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A Re-description of Some A. O. Walker Types of "Southern Cross" Lysianassidae (Crustacea Amphipoda) from the Ross Sea

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Abstract

THE following type specimens of Lysianassid Amphipoda from the Ross Sea collected by the "Southern Cross", under Captain Borchgrevink in 1899-1900, and originally described by A. O. Walker (1903, 1907) are here re-described: *Orchomenella rossi*, *Orchomenella pinguides*, *Orchomenella franklini*, *Uristes murrayi* (was *Tryphosa*), *Uristes adarei* (was *Tryphosa*), and *Uristes stebbingi* (was *Hoplonyx*, was *Tryphosites*). *Uristes georgianus* (Schellenberg) (was *Tryphosella*) is re-described from the type in those details which distinguish it from *U. stebbingi*, and the Walker material which Chilton discusses under the name *Tryphosites stebbingi* is described as a new species. *Allogaussia lobata* Barnard is a synonym of *Orchomenella pinguides*.

INTRODUCTION

THE Lysianassid amphipods include some of the commonest species of invertebrates taken in the Ross Sea in fishtraps and ice-hole collections. Most of the common Antarctic species were originally described by A. O. Walker (1903, 1907) in his reports on the amphipods collected by the "Southern Cross". Unfortunately, later works—and his own second thoughts—have to some degree clouded the validity of his original descriptions and his original assessments of specific distinctiveness. To clarify the situation, the opportunity has been taken to re-describe some of the most common and most commonly confused Antarctic species, now in the collections of the British Museum (Natural History), London, and this has to a considerable degree vindicated Walker's original work. His material labelled as *Hoplonyx stebbingi*, however, also included an undescribed species of *Tryphosites*, here described as new. It was this specimen which led Chilton (1912) to refer "*Hoplonyx stebbingi*" to the genus *Tryphosites*.

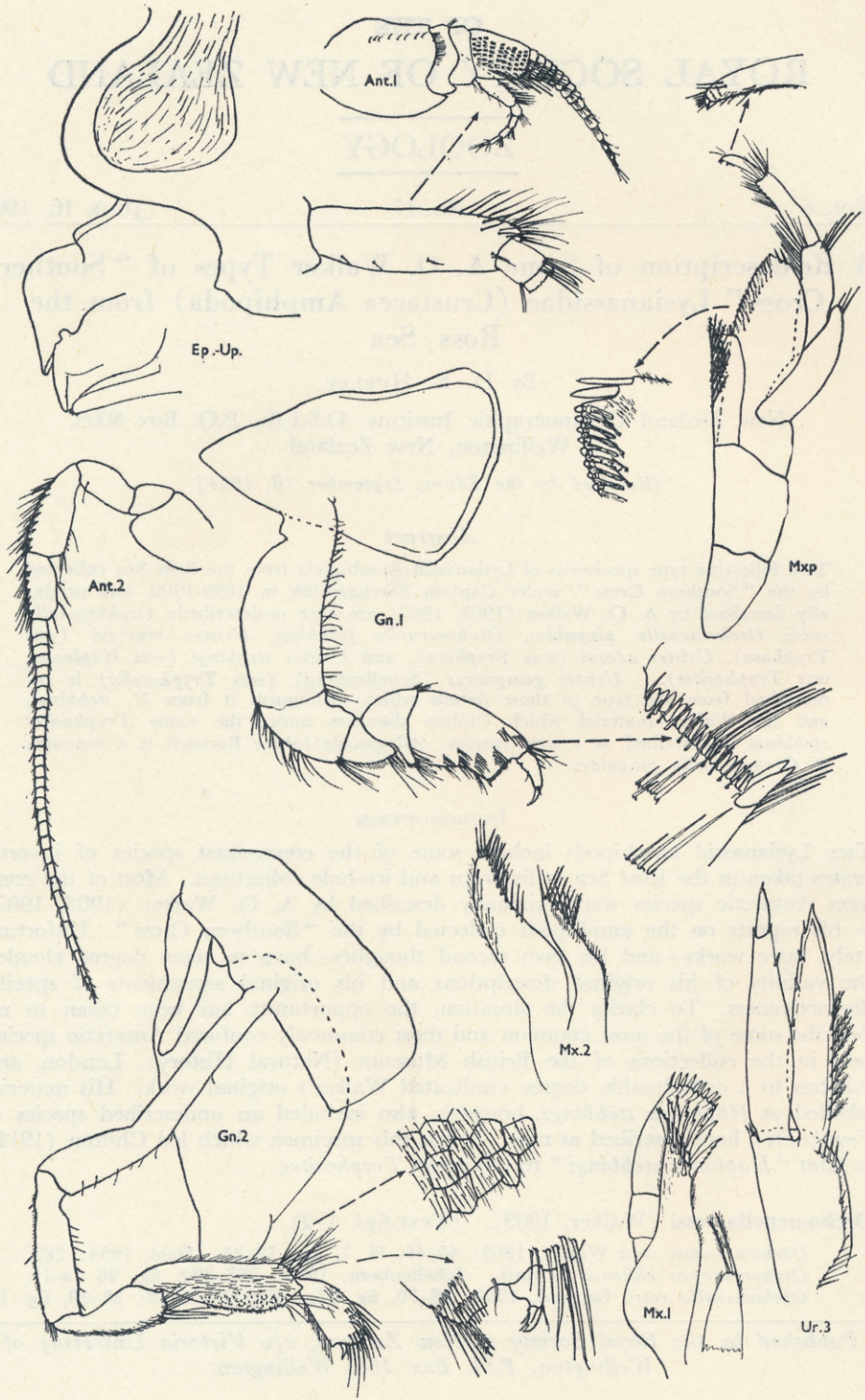
Orchomenella rossi (Walker, 1903). (Text-figs. 1-2)

Orchomenopsis rossi Walker, 1903: 45-46, Pl. 7, figs. 18-23. Dahl, 1954: 282.

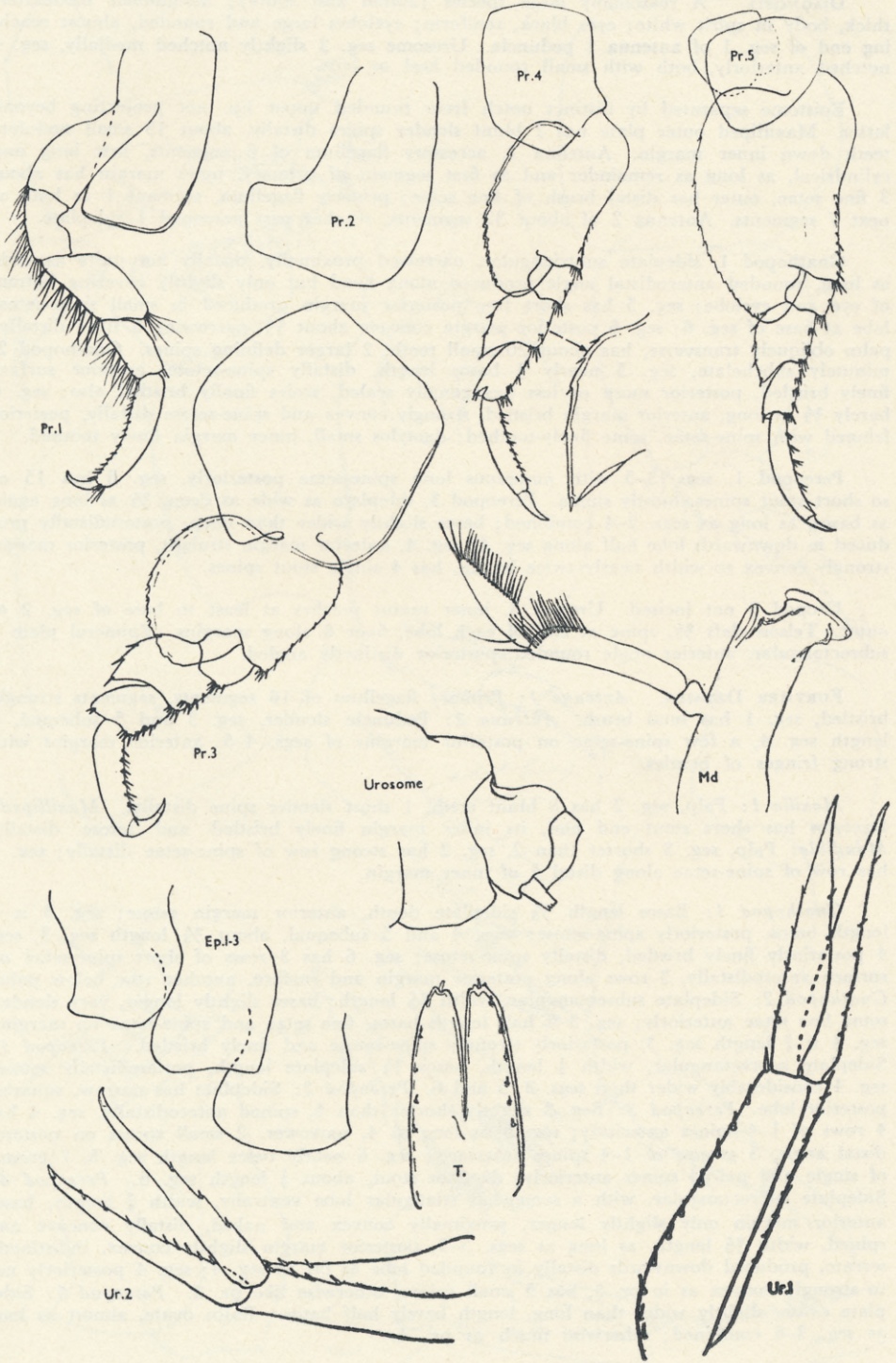
Orchomenopsis chilensis f. *rossi*. Schellenberg, 1926: 287-290, fig. 26 (a-i).

Orchomenella rossi. Barnard, 1932: 69-70, fig. 27e. Nicholls, 1938: 38-39, fig. 19.

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TEXT-FIG. 1.—*Orchomenella rossi* (Walker).



TEXT-FIG. 2.—*Orchomenella rossi* (Walker).

DIAGNOSIS. A reasonably large species (20mm and more); integument moderately thick, body in spirit white; eyes black, reniform; eyelobes large and rounded, almost reaching end of seg. 1 of antenna 1 peduncle. Urosome seg. 3 slightly notched medially, seg. 4 notched anteriorly, both with small rounded keel or boss.

Epistome separated by distinct notch from rounded upper lip, not projecting beyond latter. Maxilliped outer plate has 2 blunt slender spines distally, about 15 small nodulate teeth down inner margin. Antenna 1, accessory flagellum of 6 segments, first long and cylindrical, as long as remainder and as first segment of primary, inner margin has about 3 fine setae, outer has distal brush of fine setae; primary flagellum, segment 1 as long as next 7 segments. Antenna 2 of about 32 segments, reaches past pereopod 1 sideplate.

Gnathopod 1, sideplate subtriangular, narrowed proximally, distally not quite as wide as long, rounded anterodistal angle produced along head but only slightly covering bottom of eye and eyelobe; seg. 5 has short free posterior margin produced in small spine-setose lobe at base of seg. 6; seg. 6 posterior margin concave about $\frac{2}{3}$, narrowing a little distally; palm obliquely transverse, has about 20 small teeth, 2 larger defining spines. Gnathopod 2, minutely subchelate, seg. 5 nearly $\frac{1}{2}$ basos length, distally spine-setose, anterior surface finely bristled, posterior more or less hexagonally scaled, scales finally bristled also; seg. 6 barely $\frac{2}{3}$ as long, anterior margin bristled, strongly convex and spine-setose distally, posterior fringed with spine-setae, some finely-toothed; dactylos small, inner margin finely toothed.

Pereopod 1, segs. 3-5 with numerous long spine-setae posteriorly, seg. 6 has 15 or so short stout spines, mostly single. Pereopod 3, sideplate as wide as deep, $\frac{2}{3}$ as long again as basos, as long as segs. 2-4 combined; basos slightly wider than deep, posterodistally produced in downwards lobe half along seg. 4; seg. 4, anterior margin straight, posterior margin strongly convex so width nearly twice length, has 4 single stout spines.

Uropod 2 not incised. Uropod 3, inner ramus reaches at least to base of seg. 2 of outer. Telson cleft $\frac{2}{3}$, spine at end of each lobe, 5 or 6 along margins. Epimeral plate 3 subrectangular, anterior angle rounded, posterior distinctly angled.

