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A Re-description of *Orchomenella chilensis* (Heller)
(Crustacea Amphipoda: Family Lysianassidae)
From the Original Material Collected by the "Novara"
in Chilean Waters

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Abstract

THE Lysianassid amphipod, *Orchomenella chilensis*, originally described by Heller as *Anonyx chilensis* from material which the Austrian research ship "Novara" collected in Chilean waters in 1857-59, is re-described from the original material.

INTRODUCTION

SINCE the original and somewhat terse description of *Orchomenella chilensis* (Heller, 1865) from Chilean waters, a number of important Antarctic species of Lysianassidae have been referred to it, both as synonyms and as subspecies. In reviewing the status of these Antarctic specimens, it was found necessary to examine the original "Novara" material and, in doing so, the opportunity was taken to re-figure and redescribe the species.

SYSTEMATICS

Family LYSIANASSIDAE

Genus ORCHOMENELLA Sars, 1890

Sars, 1890-95: 66, 683.

Gur'janova, 1962: 151-154 (key to species).

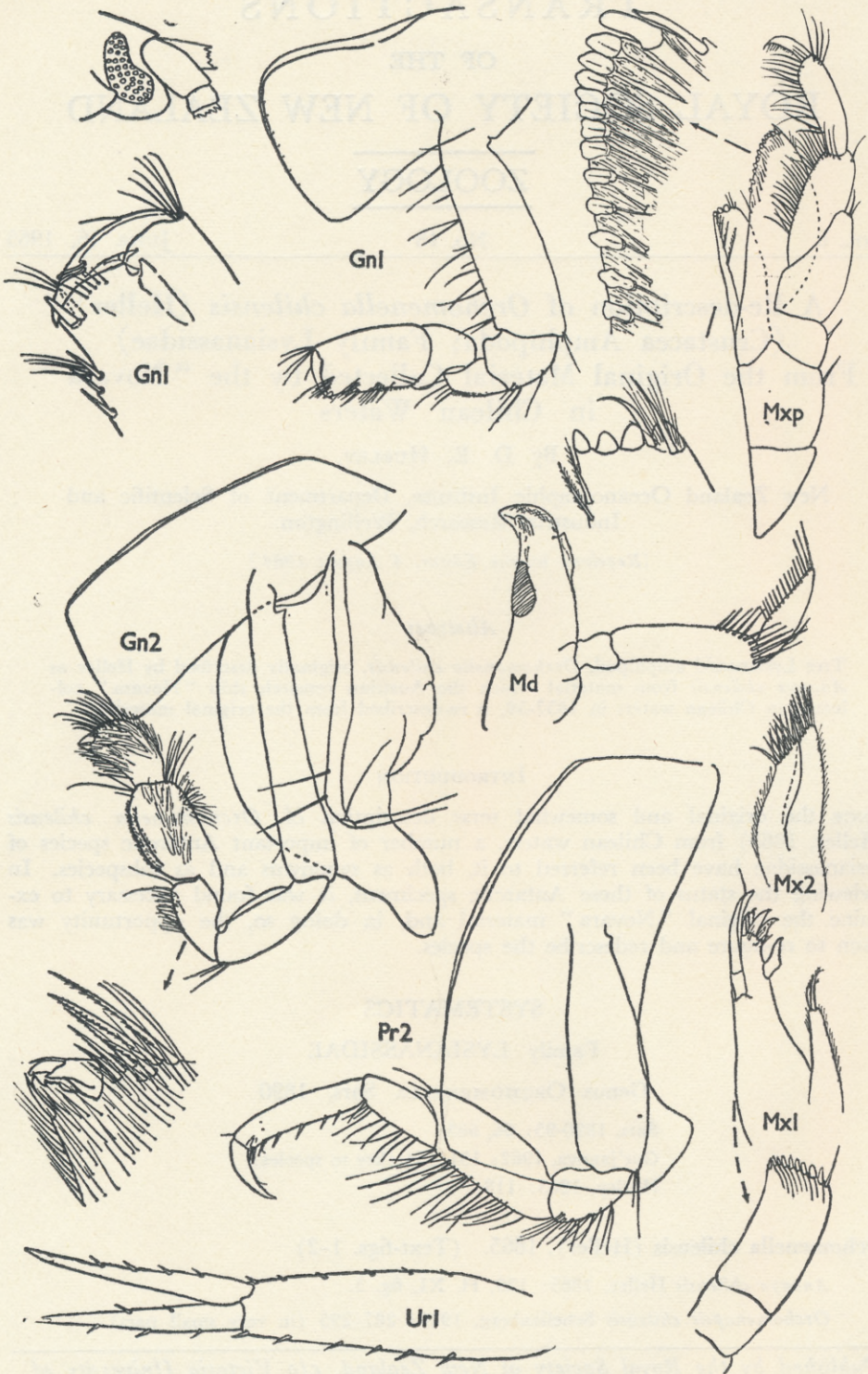
Hurley, 1963: 118.

