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Prelimanry descriptions of a new species of Amphipoda from the "Discovery" Antarctic Expeditionn 1902-1904.

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WALKER

111.—Preliminary Descriptions of new Species of Amphipoda from the 'Discovery' Antarctic Expedition, 1902-1904. By Alfred O. Walker, F.L.S., F.Z.S. 1306 6

[Continued from vol. xvii. p. 458.]

Proboloides antarcticus, sp. n.

W.Q. from Feb. to Dec. 1902: in sponges &c.

General characters as in Proboloides (Probolium) gregarium

(Sars).

First gnathopods.—Female: wrist subequal in length to, but wider than, the hand, the hind margins of both convex and setose. Male: wrist considerably longer and but slightly wider than the hand; otherwise like the female.

Second gnathopods.—Female: carpal process rounded, setose; hand with subparallel margins; hind margin subequal to the palm, which is defined by a small tooth and two spines. Male: hinder part of the lower margin of the sideplates irregularly servate. Hand as long as the three preceding joints, the hind margin shorter than the front and terminating in a sharp tooth, forming the palmar angle; palm deeply excavate, with a central tooth and a denticulate ridge near the base of the dactylus. In a younger male the palm is less deeply excavate, the central tooth wider, blunter, and denticulate, and the ridge as wide as the excavation.

Third percopods: the concave hind margin of the narrow first joint is produced almost to the end of the second, terminating in a divided lobe.

Fourth and fifth perceopods as in P. gregarium (Sars).

Third uropods: peduncle shorter than the ramus, with 5 spines; first joint of ramus subequal to second, with 3 spines.

Telson reaching the end of the peduncle of the third uropods, with 3 spines on each margin.

Length of female 3.5 mm.; the male considerably larger.

Proboliella, gen. nov.

Mandibles with a two-jointed palp.

First maxillæ with a two-jointed palp. Maxillipeds with the inner plates divided to the base, the

outer more or less developed.

Second peræopods not stronger than the first.

Third percopods with the first joint narrow; fourth and fifth pair with the first joint expanded.

Differs from *Probolium*, Sars, in the absence of the small third joint of the mandibular palp and the equal strength of the first and second perceptods.

Proboliella typica, sp. n.

W.Q. Hut Point, 11/11/02, one; 13/9/02, one; 13/2/04, one. All females.

Lower part of the hind margin of the third pleon-segment produced backwards and rounded. Eyes small, round, colourless in spirit.

Upper antennæ without an appendage, reaching the middle of the flagellum of the lower, the third joint half as long as the second. Flagellum 7-jointed, as long as the last two joints of the peduncle. Mandibles bent downwards from the base of the palp to the coarsely toothed cutting-edge; palp more than half the length of the mandible, the first joint less than one fourth the length of the second.

Maxillipeds: inner plates divided, outer distinct but narrow; first and second joints of the palp subequal, the third longer.

First gnathopods: wrist shorter and narrower than the hand, the latter wider in the middle than in Proboloides, the palm very oblique, subequal to the hind margin, spinulose and defined by 2 or 3 spines.

Second gnathopods: first joint as long and more than half as wide as the hand, margins setose; third joint produced in an acute point extending beyond the carpal process; wrist produced in a narrow setose process. Hand similar to but much larger than that of the first pair, subovoid, the palm longer than the hind margin, convex, spinulose, and defined by a strong tooth, beyond which is a smaller tooth and a group of spines.

The first and second pairs of perceopods are alike; first joint oblong, curved, almost as long as the next three, and three times as wide; third and fifth subequal, fourth rather shorter; dactylus slender, two thirds the length of the fifth joint.

Third percopods: first joint narrow-oblong, straight.

The fourth and fifth pairs are alike; the first joint oval, deeper than wide, the hind margin smooth.

Peduncle of the third pair of uropods subequal to each joint of the ramus.

Telson not reaching the end of the peduncle of the third uropods, narrowing rather abruptly to a point, with 3 spines on each side.

Length 3 mm.

Palp of the first maxillæ two-jointed.

First gnathopods distinctly subchelate; first joints of all the peræopods narrow.

Telson large, entire, oval, and set in a vertical plane on its longer edge.

Ötherwise like Metopa.

Thaumatelson Herdmani, sp. n.

W.Q. Oct. 1902, from sponges, Hut Point; one. W.Q.

13/2/04: Hut Point; one.

Body: fourth side-plates unusually large, covering the bases of the last three pairs of percopods. Last two pleon-segments with a postero-dorsal tooth. Segments of the urus coalesced.

