

1866. GRUBE, A. E.

Beiträge zur Kenntniss der istrischen Amphipodenfauna. Archiv für Naturgeschichte. Zwei und dreissigster Jahrgang. Erster Band. Berlin. 1866. pp. 377-417. Taf. ix. x.

Grube explains, to begin with, that he names the seven joints of the leg numerically according to their position, except the seventh, which for brevity he calls the finger (die Klaue). On the first joint his remark is that he reckons "das Basalstück, an welchem die Kieme und das zum Tragen der Eier bestimmte borstenrandige Blatt befestigt ist, und das zwar von der Epimeralplatte aussen überwachsen aber doch von dieser unterscheidbar ist, als 1tes Glied oder Hüftglied." He defines the Amphipoda genuina, the Gammarina, and the two families, Orchestidæ and Gammaridæ.

After discussing "*Orchestia littorea*," and "*Orchestia Montaguï*, Aud.," Taf. ix. fig. 1, with some of their synonyms, Grube gives a definition of *Allorchestes*, Dana, including "Telson simplex vel bipartitum." To this genus he assigns 1. "*Orchestia Perieri*, Lucas," Taf. ix. fig. 2; 2. a new species, "*Allorchestes Helleri*," Taf. ix. fig. 3, which he had previously classed as "*Allorchestes imbricatus*, Spence Bate? juv.," but which is probably *Hyale nilsonii*, Rathke; and 3. a new species, *Allorchestes stylifer*, Taf. ix. fig. 4, "carpo . . satis lato, postice in processum styliformem curvatum exeunte," a peculiarity which, with some other slighter distinctions, separates it, he says, from *Amphithoë* (*Allorchestes*) *prevosti*, Milne-Edwards. He then gives a definition of *Nicea*, Nicolet, including "Telson profunde divisum," and, depending apparently only on comparative lengths of the antennæ for the generic distinction, he assigns his *Amphithoë* (*Hyale*) *istrica* to this genus as *Nicea istrica* ♂, Taf. ix. fig. 5. He describes a new species, *Nicea longicornis*, from a single female specimen, 4 mm. in length, having "antennæ superiores inferioribus paulo longiores et fortiores, usque ad segmentum 5tum pertinentes, articulis 14, 2<sup>da</sup> longitudine 1<sup>mi</sup>, dupla 3<sup>a</sup>." It reminds him of *Calliope*, but for the last uropods, while *Gammarella* and *Crangonyx* are excluded on other accounts. The character of the antennæ at any rate seems little to accord with *Nicea* (*Hyale*), and, as no figure is given, it might be rash to suggest *Pherusa fucicola*, Leach, for this species, on the presumption of some error in Grube's description.

In defining the genus *Lysianassa*, Grube gives "Telson squamiforme integrum vel fissum," and in it describes, 1. *Lysianassa spinicornis*, A. Costa, Taf. ix. fig. 6; 2. ? *Lysianassa loricata*, A. Costa; 3. his own *Lysianassa ciliata*, Taf. ix. fig. 7, which has the "telson oblongum longitudine appendicum pedes bistyli 3<sup>u</sup>, usque ultra medium fissum," and is thereby excluded from the genus *Lysianassa* as generally defined, and from identity with *Lysianassa audouiniana*, Sp. Bate, as proposed by Heller; 4. *Lysianassa humilis*, A. Costa, which in Heller's opinion is probably the same as *Lysianassa costæ*, M.-Edw.; 5. *Lysianassa longicornis*, Lucas, Taf. ix. fig. 8, with remarks on the differences between the two sexes, extending not only to the size and shape and armature of the antennæ, but also to the form of the first gnathopods and of the telson. "Das Telson, dessen Form als charakteristisch für die Species gilt, war hier bei Männchen und Weibchen verschieden gestaltet, bei beiden zwar länglich, oben etwas verschmälert mit geraden Seitenrändern, aber bei jenen ganzrändig und abgerundet bei diesen hingegen länger und scharf und tief eingeschnitten, daher zweispitzig, jede Spitze mit einem Stachelchen besetzt." Though he had specimens with eggs well advanced in development, Grube states that he had sought in vain for the marsupial plates. On the whole I incline to infer that, while assuming to describe the female of *Lysianassa longicornis*, Lucas, he has had before him not only a distinct species, but the species of a distinct genus, probably *Ichnopus taurus*, A. Costa. He figures and describes (seemingly