Orchomenella chilensis (Heller), 1865. (Text-figs. 1-2)

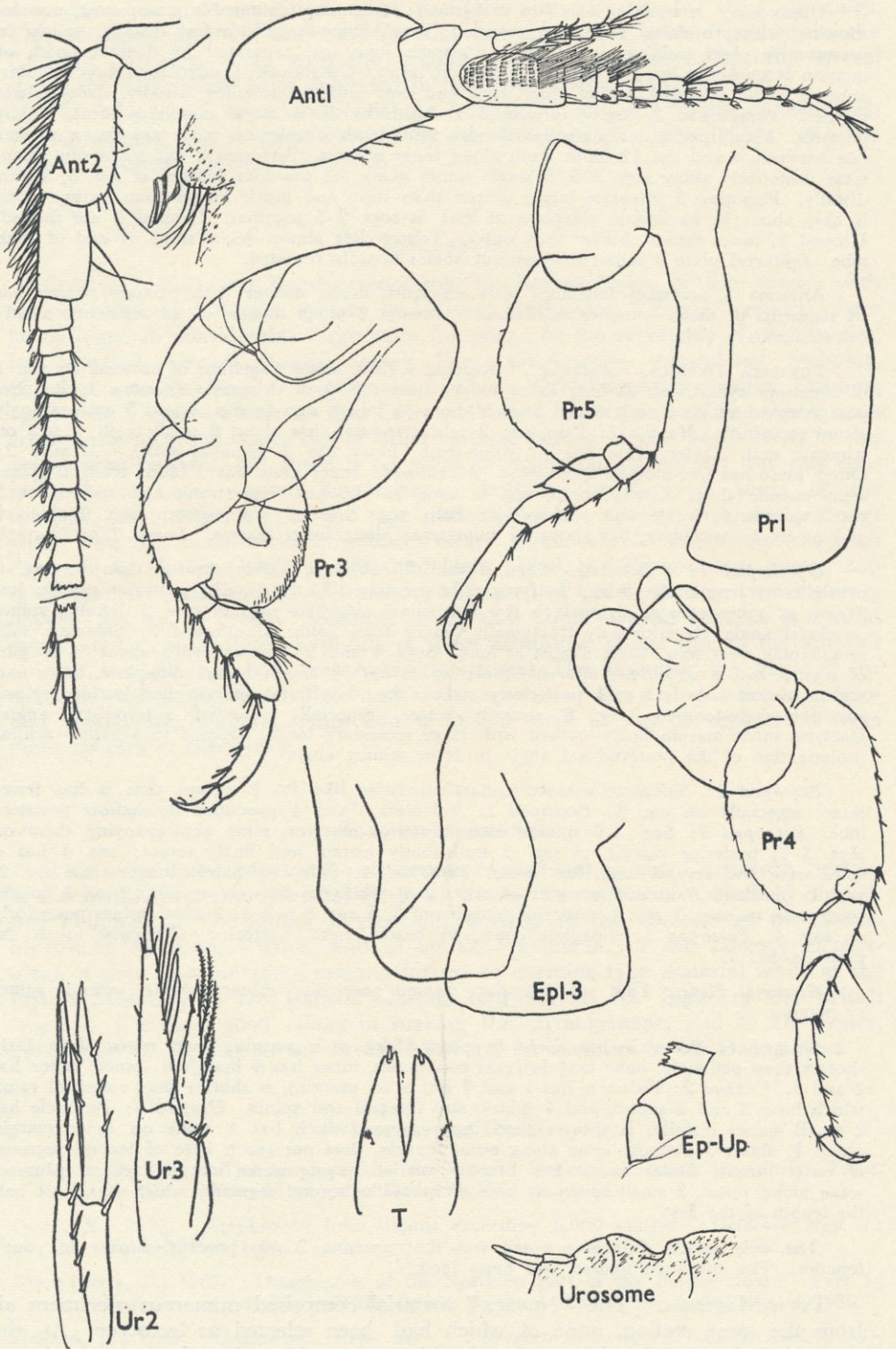
Anonyx chilensis Heller, 1865: 129, Pl. XI, fig. 5.

