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Crustacea from the Falkland Islands collected by Mr. Rupert Vallentin, F.L.S.—Part III.

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(Plates I.–V. * and Text-figures 1-8.)

In re-examining Mr. Vallentin's Malacostraca I have observed some forms, chiefly specimens of very small size, which seem worthy of notice in this concluding report.

Brachyura.

Tribe CYCLOMETOPA.

Family ATELECYCLIDÆ.

Genus *Peltarion* Jacquinot.

Peltarion spinosulus (White) juv.

Family PORTUNIDÆ.

Larval genus *Zoea* Bosc.

Tribe OXYRRHYNCHA.

Larval genus *Megalopa* Leach.

Macrura Anomala.

Tribe GALATHEIDEA.

Family GALATHEIDÆ.

Genus *Munida* Leach.

Munida gregarius (Fabricius).

Schizopoda.

Tribe THYSANOPODACEA.

Family THYSANOPODIDÆ.

Genus *Nematoscelis* Sars.

Nematoscelis rostratus Sars. (*Cyrtopia* stage.)

Isopoda Anomala. (or Apseudacea).

Family TANAIDÆ.

Genus *Tanais* Audouin & M. Edwards.

Tanais nierstraszi, sp. n.

Isopoda Genuina.

Tribe FLABELLIFERA.

Family ÆGIDÆ.

Genus *Æga* Leach.

Æga semicarinatus Miers.

Family SPHÆROMIDÆ.

Genus *Dynamenella* Hansen.

Dynamenella eatoni (Miers).

Tribe ASELLOTA.

Family MUNNIDÆ.

Genus *Munna* Kröyer.

Munna antarcticus (Pfeffer).

Amphipoda.

Family LYSIANASSIDÆ.

Genus *Tryphosites* Sars.

Tryphosites chevreuxi Stebbing.

Family METOPIDÆ.

Genus *Metopoides* Della Valle.

Metopoides parallelocheir (Stebbing).

Family PONTOGENEIIDÆ.

Genus *Paramœra* Miers.

Paramœra austrinus (Bate).

* For explanation of the Plates see p. 339.

MALACOSTRACA.

BRACHYURA.

Tribe CYCLOMETOPA.

Family ATELECYCLIDÆ.

Genus PELTARION Jacquinot.

The systematic position of this genus and its nomenclature have been already discussed in Proc. Zool. Soc. for 1900, pp. 518–519, where also bibliographical details are supplied for the following species.

PELTARION SPINOSULUS (White) juv. (Pl. I.)

Writing as to his collecting of Crustacea between November 1901 and March 1902 Mr. Vallentin says :—" I have dredged one specimen of this species in Stanley Harbour in 3 fms. in the black mud. It is common in certain protected bays fringing the ocean, being easily procured during low-water spring tides. Its presence can at once be detected by a slight blister in the sand. About an inch deep in the sand under one of these mounds a crab can always be secured. Gulls, *Larus dominicanus*, are splendid fellows at finding these crabs. With one dig with their bill and a twist they turn them out from their hiding places, and directly tear them in pieces and devour them."

Though the adult form of the species has long been well known, I have not been able to find any description of the juvenile stages, one of which seems to me to be represented by the minute specimen which I have figured.

The carapace measures about 3 mm. in length by 2 mm. in breadth, while the adult may have a breadth of 50 mm. and a length somewhat greater. The eyes of the small specimen are in the Megalopa stage, and the five spinulose teeth on each side of the carapace to the rear of the eyes and the spinulose eminences along its medio-dorsal line must undergo considerable modification in the later development. On the other hand, the microscopically denticulate rostrum and many other details are strongly in favour of the proposed identification. Many points of agreement may be observed by comparing the account which Miers gives of the genus ('Challenger' Reports, vol. xvii. p. 210, 1886) with various details here figured. Attention may be called to the third maxillipeds; to the chelipeds (prp. 1) with the "fingers robust, scarcely as long as the palm, and rather obscurely dentated on the inner margins, distally acute; the dactylus spinuliferous on the superior margin," as described by Miers for the adult male, and here only differing by the greater length of the fingers in relation to the palm, the other peræopods also agreeing with Miers's description, "dactyli styliform, slender, and much longer than the penultimate joints."

Family PORTUNIDÆ.

Larval Genus ZOEA Bosc. (Pl. II.)

1769. *Monoculus* Slabber, Natuurkundige Verlustigingen, part 5, p. 35, pl. 5. figs. 1, 2.
1802. *Zoea* Bosc, Hist. Nat. Crust. vol. ii. p. 135.
1813. *Zöe* Leach, Edinb. Encycl. vol. vii. p. 389.
1818. *Zoëa* Leach, in Tuckey's River Zaire Exp., Appendix 4, p. 414.
1830. *Zoea* Thompson, Zoological Researches, vol. i. [Milne Edwards].
1837. ,, Milne Edwards, Hist. Nat. Crust. vol. ii. pp. 431–438.
1878. *Zoëa* Claus, Untersuch. des Crustaceen-Systems, pp. 1, 31, 63, etc.
1903 ,, Williamson, Fishery Board Scotland, Rep. xix. pt. 3, p. 136.
1911. ,, Williamson, Fisheries, Scotland, Sci. Invest. 1901, No. 1.
1918. *Zoea* Meek & O. Jorgensen, Rep. Dove Marine Lab. pp. 23, 62.

Slabber's description and figure of his *Monoculus taurus* seem to give him priority in the observation of this form of crustacean life. By his laudable anxiety not needlessly to increase the number of genera he has lost the credit, such as it is, of giving it its first generic title. Yet he recognised the absurdity of including in the definition of *Monoculus* "oculi duo," whether expressed or implied in the plural "oculi approximati." It may be noticed that Leach gives a very uninstructive figure of his *Zoëa clavata*. The account by Milne Edwards of fluctuating opinion down to 1837 is of great interest, as is that by Claus later on. Professor Meek proposes that the term *Zoea* should be limited to the larvæ which have "more than eight but not more than thirteen pairs of appendages." The specimen which I have figured from the Falklands shows much likeness to that represented by Claus (loc. cit. pl. xi.) as the *Zoea* of some member of the family Portunidæ.

Tribe OXYRRHYNCHA.

Larval Genus MEGALOPA Leach. (Pl. III.)

