CONTRIBUTIONS TO THE NATURAL HISTORY OF THE COM-MANDER ISLANDS.

No. 9.—On the Entomostraca collected by Mr. Leonhard Steineger, on Bering Island, 1882-783.

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1. Branchipus paludosus (O. F. MÜLLER).

Cancer patudosus O. F. MÜLLER, Zoologia Danica, vol. II, p. 10, tab. 48, fig. 1-8 (1788).

Branchinecta groenlandica Verrill, Proc. Amer. Assoc. Adv. Science, 1869 (publ. July, 1870), Extr., p. 16.

Branchinecta arctica of Verrill, described from Labrador (op. cit., p. 15), is probably likewise identical with Miiller's species. The Cancer stagnalis, described by Fabricius in his Fauna Grænlandica (p. 245), also belongs here, and not to Cancer stagnalis of Linnæus.

According to Mr. Stejneger's MS. notes this species was found rather numerous in many of the small ponds in the neighborhood of the village on Bering Island. It occurs besides in Greenland, in the Alpine and northern districts of Norway, on the Kola Peninsula, and according to specimens collected during the different expeditions of Professor Nordenskiöld, also in Waigatsch and Novaja Semlia, and may be regarded as circumpolar in its distribution. Collector's numbers, 1269 and 2418; U. S. Nat. Mus. Nos. 12435 and 12436.

2. Daphnia longispina O. F. MÜLLER.

Daphwia longispina O. F. Müller, Enfomostr. Danica, p. 88, tab. xii, fig. 8-10 (1785).—Fr. Leydig, Naturgesch. d. Daphuid., p. 140, taf. ii, fig. 13-20 (1860).—G. O. Sars, Om de i Omegnen af Christiania forekommende Cladocerer, Vidensk. Selsk. Christiana Forbandl., 1861, p. 145.—P. E. Müller, Danmark's Cladocera, Naturhist. Tidsskr., 3 Række, V, Extr., p. 60, tab. i, fig. 1.2 (1867).

The few specimens collected by Mr. Stejneger in small ponds near Ladiginsk, Bering Island, prove to belong partly to a forma vernalis characterized by the thick and short setæ on the second pair of antenne, and partly to a varietas abbreviata, peculiar by having the head unusually abbreviated, and by the short spine on the posterior end of the shell. This species occurs in Denmark, Sweden, Norway, Finland, Russia, England, Germany, Belgium, and without doubt also in Siberia and North America.

Collector's No. 1270; U. S. Nat. Mus. No. 12431.

3. Eurycercus glacialis, sp. nov.

Lynceus lamellatus? H. Kröyer, Grönland's Amphipoder, K. Danske Vidensk, Selsk. Natury.-Math. Afhandl., VII, p. 320 (without description).

Distinguished from Eurycereus lamellatus (O. F. MÜLLER), the only known species of this genus: (1) By its considerably larger size (length

4-5^{wm}); (2) by a somewhat different structure of the shell, which is marked by pentagonal or hexagonal somewhat elongated meshes; (3) by the dorsal margin of the head not being constricted posteriorly but passing directly into that of the shell; (4) by the dorsal portion of the shell back of the head being broad and convex, and without any compressed sharp dorsal ridge; and (5) by the spines on the dorsal edge of the tail being larger and less numerous (about 80), the innermost ones being nearly as broad at base as the rest, &c.

Mr. Stejneger collected this new species on Bering Island. It has also been obtained by Professor Nordenskiöld's expeditions in Greenland and Waigatsch, and seems consequently to have a considerable range in the northernmost regions of the globe, hence the name which I have proposed above, and which I have already employed in my public lectures on these animals.

Collector's No. 2384; U. S. Nat. Mus. No. 12432. (Types.)

4. Calanus cristatus Kröyen.

Calanus cristatus H. Kröver, in Gaimard's Voyage en Scandinavie', Lapponie &c., Atlas, Zoologie, Crustacés, pl. 41, fig. 6 ("iristatus," errore typogr.).—S. A. Рогре, Ueber die von den Herren Dr. Arthur und Aurel Krause im nördlichen Stillen Ocean und Behringsmeer gesammelten freilebenden Copepoden, Arch. f. Naturgeseh., L, i, p. 282, taf. xx, fig. 1-6.—H. Kröver, Naturhist. Tidsskr., 2 Række, H, p. 546 (1846-49).

I quote the following from Mr. Stejneger's MS. notes in regard to this species:

"Quite a number of this species were found at Comandor, Bering Island, August 29, 1882, east ashore during the heavy gale which raged during my stay at that place. After another heavy gale I found them on the 7th of May, 1883, in enormous numbers on the sandy beaches south of the main village. From the mouth of Kamennaja River southward for a distance of 13 kilometers the whole beach was margined with three undulating belts of these animals, which marked the outlines of the waves of the retiring tide. When fresh the animals were semitranslucent and of a rosy flesh-color, but after having been dry for a little while they assumed a vivid orange-red color, which made them very conspicuous on the brownish sand. By actual counting I found them to average 75 to the inch, which gives a grand total for 11 kilometers of nearly 44 millions. But from the point where I ended my walk I could still see the red lines continuing southward, and have no doubt that they reached at least 10 kilometers further, which would give a total number of no less than 35 millions."

Kröyer obtained this species from the Kamtschatkan Sea, so that it seems to be peculiar to the northern part of the Pacific Ocean.

Collector's Nos. 1507, 2013; U. S. Nat. Mus. Nos. 12433 and 12434.

5. Diaptomus ambiguus, sp. nov.

The female only. Length, 1.75^{mm}. Particularly remarkable for having the first caudal segment ("abdominal segment") more than three times

longer than the two next segments combined, and for the second caudal segment being rudimentary. In addition it may be noted that the first pair of antenna reach to the end of the furca and have twenty-six joints; that the last (sixth) thoracic segment, seen from above, terminates in a point and possesses a small spine in the posterior border; that the first candal segment in its anterior portion has a quite small spine on each side; that the furea is short, being about the same length as the last candal segment; that the inner branch of the fifth pair of feet has only one joint, the tip of which is provided with two strong spines and only a trace of a third one, and that it hardly reaches to the end of the first joint of the outer branch; that the great spine on the second joint of the outer branch has extremely small spines only on the middle of the inner side, and that its third joint is indistinct and possesses two spines, of which the larger one reaches to or beyond the middle of the abovementioned large spine on the second joint. In other respects it presents the usual features of the genus.

Of this species Mr. Stejneger only obtained a couple of fully-developed females, besides a few specimens not yet developed.

According to his notes it was collected July 22, 1882, in a small freshwater pond at Ladiginsk, near the main village on Bering Island.

Collector's No. 1271; U. S. Nat. Mus. No. 12437. (Types.)

UPSALA, SWEDEN, March 8, 1887.