FURTHER DETAILS. *Antenna 1:* Primary flagellum of 16 segments, segments strongly bristled, seg. 1 has setal brush. *Antenna 2:* Peduncle slender, seg. 3 and 5 subequal, $\frac{3}{4}$ length seg. 4, a few spine-setae on posterior margins of segs. 4-5, anterior margins with strong fringes of bristles.

Maxilla 1: Palp, seg. 2 has 8 blunt teeth, 1 short slender spine distally. *Maxilliped:* Dactylos has short stout end nail, its inner margin finely bristled and setose distally. *Mandible:* Palp, seg. 3 shorter than 2, seg. 2 has strong row of spine-setae distally; seg. 3 has row of spine-setae along distal $\frac{3}{4}$ of inner margin.

Gnathopod 1: Basos length $\frac{2}{3}$ sideplate depth, anterior margin setose; seg. 3 is $\frac{1}{2}$ length basos, posteriorly spine-setose; segs. 4 and 5 subequal, about $\frac{2}{3}$ length seg. 3, seg. 4 posteriorly finely bristled, distally spine-setose; seg. 6 has 3 rows of short spine-setae on surface anterodistally, 3 rows along posterior margin and surface, another row below palm. *Gnathopod 2:* Sideplate subrectangular, width $\frac{2}{3}$ length; basos slightly longer, very slender, some fine setae anteriorly; seg. 3 is half length basos, fine setae and spine-setae on margins, seg. 4 is $\frac{3}{4}$ length seg. 3, posteriorly strongly spine-setose and finely bristled. *Pereopod 1:* Sideplate subrectangular, width $\frac{1}{2}$ length, basos $\frac{2}{3}$ sideplate length, posterodistally setose; seg. 4 considerably wider than segs. 3, 5 and 6. *Pereopod 2:* Sideplate has narrow, squarish posterior lobe. *Pereopod 3:* Seg. 3 slightly shorter than 4, spined anterodistally, seg. 4 has 4 rows of 1-4 spines anteriorly; seg. 5 as long as 4, narrower, 2 small spines on posterodistal angle, 5 groups of 1-4 spines anteriorly; seg. 6 nearly twice length seg. 5, 7 groups of single and paired spines anteriorly; dactylos stout, about $\frac{1}{2}$ length seg. 6. *Pereopod 4:* Sideplate subrectangular, with a somewhat triangular lobe ventrally, width $\frac{3}{4}$ length; basos anterior margin only slightly longer, proximally convex and naked, distally concave and spined, width $\frac{2}{3}$ length, as long as segs. 3-5, posterior margin slightly convex, indistinctly serrate, produced downwards distally in rounded lobe as far as seg. 4; seg. 4 posteriorly not so strongly convex as in pr. 3, has 5 small spines, otherwise like pr. 3. *Pereopod 5:* Sideplate ovate, slightly wider than long, length barely half basos. Basos ovate, almost as long as seg. 3-6 combined; otherwise much as pr. 4.

Epimeral Plates: First has concave anterior margin, convex posterior. Second subrectangular, anterior angle rounded, posterior almost angled.

Uropod 1: Peduncle and rami subequal; peduncle has 11 and 10 spines dorsally, rami have 5 + 2 and 0 + 6 short spines, integral end spines. *Uropod 2*: Peduncle slightly shorter than rami, has 4 + 3 short spines distally on dorsal margins; rami subequal, 9 + 3 dorsal spines, integral end spine. *Uropod 3*: Peduncle about $\frac{3}{4}$ length rami, has fine spine-setae and bristles on dorsal margin; outer ramus has 1 spine on inner margin about $\frac{3}{4}$, 2 very small spines at base of strong second segment, which is more than $\frac{1}{4}$ length seg. 1; inner ramus has 4 very small spines along inner margin; fine plumose setae along proximal half of outer margin.

MATERIAL EXAMINED

Syntypes labelled "Orchomenopsis rossi A. O. Walker. S. Lat. 78° 35' near surface, Feb. 18, 1900", in the collection of the British Museum (Nat. Hist.). Also material collected by Dr John S. Pearse at White Island in the Ross Sea, 1961.

DISCUSSION

Orchomenella rossi is described as occurring in enormous numbers in the Ross Sea. In the author's experience, it has often been confused with a very similar, hitherto undescribed species, which occurs together with *O. rossi*. This species is distinguished from *rossi* mainly by a narrower 4th segment to pereopod 3 and in having both rami of uropod 3 bristled, with the inner ramus noticeably shorter than the outer (Hurley, 1965). When these two species are taken together, *rossi* usually makes up less than 10% of the mixture. For this reason, many of the previous references to *rossi* probably apply only in part, and in greater part refer to the undescribed species. Care should therefore be taken to distinguish these two species in any material identified as *rossi*. As it happens, the various figures given in the reference cited above seem all to refer to *O. rossi*.

Orchomenella pinguides Walker, 1903 (Text-figs. 3-4)

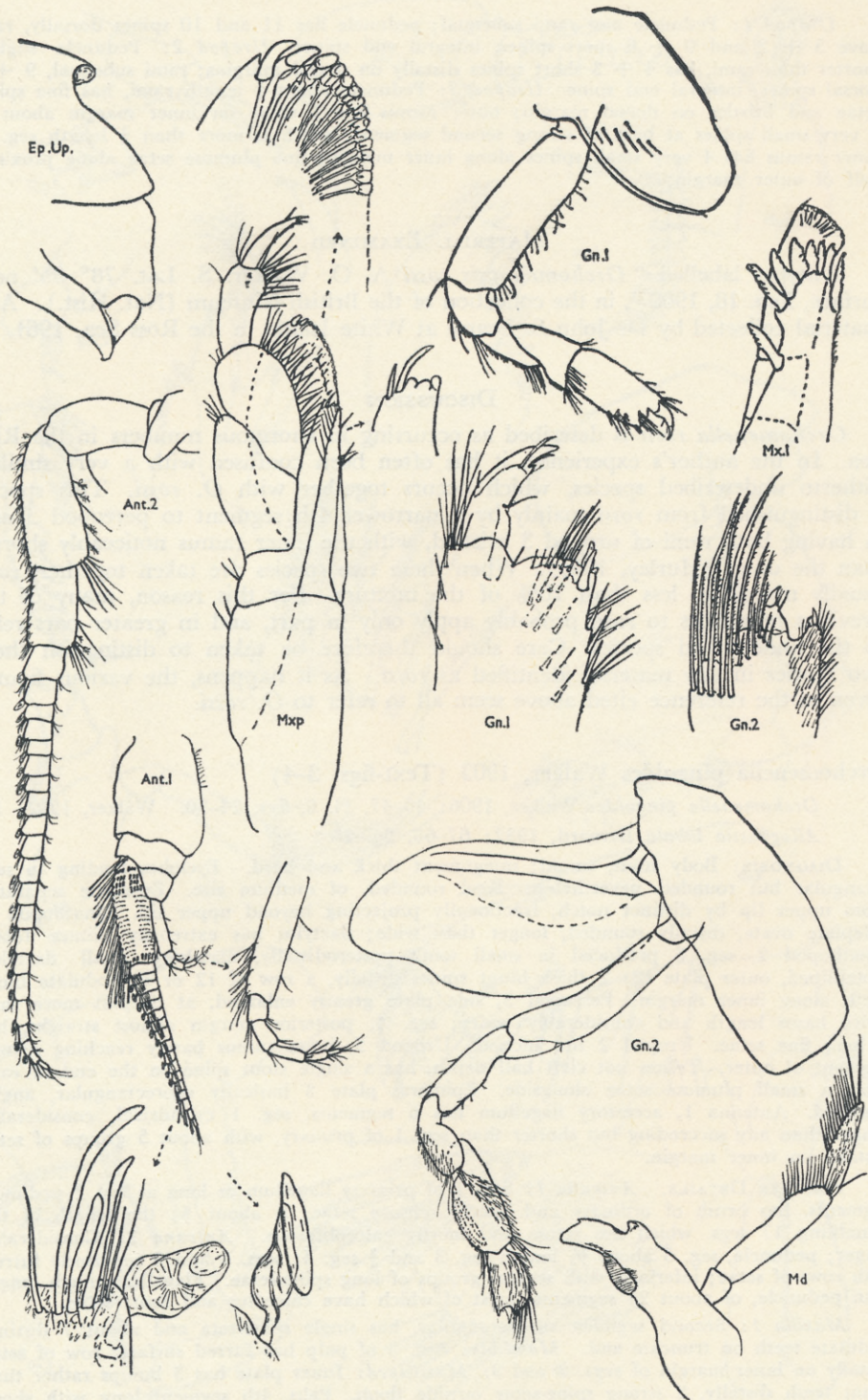
Orchomenella pinguides Walker, 1906: 46-47, Pl. 8, figs. 24-30. Walker, 1907: 13.

Allogausia lobata Barnard, 1932: 67-68, fig. 26.

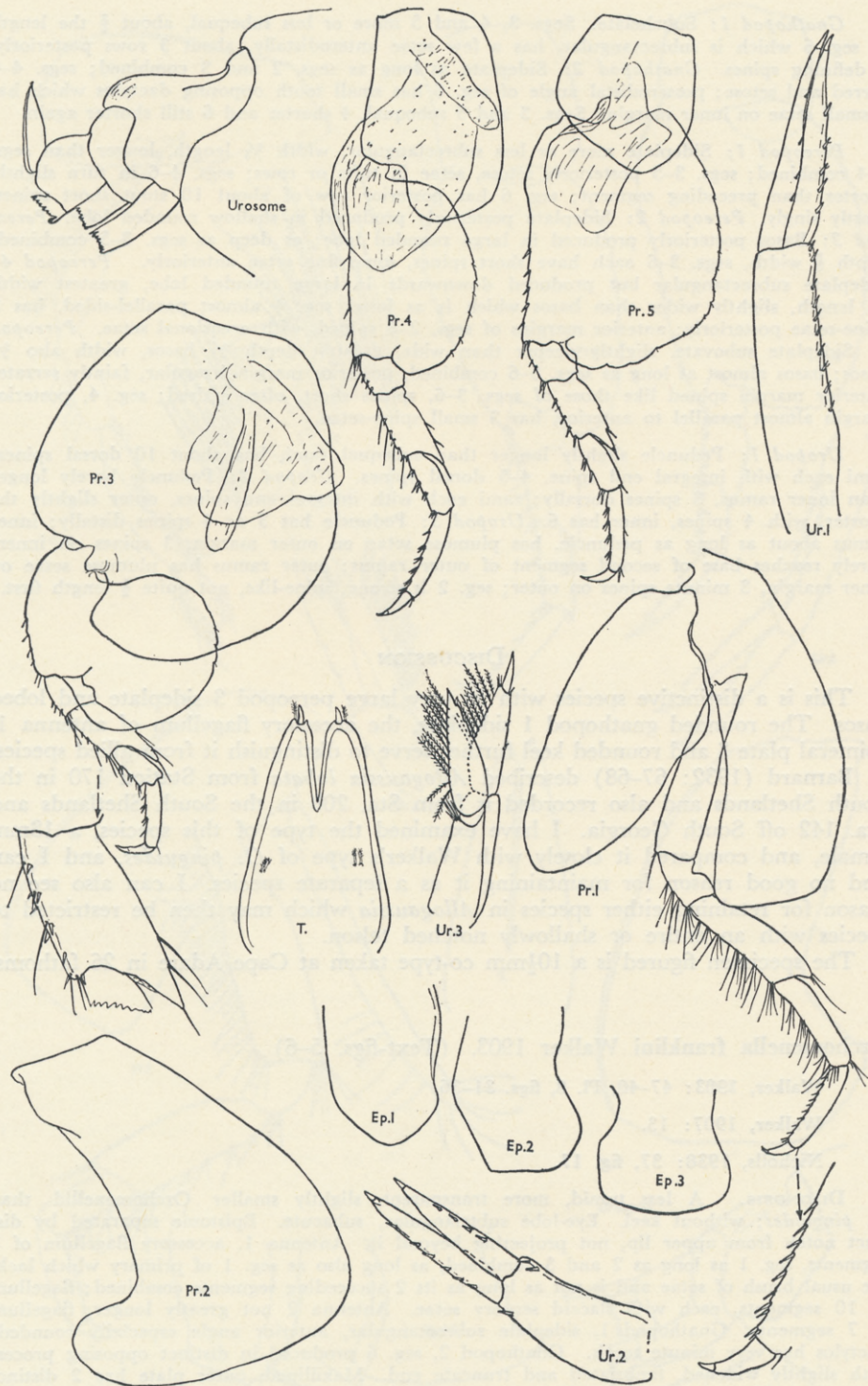
DIAGNOSIS: Body stout, tumid; integument thick and hard. Eyelobes tending to sub-triangular but rounded nevertheless. Keel rounded, of medium size. Epistome separated from upper lip by distinct notch, fractionally projecting beyond upper lip. Gnathopod 1, sideplate ovate, distally rounded, longer than wide; dactylos has extremely minute tooth. Gnathopod 2, seg. 6 produced in small tooth posterodistally, matching small dactylos. Maxilliped, outer plate has 2 thick blunt spines distally, a row of 12 or so nodulate blunt teeth along inner margin. Pereopod 3, side plate greatly enlarged, at deepest more than twice basos length and considerably wider; seg. 4, posterior margin almost straight, has 3 long fine setae. Uropod 2 not incised. Uropod 3, inner ramus barely reaching second segment of outer. Telson not cleft half depth, has a single stout spine on the end of each lobe, a small plumose setae alongside. Epimeral plate 3 basically subrectangular, angles rounded. Antenna 1, accessory flagellum has 6 segments, seg. 1 cylindrical, considerably longer than any succeeding but shorter than seg. 1 of primary, with about 5 groups of setae distally on inner margin.