1813. *Megalopa* Leach, Edinb. Encycl. vol. vii. pp. 394, 431.
1816. ,, ,, Encycl. Brit., Suppl., Ed. 5, p. 417.
1818. ,, ,, in Tuckey's River Zaire Exp., Appendix 4, p. 414.
1825. ,, Desmarest, Consid. gén. Crust. p. 200.
1837. *Megalops* Milne Edwards, Hist. Nat. Crust. vol. ii. p. 260.
1874. ,, S. I. Smith, Invert. Vineyard Sound, p. 237 (531), pl. 8. fig. 38.

1876. *Megalopa* Claus, Untersuch. des Crustaceen-Systems, pp. 66 etc.
1911. *Megalops* Williamson, Fisheries, Scotland, Sci. Invest. 1909, pp. 4, 8, 11, 13, 15.
1918. *Megalopa* Meek, Rep. Dove Marine Lab. p. 30.
1918. *Megalops* Olga Jorgensen, Rep. Dove Marine Lab. p. 61.

Various other references will be found indicated in the works above cited. In 1769 or 1770 Slabber, in his 'Natuurkundige Verlustigingen,' Part 18, p. 159, pl. 18. fig. 1, describes and figures "an oblong-quadrate sea-crab," the size of a grain of wheat, which is no doubt a *Megalopa*, but Slabber supplies no Latin name. In 1783 Herbst in allusion to its size named it *Cancer granarius* (Naturg. Krabben und Krebse, Parts 2–5, p. 107, pl. 2. figs. 28 *a*, A.). His reproduction of Slabber's figure is not specially accurate. Later on, in the third volume of O. F. Müller's 'Zoologia Danica,' edited by Abildgaard (p. 56, pl. 114. figs. 1–3; 1789) appears *Cancer faeroensis*, also with a tridentate front, and recognised by Milne Edwards (loc. cit. p. 262) as a *Megalopa*. In 1804 Montagu described and figured his *Cancer rhomboidalis* (Tr. Linn. Soc. vol. vii. p. 65, pl. 6. fig. 1), a species apparently belonging to the Cyclometopa, and on this Leach in 1813 founded his genus *Megalopa*, renaming Montagu's species as *Megalopa montagui* (Malac. Pod. Brit. pt. 14, pl. 16. figs. 1–6; 1817).

The *Megalopa* of *Cancer irroratus* Say has been carefully ascertained by S. I. Smith, and as the adult is clearly allied with *Cancer pagurus*, presumably the *Megalopa* stage will be nearly the same in the two species. The *Megalopa* of *Carcinus mœnas* figured by Spence Bate is reproduced in Huxley's 'The Crayfish' (p. 282, figs. 74, C, D. ed. 3; 1881) by a slip under the name of *C. pagurus*. Williamson, who uses *Megalopa* as the plural of *Megalops*, supplies figures of this stage for *Portunus holsatus*, *Portunus puber*, and a species which he believes to be *Hyas araneus*. As our Falkland Island specimen shows good agreement with the last-named form it may reasonably be allotted along with it to the Oxyrrhyncha, leaving open the question of its genus and species.

MACRURA ANOMALA.

Tribe GALATHEIDEA.

Family GALATHEIDÆ.

Genus MUNIDA Leach, 1820.

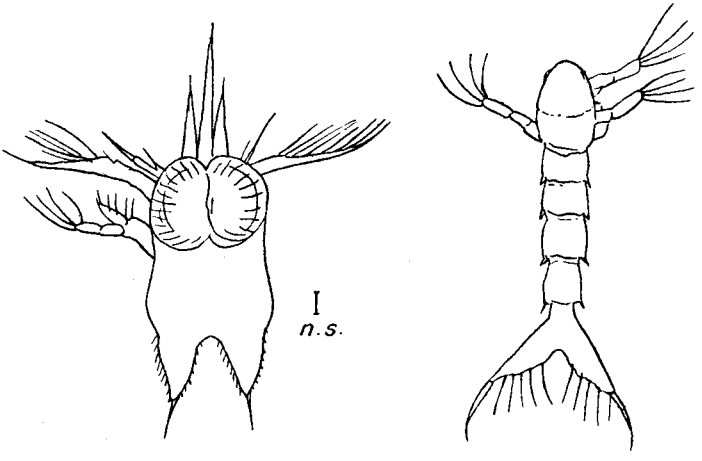
MUNIDA GREGARIUS (Fabricius), 1793.

The adult form has been already mentioned in these Proceedings for 1914, p. 346. The figures here given refer to a very early

larval stage, in which the carapace has only a length of 2 mm. The generic identification may, I think, be relied on by a comparison with the description and figures which Professor G. O. Sars supplies for a similar stage of *Munida rugosus* (Fabricius) in his "Bidrag til Kundskaben om Decapodernes Forvandlinger," ii. p. 178, tab. 6 (Arch. Naturv., 1889).

The figures give a dorsal view of the specimen in two divisions, the line *n.s.* indicating the actual length of the carapace.

Text-figures 1 & 2.



Munida gregarius, early larval stage.

SCHIZOPODA.

Tribe THYSANOPODACEA.

Family THYSANOPODIDÆ.

For the classification see Ann. S. African Mus. vol. vi. pp. 395, 396; 1910.

Genus NEMATOSCELIS G. O. Sars.

1883. *Nematoscelis* Sars, Vid. Selsk. Forhandl. Christian., No. 7, p. 27.

NEMATOSCELIS ROSTRATUS Sars.

1885. *Nematoscelis rostrata* Sars, Rep. Voy. 'Challenger,' vol. xiii. Schiz., pp. 135, 169, pl. 25. figs. 8–10, pl. 31. figs. 23–29.

Among numerous specimens of larval forms belonging to other groups there occurred a single slender form 4·5 mm. in length,

having a telson in minute agreement with that figured by Sars for the *Cyrtopia* larva of his species above-named. His description of the telson says, "The middle projection of its extremity (fig. 29) is considerably produced, but narrowly truncate at the tip; and of the seven original spines, three only remain. Of the three outer spines, the innermost on either side is much larger than the others, and has assumed the character of the subapical spines." The outermost, as shown in the figure 29 is microscopic, and in the upper part of the telson but below the middle (not included in fig. 29) there is another microscopic pair. The carapace has a denticle on each side below the middle. The first legs in the Falkland specimen, however, have not attained the same relative length as that shown in fig. 25 of the 'Challenger' report. In various papers H. J. Hansen makes *N. rostratus* a synonym of *N. microps* Sars. On this I am not presuming to pass an opinion, but retain the name *rostratus* for the better identification of the Falkland Island specimen with the 'Challenger' *Cyrtopia* form.

