III.-Preliminary Descriptions of new Species of Amphipoda from the 'Discovery' Antarctic Expedition, 1902-1904.
By Alfred O. Walker, F.L.S., F.Z.S.
19066
[Continued from vol, xvii. p. 458.]
Proboloides antarcticus, sp. n.
W.Q. from Feb. to Dec. 1902 : in sponges \&c.

General characters as in Pruboloides (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: linder part of the lower margin of the sidepilates irregula ly serrate. Hiand as long as the three preceding joints, the hind margin shorter than the front and terminating in a slarp tooth, forming the palmar angle; palm deeply eccavate, with a central tooth and a denticulate ridge newr the base of the dacylus. 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 perceopods: 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 too-jointed palp.
First maxille with a two-jointed palp.
Maxillipeds with the inner plates divided to the base, the outer more or less developed.

Second perreopods not stronger than the first.
Third percopods with the first joint narrow; fourth and fifth pair with the first joint expended.

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 peræopods.

## Proboliella typica, sp.n.

W.Q. ITut Point, 11/11/02, one; 13/9/02, one; 13/2/0t, one. All females.

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

Upper antennce without an appendage, reaching the middle of the flagellum of the lower, the third joint half as long as the scond. 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 fouth the length of the second.

Marrillipeds: imner plates divided, onter distinct but marrow; first and second joints of the palp subequal, the third longer.

First grathonods: wrist shorter and narrower than the hand, the latter wider in the middle than in Proboloides, the palm very obligue, 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, suboroid, the palm longer than the hind margin, convex, spinulose, and defined by a strong tooth, beyond which is a smaller looth and a group of spines.
The first and second pairs of percoopods 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 lirst joint oval, deeper than wide, the hind margin smooth.
Peduncle of the third pair of uropods subequal to each joint of the ramus.

I'elson not reaching the end of the peduncle of the third uropods, narrowing rather abruply to a point, with 3 spines on each side.
Length 3 mm .

## 'Thaumdtelson, gen. nov.

Palp of the first maxille two-jointed.
First gnathopods distinctly subchelato; first joints of all the creepods narrow.
Telson large, entire, oval, and set in a verlical plane on its longer edye.

Otherwise 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 lust three pairs of perceopods. Last two pleon-segments with a postero-dorsal tooth. Segments of the wrus coalesced.
Antonce subequal, longer than the head. Upper antennce withont an appendage; flagellum shorter than the pedmele Lower antenne: peduacle subequal to that of the upper.

First gnuthopods: wrist triangular, about half as long as the hand, which is subquadrate, with the palm trausverse, rather convex, as long as the hind margin.

Secoud guathopods: wrist produced beyond the base of the hand; hand subtriangular, widening distally, nearly twice as long as wide; distal half of the lind margin slightly concave, ending in a tooth, beyond which is a long and a short spine defining the transyerse spinulose paln.
l'ereopods 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.

## Cediceroides 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

- Aftermy fri.nd Dr. W. T. Calman, to whom I am much indebted or his valuable assistance.
last segment of the mesosome and frest two segments of the pleon have a dorsal tuberele near the middle. The first fom 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 autenne, lower margin almost straight. Eyes contiguous above, large, dart. Upper antenne 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 distctly; the second twice as long as the third; the first and second with fascicles of plamose sete. 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 spinc-like seta on the front margin.
In other respects this species resembles $\mathbb{E}$. rostrata, Stebbing (EE. conspicua on pls. |x. and Ixi. (hall. Report), from which it differs in the conspicuous eyes, different shape of rostrum, proportions of mesosome-segments, and mandibular palp.

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\text { Length of female } 30 \mathrm{~mm} \text {. }
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## Ejimeria macrolonta, sp. n.

22/1/02, 500 fath.; three. W.Q. A;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 lougest. 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 antenne 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 percoopods : 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
convex in the middle, the first joint of the fifth the widest; othervise like the third pair.