FURTHER DETAILS. *Antenna 1*: Seg. 1 of primary flagellum as long as last 2 peduncle segments, has brush of ordinary and flaccid sensory setae; is about $\frac{2}{3}$ the length of the remaining 17 segs. which are setose and mostly calceoliferous. *Antenna 2*: Considerably longer; peduncle, seg. 5 about $\frac{2}{3}$ length seg. 3 and $\frac{3}{4}$ seg. 4; segs. 4 and 5 superiorly furred with rows of setae; inferiorly with several groups of long spine-setae. Flagellum much longer than peduncle, of about 21 segments, most of which have calceolus and short setae.

Maxilla 1: Second segment subrectangular, has single spine-seta and about 7 distinct nodulate teeth on truncate end. *Mandible*: Seg. 3 of palp has furred surface, row of setae distally on inner margin of segs. 2 and 3. *Maxilliped*: Inner plate has 3 bumps rather than blunt teeth distally, 2 strong spine-setae outside them. Palp, 4th segment long with short, sharp nail, 2 small spines on inner margin at its base. Outer plate has secondary row of 5 or so small spines parallel to inner margin.



TEXT-FIG. 3.—*Orchomenella pinguides* Walker.



TEXT-FIG. 4.—*Orchomenella pinguides* Walker.

Gnathopod 1: Subchelate. Segs. 3, 4 and 5 more or less subequal, about $\frac{3}{4}$ the length of seg. 6 which is subrectangular, has a few setae anterodistally, about 3 rows posteriorly, 2 defining spines. *Gnathopod 2*: Sideplate as long as segs. 2 and 3 combined; segs. 4-6 furred and setose; posterodistal angle of seg. 6 has small tooth opposing dactylos which has 3 small setae on inner margin. Segs. 3 and 5 subequal, 4 shorter and 6 still shorter again.

Pereopod 1: Sideplate more or less subrectangular, width $\frac{1}{3}$ length, longer than segs. 2-4 combined; segs. 3-5 posteriorly setose, setae in tufts or rows; segs. 4-6 in turn slightly shorter than preceding segment; seg. 6 has posterior row of about 10 stout short spines, mostly singly. *Pereopod 2*: Sideplate posteriorly produced in shallow rounded lobe. *Pereopod 3*: Basos posteriorly produced in large rounded lobe; as deep as segs. 3-5 combined; depth $\frac{3}{4}$ width, segs. 3-6 each have short spines, some fine setae anteriorly. *Pereopod 4*: Sideplate subrectangular but produced downwards in large rounded lobe, greatest width $\frac{2}{3}$ length, slightly wider than basos which is as long; seg. 4 almost parallel-sided, has 3 spine-setae posteriorly; anterior margins of segs. 2-6 spined, with occasional setae. *Pereopod 5*: Sideplate subovate, slightly deeper than wide, greatest depth $\frac{2}{3}$ basos, width also $\frac{2}{3}$ basos; basos almost as long as segs. 3-6 combined, posterior margin irregular, faintly serrate; anterior margin spined like those of segs. 3-6, spines short, often paired; seg. 4, posterior margin almost parallel to anterior, has 3 small spine-setae.

Uropod 1: Peduncle slightly longer than subequal rami, has about 10 dorsal spines; rami each with integral end spine, 4-5 dorsal spines. *Uropod 2*: Peduncle barely longer than inner ramus, 3 spines dorsally; rami each with integral end spines, outer slightly the shorter, with 4 spines, inner has 6. *Uropod 3*: Peduncle has 3 or 4 spines distally; inner ramus about as long as peduncle, has plumose setae on outer margin, 3 spines on inner; barely reaches base of second segment of outer ramus; outer ramus has plumose setae on inner margin, 3 minute spines on outer; seg. 2 is strong, spine-like, not quite $\frac{1}{2}$ length first.

DISCUSSION

This is a distinctive species with its very large pereopod 3 sideplate and lobed basos. The rounded gnathopod 1 sideplate, the accessory flagellum of antenna 1, epimeral plate 3 and rounded keel further serve to distinguish it from allied species.

Barnard (1932: 67-68) described *Allogaussia lobata* from Station 170 in the South Shetlands and also recorded it from Sta. 208 in the South Shetlands and Sta. 142 off South Georgia. I have examined the type of this species, a 13mm female, and compared it closely with Walker's type of *O. pinguides*, and I can find no good reason for maintaining it as a separate species. I can also see no reason for retaining either species in *Allogaussia* which may then be restricted to species with an entire or shallowly notched telson.

The specimen figured is a 10 $\frac{1}{2}$ mm co-type taken at Cape Adare in 26 fathoms.

Orchomenella franklini Walker 1903. (Text-figs. 5-6)

Walker, 1903: 47-48, Pl. 8, figs. 31-36.

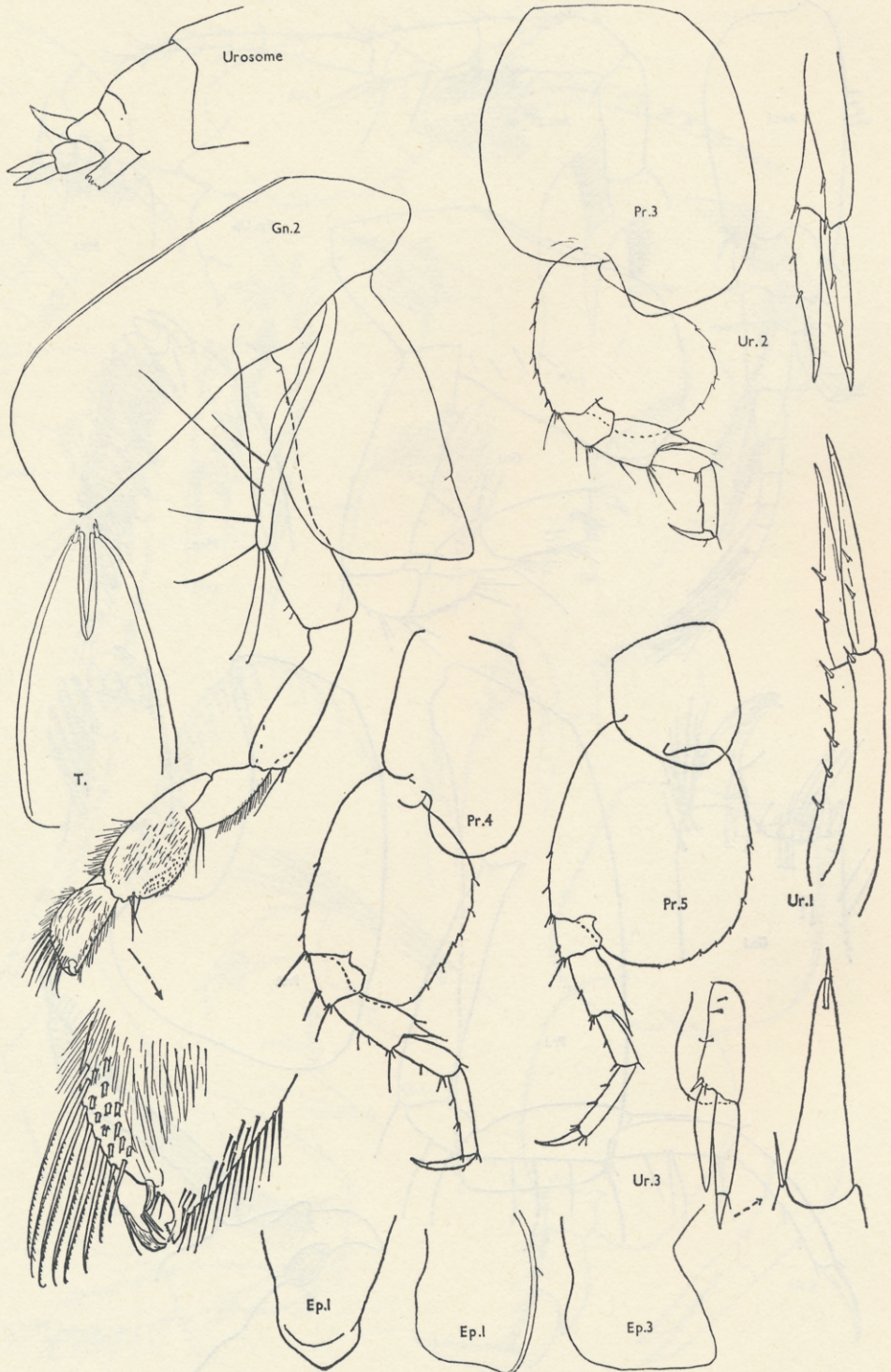
Walker, 1907: 13.

Nicholls, 1938: 37, fig. 17.

DIAGNOSIS. A less tumid, more transparent, slightly smaller *Orchomenellid* than *O. pinguides*; without keel. Eye-lobe subtriangular, subacute. Epistome separated by distinct notch from upper lip, not projecting beyond it. Antenna 1, accessory flagellum of 3 segments, seg. 1 as long as 2 and 3 combined, as long also as seg. 1 of primary which lacks the usual brush of setae and is not as long as its 2 succeeding segments combined; flagellum of 10 segments, each with flaccid sensory setae. Antenna 2 not greatly longer, flagellum of 7 segments. Gnathopod 1, sideplate subrectangular, anterior angle especially rounded; dactylos has very minute tooth. Gnathopod 2, seg. 6 produced in distinct opposing process with slightly widened, fimbriated and truncate end. Maxilliped, outer plate has 2 distinct end spines, 10 or so blunt nodulate-spines along inner margin, a secondary row of 4 or 5 spines inside this. Pereopod 3, sideplate as deep as segs. 2-6 combined, almost as wide;



TEXT-FIG. 5.—*Orchomenella franklini* Walker.



TEXT-FIG. 6.—*Orchomenella franklini* Walker.

basos posteriorly expanded in wide lobe, anteriorly narrowing to very slender "neck", thus appearing pear-shaped; seg. 4, posterior margin slightly convex, has 2 spine-setae; seg. 6 has only 2 spine-setae anteriorly. Uropod 2 not incised. Uropod 3, peduncle has 2 small spines distally; inner ramus is almost as long, reaches base of second segment of outer, seg. 2 of outer ramus about $\frac{1}{3}$ length seg. 1, has small spine at base, otherwise both rami are naked. Telson somewhat thick, rounded and canoe-shaped, cleft about $\frac{1}{3}$, a single spine at end of each lobe. Epimeral plate 3 subrectangular, angles slightly rounded.

FURTHER DETAILS. *Antenna 1:* Flagellum shorter than peduncle; seg. 1 of flagellum shorter than last 2 segments of peduncle. *Antenna 2:* Peduncle, segs. 3 and 5 subequal, about $\frac{2}{3}$ length seg. 4, each with a few long spine-setae inferodistally, 1 inferiorly on margin of segs. 4 and 5, a few fine plumose setae, a few fine setae on superior margin; flagellar segments have each a few fine spine-setae.

Maxilla 1: Palp has 6 blunt teeth and 1 spine on truncate end. *Mandible:* Palp, seg. 2 has only about 5 spine-setae distally, seg. 3 about 8, surface of seg. 3 has occasional combs of short fine setae. *Maxilliped:* Inner plate has 3 blunt teeth, distally 2 strong spines outside them.

Gnathopod 1: Sideplate width about $\frac{2}{5}$ length, sides more or less parallel. Basos $\frac{2}{3}$ sideplate length, as long as segs. 3-6 combined; a few spine-setae anteriorly, segs. 3-5 subequal, seg. 6 as long as 4 and 5 combined; a few long spine-setae posterodistally on segs. 2-6, segs. 4 and 6 are posteriorly "furred" with short setae as well; 2 defining spines on end of palm; margins of seg. 6 are parallel. *Gnathopod 2:* Sideplate almost as long as segs. 2-4 combined; anterior margin of seg. 6 strongly convex, segs. 4-6 furred and setose; segs. 4 and 6 subequal, about $\frac{2}{3}$ length seg. 5, which is also noticeably wider and strongly convex.

