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EDITED BY THE CURATOR,

E. C. CHUBB.

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XXIII.—The Malacostraca of Durban Bay,

by the

Rev. T. R. R. Stebbing, M.A., F.R.S., F.L.S., F.Z.S.

With Plates XXVIII–XXXII.

THOUGH only two of the eleven species here considered lay claim to names hitherto unrecorded, some of the others seemed to call for more illustration than they have previously received, and the rest are noted for various reasons which their occurrence suggested. Some of the specimens were not taken actually in the Durban area, but in South African waters within easy range of it, for species enjoying a wide distribution.

BRACHYURA.

Tribe OXYRRHYNCHA.

Family INACHIDÆ.

Genus PSEUDOCOLLODES, Rathbun.

1911. *Pseudocollodes*, M. J. Rathbun, Tr. Linn. Soc. London, ser. 2, vol. xiv, pt. 2, pp. 193, 247.

Carapace subtriangular. Rostrum short, bifid. Eyes retractile against a strong postocular tooth. Basal antennal joint very narrow, spinous, less advanced than rostrum. Fourth joint of third maxillipeds elongate-oval, narrower than the third joint, the latter strongly advanced at its inner angle. In both sexes the last two segments of the pleon are fused.

Miss Rathbun supplies other characters. Of those relating to the ambulatory limbs I cannot speak, because all those limbs were missing from the only available specimen. "An interantennular spine, visible from above," would seem to be unnecessary as a generic character, since in the present specimen the spine in question was not sufficiently advanced to be seen from above.

Annals of the Durban Museum, Vol. II, Part 6, issued 25th August, 1920.

PSEUDOCOLLODES COMPLECTENS, Rathbun. Plate XXVIII (A).

1911. *Pseudocollodes complectens*, Rathbun, Tr. Linn. Soc., vol. xiv, p. 247, pl. 20, fig. 4.

Apart from the above-mentioned obscurity of the interantennular spine the specimen, a female with numerous eggs, here figured shows the closest agreement with Miss Rathbun's description. It also agrees in its proportions nearly with one of that sex measured by Miss Rathbun, the African being about 13 mm. long and 12 mm. broad. The second maxillæ show much agreement with those of *Achæopsis*, as also do the three maxillipeds. In the third of these a row of tubercles is observable on the outer surface parallel to the outer margins of the third and fourth joints; the fourth joint has a conspicuous spine on the inner margin which meets a similar spine on the fifth joint; the sixth joint is notably shorter than the fifth or seventh.

Locality: Cape St. Blaize, N. by E. 73 miles; depth 125 fathoms. Cruise of the "Pieter Faure."

GENUS PUGETTIA, Dana.

1851. *Pugettia*, Dana, Amer. J. Sci., ser. 2, vol. xi, pp. 268, 433.

1852. *P.*, Dana, U.S. Expl. Exp., vol. xiii, pp. 84, 116.

1886. *P.*, Miers, Rep. Voy. "Challenger," vol. xvii, no. 49, p. 40.

PUGETTIA QUADRIDENS, de Haan. Plate XXVIII (B).

1839. *Pisa (Menœthius) quadridens*, de Haan, Crust. Japon., decas quarta, p. 97, pl. 24, fig. 2, a, a, b, b. *Pisa (Halimus) q.*, pl. G. (*Menœthius*) *q.*

1848. *Menœthius quadridens*, Adams & White, "Samarang," Crustacea, p. 20.

1886. *Pugettia quadridens*, Miers, Rep. Voy. "Challenger," vol. xvii, no. 49, p. 40.

1907. *P. q.*, Stimpson, Smithson. Misc. Coll., vol. xlix, p. 24 (to which the editor, Miss Rathbun, refers also "*Pugettia incisa* (de Haan) Stimpson."

The specimen here referred to de Haan's species was incomplete, having its limbs represented by a single cheliped. But as the species

appears to be rather rare, some additional details of the structure may be acceptable. Owing to the shading, de Haan's figure of the carapace is rather obscure. With the help of his description, however, I think it will be found to agree fairly with the drawing which I had made before recognising the identification now proposed. All the salient points of the carapace are furnished with short curved setæ, to which in many instances extraneous objects are attached. The narrow pleon of the male folds obstinately on the very wide sternum; it is broadest at the third segment, the sides converging to the rounded apex of the telson, except at the sixth segment which is a little broader distally than at the base.

The mandibles, with the exception of the infolding palp, are opaque. The second maxillæ are very pellucid; the terminal joint has an acutely tipped process rising from a very wide base. In both the first and second maxillipeds the exopod is elongate, distally narrowed, and having the first joint of the flagellum bent closely backwards; the epipod in both is elongate, but much more extensive in the first than in the second. The much more solid third maxillipeds have the fourth joint subquadrate, the inner front angle excavate for the small palp, of which the terminal joint is abruptly narrower than the penultimate.

The carapace measured 11 mm. in length from the divergence of the horns to the hind margin, the inner measurement of the horns being 3·5 mm. and the breadth of the carapace between the tips of the hinder teeth a little less than the length.

Locality: Tugela River, N.W. by W. 3 miles; depth 14 fathoms. Cruise of the "Pieter Faure."

Family ACANTHONYCHIDÆ.

See Ann. S. Afr. Mus., vol. vi, p. 226; 1910. McLeay in 1838 institutes a family *Epialtidæ* (Annulosa S. Afr., p. 56,) but *Acanthonyx* is an earlier genus within it and therefore offers a better foundation for the name of the family.

Genus EPIALTUS, Milne Edwards.

1834. *Epialtus*, Milne Edwards, Hist. Nat. Crust., vol. i, pp. 297, 314.

1852. *E.*, Dana, U.S. Expl. Exp., vol. xiii, pp. 85, 132.

1873. *E.*, A. Milne-Edwards, Miss. Sci. Méxique, pt. 5, p. 138.

1877. *E.*, Tozzetti, 'Magenta,' Brachiuri, p. 17.
1894. *E.*, Rathbun, Pr. U.S. Nat. Mus., vol. xvii, p. 67.
1901. *E.*, ,, Bull. U.S. Fish. Comm. for 1900, vol. ii, p. 59.

Epialtus vetchi, sp. nov. Plate XXIX.

This small female specimen, taken from under rocks at Vetch's pier, to which prolific locality its specific name alludes, was in life pal. green, with legs yellow, as observed by its captor, Mr. H. W. Bell Marley. It cannot be reconciled with any of the numerous varieties of the seemingly very variable *E. bituberculatus*, Milne Edwards. It has no tubercles on the carapace. The rostrum is broadly obtuse. The eyes just peep from its sides the small cornea projecting from a much wider bulbous stalk. At some distance from the eye the antero-lateral margin shows a feeble tooth, thence sloping to one that is better marked, followed by the well-rounded postero-lateral margin. The female pleon is broader than long.

The dissection of the head was difficult or at any rate rather unsatisfactory owing to the smallness of the structures and the resistance they offered to separation. In the first antennæ the third joint of tolerably stout longitudinally folded peduncle is distally some-what dilated. In the second antennæ the peduncle is very slender, the flagellum obscurely 3–4-jointed and tipped with a long seta and a setule.

The mandibles are strong, a quadridentate cutting edge being continued by a long straight margin sloping obliquely backward. The feeble palp has a very small third joint set on the second joint so as to form an insignificant chela, tipped with a setule. The principal lobe of the first maxilla widens strongly from its base.

The chelate first peræopods have the movable finger subequal in length to the palm. The slightly spinuliferous inner surfaces of the obtuse-ended fingers close almost completely together. The fourth joint has, in common with all the other peræopods, a distal tooth on the outer side, but the short fifth joint or wrist does not share with them a similar though less pronounced prominence. The curved, acute-ending fingers of all the ambulatory limbs have their inner margins densely fringed with setules, longest distally.

The unfurnished simplicity of the pleopods is no doubt a phase of development. Length of carapace 6 mm., breadth something over 5 mm.

Tribe CYCLOMETOPA.

Family XANTHIDÆ.

Genus ATERGATIS, de Haan.

Atergatis roseus (Rüppell), 1830.

See Ann. S. Afr. Mus., vol. vi, pt. 4, p. 297; 1910, and these Annals, vol. i, pt. 5, p. 437; 1917. Add references to Nobili, Ann. Sci. Nat., ser. 9, Zool. vol. iv, p. 229; 1906–7, and R. D. Laurie, J. Linn. Soc., vol. xxxi, p. 443; 1915.

A specimen, of which the carapace is 18 mm. broad by 11 mm. long, was taken by Mr. H. W. Bell Marley at Vetch's pier. It prettily answers, after being in spirit for a considerable time, the description given by Rüppell for the colour variety which he named *Carpilius marginatus*, the dorsal surface being a fine red surrounded by a milk-white border. The antero-lateral margin is entire.

Genus ATERGATOPSIS, A. Milne-Edwards.

1865. *Atergatopsis*, A. M.-Edw., Arch. Mus. Hist. Nat., vol. i, p. 252 (Miers).

1886. *A.*, Miers, "Challenger," Brachyura, vol. xvii, pt. 49, pp. xii, 123.

Miers, after giving the definition of the genus, remarks that it is distinguished "from *Atergatis* by the non-carinated and non-cristated antero-lateral margins of the carapace, and joints of the ambulatory legs."

Atergatopsis signatus, Adams & White.