ISOPODA ANOMALA.
(or Apseudacea).

Family TANAIDÆ.

See Proc. Zool. Soc. 1914, p. 348, and add for the present purpose :—

1884. *Tanaidæ* Studer, 'Gazelle' Isopoden, p. 24.
1886. „ Beddard, Rep. Voy. 'Challenger,' vol. xvii. Part 48, p. 119.
1914. „ Barnard, Ann. S. Afr. Mus. vol. x. pt. 11, p. 331 *a*.

Genus TANAIS Audouin & M. Edwards, 1829.

TANAIS NIERSTRASZI, sp. n. (Pl. IV.)

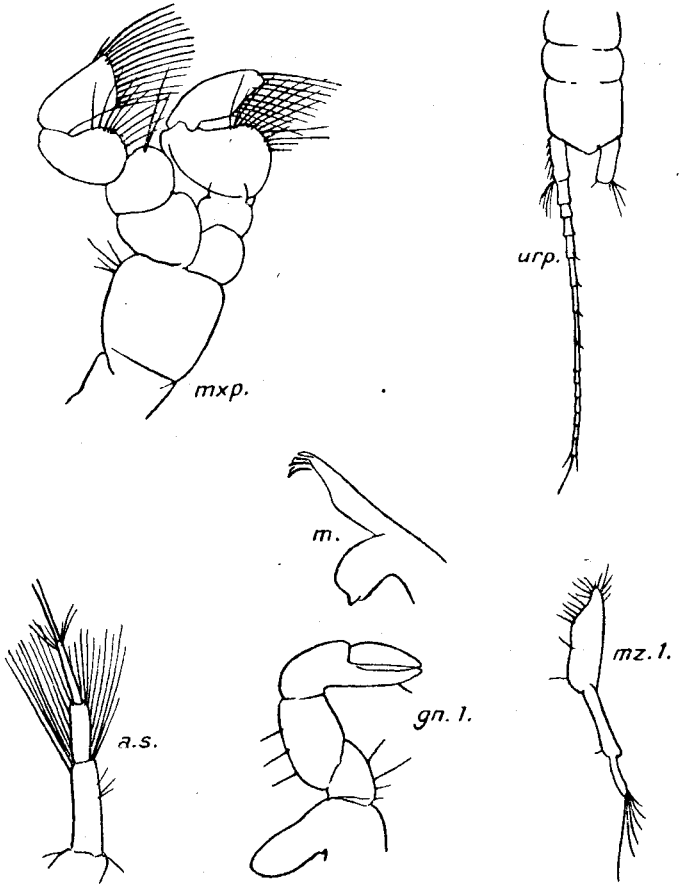
The present species belongs to that division of the genus in which the pleon has six segments. In having the last three abruptly narrowed it agrees with *T. normani* Richardson, differing from it by having the ramus of the uropods 10-jointed. In this respect it stands between the large blind *T. willemoesii* Studer, which has 8 joints, and *T. hirsutus* Beddard, which has, including peduncle, "about 12." From the latter, taken "off Prince Edward Island; depth 50 to 150 fathoms," it appears to be distinguished by the very different proportions of many of the body segments.

The eyes are dark, piriform, at the rounded angles of the cephalothorax, which has a broad front with short rostrum, and gradually attains a breadth at least equal to the length. The

first antennæ are as in *T. hirsutus*, with crowded setæ on joints of the peduncle, but only a minute one-jointed flagellum tipped with long setæ.

The mandible ends in four crowded teeth or short setæ from which a narrow strip of the trunk leads to the strong molar.

Text-figures 3–8.



Tanais nierstraszi.

a.s. First antenna. *m.* Mandible. *mx.* 1. First maxilla. *mxp.* Maxillipeds. *gn.* 1. First gnathopod. *urp.* One of the uropods in attachment to part of pleon; the ramus should be 10-jointed.

The first maxilla has its oblique apical margin spinose, with a group of subapical setæ on the outer margin; the long two-jointed palp ends in several setæ. The maxillipeds have the

apex of the palp's fourth joint, like the two preceding joints, provided with a crowd of setæ. The broad third joint is apically narrowed. The first gnathopod is normal, the fingers closing without a gap, and the apical teeth overlapping. The second gnathopods are very slender. In the fifth peræopods the penultimate joint has the lower half of its front margin fringed with small spines. The rami of the pleopods have very long fringes.

A specimen nearly 7 mm. in length was taken by Mr. Vallentin at Roy Cove from a depth of 3–4 fathoms. The smaller specimen, 5 mm. long, he took from the surface. To this the text-figures refer.

The specific name is given in recognition of Professor H. F. Nierstrasz's valued studies of the Isopoda.

ISOPODA GENUINA.

Tribe FLABELLIFERA.

Family ÆGIDÆ.

Genus ÆGA Leach, 1815.

ÆGA SEMICARINATUS Miers.

1875. *Æga semicarinata* Miers, Ann. Nat. Hist. ser. 4, vol. xvi. p. 115.
1877. „ „ Miers, Phil. Trans., Zool. Kerguelen, Crust., p. 2, pl. xi. fig. 1.
1891. „ „ Dollfus in Crust. Miss. Cap Horn (A. M.-Edw.) p. 57, pl. 8. figs. 2, 2 *a*.
1914. „ *urotoma* Barnard, Ann. S. Afr. Mus. vol. x. p. 367, pl. 32 A.

In a manuscript note Mr. Barnard identifies his *urotoma* with the present species. His figure of the telsonic segment, however, does not show nor does his description mention the slight mediodorsal carina which is recorded and figured by Dollfus and is present in the Falkland specimen. This was found by Mr. Vallentin on drift *Macrocystis* near West Point Island. It measures 49 mm. in length, with a breadth rather over 21 mm. In the first antenna the flagellum is 10-jointed. The difference of fourteen joints in that of the Cape specimen cannot be considered important, as the total length of the Cape example was also larger, being 53 mm.

Our specimen has the whole dorsal surface of the pleon and the last side-plates of the peræon strongly pitted. In the first gnathopods the fourth and fifth joints are very short, the sixth has a minute process on the inner margin, and the seventh is strongly bent with the apex acute and black.

Family SPHÆROMIDÆ.

Genus DYNAMENELLA Hansen.