Orchomenopsis chilensis Schellenberg, 1926: 287-295 (in very small part).

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TEXT-FIG. 1.—*Orchomenella chilensis* (Heller)



TEXT-FIG. 2.—*Orchomenella chilensis* (Heller)

DIAGNOSIS. A small species (up to 6½mm); integument reasonably transparent, muscles showing white; eyelobes wide and rounded; eyes kidney-shaped, widest distally, yellow in preservative; keel small and rounded. Epistome long and separated by distinct notch or incision from upper lip, not projecting beyond latter. Gnathopod 1 sideplate subrectangular, anterior angle rounded, longer than deep and only slightly widening distally, dactylos not toothed. Gnathopod 2, seg. 6 produced in toothlike distal angle matching short, stubby dactylos. Maxilliped outer plate has slender spine-tooth distally on outer margin, a thicker one between it and the 12 blunt teeth along inner margin. Pereopod 2 has numerous spine-setae posteriorly along segs. 3-5, 5 single spines along the posterior margin of seg. 6, a pair distally. Pereopod 3 sideplate large, deeper than wide and much longer than basos, which is only about ⅔ its length, sideplate as long as segs. 2-5 together. Uropod 2 not incised. Uropod 3, inner ramus shorter than outer. Telson cleft almost ⅓, a spine at end of each lobe. Epimeral plate 3 subrectangular but angles broadly rounded.

Antenna 1, accessory flagellum of 4 segments, much shorter than primary, which has 14 segments or more, some calceoliferous. Antenna 2 much longer, of 24 segments, mostly calceoliferous.

FURTHER DETAILS. *Antenna 1:* Reaches a little along flagellum of antenna 2; seg. 1 of accessory cylindrical, as long as or longer than seg. 1 of primary. *Antenna 2:* Reaches past sideplate of Pr. 3; seg. 3 and 5 each about ⅓ length seg. 4; segs. 4 and 5 each strongly setose superiorly. *Maxilla 1:* Palp, seg. 2 subrectangular, has about 9 small teeth, 1 seta on truncate end. Outer plate has 11 spine-teeth, inner has 2 plumose setae. *Maxilla 2:* Outer plate has fine-toothed spine-setae. *Maxilliped:* Inner plate has 3 blunt teeth, 2 spine-setae outside them distally; palp, seg. 4 somewhat hooked, has strong end nail, 4 or 5 small spine-setae inside nail. *Mandible:* Palp, seg. 2 distally spine-setose; seg. 3 about ¾ as long as 2, lanceolate, has about 15 spine-setae along inner margin. *Lower Lip:* Normal.

Gnathopod 1: Subchelate. Segs. 4 and 5 subequal, barely shorter than 3; seg. 6 nearly twice length seg. 5 and half seg. 2, narrowing slightly distally, posterior margin has 3 rows of spine-setae at intervals, a few fine spines alongside median row, 2 defining spines on distal angle; dactylos only fractionally longer than palm. *Gnathopod 2:* Sideplate subrectangular, very long, basos almost as long. Segs. 4 and 6 subequal, each about ⅓ lengths of segs. 3 and 5 which are also subequal; seg. 6 not ⅓ length basos. Sideplate, basos and seg. 3 almost naked; seg. 4 posteriorly setose; seg. 5 anterior margin and surface setose, posterior scale-toothed; seg. 6 strongly setose, especially rounded anterodistal angle. Dactylos inner margin finely-toothed with large secondary tooth, opposed to a rather similar prolongation of the posterodistal angle to form minute chela.