1848. *Carpilius signatus*, Adams & White, "Samarang" Crustacea, p. 37, pl. 10, figs. 1, 1a, 1b.

1911. *Atergatopsis signatus*, A. M.-Edw., Arch. Mus. Hist. Paris, vol. i, p. 253.

1911. *A. signata*, Rathbun, Tr. Linn. Soc., vol. xiv, pt. 2, pp. 191, 214, pl. 17, fig. 7.

The male specimen taken by Mr. H. W. Bell Marley on "rocks near Vetch's pier near water edge" measures 60 mm. in length by

88 mm. in breadth. The colour "deep rose with white dots in patches over carapace" was retained after a prolonged voyage to England. The pleon in shape agrees with that figured by Adams & White, the third to the fifth segments being completely fused, though bands of white dots are suggestive of non-existent sutures. The left cheliped is rather the larger and much the darker. In each the margin of the thumb forms four obtuse tubercles with an innermost small fifth. The tips of the otherwise black fingers are white. The terminal joints of the ambulatory limbs have a dark felt and black nails. "Front slightly projecting, deeply notched in the middle line."

A small specimen from the same locality has a carapace 12 mm. long, 18 mm. broad.

Tribe CATOMETOPA.

Family GONEPLACIDÆ.

Genus EUCRATE, de Haan.

1835. *Cancer (Eucrate)*, de Haan, Crust. Japon., decas secunda, pp. 36, 51.

1858. *Pilumnoplax* (part), Stimpson, Pr. Ac. Philad., vol. x, p. 93 (39).

1882. *Eucrate*, Haswell, Catal. Austr. Crust., p. 86 (Pr. Linn. Soc. N.S.W., vol. vi).

1884. *Pseudorhombila*, Miers (not Milne Edw.), "Alert" Crust., pp. 240, 242.

1888. *Eucrate*, de Man, J. Linn. Soc. London, vol. xxii, 88.

Haswell says, "Abdomen of the male five-jointed." But de Man states that in Haswell's *Eucrate affinis* "the male abdomen is seven-jointed," and this agrees with Stimpson's "articulis totis distinctis" for the male abdomen in *Pilumnoplax*. Possibly the distinction of the median segments is variable either in fact or appearance.

Eucrate sulcatifrons (Stimpson).

1858. *Pilumnoplax sulcatifrons*, Stimpson, Pr. Ac. Philad., vol. x, p. 93 (39).

1884. *Pseudorhombila sulcatifrons*, var. *australiensis*, Miers, "Alert" Crust., p. 242, pl. 24, figs. C, c.

The specimen, a male, is a relatively large one, having a carapace 15 mm. broad by 13 mm. long. It answers well to the figures given by Miers for a much smaller specimen, of which the carapace measured 8 mm. by 6 mm. The emargination and sulcus of the front are well marked. The colour is "light red, yellow edging round carapace," as given by Mr. H. W. Bell Marley. As preserved the carapace retains the red colouring, the chelipeds and other limbs showing white and red.

Place of capture: Bluff, Natal.

Family HYMENOSOMATIDÆ.

See Ann. S. Afr. Mus., vol. vi, pt. 4, p. 331 ; 1910.

Genus ELAMENA, Milne Edwards.

1837. *Elamena*, Milne Edwards, Hist. Nat. Crust., vol. ii, p. 33.
1839. *Elamene*, de Haan, Crust. Japon., decas quarta, p. 75.
1843. *Elamena* (subgen. of *Inachus*), Krauss, Südafrik. Crust., p. 51.
1853. *Trigonoplax*, Milne Edw., Ann. Sci. Nat., ser. 3, vol. xx, p. 224.
1907. *T.*, de Man, Tr. Linn. Soc. London, ser. 2, vol. ix, p, 396.
1911. *Elamena*, Rathbun, Tr. Linn. Soc. London, ser. 2, vol. xiv, p. 242.
1915. *Trigonoplax*, Parisi, Soc. Ital. Sci. Nat., vol. liv, p. 281.
1915. *Elamena (Trigonoplax)*, Kemp, Mem. Ind. Mus., vol. v, p. 216.
1916. *E.*, Borradaile, "Terra Nova" Exp., Zool., vol. iii, p. 101.

The genus has been noted by numerous authors : Adams & White, Dana, Heller, Paulson, Miers, Kirk, Filhol, Henderson, Alcock, Fulton & Grant, W. H. Baker, and McCulloch. For its characters see the following discussion of the single species for which it was originally founded. That it is apparently a link between the *Oxyrrhyncha* and the *Catometopa* has been pointed out by de Haan. Whether the typical species is as variable superficially in the latter tribe as *Huenia proteus* is in the former may be regarded as at present an open question.

Elamena mathæi (Desmarest). Plate XXX.

1825. *Hymenosoma mathæi*, Desmarest, Cosid. Gén. Crust., p. 163.
1837. *Elamena mathæi* (part), Milne Edwards, Hist. Nat. Crust., vol. ii, p. 35.
1900. *E. m.*, Stebbing, P.Z.S., London, p. 520.

The account given of this species by Desmarest is in translation as follows: "Length six lines [12·5 mm.]; carapace extremely depressed, smooth, semi-transparent, in form of an equilateral triangle; anterior angle or rostrum a little rounded and raised, concealing the eyes and the base of the antennæ; chelipeds and ambulatory legs very elongate, slender and smooth; hands very long, having their fingers of equal force, a little inflated towards the end; a little spine on the extremity of the hind face of the last four peræopods; colour corneous."

Before identifying the South African specimen with Desmarest's description above rendered, on the possibility of its proving to be a new species, the name *æquilateralis* had occurred to me as appropriate. It is in shape very nearly allied to the form which de Haan in his text calls *Ocypode (Elamene) unguiformis*, but on his plate 29, fig. 1, *Inachus (Elamene) unguiformis*, which Milne Edwards in 1853 placed in a new genus *Trigonoplax*, clearly, as Alcock suggests, a synonym of *Elamena*. Paulson's *Elamena mathæi* seems to be an independant member of the genus, and Heller's *Elamene mathæi* is rather doubtful, but Rüppell's *Hymenosoma mathei*, if his figure may be trusted, cannot, as I now think, possibly be referred to the present species.

The chief, perhaps the only, reason for distinguishing de Haan's species from Desmarest's is that in de Haan's figures the fingers of the chelæ are represented very much shorter than the palm. But Alcock, describing specimens from the Andamans, says that these fingers are "as long as the slender subcylindrical palm." In our specimen the relation of the movable finger to the palm is about 24-29 in length. When Desmarest speaks of "a little spine on the extremity of the hind face of the last four legs, "I suppose him to mean the apical prolongation of the fourth joint which might pass for an extremity when the three following joints are folded towards the preceding joint.

The flat, semi-transparent carapace measured 10 mm. from the acute apex to the truncate hind margin, with a breadth of 11 mm. at the rounded off hind corners. The female pleon is broader than long, of six segments, slightly lobed along the centre, which is distally convex. The four pairs of biramous pleopods are long and slender. The ova were not numerous and had not been deposited on the pleon.

The eyestalks are short and stout, just allowing the cornea to appear beyond the edge of the carapace. Tho second antennæ are very slight in structure . The palp of the mandibles has a long curved second joint, while the first and third joints are exceedingly small, the third scarcely reaching beyond the slightly advanced apex of the second. In all three maxillipeds the exopod has a narrow terminal joint tipped

with a brush of setæ; the long penultimate joint reaching much beyond the fourth joint of the endopod in the second maxilliped, but not reaching its extremity in the third. In the latter the third joint of the endopod is both longer and broader than the fourth, although its outer margin is rather shorter than that of the fourth joint. In the first peræopods the movable finger is slightly shorter than the fixed one, closing upon it somewhat in the fashion of the macruran *Stylodactylidæ*; both fingers are apically dilated with edges a little denticulate. The fingers of the following peræopods have two denticles adjoining the pointed apex.

Locality: Umlongakulu River, N.W. by N. 7 miles; depth 50 fathoms. Cruise of the "Pieter Faure."

Tribe OXYSTOMATA.

Family LEUCOSIIDÆ.

Genus LEUCISCA, McLeay.

See Ann. S. Afr. Mus., vol. vi, pt. 4, p. 338.

Leucisca phænomma, sp. nov. Plate XXXI.

The specific name, from *φαίνειν*, to show, and *ὄμμα*, eye, refers to the fact that in both the male and female the small eyes project beyond the carapace. For his *Leucisca squalinus*, McLeay as part of the generic character gives "Orbits small, subcircular, and hidden under the clypeus; while the eyes are deeply set, very minute and globose." In the closely allied and perhaps identical genus *Carcinapsis*, Stimpson (Smithson. Misc. Coll., vol. xlix, p. 161; 1907) we also have "Eyes concealed beneath the carapax," so far agreeing with McLeay's much damaged specimen. McLeay speaks of it as a female, but the figure which he gives of the pleon is so much more like that of the male in our species that, unless McLeay was deceived about the sex, his specimen must have been immature.

Of the specimens sent me from Umtentweni by Mr. H. W. Bell Marley, the male measured a little over 5 mm. in length and breadth, the female 6·5 mm. in length by 7·3 mm. in breadth. The latter carried a small sessile barnacle firmly attached on the middle of the carapace dorsally. In both sexes, but especially in the female, it is

difficult to determine any effective lines of division between the last five segments of the pleon. In the male, however, the sides of the sixth segment begin by diverging and end by converging, with tuberculiform elevations in between. Centrally to the rear it carries a pointed upraised process. The seventh segment is triangular, with blunt apex. The pleon of the female is remarkably broad.

