

Ohlin 1901a T1725

*Arctic Crustacea collected during the Swedish Arctic Exped.
1878, 1899 and 1900 under the direction...*

H. NOUYEL

BIHANG

TILL

KONGL. SVENSKA VETENSKAPS-AKADEMIENS

HANDLINGAR.

TJUGUSJUNDE BANDET.

BIBLIOTHEQUE
du
MUSEUM

STOCKHOLM 1901-1902. P. A. NORSTEDT & SÖNER.

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which it has been taken is 250 metres in stat. 21, 1900. But these figures give, of course only, an approximate value, and it is only by means of shutting nets that we might expect to get certain information as to its bathymetrical range.

One specimen was infested by the parasitic cirriped, *Salpa hamondora* G. O. SARS.

Colour bright red.

Length of largest spec. 69 mm.

Schizopoda.

Fam. Euphausliidæ.

Nyctiphanes G. O. SARS 1883.

This genus was instituted by SARS, in his Preliminary Notices on the Schizopoda of H. M. S. Challenger Expedition, to receive the Northern *Thysanopoda Couchii* BELL and *Thysanopoda norvegica* M. SARS and a new nearly related form, viz. *Nyctiphanes australis* from Bass' Strait. It is mainly characterized by a membranous reflexed leaflet on the basal joint of the antennula, and by the rudimentary and dissimilar state of the two hindmost pairs of legs.

25. *Nyctiphanes norvegica* (M. SARS).

1857. *Thysanopoda norvegica* M. SARS, Om 3 nye norske Krebsdyr, l. c. p. 169.
1864. M. SARS, Udførlig Beskrivelse etc., l. c. p. 2.
1864. nana M. SARS, Tillæg til etc., l. c. p. 84.
1878. *Norvegica* SMITH, Stalk-eyed Crust. Atl. Coast North America etc., l. c. p. 89.
1885. *Nyctiphanes* G. O. SARS, Norweg. North Atl. Exp. II, p. 12.

1886. *Nyctiphanes Norvegica* KOELBEL, Crust., Pycnog. und Arachn. von Jan Mayen etc., l. c. p. 48, taf. III, fig. 7—10.
1892. *norvegica* NORMAN, Families Lophogastridae and Euphausiidae etc., l. c. p. 459.
1892. STERBING, Hist. Crustacea, l. c. p. 263.

Localities:

in 1898:

- stat. 41. lat. 75° 58' N., long. 13° 18' E., 56 miles S.W. of South Cape, Spitzbergen, depth 350 m., bottom temp. + 2.75° C., grayish clay, 1/IX, one spec.

in 1899:

- stat. 3. lat. 63° 36' N., long. 0° 26' E., depth 1900 m., 2/VI., many spec.

in 1900:

- stat. 21. East Greenland, off Kaiser Franz Joseph Fjord between Bontekoe Island and Mackenzie Bay, depth 250 m., mud, 8/VIII, one spec.
" 29. lat. 73° 43' N., long. 14° 49' W., between Greenland and Jan Mayen, depth 2000 m., clay, 27/VIII, many spec.
" II. lat. 73° 30' N., long. 2° W., depth 1500--0 m., vertical net, 12/VII, one spec.

Distribution: This beautiful species seems to be widely distributed both in the North Atlantic Ocean and in the adjacent parts of the Arctic. It has been obtained during the Porcupine Expedition off the coast of Portugal. NORMAN mentions it from the Bay of Biscay and from the British Isles, and SARS from the whole of the Norwegian coast, where it occurs, in some localities, at the surface, in such vast swarms that the sea gets thereby a peculiar brownish tint. SARRH states the same fact on the east coast of New England and Nova Scotia, where it goes as far south as Massachusetts Bay. BUCHHOLZ and HANSEN enumerate it from the sea E. of Greenland, KOELBEL from Jan Mayen, and GOËB from Bohuslän and lat. 75° N., long. 12° E. It also occurs in Færøe Channel (MURRAY *vide* NORMAN) and off the Naze (METZGER). SARS reports it from the North Polar Basin, where it was taken during the famous Fram Expedition.

écrire dans la partie quadrillée ci-dessus.

Strangely enough, it was not obtained either on the Challenger Expedition or on the German Plankton Expedition.