Pereopod 1: Sideplate subrectangular, width not $\frac{1}{3}$ length, longer than segs. 2-4 combined; segs. 4-6 each have a spine-seta anterodistally, seg. 2 has 1 long spine-seta posterodistally, segs. 3-5 have 2-5 long spine-setae posteriorly, seg. 6 has 4 short slender spines; otherwise segments naked. *Pereopod 2:* Has shallow rounded posterior lobe. *Pereopod 3:* Basos anterior margin has 6 or so small spines anteriorly, a long spine-seta and 2 short spines distally; posteriorly obscurely serrate; segs. 2 and 3 have each 2 or 3 long spine setae, 1 or 2 short spines, seg. 5 has 3 short spines, segments generally somewhat naked looking. *Pereopod 4:* Sideplate subrectangular, slightly longer and narrower than basos, produced downwards posteriorly in short rounded lobe. Otherwise much as Pr. 3. *Pereopod 5:* Sideplate ovate, deeper than wide, about $\frac{2}{3}$ basos depth and width. Basos ovate, proximally quite wide, not pear-shaped as in Pr. 3; seg. 4, margins parallel, posterodistal angle produced down sharply, with short spine on end, another about $\frac{2}{3}$; anterior margins of segs. 2-6 each have a few small spines, are otherwise more or less naked.

Uropod 1: Peduncle slightly longer than rami, with 6 and 1 spines dorsally; 2 on each ramus. *Uropod 2:* Peduncle and rami subequal, 2 and 1 spines dorsally on peduncle, 2 on each ramus.

DISCUSSION

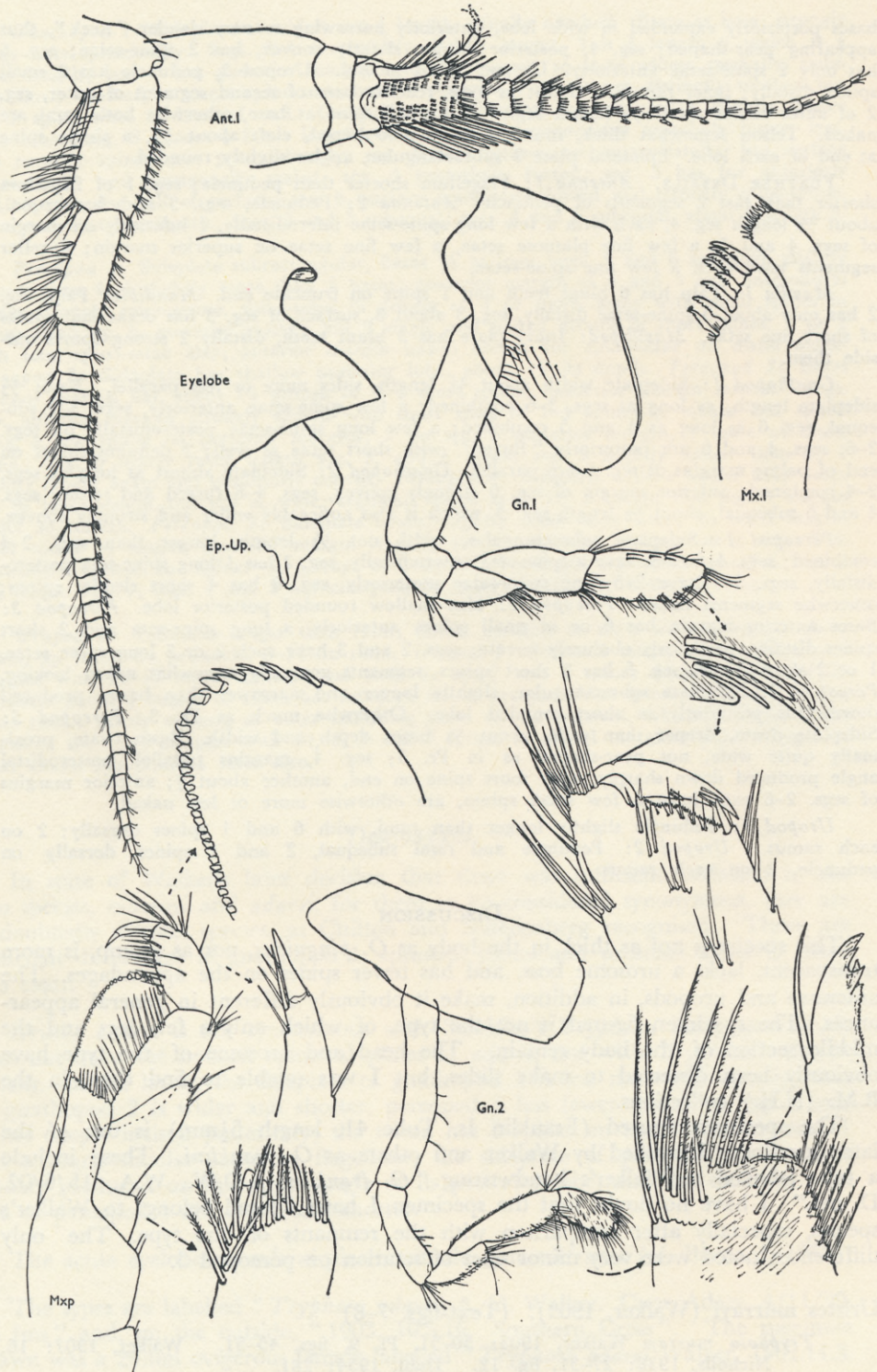
This species is not as thick in the body as *O. pinguides*, nor as plump, is more transparent, lacks a urosome boss, and has fewer spines on the appendages. The antennae and uropods, in addition, make it obviously different in general appearances. The specimen figured is not the type, of which only a few legs and the middle section of the body remain. The head and urosome of the type have obviously been dissected to make slides, but I was unable to find these in the B.M. (N.H.) collections.

The specimen figured (Franklin Is. Tube 41, length $5\frac{1}{2}$ mm) is one of the later specimens identified by Walker and others as *O. franklini*. These include a tube labelled in Walker's handwriting "*O. franklini* A.O.W., W.A., 15/6/02. D. net." I have no doubt that the specimen I have figured belongs to Walker's species, especially after comparison with the remnants of the type. The only differences noted were very minor ones of setation on pereopod 3.

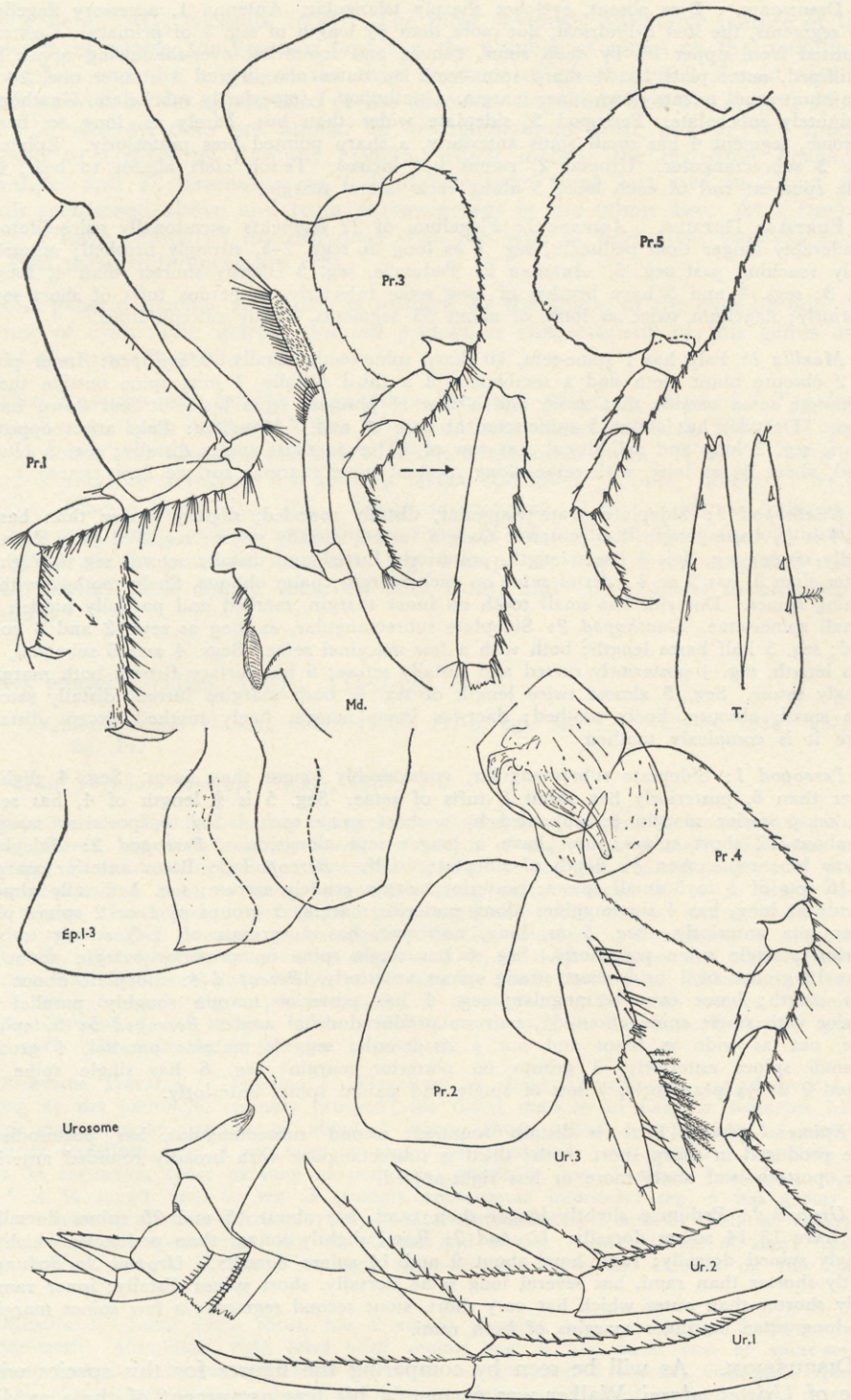
Uristes murrayi (Walker, 1903). (Text-figs. 7-8)

Tryphosa murrayi Walker, 1903: 50-51, Pl. 9, figs. 45-51. Walker, 1907: 16.
Nicholls, 1938: 27-31, fig. 12. Dahl, 1954: 281.

Not *Tryphosa adareï* Walker, 1903: 49-50, Pl. 8, figs. 38-44.



TEXT-FIG. 7.—*Uristes murrayi* (Walker).



TEXT-FIG. 8.—*Uristes murrayi* (Walker).

DIAGNOSIS. Eyes absent, eyelobes sharply triangular. Antenna 1, accessory flagellum of 6 segments, the first cylindrical, not more than $\frac{2}{3}$ length of seg. 1 of primary. Epistome separated from upper lip by deep sinus, convex and somewhat over-shadowing upper lip. Maxilliped, outer plate has 4 sharp spine-teeth on outer margin and 1 stouter one, 24 or more blunt small molars down inner margin. Gnathopod 1 imperfectly subchelate. Gnathopod 2 minutely subchelate. Pereopod 3, sideplate wider than but barely as long as basos. Urosome, segment 4 has small sinus anteriorly, a sharp pointed boss posteriorly. Epimeral plate 3 subrectangular. Uropod 2, ramus not incised. Telson cleft almost to base, has single spine at end of each lobe, 3 along each lateral margin.

FURTHER DETAILS. *Antenna 1:* Flagellum of 22 segments occasionally calceoliferous, considerably longer than peduncle; seg. 1 as long as segs. 2-5, strongly brushed; accessory barely reaching past seg. 3. *Antenna 2:* Peduncle, seg. 5 slightly shorter than 4, longer than 3; segs. 4 and 5 have brushes of long setae inferiorly, numerous tufts of short setae superiorly; flagellum twice as long, of about 33 segments, mostly calceoliferous.

Maxilla 1: Palp has 1 spine-seta, 10 sharp spine-teeth distally. *Maxilliped:* Inner plate has 2 obscure blunt teeth and a semblance of a third distally, 1 long spine outside them, 3 plumose setae outside that again and a row of plumose setae inside it and down inner margin. Dactylos has about 5 spine-setae at base of nail. *Mandible:* Palp arises opposite molars, seg. 2 long and cylindrical, has row of 12 or so short spines distally; seg. 3 blunt-ended, about $\frac{2}{3}$ as long, with setae along most of inner margin; surface finely setose.