The mandible has a very broad, angled but not denticulate cutting edge, against which lies the palp with setose terminal joint. The maxillæ I could not satisfactorily determine. The very delicate first and second maxillipeds are figured, I think, for the first time for this genus. In the second it will be noticed that the penultimate joint of the endopod is broader than either the fifth or seventh. For the third maxillipeds neither as to *Leucisca* nor *Carcinaspis* do the authors make any mention of the three terminal joints. These are, I believe, rudimentary, affixed low down on the inner margin of the sharply-pointed fourth joint.

The chelipeds are nearly alike, that of the male on the right rather the larger. In the female they are similar to those of the male, but not quite so large. The under surfaces are white and smooth, while the upper are ridged and have colour markings on various parts. The movable finger is curved, with inner margin minutely denticulate. The ambulatory limbs are much smaller than the chelipeds, and the last pair are the shortest. The narrow, nearly straight, fingers have dark curved tips.

Genus ACTÆOMORPHA, Miers.

1877. *Actæomorpha*, Miers, J. Linn. Soc. London, Zool., vol. xiii, no. 67, p. 184.

1896. *A.*, Alcock, J. Asiat. Soc. Bengal, vol. lxv, pt. 2, pp. 166, 170, 172.

This genus is near to *Oreophorus*, Rüppell, but the carapace, though granular and pitted, is not honeycomb and only partially covers the ambulatory limbs in flexion. The front is broad, the buccal cavity arched, the pleon narrowly oval and seven-segmented in both sexes. The eyes are small, the first antennæ obliquely folded, the second almost obsolete. Mandibles normal. First maxillæ with inner plate narrow, outer distally broad, palp two-jointed. Second maxillæ with lower lamina almost linear, upper very unequally bilobed, apical part of endopod narrowly produced from a wide base. First maxilliped

with very large epipod, the endopod produced beyond the small flagellum of the exopod. Second maxilliped with much smaller epipod, the exopod with crenulate and setulose outer margin along two-thirds of the principal joint, thence abruptly narrowed to its junction with the small flagellum. Third maxilliped as usual of much more solid structure, the fourth joint triangular, almost concealing the insignificant palp which is attached some way from the acute apex of the fourth joint. The solid exopod reaches a little beyond the oblong third joint of the endopod and carries a very small flagellum. The chelipeds in both sexes much exceed in size the ambulatory limbs.

To *A. erosus*, Miers, Alcock in 1896 added *A. morum* and *A. lapillulus*.

Actæomorpha erosus, Miers. Plate XXXII.

1877. *Actæomorpha erosa*, Miers, J. Linn. Soc., vol. xiii, no. 67, p. 184, pl. 14.

The South African specimen of this as yet very rare species is in essential agreement with the description and figures supplied by Miers, although I can find no trace of the dividing line which his figure shows on the under-side of the rostrum, and I should be far from describing the orbital cavity as "large." That the pleon should be narrowly ovate in the female, just as Miers describes it for the male, agrees with Kemp's observation in regard to the two sexes of the genus *Dotilla* (Mem. Ind. Mus., vol. v, p. 227 ; 1915). Alcock speaks of the exopod of the the third maxillipeds as "narrow, with the outer edge almost straight." In the present species it is half as broad as the endopod, with a decided curve to the outer margin.

The chelipeds are comparatively massive, the exposed surfaces of the last four joints granular and pitted, the fifth joint having a projecting tooth on the inner surface ; the fingers are considerably shorter than the palm, with denticles on their confronting edges fitting closely together. The sexual openings of the female are in the sternum opposite the insertion of the third peræopods. The pleopods of the female have two long rami, one furnished with outstanding plumose setæ, the other with setæ apparently simple and not spreading. The carapace has a length of 7 mm. and a breadth of 9 mm., the pleon extended being 6 mm. long.

Locality : Port Shepstone, W.N.W. $2\frac{1}{2}$ miles ; depth 24 fathoms. Cruise of the "Pieter Faure."

MACRURA ANOMALA.

Tribe HIPPIDEA.

Family HIPPIDÆ.

See these Annals, vol. ii, pt. 1, p. 25.

Genus HIPPA, Fabricius.

1787. *Hippa*, Fabricius, Mantissa, p. 329 (Sherborn).

Hippa adactylus, Fabricius.

1787. *Hippa adactyla*, Fabricius, Mantissa, p. 329.
1793. *H. a.*, Fabricius, Ent. Syst., vol. ii, p. 474.
1798. *H. a.*, Fabricius, Suppl. Ent. Syst., p. 370.
183–. *Remipes testudinarius*, Milne Edwards, Règne Anim. Illust., pl. 42, figs. 1, 1a–h.
1837. *R. t.*, Milne Edw., Hist. Nat. Crust., vol. ii, p. 206, pl. 21, figs. 14–20.
1878. *R. t.*, Miers, J. Linn. Soc., vol. xiv, no. 76, p. 316, p. 5, fig. 1.

The specimen which Mr. H. W. Bell Marley has sent me from Umgeni Lagoon has just such a front as Miers has figured, with no central tooth in the rostral lobe. The carapace measures 30 mm. in length by 26 mm. in breadth. There are numerous very small eggs. Miers gives an extensive synonymy, and considers several points as variable. The very short eyestalks in this species are in notable contrast to the very long stalks in *Emerita asiaticus*, but in both they are very slender with diminutive cornea.

MACRURA GENUINA.

Tribe CARIDEA.

Family GNATHOPHYLLIDÆ.

1890. *Gnathophyllidæ*, Ortmann, Zool. Jahrb., vol. v, pp. 462, 537.
1901. *G.*, M. J. Rathbun, U.S. Fish Comm. Bull. for 1900, p. 126.
1907. *G.*, Borradaile, Ann. Nat. Hist., ser. 7, vol. xix, p. 473.

Genus GNATHOPHYLLUM, Latrielle.

1819. *Gnathophyllum*, Latrielle, Nouv. Dict. Hist. Nat., ed. 2, vol. xxx, p. 72 (Rathbun).

1901. *G.*, Rathbun, U.S. Fish Comm. Bull. for 1900, p. 126.

Desmarest in his Consid. gén. Crust., p. 228, 1825, includes in the definition of the genus the curious misstatement that the nippers of the second pair are more slender as well as much longer than those of the first pair. Miss Rathbun notes the misspelling *Gnatophyllum* in Latrielle's original account. The misprint is ignored by Desmarest and by Latrielle in Cuvier's Règne Anim., ed. 2, vol. iv, p. 96, 1829. But Milne Edwards in Hist. Nat. Crust., vol. ii, p. 369, 1837, wrongfully quotes Latrielle's last named work as responsible for *Gnatophyllum elegans*.

Gnathophyllum americanus, Guérin.

1857. *Gnathophyllum americanum*, Guérin, in Sagra's Hist. Cuba, vol. 2, p. xx; Atlas, viii, pl. ii, fig. 14 (Rathbun).

Miss Rathbun (loc. cit.) includes in the synonymy *G. fasciolatum*, Stimpson, 1860; *G. zebra*, Richters, 1880, and with, I think, needless hesitation *G. pallidum*, Ortmann, 1890. Mr. H. W. Bell Marley's specimen, taken from under rocks, at Bluff, Natal, is described by him as running on the ground with claws extended, making no attempt to swim; "colour white mixed with brown, chelipeds white with a broad band of brown bordered with lemon-yellow, tail white with two yellow bands." It measures about 13 mm. in length, and as far as could be determined, without dissection, has six teeth to the rostrum. The eyes have the "conical obtuse protuberance, pigmented with black, arising from upper part of cornea," as described by Miss Rathbun. *G. panamense*, Faxon, 1895, has this protuberance similarly described, but the colouring of that species differs remarkably from ours. *G. tridens*, Nobili, 1906, has only three teeth on the rostrum, but the dentation of the rostrum is variable, and therefore not a very trustworthy character.

INDEX.

Explanation of Plates XXVIII–XXXII,

Illustrating paper by the Rev. T. R. R. Stebbing on "The Malacostraca of Durban Bay."

Plate XXVIII (A).

Pseudocollodes complectens, Rathbun.

n.s. Lines indicating actual size of carapace figured with part of pleon in dorsal aspect.

a.i., mx. 2, mxp. 3. Second antenna more highly magnified; and to the same scale part of the second maxilla and the third maxilliped.

prp. 1. The first peræopod.

Plate XXVIII (B).

Pugettia quadridens (de Haan).

a.s. Lines indicating actual size of carapace figured in dorsal aspect, together with partial view of the ventral aspect.

Pl. Dorsal view of pleon as seen undetached.

m., mx. 2, mxps. 1, 2, 3. Mandible with palp infolded; second maxilla; first, second and third maxillipeds, all to a uniform scale.

prp. 1. First peræopod, uniform in scale with figures of carapace and pleon.

Plate XXIX.

Epialtus vetchi, sp. nov.

ns. Lines indicating natural size of carapace figured below in dorsal aspect, with all the peræopods on the right, first and fourth on the left.

