, F. Fl. Neapel, vol. XVII, p. 81, pl. 7, f. 15, 33-34.
1903. *Caprella drepanochir* Mayer, Siboga-Exped., vol. XXXIV, p. 100, pl. 4, f. 11.

Station 20*g:* Port Clarence, Alaska, August 4, 1913, 2-3 fathoms, mud with many algæ; 7 specimens.

Station 20*h:* Port Clarence, Alaska, August 4, 1913, surface (attached to floating algæ); 20 specimens.

Distribution.—Collected between China and Mouth of Amur river, Vladivostok, Bering island, Chamisso harbour, and Eschscholtz bay, Alaska.

Sub-order Hyperiidea.

Family **HYPERIIDÆ.**

50. **Euthemisto libellula** (Mandt).

1822. *Gammarus libellula* Mandt, Obs. Hist. nat. et Anat. comp. in itinere groenlandico factae, p. 32.
1895. *Euthemisto libellula* Sars, Crust. Norway, vol. I, p. 13, pl. 6, f. 1.

Station 29*f:* Lat. 70° 13′ N., long. 140° 50′ W., April 4, 1914, water depth about 30 fathoms, from stomach of *Phoca hispida* Schreber; 8 specimens.

Station 41*u:* Bernard harbour, Northwest Territories, end of August, 1915, from stomach of *Salvelinus malma* Walb.; 30 specimens.

Station 42*h:* Bay at Bernard harbour, Northwest Territories, September 22, 1915, beachwater; 5 specimens.

Station 43*b:* Dolphin and Union strait (off Stapylton bay), Northwest Territories, September 14, 1915, 25-30 fathoms, sandy mud with pebbles, but no algæ; 7 specimens.

Station 66*a:* Latitude about 73° 50′ N., long. 150° 15′ W., August 31, 1918: surface; S. Storkerson, collector; 3 specimens.

Station 66*b:* Latitude about 73° 50′ N., long. 147° W., September 17, 1918; surface; S. Storkerson, collector; 6 specimens.

Distribution: Arctic ocean, Greenland, Spitzbergen, Nova Scotia, Norway, Nova Zembia.

51. **Hyperia galba** (Montagu).

1813. *Cancer gammarus galba* Montagu, Trans. Linn. Soc., vol. XI, p. 4, pl. 2, f. 2.
1895. *Hyperia galba* Sars, Crust. Norway, vol. I, p. 7, pl. 2; pl. 3, f. 1, and synonymy.

Station 9*a:* Lat. 55° 2′ N., long. 144° W., June 27, 1913, surface; 2 specimens.

Station 27*h:* Lagoon-bay at Collinson point, Alaska, September 18, 1913, 0-1 foot of water; 1 specimen.

Station 27*m:* Collinson point, Alaska, September 19, 1913, pelagic, over 1 foot of water (9-inch ice); 1 specimen.

Station 27*u:* Collinson point, Alaska, October 5, 1913, pelagic, over 1 fathom of water; 1 specimen.

Station 27*y:* Lagoon at Collinson point, Alaska, October 8, 1913, pelagic, over 2 feet of water; 1 specimen.

Station 30*a:* Lat. 69° 41′ N., long. 141° 11′ W., May 4, 1915, pelagic, over 3 fathoms of water; 1 specimen.

Color.—Animal translucent with dark vinaceous-drab markings, eyes very large and black, thorax with broad, dark vinaceous-drab band on side, second and third abdominal segments with dark vinaceous-drab dorsal spots, distal ends of the second joints of the gnathopods and first, second and third peraeopods marked with vinaceous-drab, peduncles of the pleopods also marked with vinaceous-drab.

Distribution.—Atlantic coast of France and Britain, Baltic, Arctic ocean, Greenland, Spitzbergen, Nova Zembla, Kara sea, Murman coast.

52. **Hyperoche kroeyeri** Bovallius.