Gnathopod 1: Sideplate ovate-triangular, distally rounded, slightly longer than basos. Seg. 4 is $\frac{1}{3}$ basos length, has posterior margin furred, distally setose; seg. 3 slightly shorter, distally setose; seg. 5 is $\frac{1}{2}$ basos length, posteriorly furred and distally setose; seg. 6 slightly shorter than 5, has 3 or 4 tufts of setae on each margin; palm oblique, finely toothed with 2 defining spines. Dactylos has small tooth on inner margin, marked and partially hidden by 3 small spine-setae. *Gnathopod 2:* Sideplate subrectangular, as long as segs. 2 and 3 combined; seg. 3 half basos length; both with a few marginal setae. Segs. 4 and 6 subequal, $\frac{1}{3}$ basos length, seg. 4 posteriorly furred and distally setose; 6 has surface furred, both margins strongly setose. Seg. 5 almost twice length of seg. 6, both margins furred, distally setose. Palm small, obscure, finely toothed; dactylos inner margin finely toothed except distally where it is complexly toothed.

Pereopod 1: Sideplate subrectangular, considerably longer than basos. Seg. 4 slightly longer than 6, posteriorly has about 8 tufts of setae. Seg. 5 is $\frac{3}{4}$ length of 4, has setal tufts on posterior margin accompanied by a short spine each. Seg. 6, posterior margin has about 12 short spines, most have a longer seta alongside. *Pereopod 2:* Sideplate shallow lobe more than $\frac{1}{3}$ depth of sideplate itself. *Pereopod 3:* Basos anterior margin has 16 sets of 1 to 3 small spines; posterior margin crudely serrate; seg. 4 distally almost as wide as long, has 4 single spines along posterior margin, 5 groups of 1 or 2 spines plus longer seta anteriorly. Seg. 5 as long, narrower, has 4 groups of 2-3 strong spines anteriorly, single spine posteriorly. Seg. 6 has single spine on posterior margin about $\frac{3}{4}$, about 10 groups of 1 or 2 short strong spines anteriorly. *Pereopod 4:* Sideplate about $\frac{2}{3}$ basos length; basos ovate-rectangular; seg. 4 has posterior margin roughly parallel to anterior with single spine about $\frac{2}{3}$, pair on produced distal angle. *Pereopod 5:* Sideplate ovate, not as wide as basos and not $\frac{1}{2}$ its length; seg. 4, margins parallel, 4 groups of small spines anteriorly, 3 groups on posterior margin; seg. 6 has single spine at $\frac{1}{3}$ and 2 at $\frac{2}{3}$ posteriorly, 7 sets of single and paired spines anteriorly.

Epimeral plates: First is distally rounded; second subrectangular, has posterodistal angle produced in sharp short tooth; third is subrectangular with broadly rounded anterior angle, posterodistal angle more or less right-angled.

Uropod 1: Peduncle slightly longer than rami, has about 15 and 25 spines dorsally; rami have 13-14 spines dorsally. *Uropod 2:* Rami slightly longer than peduncle, which is strongly spined dorsally; rami have about 9 and 14 spines dorsally. *Uropod 3:* Peduncle slightly shorter than rami, has several long setae dorsally, short spines distally; inner ramus barely shorter than outer which has very short, stout second segment; a few spines marginally, long setae on inner margins of both rami.

DISCUSSION. As will be seen by comparing the figures for this species with those of *Uristes adarei*, Walker was correct in his first assessment of these as distinct species, a view subsequently upheld by later authors (e.g., Chilton, 1912;

Schellenberg, 1931; Nicholls, 1938). The most obviously distinctive feature of this species is, of course, the urosome boss, but the number of spines on the maxilliped outer plate and the length of the third segment of gnathopod 2 should also be noted, as well as the appearance of the accessory flagellum and the uropod spination. *U. murrayi* does not appear to be synonymous with any of the species assigned to *Uristes* by Barnard (1962), which include the erstwhile *Tryphosa barbatipes* and *T. antennipotens*. It differs from these last two in all of the details mentioned above and from *antennipotens* in the telson also. As a further check, I have compared my drawings with the type of *barbatipes* and am satisfied that these differences are real.

The generic placing in *Uristes* is justified by the shape of the eyelobe and the absence of eyes. The sharply pointed eyelobe is characteristic of this genus and not of the true *Tryphosa*.

The drawings are mostly taken from the type which is labelled "*Tryphosa murrayi* n. sp. Tube A. Cape Adare. Voy. Southern Cross. 1902.1.5. 136-7. Type." The eyelobes and urosome are figured from a specimen from "T.43". Uropods 1 and 2 and the mandible are from a larger specimen (28mm) labelled "W.Q. 13.3.03. Flagon Pt. 20 fms 162. *Tryphosa murrayi*. T.63". Minor differences noted in this larger animal were the presence of 17 teeth on the palp of maxilla 1, 4 spines on the posterior margin of seg. 4 in pr. 4; 4 spines on uropod 3 outer ramus instead of 2, longer setae on both rami; and 10 segments to antenna 1 flagellum.

Uristes adarei (Walker, 1903). (Text-figs. 9-10)

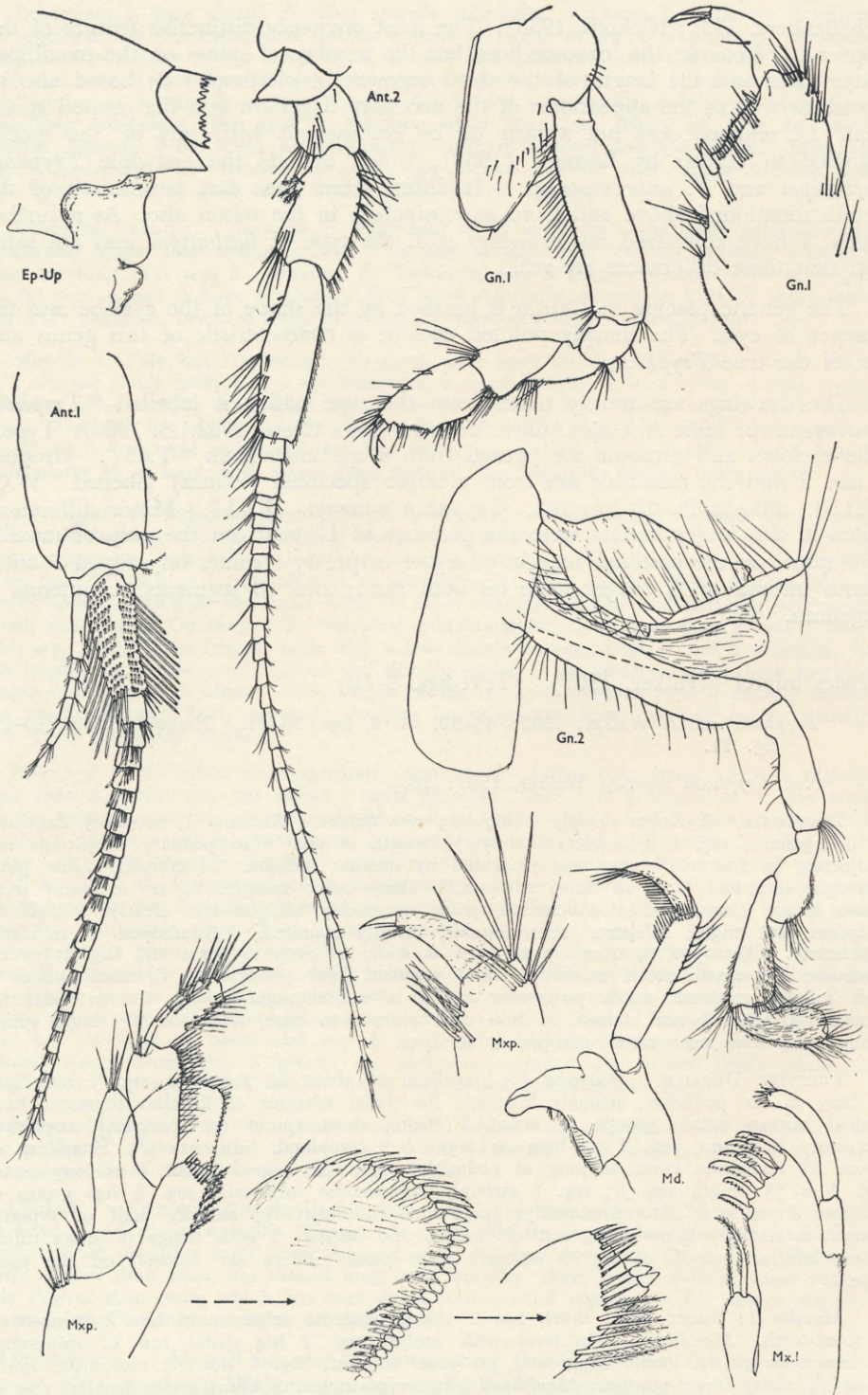
Tryphosa adarei Walker, 1903: 49-50, Pl. 8, figs. 38-44. Nicholls, 1938: 26-27, fig. 11.

Not *Tryphosa murrayi* Walker, 1907: 16.

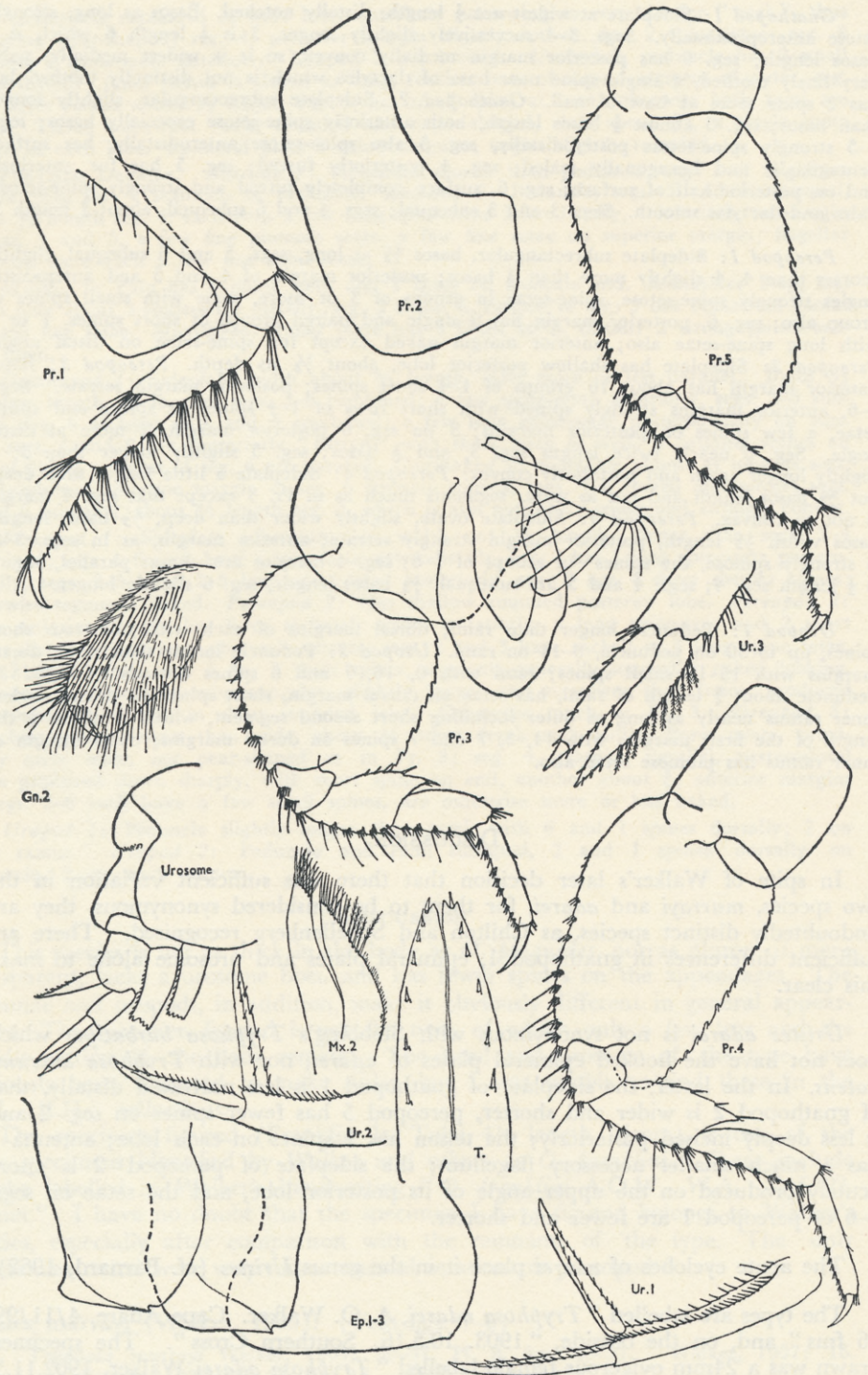
DIAGNOSIS. Eyelobes sharply triangular; eyes absent. Antenna 1, accessory flagellum of 6 segments, seg. 1 cylindrical, barely $\frac{2}{3}$ length of seg. 1 of primary. Epistome not projecting in front of upper lip, separated by distinct incision. Maxilliped, outer plate has spine-seta and 9 or so sharp spine-teeth along outer margin, 20 or so blunt teeth down inner. Gnathopod 1 subchelate, palm noticeably oblique but clearly defined by 2 spines and angle; sideplate subtriangular, distally rounded. Gnathopod 2 minutely subchelate. Pereopod 3, sideplate as deep as wide, as deep as basos and slightly wider. Urosome has small notch medially, small rounded keel posteriorly. Epimeral plates 1 and 2 have recessed notch posterodistally, 3 is subrectangular with convex posterior margin. Uropod 2 not incised. Telson cleft almost to base, has 5 or 6 single spines along each lobe near outer margin, 1 at apex.