1905. *Dynamenella* Hansen, Q. J. Microsc. Sci. vol. xlix. pp. 96, 107, 117, 125.
1905. „ H. Richardson, Mon. Isop. N. Amer. p. x.
1906. „ H. Richardson, Pr. U.S. Nat. Mus. vol. xxxi. p. 14.
1914. „ Barnard, Ann. S. Afr. Mus. vol. x. p. 410.

DYNAMENELLA EATONI (Miers).

1875. *Dynamene eatoni* Miers, Ann. Nat. Hist. ser. 4, vol. xvi. p. 73.
1891. „ „ Dollfus, Crust. Miss. Cap Horn, p. 66.
1905. *Dynamenella eatoni* Hansen, Q. J. Microsc. Sci. vol. xlix. p. 125.

Mr. Vallentin's specimens, taken on the shore at Stanley Harbour and from a depth of 3 to 4 fathoms in Roy Cove, were all females.

Tribe ASELLOTA.

Family MUNNIDÆ.

1899. *Munnidæ* Sars, Crust. Norway, vol. ii. p. 105.
1916. *Munnini* (group) Hansen, 'Ingolf' Malacostraca, iii. p. 33.

Genus MUNNA Kröyer.

1839. *Munna* Kröyer, Naturhistorisk Tidsskrift, vol. ii. p. 612.
1882. „ Chilton, Ann. Nat. Hist. ser. 5, vol. ix. p. 1.
1887. *Haliacris* Pfeffer, Krebse von Süd-Georgien, Part 1, p. 97.
1899. *Munna* Sars, Crust. Norway, vol. ii. p. 106.
1902. *Haliacris* Hodgson, 'Southern Cross' Crustacea, p. 253.
1905. *Munna* H. Richardson, Isop. N. Amer. p. 480.
1906. *Haliacris* H. Richardson, Exp. Antarct. française, Isop., p. 16.
1909. „ Chilton, Subantarctic Is. N. Zealand, Crust., p. 650.
1910. „ Hodgson, Nat. Antarctic Exp., Isopoda, p. 58.
1913. „ H. Richardson, Deuxième Exp. Antarct. française, p. 19.
1916. *Munna* Hansen, 'Ingolf' Malacostraca, iii. p. 34.

The species of this genus have caused no little difficulty by the smallness and transparency of some parts and the great length and fragility of others. Some curious slips of the pen may also be noticed. Thus Sars attributes the genus to Boeck, just after writing of it as Kröyer's. Pfeffer in defining *Haliacris* states

that the second to the fourth pairs of walking-legs are longer and stronger than the fifth to the seventh pairs, though his specific description shows that he means just the reverse. Hodgson in describing the mandible says of the palp, "first and third joints subequal, third the longest," his figure showing correctly the second joint as the longest. Chilton and Hodgson, with a lingering retention of the name *Haliacris*, agree that the name must be regarded as a synonym of *Munna*. Hansen points out that the character "eyes distinct" must be withdrawn from the definition given by Sars, if the genus is to include such species as *Munna cæca* Richardson, *M. truncata* Richardson, and *M. acanthifera* Hansen. But he does not notice Miss Richardson's proposal in 1908 (Pr. U.S. Nat. Mus. vol. xxxv. p. 79) to substitute the generic name *Cæcimunna* for the species *truncatus* and *Haplomunna* for the species *cæcus*. Should these proposals be adopted, Hansen's *acanthifer* would probably be allotted to *Cæcimunna*, thus withdrawing all the blind species from *Munna*. In 1913 Miss Richardson advocates the retention of *Haliacris* on the ground of the special structure of the first gnathopods in the male and their great size. This distinction would require the inclusion, along with Pfeffer's species, of *Munna palmatus* Lilljeborg, 1851, and *Munna neozelanicus* Chilton, 1892. But it is at least highly inconvenient to have the adult male in one genus, while the females and young males can be appropriately placed in another. In *M. kröyeri* Goodsir the carpal joint of the male's first gnathopod is large, while in *M. palmatus* it is very much larger, but surely this by itself should not count for generic difference. In instituting his genus Pfeffer was himself unacquainted with the full development of the first gnathopod in the adult male.

MUNNA ANTARCTICUS (Pfeffer). (Pl. V.)

1887. *Haliacris antarctica* Pfeffer, Krebse Süd-Georgien, Pt. 1, p. 97, pl. 6. figs. 28–47.
1902. „ *australis* Hodgson, 'Southern Cross' Crust., p. 253, pl. 34. figs. 1 *a–d*, pl. 37.
1906. „ „ H. Richardson, Exp. Antarct. française, p. 16, fig. 20.
1909. „ *antarctica* Chilton, Subant. Is. N. Zealand, Crust., p. 650, fig. 14 *b*.
1910. „ „ Hodgson, Nat. Antarct. Exp., Isop., pp. 58–61.
1913. H. Richardson, Deuxième Exp. Ant. française, p. 19.

Mr. Hodgson says of the specimens obtained by the 'Discovery' that some of the old males "attain a length of seven millimetres." None of the Falkland Island specimens exceeded 3 mm. Yet the single example of an adult male first gnathopod is very characteristic of the advanced development. It differs slightly from the only other available figure, given by Miss

Richardson in 1906, as there the inner margin of the large carpal joint's process is serrate, in place of the well-marked inner tooth of our specimen.

In the first antennæ I found two stout joints, the second longer than the first; to the second succeeds a minute joint which I suppose to be the third joint of the peduncle. It is followed by a similar joint which should, I think, be considered the first of the slender flagellum.

In the male the second antennæ may attain a great length, fully twice that of the body, the transparent flagellum slightly exceeding that of the peduncle. Pfeffer's figure gives this flagellum without any divisions, and those which I have marked are very uncertain, notwithstanding the high magnification. As shown on the Plate the specimen carrying this long antenna on the right had on the left one very much shorter, and the peræopods on the left are rather shorter than those on the right. Mere size has to be carefully considered before it can be used in classification.

The curved third joint of the mandibular palp seems naturally to bend away from the cutting-edge rather than towards it. In the maxillipeds the broad plate of the second joint has three or four minute hooks on the inner margin and four little teeth on the truncate distal border.

The first pleopods of the male are described by Hansen as the "median lamella of the abdominal operculum of that sex," and for specific distinction he says "in reality the shape of this lamella, especially its terminal part, affords, perhaps, the sharpest and most reliable character." Unfortunately in small specimens its details are excessively difficult to determine. Even for the larger divisions of the peræon my figures cannot claim exactitude.

The specimens were obtained by Mr. Vallentin from a hulk at low water.