G. O. SARS says¹: «May be the British form, *Thysanopoda Couchii*, observed by BELL, is identical with the present species.» NORMAN has, however, clearly proved that *Nyctiphanes Couchii* is a very distinct species, nearly related to *Nyctiphanes australis* G. O. SARS from Bass' Strait, Australia.
Length 37 mm.

Rhoda SIM 1872.

(= *Boreophausia* G. O. SARS 1883).

STEBBING is the first who, in his *History of Crustacea*, pointed out that two Northern Euphausiids, viz. the well-known *Thysanopoda inermis* KRÖYER and a closely-allied form *Thysanopoda Raschii* M. SARS, ought strictly to be referred to the genus *Rhoda*, established in 1872 by G. SIM in his paper on «Stalk-eyed Crustacea N. E. Coast of Scotland», published in the *Scottish Naturalist*. The genus was created to receive a species, viz. *Rhoda Jardineana*, which NORMAN identifies with *Thysanopoda Raschii*. SARS, in his «Preliminary Notices on the Schizopoda of H. M. S. «Challenger» Expedition», established for KRÖYER's *Thysanopoda inermis* a new genus, viz. *Boreophausia*, but without giving any generic diagnosis. Two years afterwards he added² to this genus *Thysanopoda neglecta* KRÖYER and *Thysanopoda Raschii* M. SARS and, with some hesitation, *Thysanopoda longicaudata* KRÖYER. Of these species, *Thysanopoda Raschii* is the only one that ought properly to be referred to *Boreophausia*, the other two belonging, according to HANSEN and NORMAN, to the genus *Thysanoessa*, established by BRANT in 1851. Since *Rhoda Jardineana* has proved to be identical with *Boreophausia Raschii*, SARS' genus must yield priority to the much older name *Rhoda*. The genus thus includes *Rhoda inermis* (KRÖYER) and *Rhoda Raschii* (M. SARS).

¹ l. c. p. 12.

² Norweg. North Atlant. Exp. II, p. 13. Rep. Challenger Exp., p. 64.

26. *Rhoda inermis* (KRÖYER).

1846. *Thysanopoda inermis* KRÖYER, Voy. in Scand. etc., p. 7, fig. 2 a—t.
 1859. KRÖYER, Monograph, Fremstilling of *Sergestes*, l. c. p. 294, tab. V, fig. 24.
 1879. SMITH, Stalk-eyed Crust. Atl. Coast North America, l. c. p. 91.
 1882. *Euphausia* G. O. SARS, Overs. Norges Crust. etc., l. c. p. 51, tab. I, fig. 15.
 1886. KOEHLER, Crust., Pycnog. und Arachn. von Jan Mayen etc., l. c., p. 47.
 1887. *Boreophausia* HANSEN, Ofv. vestl. Grönlands Fauna etc., l. c. p. 53.
 1887. HANSEN, Hjemphua-Togetets zool. bot. Udbytte etc., l. c. p. 253, tab. XXIII, fig. 3.
 1892. NORMAN, Families Lophogastridae and Euphausiidae etc., l. c. p. 461.
 1893. [*Boreophausia*] *Rhoda inermis* STEBBING, Hist. Crustacea, l. c. p. 263.
 1900. *Rhoda inermis* STEBBING, Arctic Crustacea, l. c. p. 11.

Localities:

in 1899:

- stat. 3. lat. 63° 36' N., long. 0° 26' E., depth 1900 m., 2/VI, four spec. (together with *Nyctiphanes norvegica*).
 26. lat. 72° 26' N., long. 21° 46' W., depth 160—0 m., vertical net, 24/VII, three spec.
 27. lat. 71° 35' N., long. 21° 10' W., depth 200—0 m., vertical net, 27 VII, three spec.
 43. lat. 73° 32' N., long. 24° 34' W., Kaiser Franz Joseph Fiord, Cape Weber, depth 100—110 m., mud with gravels and stones, 28/VIII, one spec.

in 1900:

- West Spitzbergen, entrance of King's Bay, depth 300—0 m., trawl, 2/VII, many spec.
 stat. 16. lat. 72° 25' N., long. 17° 56' W., E. of Greenland, depth 300 m., stones and sand, 30/VII, one spec.
 21. East Greenland, off Kaiser Franz Joseph Fiord, between Bontekoe Island and Mackenzie Bay, depth 250 m., mud, 8 VIII, several spec.
 29. lat. 72° 42' N., long. 14° 49' W., between Greenland and Jan Mayen, clay, depth 2000 m., 27/VIII, three spec.