Antennæ subequal, longer than the head. Upper antennæ without an appendage; flagellum shorter than the peduncle. Lower antenna: peduncle subequal to that of the upper.

First gnathopods: wrist triangular, about half as long as the hand, which is subquadrate, with the palm transverse,

rather convex, as long as the hind margin.

Second gnathopods: wrist produced beyond the base of the hand; hand subtriangular, widening distally, nearly twice as long as wide; distal half of the hind margin slightly concave, ending in a tooth, beyond which is a long and a short spine defining the transverse spinulose palm.

Peraopods all similar, with narrow first joints.

Third uropods: ramus subequal to the peduncle, the first joint rather longer than the second.

Telson as described above.

Length 2.5 mm.

A very remarkable little species, the form of the telson being probably unique in the Amphipoda; the hand of the second gnathopods recalls Amphilochus.

Œdiceroides Calmani *, sp. n.

Coulman Island, 13/1/02, 100 fath; two females. Flagon Pt., 23/1/02; one young. Barrier, 29/1/02, 100 fath.; one. Body: mesosome-segments very short, subequal; first pleon-segment longer than the second and much shorter than the third, which, as well as the first urus-segment, has a shallow dorsal carina and a rounded posterior margin. The last segment of the mesosome and first two segments of the pleon have a dorsal tubercle near the middle. The first four

side-plates are as deep as the segments.

Head: rostrum shorter than the rest of the head and reaching the end of the first joint of the upper antennæ, lower margin almost straight. Eyes contiguous above, large, dark. Upper antennæ not quite reaching the end of the second joint of the lower, the first joint rather longer and twice as wide as the second, widening distally; the second twice as long as the third; the first and second with fascicles of plumose setæ. Flagellum 10-jointed, shorter than the peduncle. Mandibular palp with the second joint subequal to the third in length, but more than twice as wide near its base, both joints with long spine-like setæ on the front margin.

In other respects this species resembles Œ. rostrata, Stebbing (E. conspicua on pls. Ix. and Ixi. Chall. Report), from which it differs in the conspicuous eyes, different shape of rostrum, proportions of mesosome-segments, and mandibular

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Length of female 30 mm,

Epimeria macrodonta, sp. n.

22/1/02, 500 fath.; three. W.Q. 4/9/03: Hole 12; one. Body: segments of mesosome and pleon, except the first two (of which the first is twice as long as the second), armed with lateral teeth increasing in length backwards, with longer curved dorsal teeth, those of the last mesosome and first two pleon-segments the longest. First two segments of the urus with an upright dorsal tooth; the third segment with a lateral carina ending in an upturned sharp tooth. Side-plates as in E. cornigera (Fabr.).

Head: rostrum much longer than the rest of the head, slightly decurved; lower margin of the ocular lobe produced forward in an acute tooth. Eye large, colourless in spirit.

Upper antennæ shorter than the lower; first joint with a subequal distal tooth on each side; second with two long subequal distal teeth reaching the seventh joint of the flagellum; third about half as long as the second, with a small distal tooth. Flagellum 32-jointed, slender.

Gnathopods as in E. parasitica, M. Sars.

Third perceopods: first joint rather longer than and twice as wide as the third; hind margin concave, with a rounded lobe at the proximal end and a large very sharp tooth, directed backwards, at the distal; front margin concave in the middle. Hind margins of the first joints of the fourth and fifth pairs

[·] After my fri and Dr. W. T. Calman, to whom I am much indebted for his valuable assistance.

convex in the middle, the first joint of the fifth the widest;

otherwise like the third pair.

The third uropods have the upper margins of the peduncles produced behind in an acute tooth; the outer rami are slightly shorter than the inner, which are about three times as long as the peduncle, narrowly lanceolate, with a few small spines on both margins.

Telson deeply notched, the ends of the divisions subacute.

Length 33 mm.

This species has a superficial resemblance to Acanthozone, Boeck, and Acanthechinus, Stebbing, from both of which it differs in the shape of the telson and other structural points.

EPIMERIELLA, gen. nov.

Body without dorsal teeth on the mesosome.

Head with a very small rostrum.

Fifth pair of side-plates small, wider than deep, without a projecting process.

Mandibles with the molar tubercle imperfectly developed.

Third and fourth percopods longer than the fifth.

Otherwise like Epimeria.

Epimeriella macronyx *, sp. n.

W.Q., May and June 1903; five young. 26/2/04; one,

length 25 mm.

Body: mesosome smooth; first and third segments subequal and much longer than the second, remaining segments increasing in length successively. First four side-plates as in Epimeria; fifth small, transverse, with rounded ends. Pleon with an obscure dorsal carina; hind and lower margins of the third segment straight and forming a right angle. Urus with the first segment depressed in front and provided with a postero-dorsal tooth.