Pl., prps. 1, 4, plp. Pleon flattened out, first and fourth peræopods and a pleopod, uniformly more highly magnified.

oc., a.s., a.i. Eye, first and second antennæ, to a uniform scale.

m., mx. 1, mx. 2. Mandible, part of first maxilla and second maxilla incomplete, to a uniform scale, but with parts m. and mx. 1 more magnified.

Plate XXX.

Elamena mathæi (Desmarest).

n.s. Figure showing natural size of specimen with its first peræopod. The enlargement shows protruding bases of peræopods 2–5, prp. 2 on the left and prp. 3 on the right carrying minute restorations of lost limbs.

Pl. Pleon of female.

oc., a.s., a.i. Eye, first and second antennæ with ends further enlarged.

m., m. Upper-side of left mandible and, below, under-side of the right mandible.

mx. 1, mxps. 1, 2, 3. First maxilla (incomplete), first, second and third maxillipeds.

prp. 1, prp. 2. Parts of first and second peræopods; ends of chela more enlarged.

Plate XXXI.

Leucisca phænomma, sp. nov.

n.s. ♂, n.s. ♀. Lines indicating natural size of male and female specimens.

V. Ventral aspect of male carapace; dorsal view above with limbs on the right.

m., mxps. 1, 2, 3. Mandible, first, second and third maxillipeds, with parts of mandible and second maxilliped more magnified.

prp. 1 l, prp. 1 r, prp. 2, prp. 5. Left and right chelipeds of male, and second and fifth peræopods (first and fourth ambulatory limbs).

plp. 2. Second pleopod (probably imperfect).

Plate XXXII.

Actæomorpha erosus, Miers.

n.s. Lines indicating actual size of carapace figured below.

car. D, V, car. V. Carapace dorsally, and ventrally with and without limbs.

T, T. Dorsal and lateral views of the pleon.

m, mxs. 1, 2, mxps. 1, 2, 3. Mandible, both maxillæ, and the three maxillipeds.

prps. 1, 2, 5, plp. Cheliped, second and fifth peræopods, and a pleopod.

A.

mx. 2.

n.s.

a.i.

prp. 1.

mxp. 3.

B.

mxp 2.

mxp. 1.

prp. 1.

n.s.

m.

car.

mx. 2.

mxp. 3.

Pl.

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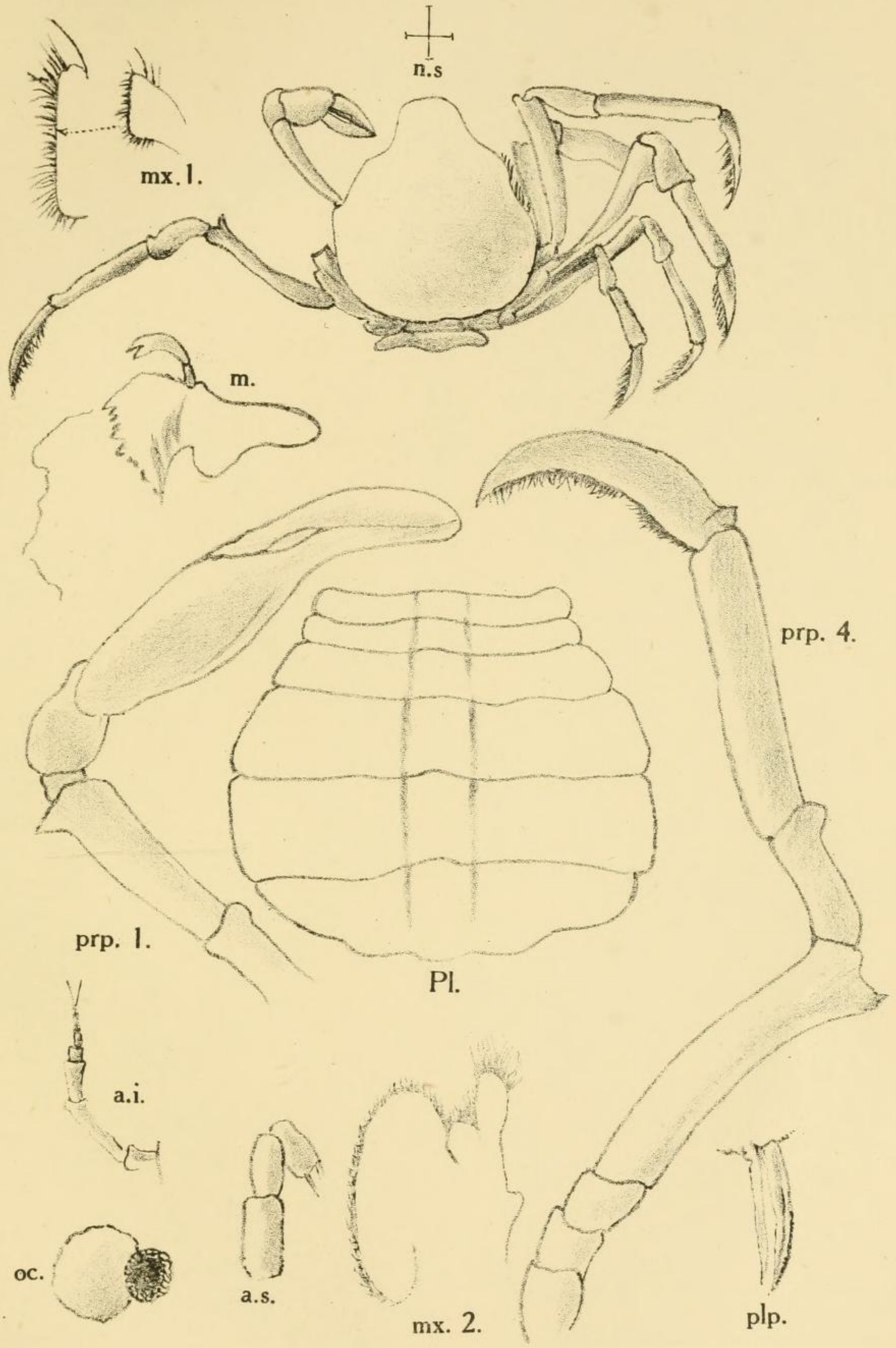
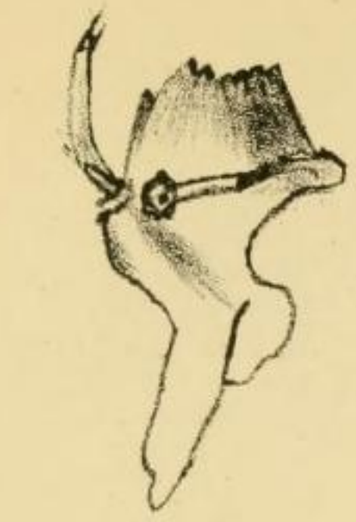
A.—PSEUDOCOLLODES COMPLECTENS, Rathbun.
B.—PUGETTIA QUADRIDENS (de Haan).



T. R. R. Stebbing del. John Singleton & Sons lith.

EPIALTUS VETCHI, sp. nov.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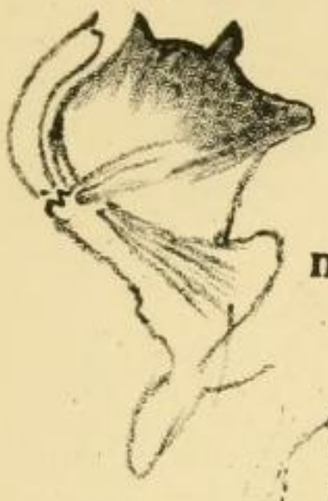
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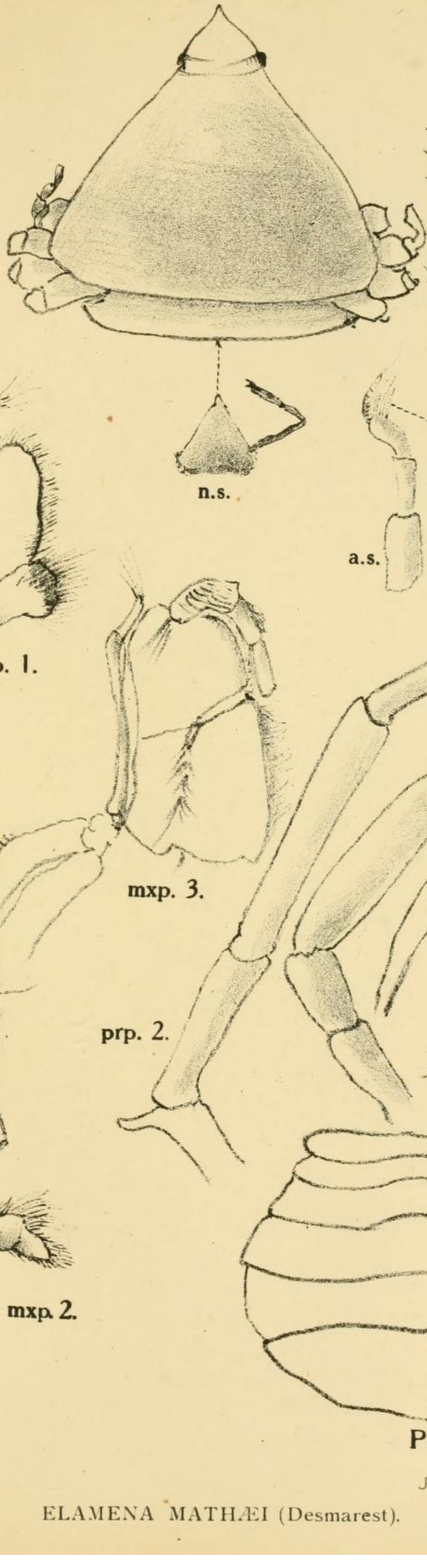