FURTHER DETAILS. *Antenna 1:* Flagellum of about 22 segments, seg. 1 over half as long as the peduncle, strongly brushed; the distal margins of flagellar segments have flaccid sensory setae, groups of about 3 strong short spines on proximal segments. Accessory flagellum, seg. 1 as long as segs. 2-4 combined. *Antenna 2:* Flagellum of about 32 segments; twice as long as peduncle; peduncle, seg. 3 about $\frac{1}{2}$ as long as 4, seg. 4 is $\frac{2}{3}$ length seg. 5; seg. 3 strongly spine-setose inferiorly; seg. 4 has group of plumose short setae interproximally; spine-setae inferodistally; anterior half of superior margin is strongly spine-setose, rest of margin and of seg. 5 with fringe of short tufted setae; inferior margin of seg. 5 strongly spine-setose. There are calceoli on the male type.

Maxilla 1: Inner plate short, has 2 strong plumose setae; palp has 2 spine-setae, 6 spine-teeth. *Mandible:* Palp level with molar; seg. 2 has distal row of spine-setae on inner margin, 8 longer spine-setae on outer margin; seg. 3 shorter, crescentic, spine-setae all along inner margin. *Maxilliped:* Inner plate has 3 blunt teeth distally, row of spine-setae from outer angle diagonally across surface and continuous with plumose spine-setae of inner margin. Palp, seg. 3 with both margins strongly setose.



TEXT-FIG. 9.—*Uristes adarei* (Walker).



TEXT-FIG. 10.—*Uristes adarei* (Walker).

Gnathopod 1: Sideplate at widest not $\frac{1}{2}$ length, distally notched. Basos as long, strongly setose anteroproximally. Segs. 3-4 successively slightly longer, 3 is $\frac{1}{2}$ length 6 which is $\frac{1}{2}$ basos length; seg. 6 has posterior margin medially convex, so it is widest medially, palm very finely toothed, a single spine near base of dactylos which is not distinctly toothed but has 2 spine setae at base of nail. *Gnathopod 2*: Sideplate subrectangular, slightly longer than basos; seg. 3 almost $\frac{1}{2}$ basos length, both anteriorly spine-setose especially basos; segs. 3-5 strongly spine-setose posterodistally, seg. 5 also spine-setose anterodistally, has surface pentagonally and hexagonally scaled; seg. 4 posteriorly furred; seg. 5 has fur anteriorly and on posterior half of surface; seg. 6, surface completely furred and strongly spine-setose. Palm and dactylos smooth. Segs. 3 and 5 subequal; segs. 4 and 6 subequal, about $\frac{3}{4}$ length 3.

Pereopod 1: Sideplate subrectangular, basos $\frac{2}{3}$ as long, segs. 5 and 6 subequal, slightly shorter than 4, 4 slightly more than $\frac{1}{2}$ basos; posterior margin of 4 and 5 and anterodistal angles strongly spine-setose, spine-setae in groups of 3 or more, some with small spines in group also; seg. 6, posterior margin has 9 single and paired groups of short spines, 1 or 2 with long spine-setae also; anterior margin naked except for spine-setae on distal angle. *Pereopod 2*: Sideplate has shallow posterior lobe, about $\frac{1}{3}$ its depth. *Pereopod 3*: Basos anterior margin has about 16 groups of 1-4 short spines; posterior margin serrate. Segs. 3-6, anterior margins strongly spined with short rows of 1-4 spines or spines and spine-setae, a few spines on posterior margins; 3 on seg. 6 posterior margin, 2 more at distal angle. Seg. 6 nearly twice length seg. 3, and $\frac{1}{2}$ basos; seg. 5 slightly longer than 3, 4 slightly longer again and posteriorly convex. *Pereopod 4*: Sideplate a little longer than deep, not $\frac{2}{3}$ basos length and not as wide; segments much as in Pr. 3 except that seg. 4 margin is not so convex. *Pereopod 5*: Sideplate ovate, slightly wider than deep, $\frac{2}{3}$ basos length, basos width $\frac{3}{5}$ length, posterior margin strongly serrate; anterior margin, as in segs. 3-6, is strongly spinose, the spines in groups of 1-6; seg. 4 margins are almost parallel, seg. 3 is $\frac{1}{2}$ length seg. 4; segs. 4 and 5 are subequal, $\frac{1}{3}$ basos length; seg. 6 slightly longer.

Uropod 1: Peduncle longer than rami; dorsal margins of each with numerous short spines, up to 30 on peduncle, 8-14 on rami. *Uropod 2*: Peduncle longer than rami, dorsal margins with 15-16 small spines; rami with 0, 16, 7 and 6 spines dorsally. *Uropod 3*: Peduncle about $\frac{3}{4}$ length of rami, has setae on dorsal margin, short spines on dorsal angles; inner ramus nearly as long as outer including short second segment, which is about $\frac{1}{4}$ the length of the first; margins with 14, 3, 7 and 7 spines on dorsal margins; outer margin of inner ramus has plumose setae also.

DISCUSSION

In spite of Walker's later decision that there was sufficient variation in the two species, *murrayi* and *adarei*, for them to be considered synonymous, they are undoubtedly distinct species, as Chilton and Schellenberg recognised. There are sufficient differences in gnathopod 1, epimeral plates and urosome alone to make this clear.

Uristes adarei is not synonymous with Stebbing's *Tryphosa barbatipes* which does not have the hooked epimeral plates of *adarei*, nor with *Tryphosa antennipotens*. In the latter, the sideplate of gnathopod 1 is less narrowed distally, that of gnathopod 2 is wider and shorter, pereopod 5 has fewer spines on seg. 2 and is less deeply incised posteriorly; the telson has 2 spines on each lobe; antenna 1 has a much smaller accessory flagellum; the sideplate of pereopod 2 is more acutely produced on the upper angle of its posterior lobe, and the setae on segs. 4-6 of pereopod 1 are fewer and shorter.

The acute eyelobes of *adarei* place it in the genus *Uristes* (cf. Barnard, 1962).

The types are labelled "*Tryphosa adarei*, A. O. Walker. Cape Adare, 4/11/99, 26 fms" and, on the outside, "1903. 10.5.16. Southern Cross". The specimen drawn was a 24mm ovigerous female labelled "*Tryphosa adarei* Walker, 1902.11.5. Voy. 'Southern Cross.' Cape Adare".

Uristes stebbingi (Walker, 1903). (Text-figs. 11–12)

Hoplonyx stebbingi Walker, 1903: 52, Pl. 9, figs. 52–57.

Tmetonyx stebbingi, Stebbing, 1906: 720.

Not *Tryphosites stebbingi*, Chilton, 1912: 187–8.

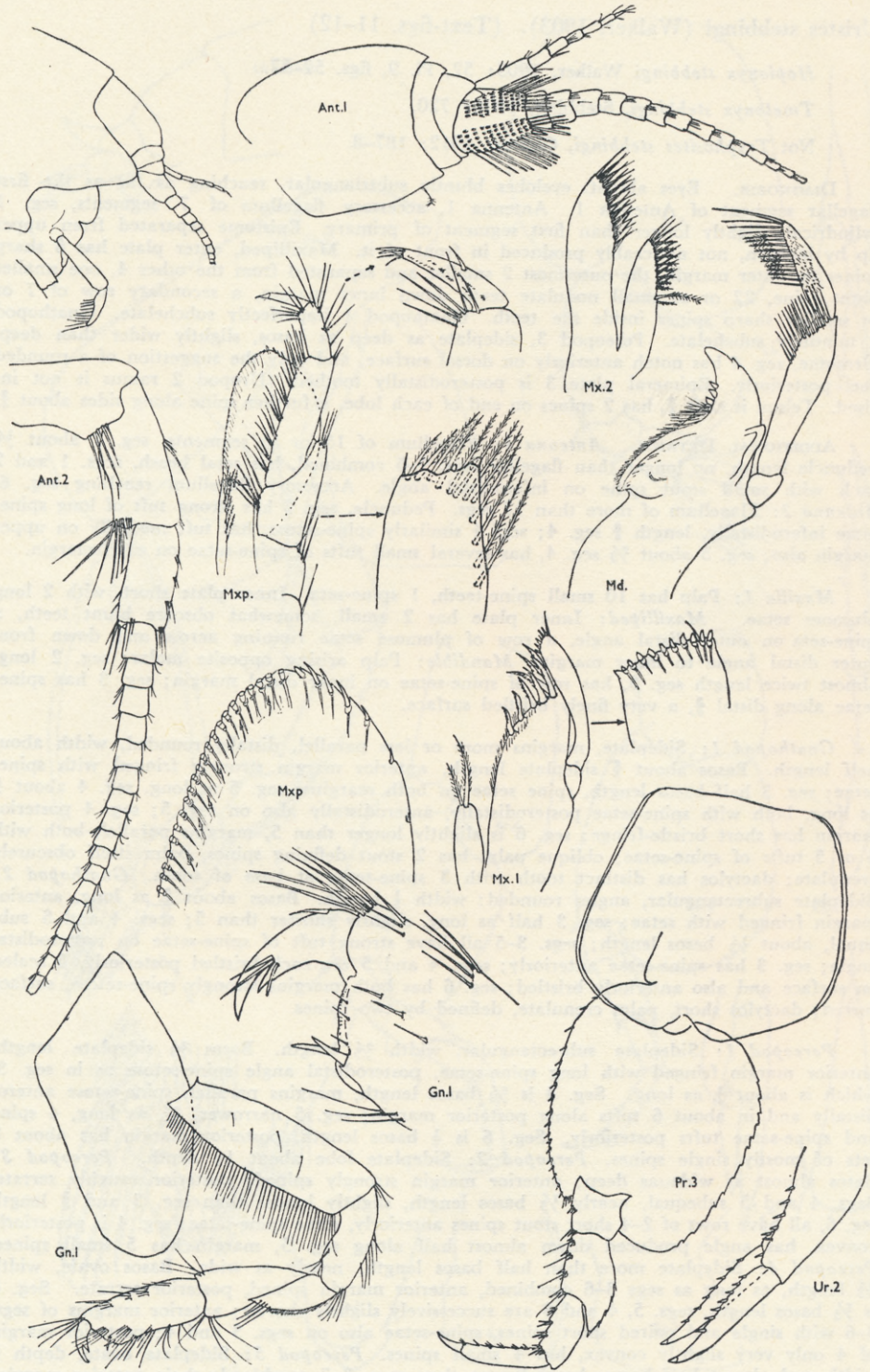
DIAGNOSIS. Eyes absent, eyelobes bluntly subtriangular, reaching as far as the first flagellar segment of Antenna 1. Antenna 1, accessory flagellum of 7 segments, seg. 1 cylindrical, slightly longer than first segment of primary. Epistome separated from upper lip by incision, not noticeably produced in front of it. Maxilliped, outer plate has 6 sharp spines on outer margin, the outermost 2 smaller and separated from the other 4, one smaller blunt spine, 22 or so small nodulate teeth down inner margin, a secondary row of 7 or so smaller sharp spines inside the teeth. Gnathopod 1 imperfectly subchelate. Gnathopod 2 minutely subchelate. Pereopod 3, sideplate as deep as basos, slightly wider than deep. Urosome, seg. 4 has notch anteriorly on dorsal surface, and only the suggestion of a rounded keel posteriorly. Epimeral plate 3 is posterodistally toothed. Uropod 2 ramus is not incised. Telson is cleft $\frac{2}{3}$, has 2 spines on end of each lobe, a further spine along sides about $\frac{1}{4}$.