Rhoda incrimis has more or less the same distribution as the preceding species, which it rivals also in number of specimens. It is restricted to the boreal parts of the North Atlantic and its continuation northwards. It occurs off the British Isles, West- and North-Norway, Kara Sea, Spitzbergen, Jan Mayen, East- and West-Greenland, and the coast of New England as far south as Vineyard Sound and Massachusetts Bay.

It does not attain such a size as *Nyctiphanes norvegica*. My largest specimen measured 29 mm.

Thysanoëssa BRANDT 1851.

This genus was established by BRANDT in MIDDENDORFF'S Sibirische Reise with the following diagnosis. Pedum maxillarium par externum reliquis pedibus longius. It included *Thysanopoda (Thysanoëssa) longipes* BRANDT which has proved to be identical with *Thysanopoda neglecta* KRÖYER. Another species figured but not described by KRÖYER, in Voyage en Scandinavie etc., is also referred to this genus, viz., *Thysanopoda longicaudata*. In 1882 SARS described two more species from the coasts of Norway, viz. *Thysanoëssa borealis* and *Thysanoëssa tenera*, but HANSEN, who has examined KRÖYER'S type-specimens, preserved in the Museum of Copenhagen, comes to the conclusion that *Thysanoëssa borealis* must be identified with *Thysanopoda neglecta*, and *Thysanoëssa tenera* with *Thysanopoda longicaudata*. In the Challenger reports, SARS has added two new species to the genus, viz. the cosmopolitan *Thysanoëssa gregaria* and *Thysanoëssa macrura* from the Arctic and South Atlantic Oceans. The genus which is closely allied to *Nematocelis* G. O. SARS and *Stylochiron* G. O. SARS is, in its present restriction, distinguishable, according to SARS, by the following characteristics: first pair of legs greatly produced and rather strong, the two last joints armed with spiniform bristles on both margins.

During the Swedish Arctic Expeditions of the last three summers only the following species was obtained, viz.

écrire dans la partie quadrillée ci-dessus

27. *Thysanoëssa longicaudata* (KRÖYER).

1846. *Thysanopoda longicaudata* KRÖYER, Voy. en Scand. etc., l. c. p. 7, fig. 1 a—f.
 1882. *Thysanoëssa tenera* G. O. SARS, Ofv. Norges Crust. etc., l. c. p. 53, tab. I, fig. 19—20.
 1887. " *longicaudata* HANSEN, Ofv. vestl. Grönl. Fauna etc., l. c. p. 54.
 1892. " NORMAN, Lophogastridæ and Euphausiidæ etc., l. c. p. 463.
 1893. " STEBBING, Hist. Crustacea etc., l. c. p. 265.
 1893. " ORTMANN, Decapoden und Schizopoden d. Plankton-Exp., l. c. p. 14.
 1900. " SARS, Norweg. North Polar Exp. 1893—1896. Crustacea, p. 14.

Locality:

in 1900:

- II. lat. 73° 30' N., long. 2° W., depth 1500—0 m., vertical net, 13 VII, one spec.

This species has been obtained off the Western and Northern coasts of Norway, off Scotland, in the Færøe Channel, off Greenland (Valorous' Exp. *vide* NORMAN), in the North Polar Basin, in the sea between Norway and Jan Mayen, and at several stations of the German Plankton Expedition situated resp. in the areas of the Gulf Stream, the Irminger Sea, the West Greenland Current, and the Labrador Current. KRÖYER's type specimens are from lat. 61° N., long. 13° W., and from lat. 60° N., long. 11° W. The main distribution of this species seems, therefore, to be, the Arctic parts of the North Atlantic.

Length: 15.5 mm.

Fam. Mysidæ.

Boreomysis G. O. SARS 1869.