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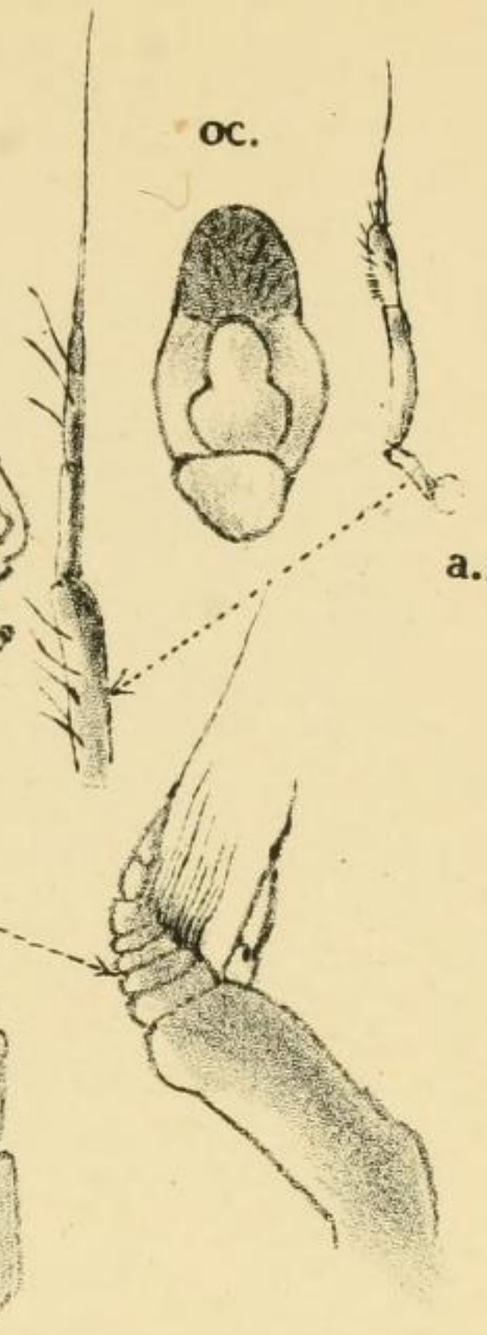
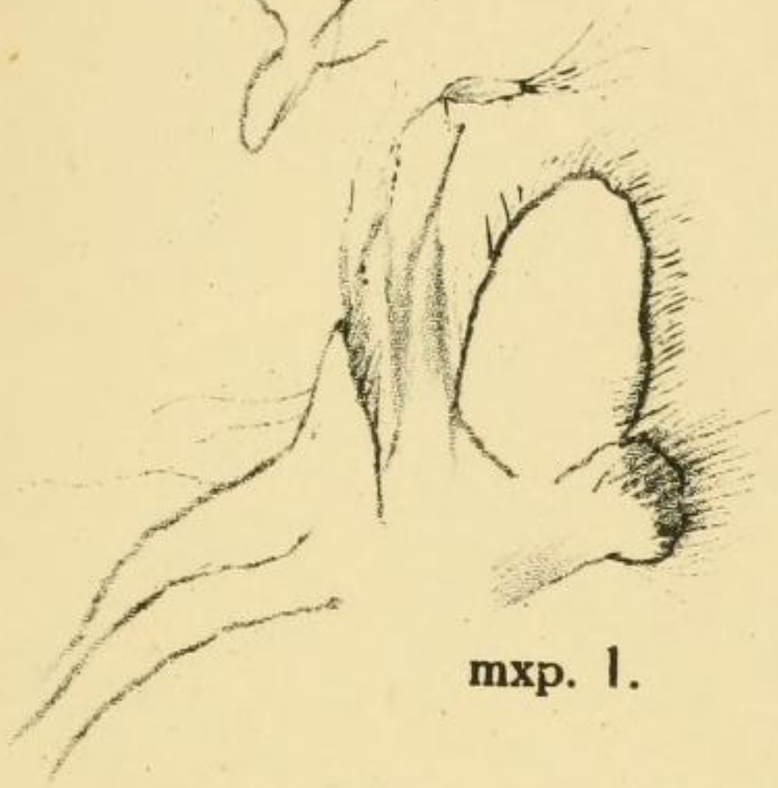

oc.

a.l.

a.s.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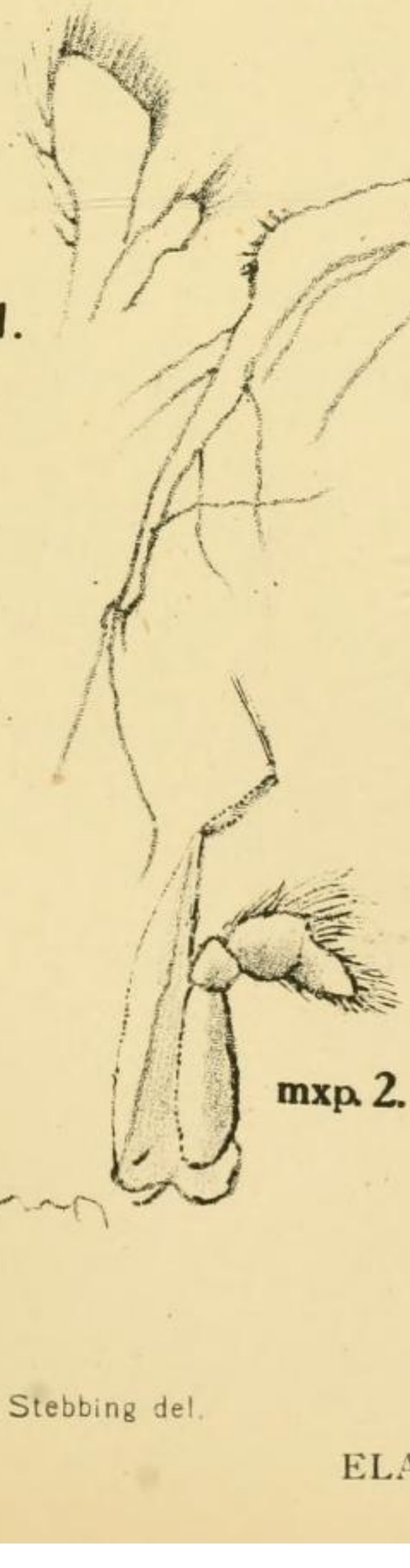
mxp. 3.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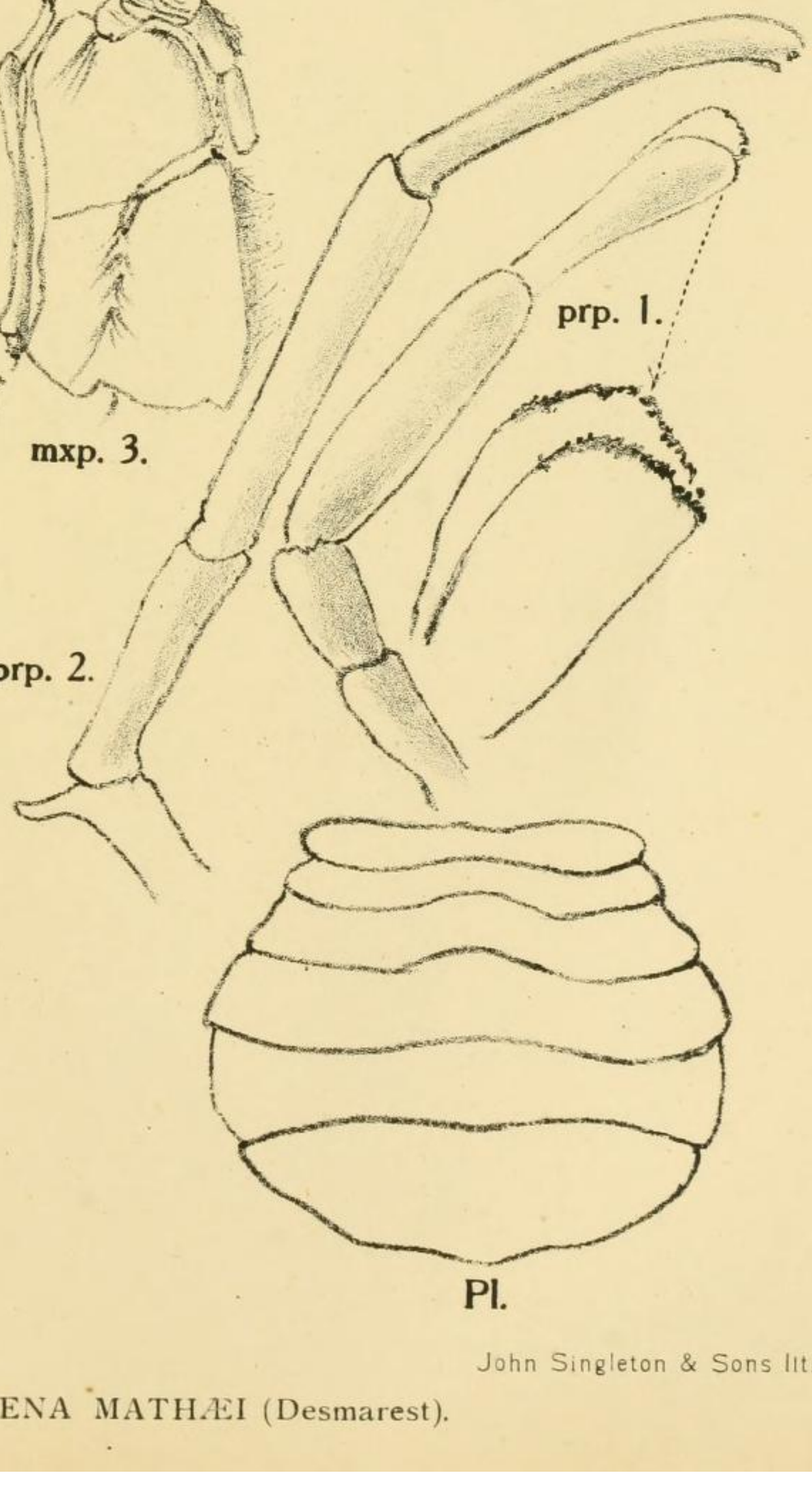
mxp. 2.


prp. 1.

prp. 2.