1885. *Hyperia kroeyeri* Bovallius, K. Svenska Vet.-Akad. Handlingar, Band 10, No. 14, p. 17.
1887. *Hyperoche kroeyeri* Bovallius, ibid., Band XI, No. 16, p. 18.
1895. *Hyperoche kroeyeri* Sars, Crust. Norway, vol. I, p. 9, pl. 4, and synonymy.

Station 27*h:* Lagoon-bay at Collinson point, Alaska, September 18, 1913, 0–1 foot of water; 1 specimen.

Station 27*m:* Collinson point, Alaska, September 19, 1913, pelagic, over 1 foot of water (9-inch ice); 12 specimens.

Station 27*n:* Collinson point, Alaska, September 20, 1913, pelagic, over 1 foot of water (9-inch ice); 6 specimens.

Station 57*a:* Cape Smyth (Point Barrow), Alaska, August 8, 1916, pelagic, over 1 fathom of water; 4 specimens.

Colour.—Central areas of eyes duck green. Dorsal parts of the body segments apricot orange. Sides of body, sideplates, gnathopods, peraeopods, pleopods, uropods and telson splotched with apricot orange. Rest of animal translucent.

Mr. Johansen states that this species was found symbiotic in a large ctenophore.

Distribution.—Arctic ocean, Greenland, Labrador, Spitzbergen, White sea, Siberian polar sea.

53. **Parathemisto oblivia** (Kröyer).

1838. *Hyperia oblivia* Kröyer, Danske Vid. Selsk. Afhandl, vol. 7, p. 70, pl. 4, f. 19.
1895. *Parathemisto oblivia* Sars, Crust. Norway, vol. I, p. 10, pl. 5, f. 1, and synonymy.

Station 13*g*, *h:* Lat. 54° 30′ N. long. 159° 42′ W., July 1, 1913, surface; 1 specimen.

Station 14: Lat. 54° 23′ N., long. 164° 45′ W., July 2, 1913, surface; 2 specimens.

Station 21*e:* Lat. 68° 48′ N., long. 165° 10′ W., August 16, 1913, surface; 2 specimens.

Station 27*q:* Collinson point, Alaska, September 26, 1913, pelagic, over 1 fathom of water; 1 specimen.

Distribution.—British Isles, Greenland, Norway, Nova Zembla, Barents sea, North Atlantic, East coast of United States.

About 50 immature Hyperiids were collected at station 18*a*, *c*, *e*, lat. 62° N., long. 167° 30′ W., at the surface.

APPENDIX.

Additional data for the report upon the Amphipods of the Canadian Arctic Expedition, based upon specimens from the *Neptune* and other Canadian Expeditions.

By Clarence R. Shoemaker.

Family **LYSIANASSIDÆ.**

1. **Anonyx nugax** (Phipps).

Cumberland gulf, Northwest Territories, September 4, 1904, from stomach of *Cottus (Myoxocephalus) groenlandicus* Bean, *Neptune* expedition; 6 specimens.

Cape Fullerton, west side Hudson bay, *Neptune* expedition, 1903-4; 6 specimens.

Hudson bay or strait, 1897? *Diana* expedition; 7 specimens.

Winter harbour, Melville island, Northwest Territories, *Arctic* expedition, 1909; 1 specimen.

Near mouth of Povungnituk river, east side of Hudson bay, Northwest Territories, 1898; A. P. Low, collector; 2 specimens.

2. **Onisimus edwardsii** (Kröyer).

1846. *Anonyx edwardsii* Kröyer, Naturh. Tidsskr., ser. 2, vo l.2, p. 1, 41.
1906. *Onisimus edwardsii* Stebbing, Das Tierreich, Amph. I, p. 25, and synonymy.
1912. *Onisimus edwardsii* Stephensen, Meddel. om Grønland, vol. XLV, p. 530.
1913. *Onisimus edwardsii* Stephensen, Meddel. om Grønland, vol. XXII, p. 121.
1916. *Onisimus edwardsii* Stephensen, Meddel. om Grønland, vol. LIII, 1916, p. 285.