The lhird aropods have the upper margins of the peduncles produced behind in an acute tooth; the outer rami are slightly shorter than the imer, which are about three times as long as the peduucle, 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 rosemblance to Acanthozone, Bocek, and Acanthechinus, Stebbing, from both of which it differs in the shape of the telson and other structural points.

Epmeriella, 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. Jhird and fourth peræopods longer than the fifth.
Otherwise like Epimeria.
Epinericlla macrony. *, sp.n.
W.Q., May and June 1903; five young. 26/2/0t; one, length 25 mm .

Body: mesozome smooth; first and third segments subequal and much longer than the second, remaining segments uncreasing in length successively. First four side-plates as in Epimeria; fifh 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-uval, 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 gnathopods: 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.
Seiond gnathopods like the first, except the palm, which is more transverse.

* From the long dactyli of the third and fouth perreopods. 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 hexed, as long as the third joint.
Third and fourth percepods subequal ; first joints oblong, wice as long as wide. Dactyli longer than the fifth joint, especially in young specimens, tapering gradually, not flexed.
Fifth percopods shorter than the third and fourth, the first joint much wider, with the conves, 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 pedtucle, 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 noteh 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 .

## IV.-Rhynchotal Notes.-XXXYIII. By W. L. Distant.

Tre following descriptions and notes are preparatory to a synonymical catalogue of the family Fulgorida 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. Fulgorida.
Subfam. Fulgorinus.
Genus Eunystheus.
Eurystheus, Stå1, Berl, ent. Zeitschr. vi. p. 30 (1862).
Type, E. dilatatus, Westw. (Fulgora).

## Eurystheus dilatatus.

Fulgora dilatata, Westry. 'rans. Limn. Soc. xriii. p. 146, t. xii, figs. 8 $\& 9$ (1841).
Pyrops inducta, Walk. Ius. Saund., Iom. p. 30 (18:8)).

## Eurystheus Dolddi, sp. n.

Hoad and cephalic process, sternum, and legs greyish, motled with piceous; abdomen pale castaneous brown, with the segmental margins ochraceous; tegmina grey, opaque, the venation fuscous; an inner claval marginal fascia longitudinally contimued for a short distance beyond apex of clavas and an irregnlar discal longitudinal fascia on apical area and an brown; a series of small spots of the same colour on piccous brom, a wing greyish hyaline, with about basal halt costal margin; wings greyish hyame, whatic process long, dull ochraceons, the vena eyes about as long as abdomen, apex slender, from in front of eyes abourface undulate ; posterior subconvexly narowed, upper surface undmate, posominal tibie with four spines; rostrum about reaching abdominal apex; anterior and interme the diseal longitudinal fascia on
lar.-Tegmina without the discal lang gufused with piceous apreal
Long., excl. tegm., 17 mm ; exp. tegm. 32 mm . Mus.). Ilub. Queensland; Townsvme (F.O. Dodd, Bhe it principally Allied to E. obscuratus, Fabr., from and apically narrowsd cephatic process.

## Eurystheus Clementi, sp. n.

Ilead dull greyish brown; pronotum and mesonotum reyish ochraccous; abdomen, body beneath, and legs pale lestaccons; anterior tibie annulated with pale fuscous; head bencath at base paler and more ochraceons; clypeus with ransverse fuscous striations; tegmina grey, opaque, the romation slifhtly darker and here and there tinged with funcous, an limer claval streak, about six discal spots beyond haseous, an mber chatial series of very small spots, and some modde, a subaptal series of contal matin picous brown; wings entirely apeckles on costai margit piceous brow, wo stramincous; cephatic fayish white, the venation shghty st of eves about as long process slighty recurved, from in front of eyes about as long pacsubomen, 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 tibia with four spincs, the basal one small and blunt.
Long., excl. tegm., $17 \frac{1}{2} \mathrm{~mm}$; exp. tegm. 31 mm .
Ifab. IV. Australia; Nicol Bay District (Dr. Clement, Brit. Mus.).
'Io be distinguished from E. obscurata and E. Doddi by the shorter rostrum, the uniformly pale grey wings, \&e.