Pl.

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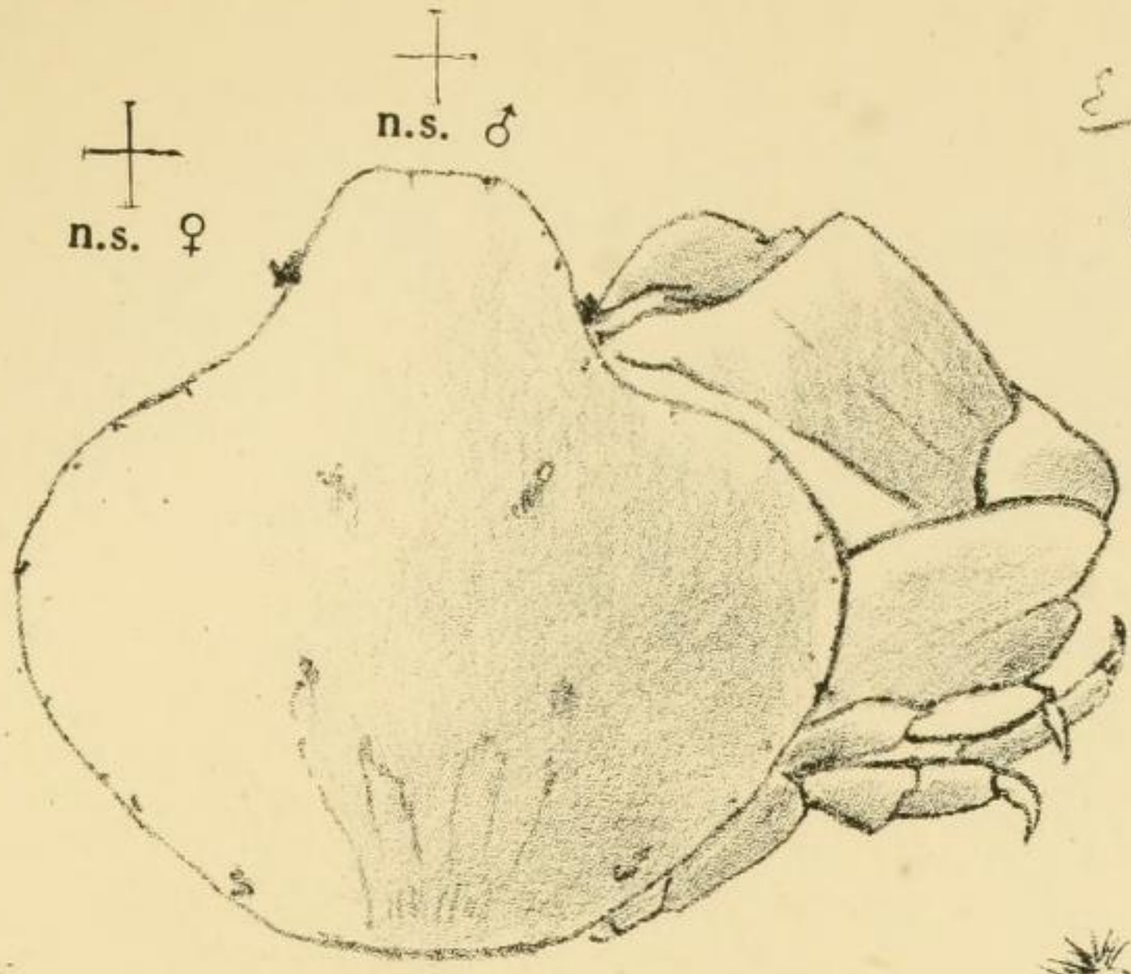
ELAMENA MATHÆI (Desmarest).

mxp. 3.



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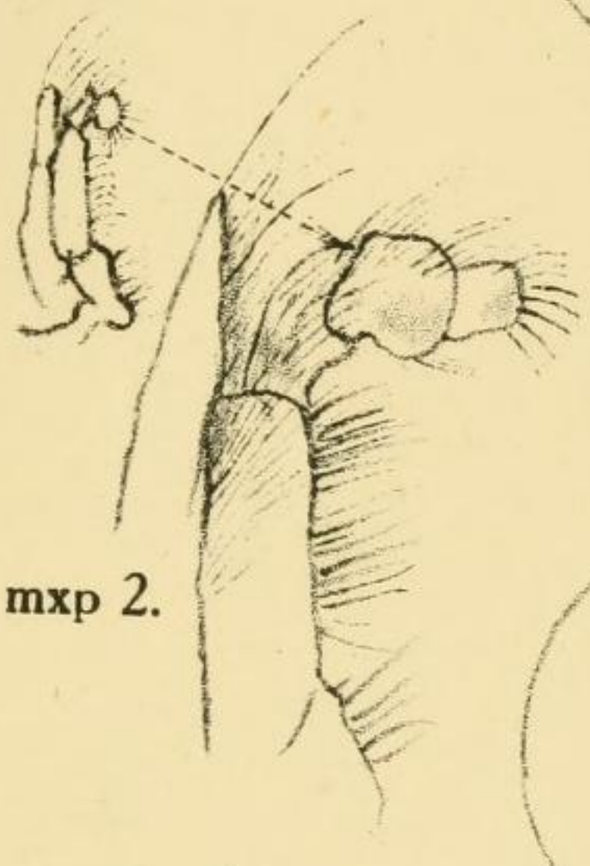

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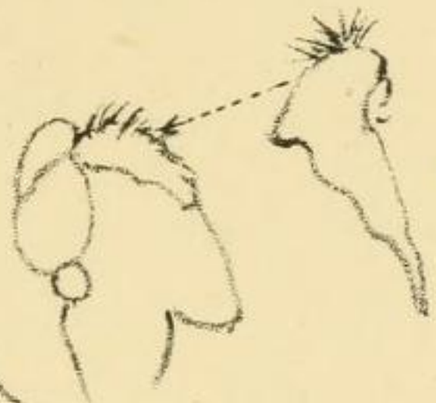
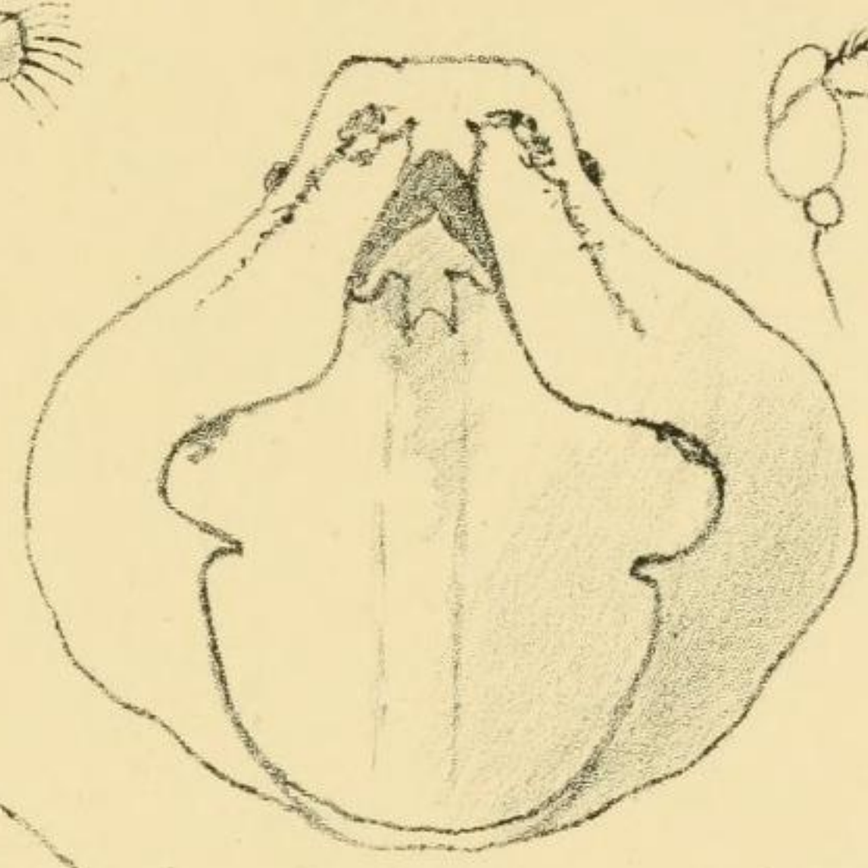
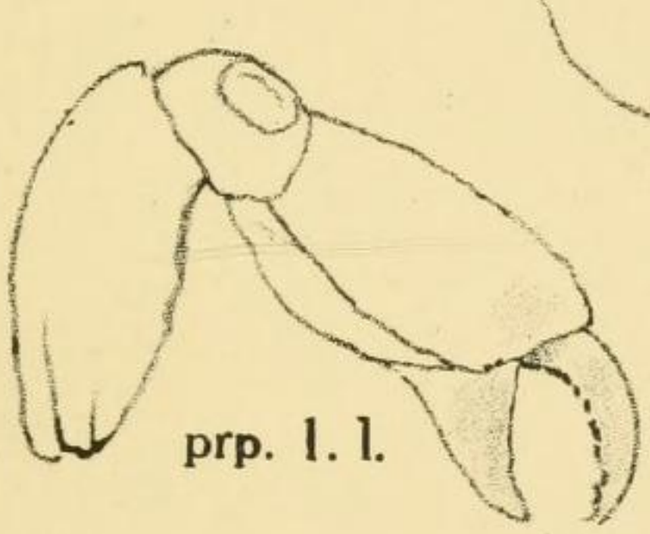


m.