This genus was instituted in 1869 by G. O. SARS in his Undersøgelser over Christianiafjordens Dybvandsfauna, to receive *Mysis arctica* KRÖYER, which, at that time, was only

et lieu de naissance :

(Bælte hos hvidelement)

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known from a single specimen from Greenland. Later on, in his classical *Monographi over de ved Norges Kyster forekommende Mysider*, III, 1879, the same author gave a full diagnosis of the genus. He considers the structure of the marsupium in the female as its most distinctive feature, this being here composed of seven pairs of lamella, whilst, in all other Mysideans, it is formed by three pairs at the utmost.

Petalophthalmus WILLEMOES-SCHM is the only one that shares that characteristic with *Boreomysis*. Besides that, the structure of the leopods in the male being all natatory, with very elongate branches, and the rudimentary auditory apparatus make the genus very distinct. In the same genus he included two other species also occurring in the deepest parts 100-400 fathoms of the Norwegian Fiords, viz., *Boreomysis tridens* G. O. SARS, and *Boreomysis megalops* G. O. SARS. On the Norwegian North Atlantic Expedition were obtained the two species to be mentioned below; and, in his report on the Challenger Schizopoda, Sars added two more species to the genus, viz. *Boreomysis obtusata* and *Boreomysis microps* from the North Pacific and North Atlantic resp., both from considerable depths. Thus the genus comprises at present, seven species, all of which are probably bathypelagic forms.

28. *Boreomysis nobilis* G. O. SARS.

Fig. 3.

1879. *Boreomysis nobilis* G. O. SARS, *Crust. et Pycnogon. nova etc.*,
l. c. p. 426.
1885. G. O. SARS, *Norweg. North Atl. Exp. I.*
p. 54, pl. 5, fig. 22-28.
1887. HANSEN, *Ofn. vestl. Grønlands Fauna etc.*,
l. c. p. 214.

Localities:

in 1900:

- stat. 21. East Greenland, off Kaiser Franz Joseph Fiord between Bontekoe Island and Mackenzie Bay, depth 250 m., mud, 8/VIII, several spec.
- 25. East Greenland, entrance of Kaiser Franz Joseph Fiord, depth 200-300 m., mud, 14/VIII, three spec.

The species was described after a single specimen (a male) obtained during the Norwegian North Atlantic Expedition in lat. 79° 59' N., long. 5° 40' E. from a depth of 839 metres. Two other localities are recorded by HANSEN for this species, viz. lat. 69° 15' N., long. 52° 55' W., and lat. 75° 26' N., long. 67° 27' W., both, thus, situated, in the northern part of Baffin Bay. The depths were 265 and 260 fathoms resp. I have not been able to find any other records of its occurrence. It may, therefore, be regarded as an inhabitant of the deep-sea of the Atlantic part of the Arctic Ocean.

The oral parts do not deviate from the structure, which is to be found in the type species, viz. *Boreomysis arctica* (KRÖYER) as described and figured by SARS in his Carcinologische Bidrag. The molar part of the mandible, the maxillae and the maxillipeds closely agree with the corresponding parts in the said species, but deviate more from those in the following species. The last joint of the palp of the mandible slightly deviates as may be seen by comparing SARS' and my own figures of it. As SARS' specimen of *Boreomysis nobilis* had the uropoda somewhat mutilated, I give herewith a figure of them.

Length of largest male 45 mm.
female 49 mm.

29. *Boreomysis scyphops* G. O. SARS.

Petalophthalmus incermis WILLEMÖES-SUHM MS.

1879. *Boreomysis scyphops* G. O. SARS, Crust. et Pycnogon. nova etc., l. c. p. 429.
1884. G. O. SARS, Prelimin. Not. Schizop. Chall. Exp., l. c. p. 34.
1885. G. O. SARS, Norweg. North Atl. Exp. I., p. 56, pl. 6.
1885. G. O. SARS, Schizopoda, Chall. Rep., l. c. p. 178, pl. XXXII, fig. 10-20.

Localities:

in 1898:

- stat. 26. lat. 78° 19' N., long. 8° 41' E., Swedish Depth, depth 2700 m., bottom temp. -1.4° C., Biloculina clay, 25 VII, six spec. (more or less mutilated).
27. lat. 77° 52' N., long. 3° 5' W., 40 miles S.W. of the Swedish Depth, depth 2750 m., bottom temp. -1.4° C., Biloculina clay, 29 VII, two spec.

et lieu de naissance :
(Ecrire tête hissement.)
Prénoms du Candidat :