AMPHIPODA.

Family Lysianassidæ.

Genus Tryphosites Sars.

Tryphosites chevreuxi Stebbing.

1914. *Tryphosites chevreuxi* Stebbing, Proc. Zool. Soc., p. 355, pl. 3.

The original description states that in this species the third pleon segment "has the lower half of the postero-lateral margin convex and cut into a serration of nine little teeth." An examination of additional specimens shows the variability of this character, a small example having only three such teeth, and one somewhat larger having four on one side of the pleon and six on the other side.

In J. Linn. Soc. vol. xxix. p. 58; 1903, Mr. A. O. Walker

describes specimens of *Atyloides serraticauda* Stebbing with seven teeth on the margin above discussed, instead of only two in the specimen first described. The moral which Mr. Walker draws as to the untrustworthiness of small characters for specific distinction is enforced by the additional example in *Tryphosites*, a genus remote from *Atyloides*. But it is difficult to profit by the warning when a single specimen with apparently novel characters has to be classified.

Family METOPIDÆ.

Genus METOPOIDES Della Valle.

METOPOIDES PARALLELOCHEIR (Stebbing).

1888. *Metopa parallelocheir* Stebbing, Rep. Voy. 'Challenger,' vol. xxix. p. 762, pl. 43.
1893. *Metopoides* ,, Della Valle, F. Fl. Neapel, vol. xxi p. 907.
1906. ,, ,, Stebbing, Das Tierreich, vol. xxi. p. 186.

The specimens obtained by Mr. Vallentin at the Falkland Islands had unfortunately become too dry for satisfactory examination in detail before I attempted dissection. Beyond identifying the species I can add nothing to the description and figures supplied in the 'Challenger' report and 'Das Tierreich.' The depth of 100 metres from which the 'Challenger' specimen purports to come loses such authority as it had by comparison with Mr. Vallentin's taking of the species at very small depths. They were found by him "in the branchial sac of a simple ascidian."

Family PONTOGENEIIDÆ.

Genus PARAMŒRA Miers.

1875. *Paramœra* Miers, Ann. Nat. Hist. ser. 4, vol. xvi. p. 75 (see also Rep. Voy. 'Challenger,' vol. xxix. p. 447).

PARAMŒRA AUSTRINUS (Bate).

1914. *Paramœra austrinus* (Bate), Proc. Zool. Soc., p. 364.

Specimens which I am inclined to include in this seemingly variable species were taken by Mr. Vallentin some nine years ago at Crooked Inlet. In regard to the first of them he writes: "It was found under the mantle of the common limpet *Patella œnea*. Colour, body ivory-white with a dark red line running down directly in the median line from head to tail. Eyes fiery-red." It is remarkable that the body colouring was retained till

examination in the year 1918, though the eyes had become orange rather than red.

Chevreux in 1913 describes his *Stebbingia gracilis* as having the body "teinte de blanc et de rose" and the eyes "d'un rouge vif." It also agrees with our Falkland specimens in having no accessory flagellum to the first antenna, and the telson slit for half its length, but the smoothly rounded apex of each lobe is devoid of the spinule which our specimens have, and the slender spinose peræopods cannot be reconciled with the comparatively stout and smooth lower joints of the Falkland species, of which "six more specimens removed from as many different limpets were found later." One of these smaller examples, however, proved to belong to a different genus. As to the *Paramœra* specimens, so far as I have been able to verify the details, they agree with those which I have figured in the 'Challenger' Amphipoda, pl. 76, the pecies being there named *Atyloides australis* (Miers).

EXPLANATION OF THE PLATES.

Plate I.

Peltarion spinosulus (White) juv.

n.s. Lines indicating size of carapace in the adjoining dorsal view.
r., a.s., a.i. The rostrum; first and second antennæ magnified to the same scale as the rostrum and mouth-organs.
m., mx. 1, *mx.* 2, *mxp.* 1, 2, 3. Mandible, first and second maxillæ, first, second, and third maxillipeds.
prp. 1, *prp.* 2. Four terminal joints of the first and second peræopods, with finger of first to scale of the mouth-organs.

Plate II.

Zoea of a Brachyuran.

n.s. Line showing length from apex of frontal to apex of dorsal spine in specimen figured below in lateral view.
car. Carapace more enlarged, dorsal view, frontal spine omitted.
T. Telson to the same scale as the antennæ and anterior mouth-organs.
l.s., a.s., a.i., m., mx. 1, *mx.* 2. Upper lip, first and second antennæ, mandible, first and second maxillæ.
mxp. 1, 2, *prp.* 1, 3, 5. First and second maxillipeds, first, third, and fifth peræopods to a lower scale than preceding details.

Plate III.

Megalopa of an Oxyrrhynch.

n.s. Line showing length of specimen figured below in dorsal aspect.
car. Profile view of carapace and base of pleon.
Pl. Last three segments of pleon in dorsal view, more magnified.
a.s., a.i. First and second antennæ.
m., mx. 1, *mx.* 2, *mxp.* 1, 2, 3. Mandible (part), first maxilla (palp incomplete), second maxilla, first, second, and third maxillipeds.
prp. 1, *prp.* 4, *plp.* First and fourth peræopods (less magnified than the other details), a pleopod, and terminal joints of prp. 1 on higher scale.

Plate IV.