V.

mxp. 1.



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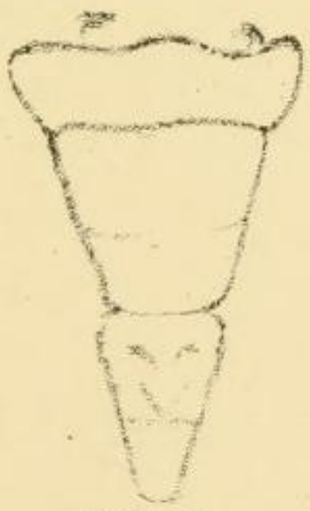
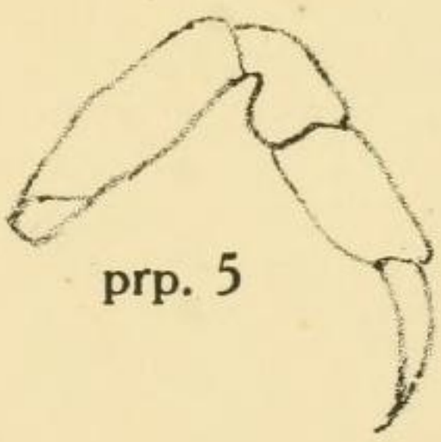
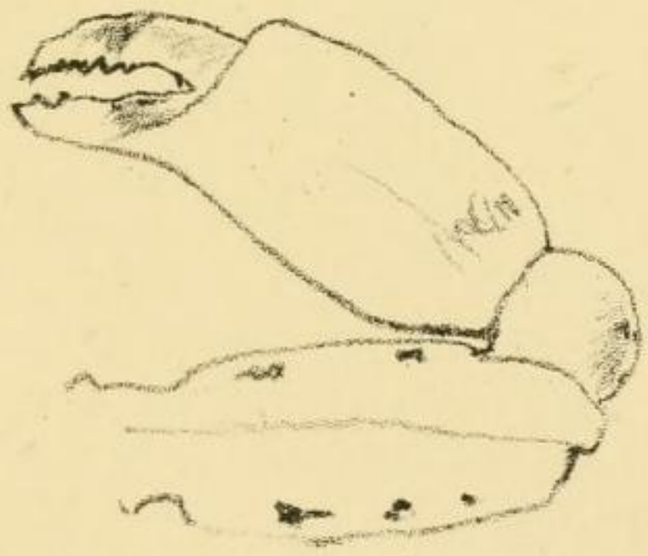


Pl. ♂



prp. 5



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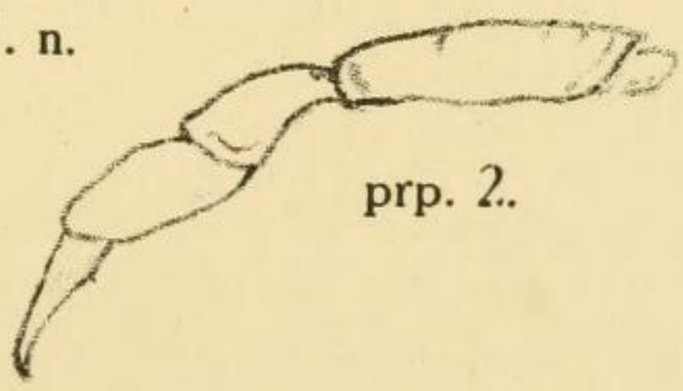

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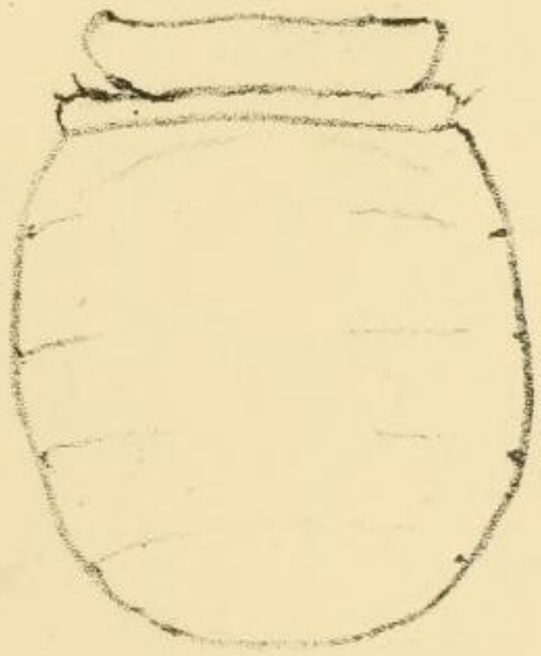

Pl. ♀

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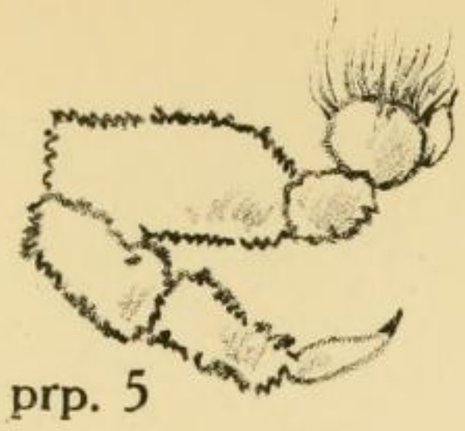
LEUCISCA PHÆNOMMA, sp. nov.



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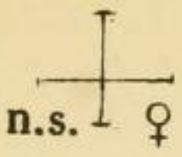
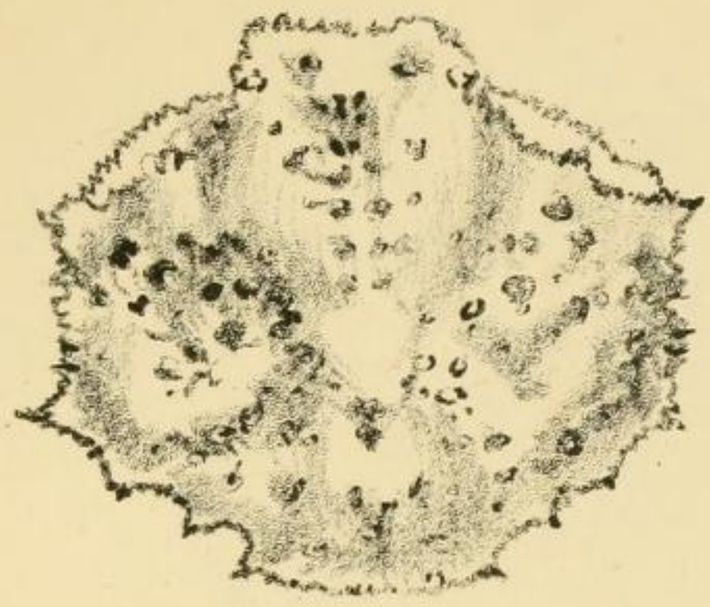
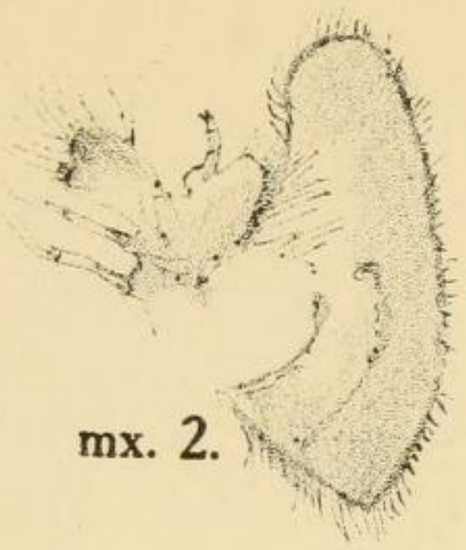


n.s. ♀



car. D.