Cape Fullerton, west side of Hudson bay, *Neptune* expedition, 1903-4; 5 specimens.

Distribution.—Arctic ocean, North Atlantic and North sea, West Norway.

3. **Orchomenella pinguis** (Boeck).

1861. *Anonyx pinguis* Boeck, Forh. Skand. Naturf., møde 8, p. 642.
1906. *Orchomenella pinguis* Stebbing, Das Tierreich. Amph. I, p. 82, and synonymy.
1913. *Orchomenella pinguis* Stephensen, Meddel. om Grønland, vol. LI, p. 66.
1916. *Orchomenella pinguis* Stephensen, Meddel. om Grønland, vol. LIII, p. 286.

Cape Fullerton, west side Hudson bay, *Neptune* expedition, 1903-4; 3 specimens.

Distribution.—Arctic ocean, North Atlantic, North sea and Skagerrak, Siberia, South and West Norway, Malangen fjord, Finland, Mediterranean.

4. **Socarnes bidenticulatus** (Bate).

Winter harbour, Melville island, Northwest Territories, *Arctic* Expedition. May 13, 1909; 1 specimen.

Winter harbour, Melville island, Northwest Territories, 7 fathoms. May 28, 1909, *Arctic* Expedition; 2 specimens.

Family **AMPELISCIDÆ.**

5. **Ampelisca eschrichtii** Kröyer.

Port Burwell, Ungava, July 28, 1904, *Neptune* expedition, 1903-4; 6 specimens.

6. **Byblis** species.

Port Burwell, Ungava, July 28, 1904, *Neptune* expedition, 1903-4; 1 specimen.

The poor condition of this specimen does not warrant a specific identification.

Family **ACANTHONOTOZOMATIDÆ.**

7. **Acanthonotozoma serratum** (Fabricius).

1780. *Oniscus serratus* Fabricius, Fauna Groenl., p. 262.
1906. *Acanthonotozoma serratum* Stebbing, Das Tierreich, Amph. I, p. 218.
1912. *Acanthonotosoma serratum* Stephensen, Meddel. fra den Naturh. Foren., vol. 64, p. 93.
1912. *Acanthonotosoma serratum* Stephensen, Meddel. om Grønland, vol. XLV. p. 596.
1913. *Acanthonotosoma serratum* Stephensen, Meddel. om Grønland, vol. XXII, p. 167.
1913. *Acanthonotosoma serratum* Stephensen, Meddel. om Grønland, vol. LI, p. 67.
1916. *Acanthonotosoma serratum* Stephensen, Meddel. om Grønland, vol LIII, p. 289.

Port Burwell, Ungava, July 28, 1904, *Neptune* expedition; 2 specimens.

Distribution.—Arctic ocean, North Atlantic, North sea and Skagerrak, Greenland, Spitzbergen, Barents sea, Murman coast, Kara sea, North America, Bohuslän, Norway from Haugesund northward.

Family **OEDICEROTIDÆ.**

8. **Paroediceros lynceus** (M. Sars).

Port Burwell, Ungava, July 28, 1904, *Neptune* expedition; 1 specimen.

Family **PONTOGENEIIDÆ.**

9. **Pontogeneia inermis** (Kröyer).

Cape Fullerton, west side Hudson bay, *Neptune* expedition, 1903-4; 1 specimen.

Family **ATYLIDÆ.**

10. **Atylus carinatus** (Fabricus).

Winter harbour, Melville island, Northwest Territories, *Arctic* expedition, 1907-9; 3 specimens.

Winter harbour, Melville island, Northwest Territories, *Arctic* expedition, May, 1909; 1 specimen.

Winter harbour, Melville island, Northwest Territories, *Arctic* expedition, 7 fathoms, May 28, 1909; 1 specimen.