Pereopod 1: Sideplate subrectangular, otherwise like Pr. 2 except that it has fewer setae, especially on seg. 3. *Pereopod 2:* Sideplate distal ¼ produced in shallow posterior lobe. *Pereopod 3:* Seg. 2-6 spinose along anterior margins, setae accompanying them on segs. 3-4; posterior margin of seg. 2 indistinctly serrate and finely setose; seg. 4 has 4 spine-setae and several long, fine setae. *Pereopod 4:* Sideplate barely longer than seg. 2, slightly narrower, anterior margins of segs. 2-6 relatively sparsely spined, 2 or 3 longer spine-setae on segs. 3 and 4, posterior margins of 3, 5 and 6 naked; 2 small spines posteriorly on seg. 4. *Pereopod 5:* Sideplate ovate, ⅓ basos length, narrower. Otherwise much the same as Pr. 4.

Epimeral Plates: First subtriangular; second and third subrectangular, without spines or setae.

Uropod 1: Peduncle has about 6 spines along each margin; rami subequal, a little shorter than peduncle, have long integral end spines, inner has 4 marginal spines; outer has 2 and 3. *Uropod 2:* Peduncle has 1 and 4 spines on margins, is shorter than subequal rami, which have 3 and 2 spines, and 4 spines, also integral end spines. *Uropod 3:* Peduncle has 2 small spines distally, is shorter than inner ramus, which has 1 spine on inner margin about ⅓, about 5 plumose setae along outer margin, does not reach base of second segment of outer ramus. Outer ramus has 1 spine medially along outer margin, several plumose setae along inner, 2 small spines at base of spine-like second segment, which is almost half the length of the first.

The only sexual difference noted was that antenna 2 was possibly shorter in young females. The specimen figured was 6mm long.

TYPE MATERIAL. The "Novara" material comprised numerous specimens all from the same station, none of which had been selected as lectotype. At the request of the Austrian Museum authorities, the author selected out, as lectotype,

a specimen in good condition, other than the one dissected for these drawings. This specimen and the one used for the drawings have been deposited in the Austrian Museum along with the original co-type material, except for several specimens which have been deposited in the British Museum (Nat. Hist.).

The "Novara" material carried the following notation: "Erste oesterreichen Weltumsegelung der Fregatte Novara in den Jahren 1857, 1858, 1959. 'N.201a. *Anonyx chilensis*. Heller Chili.' 391."

DISCUSSION

Chilton (1912) was largely responsible for the confusion of this species with several common Antarctic species in his very misleading "Scotia" report where he indulged in considerable large scale lumping. In the synonymy of this species, he included *Orchomenopsis obtusa* Sars, *Orchomene musculosus* Stebbing, *O. abyssorum* Stebbing, *O. cavimanus* Stebbing, *Orchomenopsis zschauii* Stebbing (part), *O. proxima* Chevreux and *O. rossi* Walker, as well as various other species erroneously recorded under one or other of these names. Little justification for his action now remains, but there is no point in endeavouring to sort out this confusion here. Later workers have already clarified the status of some of the material and comparison of the type drawings of the species with the drawings given here will make other differences clear. *Orchomenella abyssorum* has been discussed by Hurley (1963, p. 126) and Dahl (1959, p. 225) amongst others, and *Orchomenella proxima* and *O. rossi* are discussed or redescribed in contemporary papers (Hurley, in press). Sufficient to say that *Orchomenella chilensis* is a valid species, not to be confused with any of those mentioned above and, in the author's opinion, is unlikely to be a true Antarctic species. The antennae, the shape of the epistome, the shape of sideplate and sixth segment of the first gnathopod, pereopod 3 sideplate, epimeral plates and uropod 3 serve in turn to separate it from other species of the genus.

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