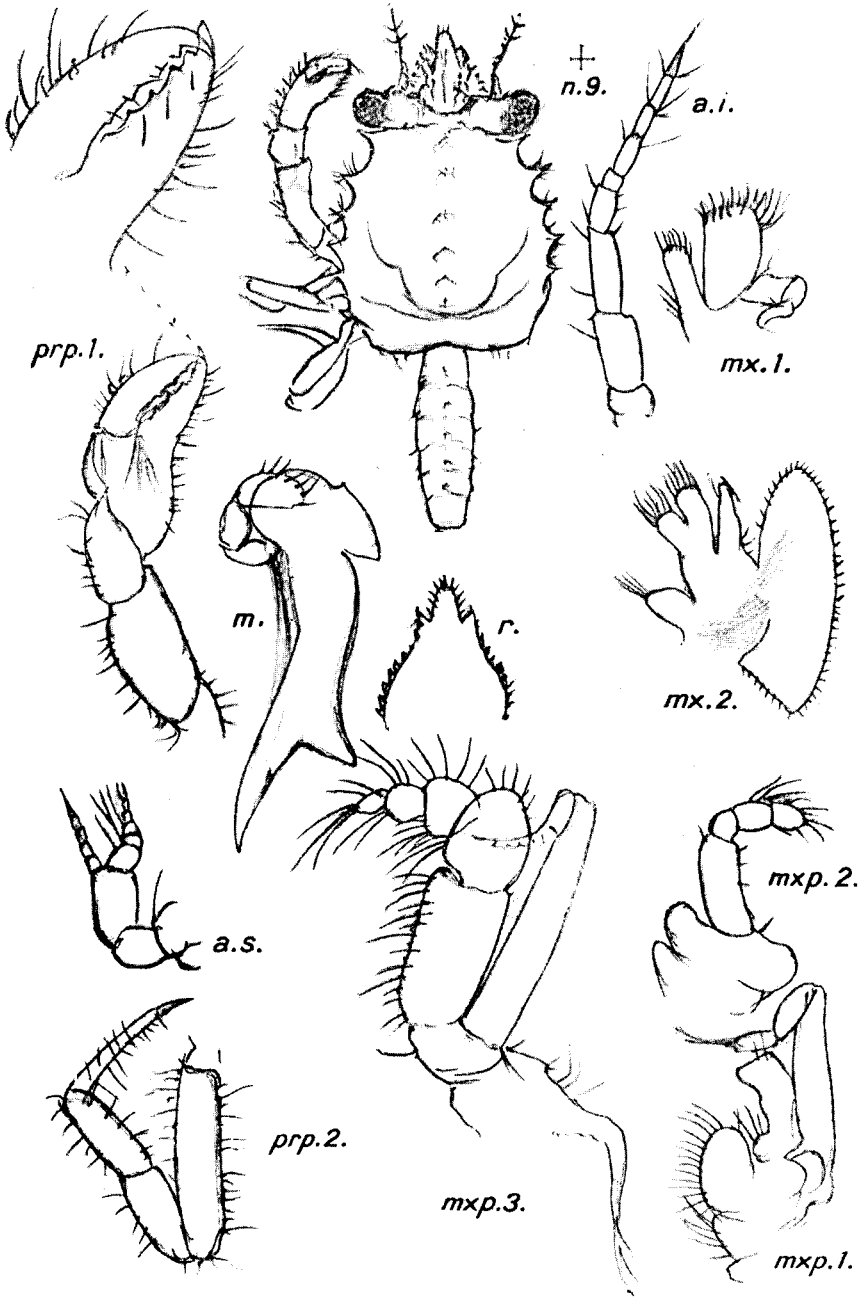
Tanais nierstraszi, sp. n.

n.s. Line showing length of specimen figured below in two aspects.
oc., *a.s.*, *a.i.* Eye; first and second antennæ more highly magnified.
l.s., *m.*, *mxp.* Upper lip, mandible, maxillipeds; these, the end of prp. 5 and the urp. on higher scale than the other details.
gn. 1, *gn.* 2, *prp.* 5. First and second gnathopods and fifth peræopod.
plp., *urp.* Pleopod and uropod.

Plate V.

Munna antarcticus (Pfeffer).

n.s. ♂. Line showing length of male specimen, roughly sketched, incomplete.
a.s., *a.i.*, ♀. Dorsal view of female; first antenna more highly magnified.
Pl. ♀, *ov.* Pleon of female highly magnified; ovum to the same scale.
m. ♂, *m.* ♀, *mxp.*, *op.* ♂. Mandibles of male and female; a maxilliped; opercular lamella of male; all more magnified than other details.
a.i. ♂, *gn.* 1, ♂, *gn.* 1, ♀, *prp.* 1, *prp.* 5. Second antenna; first gnathopod of a male (from separate specimen), first gnathopod of female, part of first peræopod, fifth peræopod; all to one scale of magnification.



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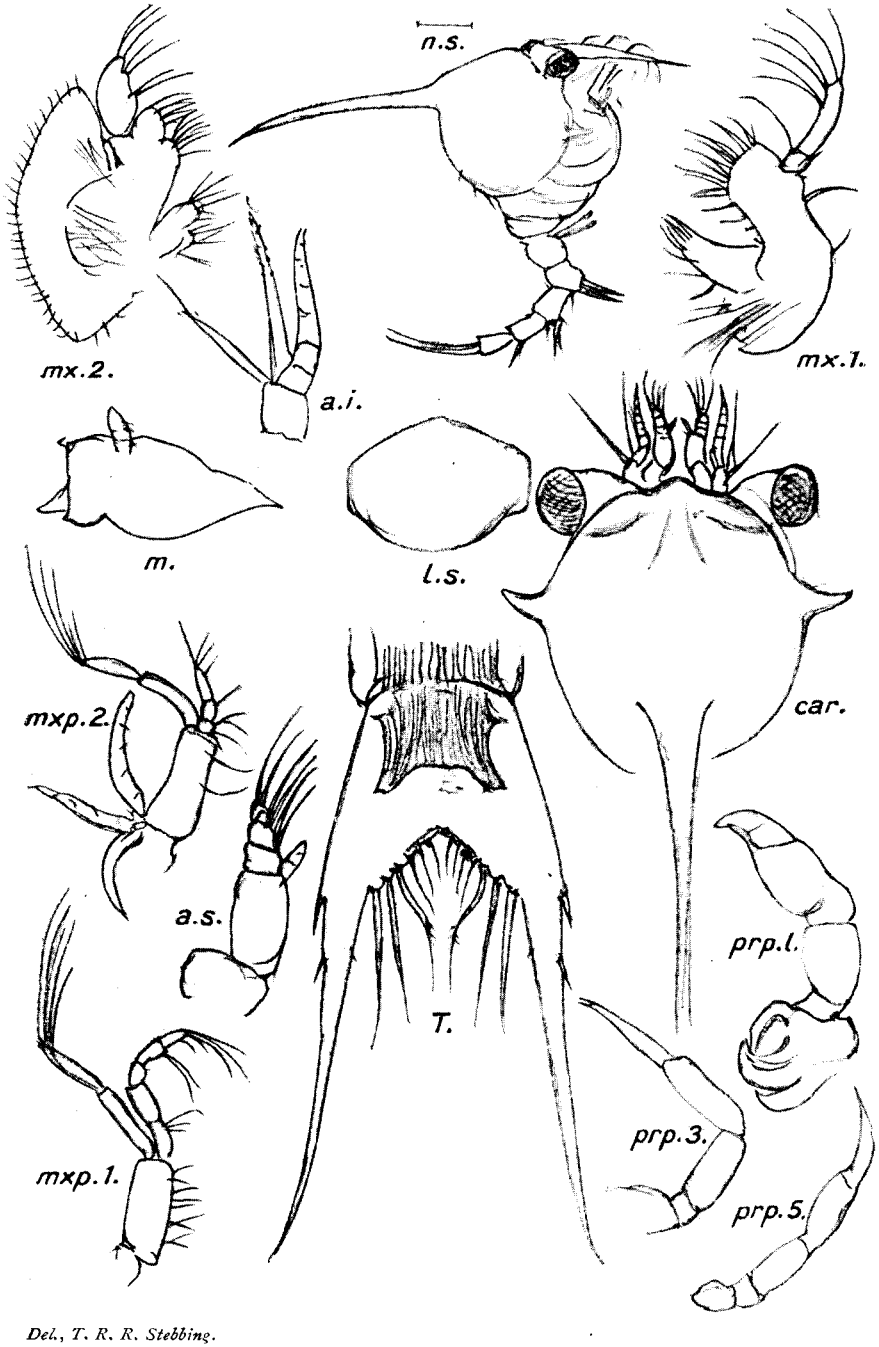
PELTARION SPINOSULUS (White) juv.