Family **EUSIRIDÆ.**

11. **Rhachotropis aculeata** (Lepechin).

Hudson strait? Labrador? Hudson bay? *Neptune* expedition, 1903-4; 2 specimens.

Family **GAMMARIDÆ.**

12. **Gammarus locusta** (Linné).

Winter harbour, Melville island, *Arctic* expedition, May, 1909?; 8 specimens.

Winter harbour, Melville island, Northwest Territories, *Arctic* expedition, 7 fathoms, May 28, 1909; 1 specimen.

Wakeham bay, south side of Hudson strait, Ungava, September, 1904, *Neptune* expedition; 13 specimens.

13. **Gammaracanthus loricatus** (Sabine).

Winter harbour, Melville island, Northwest Territories, *Arctic* expedition; 1 specimen.

Winter harbour, Melville island, Northwest Territories, 7 fathoms, May 28, 1909, *Arctic* expedition; 1 specimen.

Winter harbour, Melville island, Northwest Territories, May, 1909?, *Arctic* expedition; 1 specimen.

Family **ISCHYROCERIDÆ.**

14. **Ischyrocerus anguipes** Kröyer.

Cape Fullerton, west side of Hudson bay, Northwest Territories, *Neptune* expedition, May 27, 1904 (Beach?); 1 specimen.

Family **HYPERIIDÆ.**

15. **Euthemisto compressa** (Goës).

1865. *Themisto compressa* Goës, Öfvers. af Kgl. Svenska Vetensk-Akad. Forhandl., p. 533, pl. 41, fig. 34.
1870. *Parathemisto compressa* Boeck, Crust. Amph. boreal. et arct., Vid. Selsk. Forh. Christiania, p. 7.
1895. *Euthemisto compressa* G. O. Sars, Crustacea of Norway, vol. I, p. 12, pl. 5, f. 2.
1912. *Euthemisto compressa* Stephensen, Meddel. fra den naturh. Foren., vol. 64, p. 84.
1912. *Euthemisto compressa* Stephensen, Meddel. om Grønland, vol. XLV, p. 613.
1913. *Euthemisto compressa* Stephensen, Meddel. om Grønland, vol. XXII, p. 103.
1913. *Euthemisto compressa* Tattersall, Proc. Royal Irish Academy, vol. XXXI, pt. 42, p. 21.
1916. *Euthemisto compressa* Stephensen, Meddel. om Grønland, vol. LIII, p. 275.

Black Tickle, Labrador, beginning of September, 1903, pelagic, *Neptune* expedition; 1 specimen.

Distribution.—Arctic ocean, Davis strait, east coast of Greenland, New England coast, Norwegian coast.

16. **Euthemisto libellula** (Mandt).

Cumberland gulf, east of Blacklead island, (Baffin island), September 4, 1904, *Neptune* expedition, from stomach of *Cottus* (*Myxocephalus*) *groenlandicus* Bean; 2 specimens.

Additional Note.

Some of the Amphipod Crustaceans collected by the *Neptune* Expedition, 1903-04, were sent to Prof. G. O. Sars, Christiania, Norway, for identification and are published (p. 368) in the report of the Department of Marine and Fisheries, Ottawa, Canada, 1905 (1906).

As these specimens are still in Christiania they have not been examined at the United States National Museum, Washington, nor included in the report above.

Professor Sars's determinations follow:—

Anonyx nugax (Phipps), Fullerton, Northwest Territories.
Pseudalibrotus littoralis (Kröyer), Fullerton, Northwest Territories.
Ischyrocerus anguipes (Kröyer), juv., Fullerton, Northwest Territories.
Ampelisca eschrichti Kröyer, Port Burwell, Ungava.
Euthemisto libellula (Mandt), North Somerset, Northwest Territories.
Gammarus locusta (Linn.), Wakeham bay, Ungava.

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