Head slightly produced in front. Eyes large, prominent, round-oval, colourless. Antenna subequal, unarmed. Mandibles with cutting-edges dentate, spine-row of about 20 spines; palp rather longer than the mandible, first joint short, second

and third subequal.

First quathopods: wrist subequal to and rather wider than the hand, which is subovate; the palm undefined and pectinate, the whole hind margin sparsely and unequally spinous.

Second anathopods like the first, except the palm, which is

more transverse.

* From the long dactyli of the third and fourth percopods. Ann. & Mag. N. Hist. Ser. 7. Vol. xviii.

Second percopods: first joint narrow-oblong, subequal to the third and fourth united. Dactylus almost straight and not flexed, as long as the third joint.

Third and fourth perceopods subequal; first joints oblong, twice as long as wide. Dactyli longer than the fifth joint, especially in young specimens, tapering gradually, not flexed.

Fifth perwopods shorter than the third and fourth, the first joint much wider, with the convex, obscurely serrate hind margin produced nearly to the middle of the third joint. Dactylus as long as the fourth joint, which is shorter than the fifth.

Third uropods: rami subequal, nearly twice as long as the

peduncle, with fine spines on both margins.

Telson reaching to about one fourth the length of the rami of the third uropods, deeply notched at the end, with a minute notch on the tip of each division.

The description of the external characters of the body is taken from the large specimen (25 mm.) not dissected, the

rest from one of 6 mm.

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IV.—Rhynchotal Notes.—XXXVIII. By W. L. DISTANT.

THE following descriptions and notes are preparatory to a synonymical catalogue of the family Fulgoridæ which I have now in preparation. I reserve synopses of the genera to the catalogue itself, as there are genera which I have not seen and others which have still to be described, which render the formation of such keys impossible for the present.

Fam. Fulgoridæ.

Subfam. Fulgorinz.

Genus Eurystheus.

Eurystheus, Stål, Berl. ent. Zeitschr. vi. p. 305 (1862).

Type, E. dilatatus, Westw. (Fulgora).

Eurystheus dilatatus.

Fulgora dilatata, Westw. Trans. Linn. Soc. xviii. p. 146, t. xii. figs. 8

Pyrops inducta, Walk. Ins. Saund., Hom. p. 30 (1858).

Eurystheus Doddi, sp. n.

Head and cephalic process, sternum, and legs greyish, mottled with piceous; abdomen pale castaneous brown, with the segmental margins ochraceous; tegmina grey, opaque, the venation fuscous; an inner claval marginal fascia longitudinally continued for a short distance beyond apex of clavus and an irregular discal longitudinal fascia on apical area piccous brown; a series of small spots of the same colour on costal margin; wings greyish hyaline, with about basal half dull ochraceous, the venation fuscous; cephalic process long, slender, from in front of eyes about as long as abdomen, apex subconvexly narrowed, upper surface undulate; posterior tibiæ with four spines; rostrum about reaching abdominal apex; anterior and intermediate tibiæ annulated with piceous. Var.—Tegmina without the discal longitudinal fascia on

apical area and the clavus generally suffused with piceous

Long., excl. tegm., 17 mm.; exp. tegm. 32 mm.

Hab. Queensland; Townsville (F. P. Dodd, Brit. Mus.). Allied to E. obscuratus, Fabr., from which it principally differs by the more slender, longer, and apically narrowed cephalic process.

Eurystheus Clementi, sp. n.

Head dull greyish brown; pronotum and mesonotum greyish ochraceous; abdomen, body beneath, and legs pale testaceous; anterior tibiæ annulated with pale fuscous; head beneath at base paler and more ochraceous; clypeus with transverse fuscous striations; tegmina grey, opaque, the venation slightly darker and here and there tinged with fuscous, an inner claval streak, about six discal spots beyond middle, a subapical series of very small spots, and some speckles on costal margin piceous brown; wings entirely greyish white, the venation slightly stramineous; cephalic process slightly recurved, from in front of eyes about as long as abdomen, somewhat narrowly longitudinally channelled above on apical half, a little widened at apex, undulated above for a little beyond middle; rostrum not extending beyond half the length of abdomen; posterior tibiæ with four spines, the basal one small and blunt.

Long., excl. tegm., $17\frac{1}{2}$ mm; exp. tegm. 34 mm.

Hab. W. Australia; Nicol Bay District (Dr. Clement,

Brit. Mus.). To be distinguished from E. obscurata and E. Doddi by the shorter rostrum, the uniformly pale grey wings, &c.