ADDITIONAL DETAILS. *Antenna 1:* Flagellum of 15 or so segments, seg. 1 about $\frac{1}{3}$ peduncle length, no longer than flagellar segs. 2–5 combined, has setal brush, segs. 1 and 2 each with small stout spine on inferodistal angle. Accessory flagellum reaching seg. 6. *Antenna 2:* Flagellum of more than 17 segs. Peduncle, seg. 3 has strong tuft of long spine-setae inferodistally, length $\frac{2}{3}$ seg. 4; seg. 4 similarly spine-setose, has tuft medially on upper margin also; seg. 5 about $\frac{2}{3}$ seg. 4, has several small tufts of spine-setae on each margin.

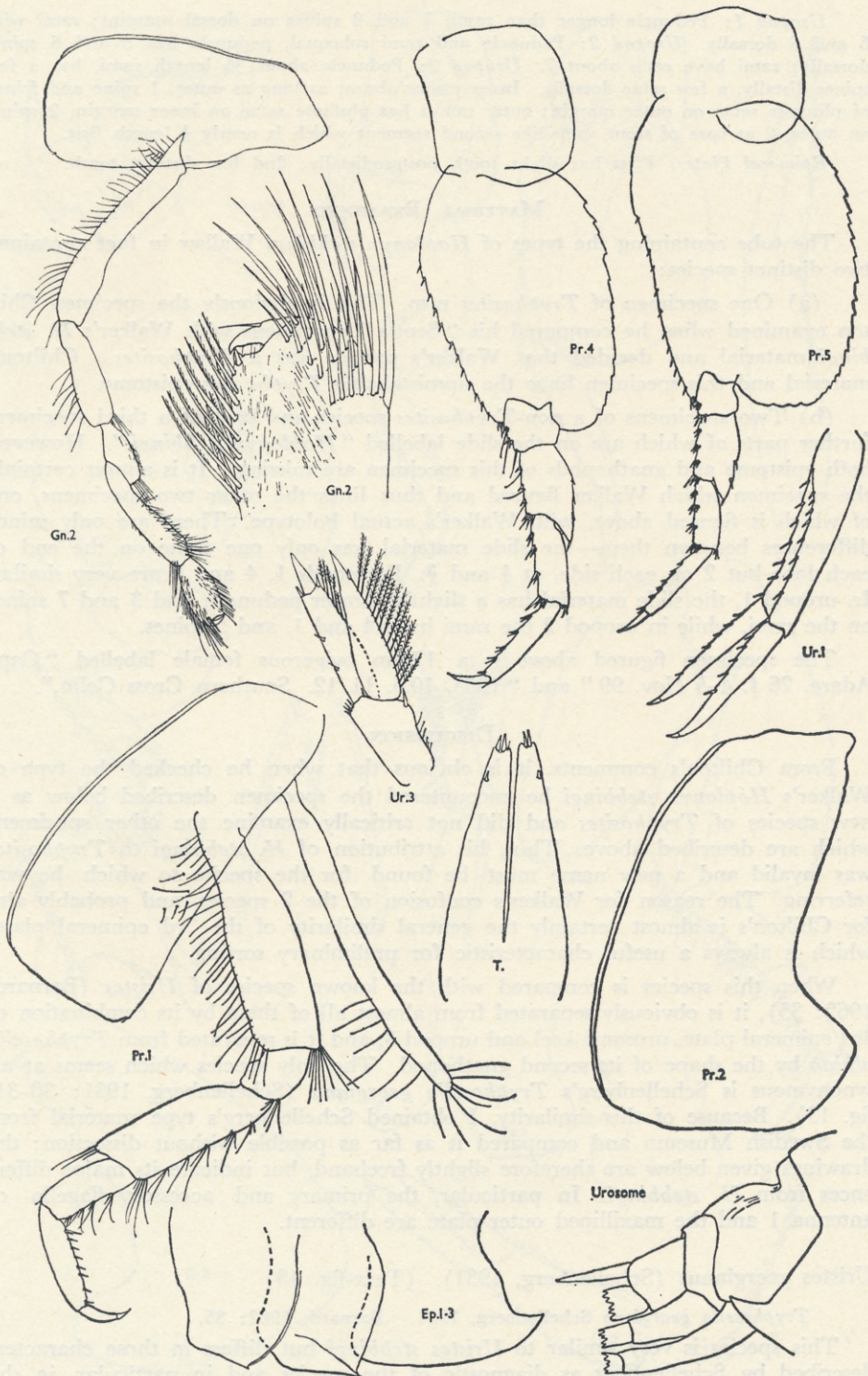
Maxilla 1: Palp has 10 small spine-teeth, 1 spine-seta. Inner plate short, with 2 long plumose setae. *Maxilliped:* Inner plate has 2 small, somewhat obscure blunt teeth, a spine-seta on outer distal angle, a row of plumose setae running across and down from outer distal angle to inner margin. *Mandible:* Palp arising opposite molar; seg. 2 long, almost twice length seg. 3, has row of spine-setae on inner distal margin; seg. 3 has spine-setae along distal $\frac{1}{2}$, a very finely bristled surface.

Gnathopod 1: Sideplate, margins more or less parallel, distally rounded, width about half length. Basos about $\frac{2}{3}$ sideplate length, anterior margin strongly fringed with spine-setae; seg. 3 half basos length, spine setae on both margins; seg. 5 as long, seg. 4 about $\frac{2}{3}$ as long, both with spine-setae posterodistally, anterodistally also on seg. 5; seg. 4 posterior margin has short bristle-fringe; seg. 6 is slightly longer than 5, margins parallel, both with 4 or 5 tufts of spine-setae; oblique palm has 2 stout defining spines, palm itself obscurely crenulate; dactylus has distinct tooth with 3 spine-setae at base of tooth. *Gnathopod 2:* Sideplate subrectangular, angles rounded; width $\frac{1}{2}$ length. Basos about $\frac{2}{3}$ as long, anterior margin fringed with setae; seg. 3 half as long, slightly shorter than 5; segs. 4 and 6 subequal, about $\frac{1}{3}$ basos length; segs. 3–5 all have strong tuft of spine-setae on posterodistal angle; seg. 3 has spine-setae anteriorly; segs. 4 and 5 are each bristled posteriorly, 5 scaled on surface and also anteriorly bristled; seg. 6 has both margins strongly spine-setose, surface furred; dactylus short, palm crenulate, defined by two spines.

Pereopod 1: Sideplate subrectangular, width $\frac{2}{5}$ length. Basos $\frac{2}{3}$ sideplate length, anterior margin fringed with long spine-setae, posterodistal angle spine-setose as in seg. 3, which is about $\frac{1}{2}$ as long. Seg. 4 is $\frac{2}{3}$ basos length, margins parallel, spine-setose anterodistally and in about 6 tufts along posterior margin; seg. 5 narrower, $\frac{2}{5}$ as long, 4 spine and spine-setae tufts posteriorly. Seg. 6 is $\frac{1}{2}$ basos length, posterior margin has about 8 sets of mostly single spines. *Pereopod 2:* Sideplate lobe about $\frac{1}{3}$ depth. *Pereopod 3:* Basos almost as wide as deep; anterior margin strongly spined; posterior roughly serrate. Segs. 4 and 5 subequal, nearly $\frac{1}{3}$ basos length, slightly longer than seg. 3 and $\frac{1}{2}$ length seg. 6, all have rows of 2–4 short stout spines anteriorly, some spine-setae; seg. 4 is posteriorly convex, has angle produced down almost half along seg. 5, margin has 5 small spines. *Pereopod 4:* Sideplate more than half basos length, nearly as wide. Basos ovate, width $\frac{2}{3}$ length, as long as segs 3–6 combined, anterior margin spined, posterior serrate. Seg. 6 is $\frac{1}{3}$ basos length, segs. 5, 4 and 3 are successively slightly shorter; anterior margins of segs. 3–6 with single and paired short spines, spine-setae also on segs. 3 and 4; posterior margin of 4 only very slightly convex, has 4 small spines. *Pereopod 5:* Sideplate ovate, depth $\frac{2}{3}$ width and almost half basos; basos longer than segs. 3–7 combined; their anterior margins strongly spined, posterior margin of 4 has 3 stout short spines.



TEXT-FIG. 11.—*Uristes stebbingi* (Walker).



TEXT-FIG. 12.—*Uristes stebbingi* (Walker).

Uropod 1: Peduncle longer than rami, 7 and 8 spines on dorsal margins; rami with 5 and 6 dorsally. *Uropod 2*: Peduncle and rami subequal, peduncle has 3 and 6 spines dorsally; rami have each about 7. *Uropod 3*: Peduncle about $\frac{2}{3}$ length rami, has a few spines distally, a few setae dorsally. Inner ramus almost as long as outer, 1 spine and fringe of plumose setae on outer margin; outer ramus has plumose setae on inner margin, 2 spines on outer, 2 at base of stout spine-like second segment which is nearly $\frac{1}{2}$ length first.

Epimeral Plates: First has slight tooth posterodistally; 2nd has distinct tooth.

MATERIAL EXAMINED

The tube containing the types of *Hoplonyx stebbingi* Walker in fact contained two distinct species:

(a) One specimen of *Tryphosites* n.sp. This is obviously the specimen Chilton examined when he compared his "Scotia" specimens with Walker's *H. stebbingi* material and decided that Walker's species was a *Tryphosites*. Chilton's material and this specimen have the unmistakable *Tryphosites* epistome.

(b) Two specimens of a non-*Tryphosites* species and part of a third specimen, further parts of which are on the slide labelled "*Hoplonyx stebbingi*". However, both epistome and gnathopods of this specimen are missing. It is almost certainly the specimen which Walker figured and thus links the other two specimens, one of which is figured above, with Walker's actual holotype. There are only minor differences between them—the slide material has only one spine on the end of each lobe but 2 on each side, at $\frac{1}{4}$ and $\frac{3}{4}$. Pereopods 1, 4 and 5 are very similar. In uropod 1, the slide material has a slightly shorter peduncle, and 3 and 7 spines on the rami, while in uropod 2 the rami have 4 and 1, and 5 spines.

The specimen figured above is a 17mm ovigerous female labelled "Cape Adare. 26 f. 4-5 Nov. 99" and "1903. 10.5. 11/12. Southern Cross Colln."

DISCUSSION

From Chilton's comments, it is obvious that when he checked the type of Walker's *Hoplonyx stebbingi* he encountered the specimen described below as a new species of *Tryphosites* and did not critically examine the other specimens which are described above. Thus, his attribution of *H. stebbingi* to *Tryphosites* was invalid and a new name must be found for the species to which he was referring. The reason for Walker's confusion of the 2 species, and probably also for Chilton's is almost certainly the general similarity of the 3rd epimeral plate, which is always a useful characteristic for preliminary sorting.

When this species is compared with the known species of *Uristes* (Barnard, 1962: 35), it is obviously separated from almost all of them by its combination of 3rd epimeral plate, urosome keel and uropod 3, and it is separated from *Tryphosella albina* by the shape of its second gnathopod. The only species which seems at all synonymous is Schellenberg's *Tryphosella georgiana* (Schellenberg, 1931: 30-31, fig. 13). Because of this similarity, I obtained Schellenberg's type material from the Swedish Museum and compared it as far as possible without dissection; the drawings given below are therefore slightly freehand, but indicate its major differences from *U. stebbingi*. In particular, the primary and accessory flagella of antenna 1 and the maxilliped outer plate are different.

Uristes georgianus (Schellenberg, 1931). (Text-fig. 13)

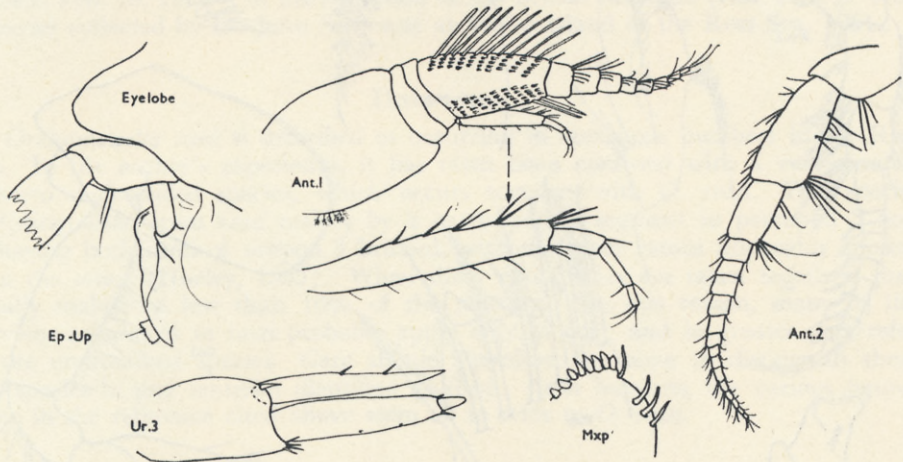
Tryphosella georgiana Schellenberg, 1931. Barnard, 1962: 35.