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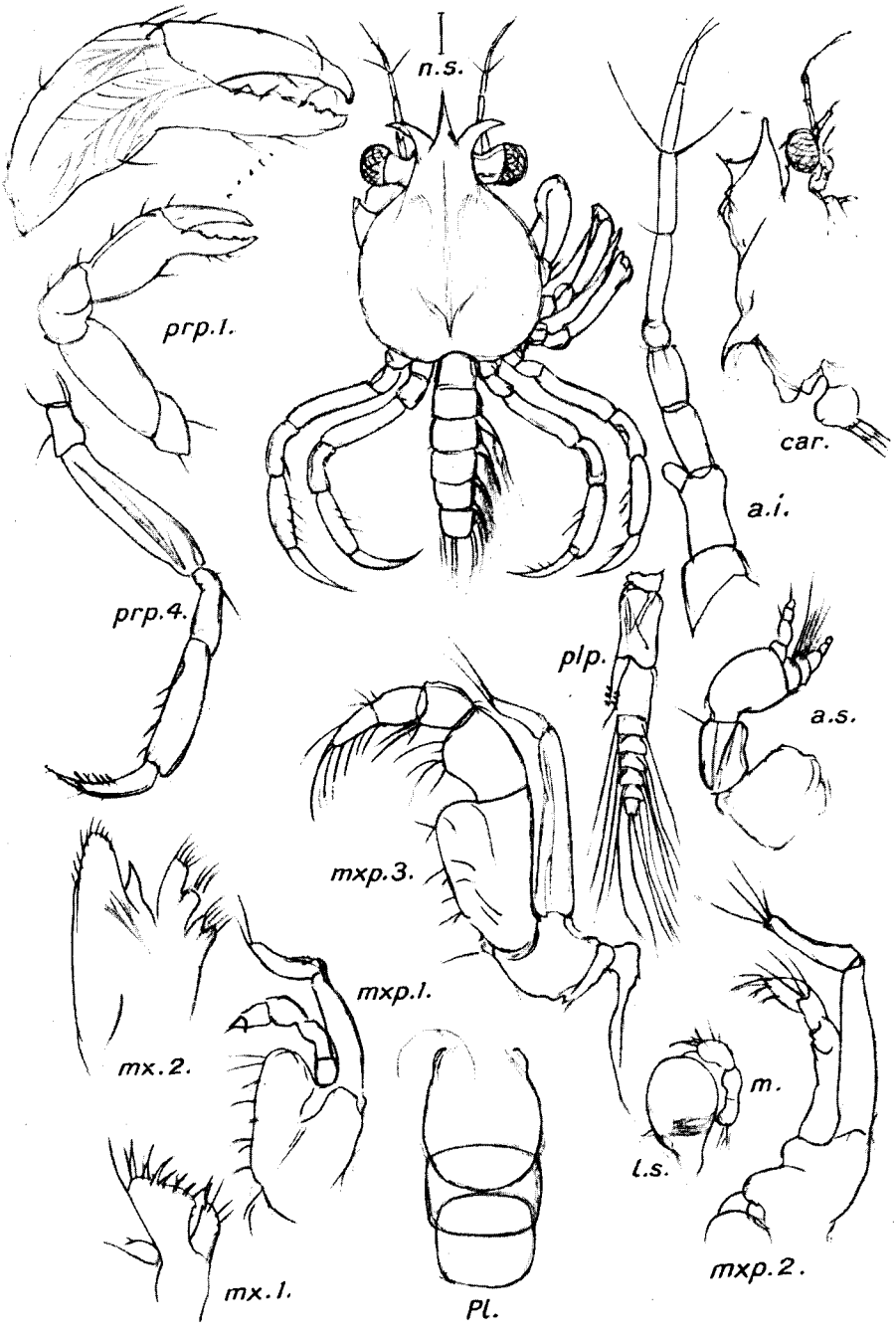
ZOEA of a BRACHYURAN.