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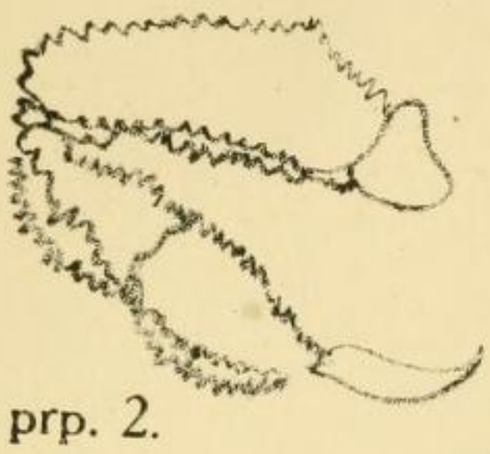
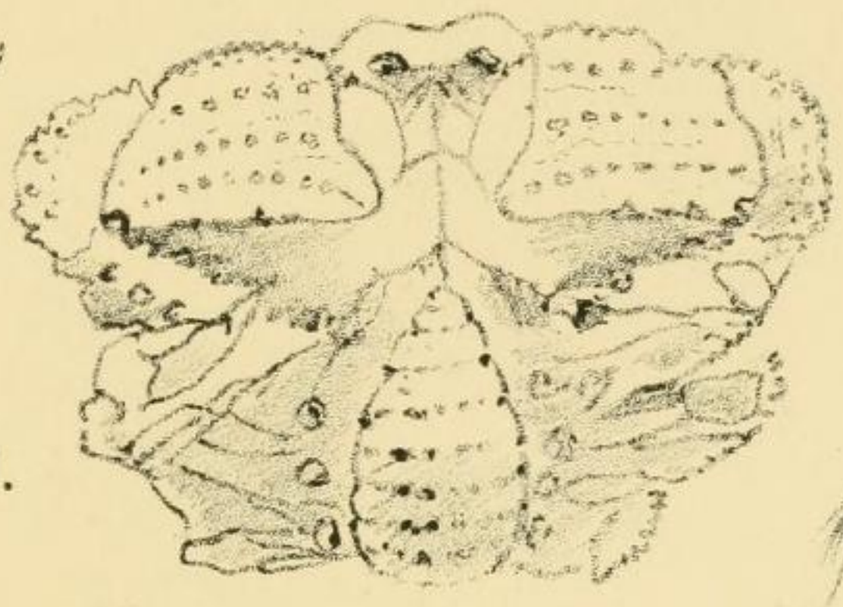


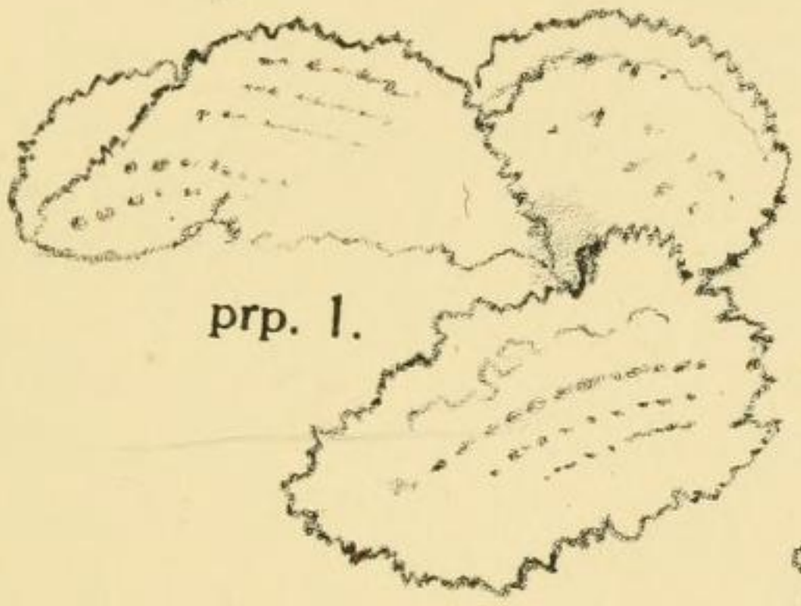
prp. 2.

m.



V.

mx 1.



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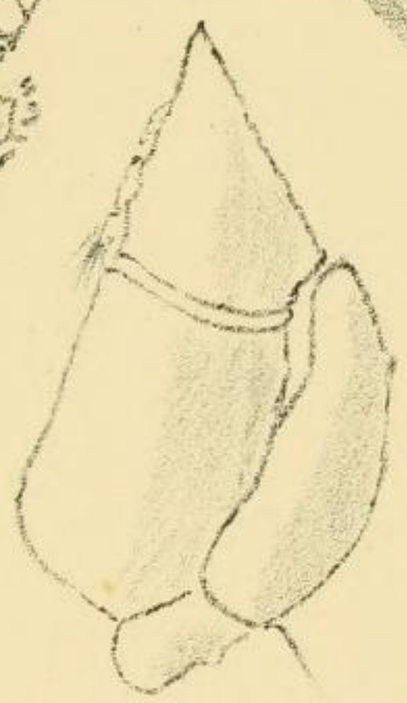
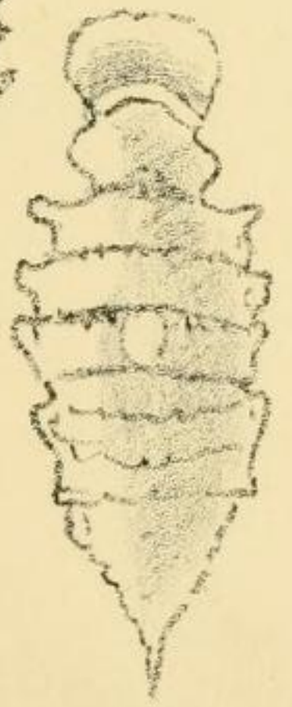


mxp. 3.



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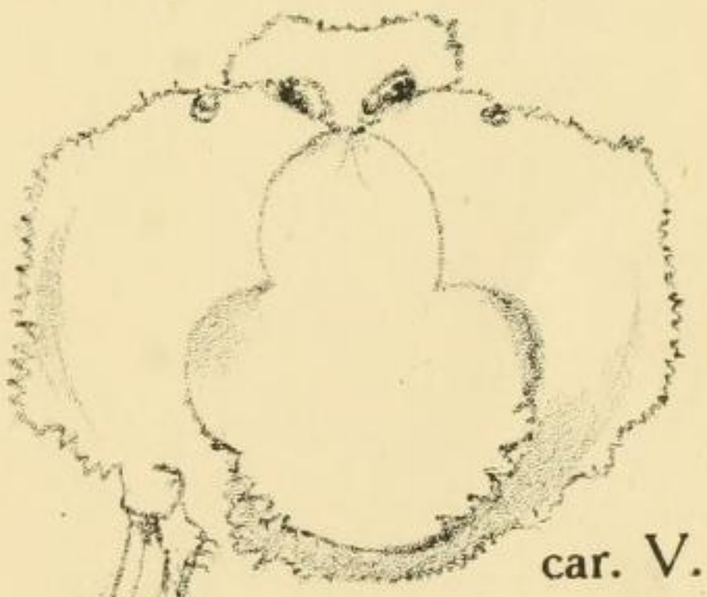
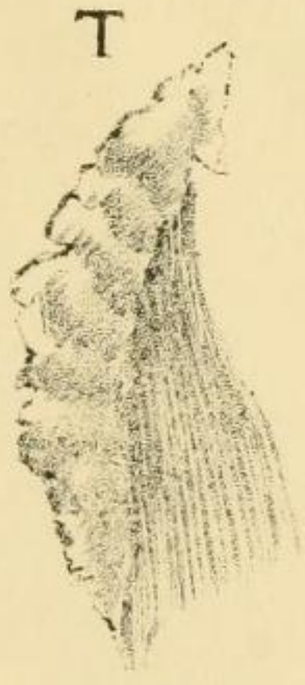


car. V.

mxp. 1.



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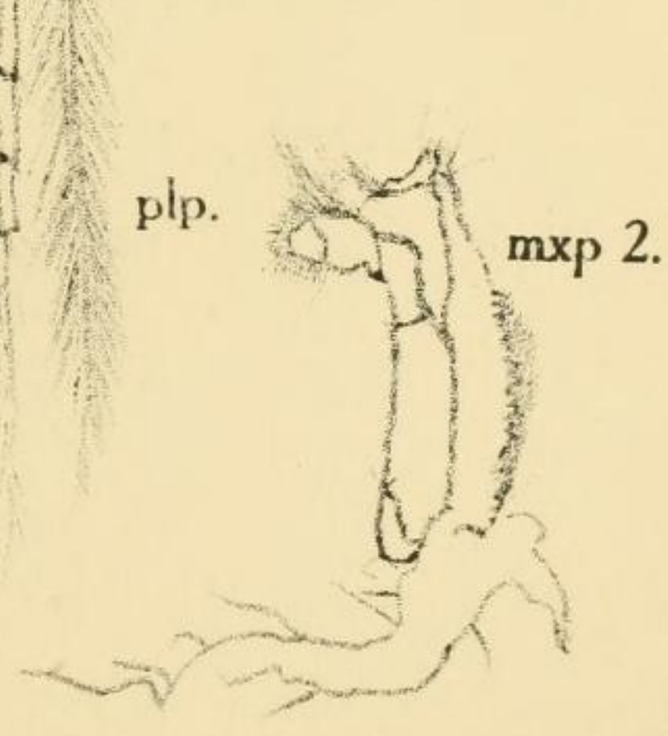

plp.

mxp 2.

T. R. R. Stebbing del.

John Singleton & Sons lith.

ACTÆOMORPHA EROSUS, Miers.