This species is very similar to *Uristes stebbingi* but differs in those characters described by Schellenberg as diagnostic of the species and in particular, in the following points taken from type material.

Antenna 1: Primary flagellum, first segment as long as seg. 1 of peduncle, spine on superodistal angle; has setal brush; about as long as remaining 8 segments of flagellum. Accessory, first segment cylindrical, as long as seg. 1 of primary, segs. 2-4 short; seg. 1 lower margin has 6 lots of single and paired spine-setae along it, a few spine-setae along upper margin also. *Antenna 2*: Peduncle, segs. 3 and 5 subequal, each about $\frac{2}{3}$ length seg. 4; segs. 3-5 have spine-setae on lower distal angle, spine setae also on both margins of seg. 4 and lower of 5. Flagellum of about 14 segments, as long as segs. 4-5 together.

Maxilliped: Outer plate has row of blunt spine-teeth down inner margin, 1 and 3 longer narrower spines on outer margin.

Uropods: In general, are much less spinous. *Uropod 3*: Peduncle slightly shorter than rami, inner ramus barely longer than first segment of outer, has 2 marginal spines; outer, second segment short, stout, has 2 spines at its base, seg 1 has 2 along outer margin.



TEXT-FIG. 13.—*Uristes georgianus* (Schellenberg).

Tryphosites capadarei n. sp. (Text-figs. 14-15)

Not *Tryphosites stebbingi* (Walker). Chilton 1912: 187-188.

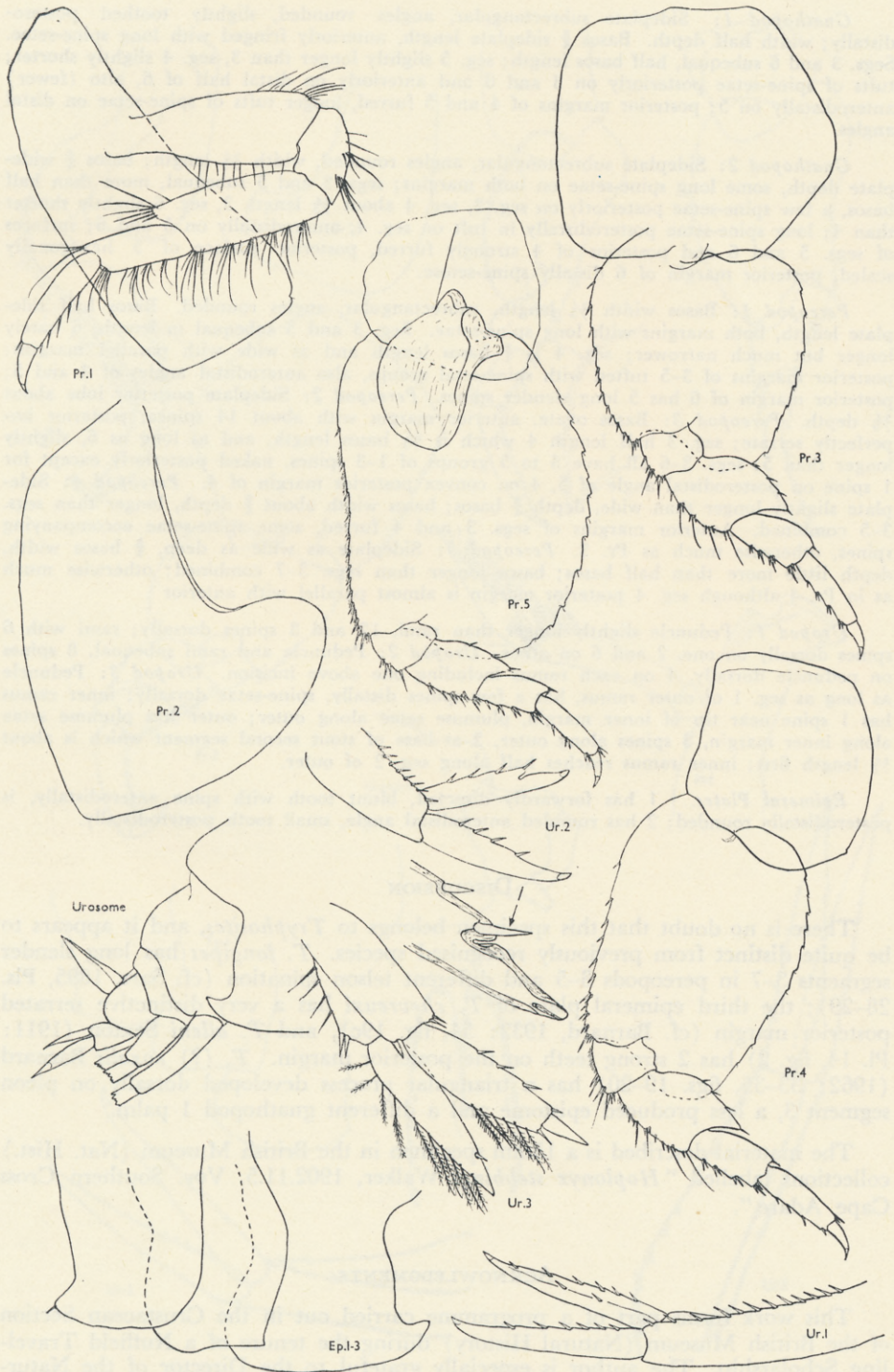
DIAGNOSIS: Eyes absent, eyelobes subtriangular and only reaching half along first segment of antenna 1 peduncle. Antenna 1, accessory flagellum of 5 segments, the first not very much longer than any of the others. Epistome produced in sharp point. Maxilliped, outer plate has 4 long spines on outer margin and a short stouter spine, then 10 nodulate teeth, each on its own individually produced serration down inner margin. Maxilla 1, inner plate has 5 long plumose setae, one very small seta. Gnathopod 1 subchelate, dactylos large, considerably longer than palm; with strong tooth on inner margin, palm itself has 3 strong serrations, 2 defining teeth a little below posterior angle. Gnathopod 2 minutely subchelate. Pereopod 3, sideplate wider than deep, wider than basos; basos as wide as deep, about $\frac{5}{6}$ sideplate depth. Urosome, slight notch on seg. 4 anteriorly, slightly convex posteriorly. Epimeral plate 3 posteriorly hooked. Uropod 2 ramus incised about $\frac{3}{4}$. Telson has 2 or 3 small spines in notch at end of each lobe, is cleft about $\frac{3}{4}$.

FURTHER DETAILS. *Antenna 1*: Flagellum of 13 segments, as long as peduncle; seg. 1 of flagellum as long as segs. 2-5, not $\frac{1}{3}$ the length of seg. 1 of peduncle, lacks strong brush of setae. *Antenna 2*: Peduncle about as long as flagellum, seg. 3 about $\frac{2}{3}$ seg. 4 and slightly longer than seg. 5; all three have long plumose spine-setae inferiorly, 4 and 5 have rows of short spine-setae superiorly. Flagellum, seg. 1 as long as segs. 2-5, about $\frac{2}{3}$ length of seg. 5 of peduncle; proximal flagellar segments have 1 or 2 long plumose spine-setae on inferior angles.

Maxilla 1: Palp, end margin with 9 teeth and 2 spine-setae, teeth showing progression from simple to cusped form. *Maxilliped*: Inner plate, end margin has 3 blunt teeth, one smaller minor tooth on inside margin, row of plumose setae across surface and down inner margin. *Mandible*: Palp arising opposite molar; seg. 3 about $\frac{3}{4}$ length seg. 2 which has row of about 10 spine-setae distally; seg. 3 has bristled surface, about 18 spine-setae along distal $\frac{3}{4}$ of upper margin



TEXT-FIG. 14.—*Tryphosites capadarei* n.sp.



TEXT-FIG. 15.—*Tryphosites capadarei* n.sp.

Gnathopod 1: Sideplate subrectangular, angles rounded, slightly toothed posterodistally; width half depth. Basos $\frac{3}{4}$ sideplate length, anteriorly fringed with long spine-setae. Segs. 3 and 6 subequal, half basos length; seg. 5 slightly longer than 3, seg. 4 slightly shorter; tufts of spine-setae posteriorly on 3 and 6 and anteriorly on distal half of 6, also (fewer) anterodistally on 5; posterior margins of 4 and 5 furred, longer tufts of spine-setae on distal angles.

Gnathopod 2: Sideplate subrectangular, angles rounded, width $\frac{2}{5}$ length; basos $\frac{3}{4}$ wide-plate depth, some long spine-setae on both margins; segs. 3 and 5 subequal, more than half basos, a few spine-setae posteriorly on seg. 3, seg. 4 about $\frac{2}{3}$ length 3, seg. 6 slightly shorter than 4; long spine-setae posterodistally in tuft on seg. 4, anterodistally on 5 and 6; surfaces of segs. 5 and 6 and posterior of 4 strongly furred, posterior surface of 5 hexagonally scaled, posterior margin of 6 distally spine-setose.

Pereopod 1: Basos width $\frac{2}{5}$ length, subrectangular, angles rounded. Basos half side-plate length, both margins with long spine-setae. Seg. 3 and 5 subequal in length, 6 barely longer but much narrower; seg. 4 is $\frac{3}{4}$ basos length and as wide with parallel margins; posterior margins of 3-5 tufted with spine-setal groups, also anterodistal angles of 4 and 5; posterior margin of 6 has 5 long slender spines. *Pereopod 2*: Sideplate posterior lobe about $\frac{2}{5}$ depth. *Pereopod 3*: Basos ovate, anterior margin with about 14 spines; posterior imperfectly serrate; seg. 3 half length 4 which is $\frac{2}{3}$ basos length, and as long as 6, slightly longer than 5; segs. 3-6 all have 3 to 5 groups of 1-3 spines, naked posteriorly except for 1 spine on posterodistal angle of 5, 4 on convex posterior margin of 4. *Pereopod 4*: Sideplate slightly longer than wide, depth $\frac{3}{4}$ basos; basos width about $\frac{3}{4}$ depth, longer than segs. 3-5 combined. Anterior margins of segs. 3 and 4 furred, some spine-setae accompanying spines, otherwise much as Pr. 3. *Pereopod 5*: Sideplate as wide as deep, $\frac{3}{4}$ basos width, depth little more than half basos; basos longer than segs. 3-7 combined; otherwise much as in Pr. 4 although seg. 4 posterior margin is almost parallel with anterior.

Uropod 1: Peduncle slightly longer than rami, 12 and 3 spines dorsally; rami with 6 spines dorsally on one, 2 and 6 on other. *Uropod 2*: Peduncle and rami subequal, 8 spines on peduncle dorsally, 4 on each ramus including one above incision. *Uropod 3*: Peduncle as long as seg. 1 of outer ramus, has a few spines distally, spine-setae dorsally; inner ramus has 1 spine near tip of inner margin, plumose setae along outer; outer has plumose setae along inner margin, 3 spines along outer, 2 at base of stout second segment which is about $\frac{1}{3}$ length first; inner ramus reaches half along seg. 2 of outer.

Epimeral Plates. 1 has forwardly directed, blunt tooth with spine anterodistally, is posterodistally rounded; 2 has rounded anterodistal angle, small tooth posterodistally.

DISCUSSION

There is no doubt that this specimen belongs to *Tryphosites*, and it appears to be quite distinct from previously recognised species. *T. longipes* has long slender segments 3-7 in pereopods 3-5 and different telson spination (cf. Sars, 1895, Pls. 28-29); the third epimeral plate of *T. chevreuxi* has a very distinctive serrated posterior margin (cf. Barnard, 1932: 54, fig. 19c), and *T. allenii* Sexton (1911: Pl. 14, fig. 2) has 2 strong teeth on the posterior margin. *T. (?) coxalis* Barnard (1962: 33-35, figs. 19-20) has a triangular process developed dorsally on pleon segment 3, a less produced epistome and a different gnathopod 1 palm.

The material described is a 15mm specimen in the British Museum (Nat. Hist.) collections labelled "*Hoplonyx stebbingi* Walker, 1902.11.5. Voy. Southern Cross Cape Adare".

ACKNOWLEDGMENTS

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