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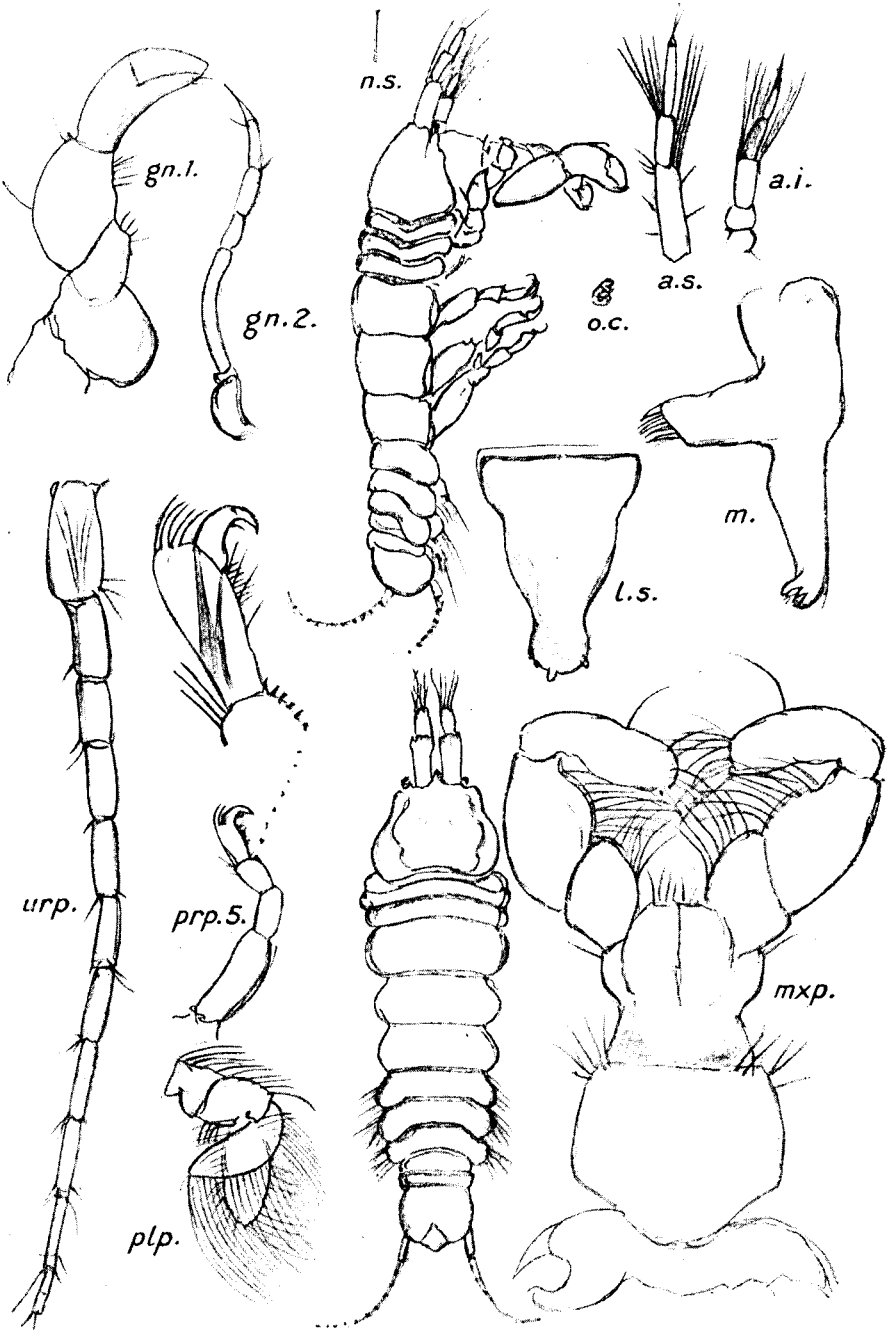
MEGALOPA of an OXYRRHYNCH.



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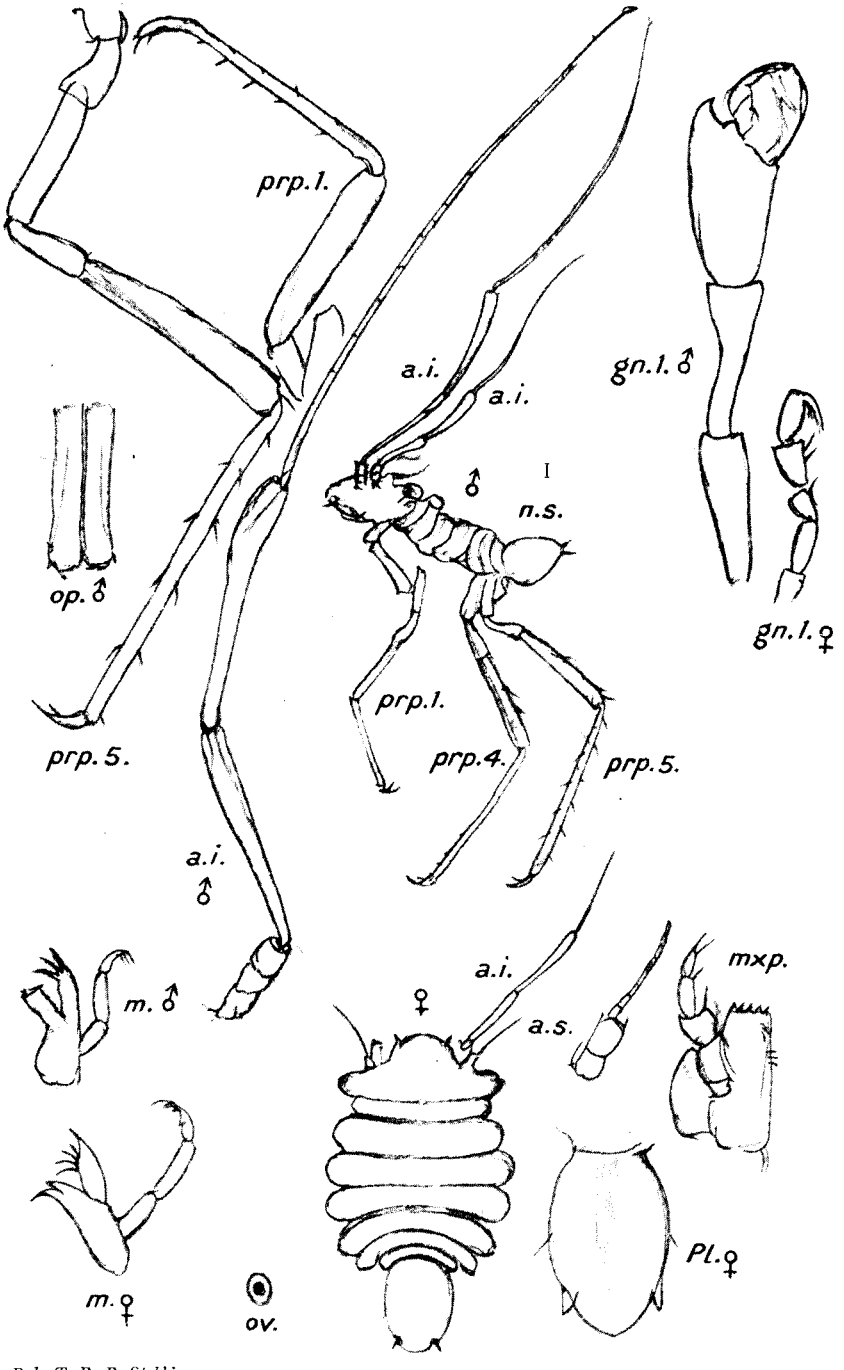
TANAIS NIERSTRASZI, n. sp.



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MUNNA ANTARCTICUS (Pfeffer).