

from the female only), what he calls "gefiederte Kieme," the branchiæ not simple, but carrying symmetrically arranged supplementary vesicles, an arrangement now known to exist in several species, and already described by Costa in *Ichnopus*. He also draws discriminating characters from the mouth-organs of the three species *longicornis*, (probably the ♀ so-called), *spinicornis* and *ciliata*.

Grube makes *Leptocheirus*, Zaddach, and *Ptilocheirus*, Stimpson, synonyms of *Protomedeia*, Krøyer, in agreement with Spence Bate and other writers, but Boeck places *Leptocheirus*, with *Ptilocheirus* for a synonym, in his subfamily Leptocheirinæ, and *Protomedeia* in the subfamily Microdeutopinæ, the differences being in the maxillipeds, the side-plates, the second gnathopods, and the last uropods. In the Leptocheirinæ, moreover, it is noted that the first joint of the mandibular palp is elongate. Grube describes "*Protomedeia hirsutimana*, Sp. Bate? Taf. x. fig. 2," but in the description of "Taf. x. fig. 2," he calls it "*Protomedeia pilosa* (Zadd.)," having apparently convinced himself of the identity of his own specimen with Zaddach's species. His new species, *Protomedeia guttata*, Taf. x. fig. 3, as well as the old one, must evidently be placed in the genus *Leptocheirus*.

He figures his species *Crangonyx recurvus*, Taf. x. fig. 1, and describes it anew.

Being unacquainted with *Gammarus marinus*, Leach, Grube refers a species, which he had previously called *Gammarus olivii*, M.-Edw., to *Gammarus pæcilurus*, Rathke. He describes *Gammarus gracilis*, Rathke, recognising that it may be only a variety of *Gammarus pæcilurus*. All these *Gammari* are by Boeck accepted under the name *Gammarus marinus*, Leach. Grube concludes this paper with a description of *Gammarus locusta*, Linn.

1866. HELLER, CAMIL.

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Orchestia montagui, Audouin, is given as a distinct species from *Orchestia littorea*, Leach, but *Orchestia constricta*, Costa, is made synonymous with *Orchestia montagui*. The new species described and figured are *Nicea plumicornis*; *Nicea fasciculata*; "*Nicea Bucchichi*," *Nicea nudicornis*; *Nicea macronyx*, which will be *Hyale prevostii*, if Catta is right in identifying it with *Amphithoe prevostii*, M.-Edw.; *Nicea camptonyx*; "*Nicea Schmidtii*," *Nicea rudis*; *Nicea crassipes*; *Probolium megacheles*, which being without mandibular palp must be transferred to Dana's genus *Stenothoe*, and, for the species, is identified by Catta, 1876, with Costa's *Probolium polyprion*; *Lysianassa pilicornis*; *Ichnopus affinis*; *Ichnopus calceolatus*, identified by Boeck with his own *Ichnopus spinicornis*, 1860; "*Anonyx Schmardæ*," in Boeck's opinion, perhaps, together with the next species, belonging to his genus *Ambasia*; *Anonyx filicornis*; "*Anonyx Nardonis*" (at p. 59 by a misprint assigned to Krøyer), said to differ little from *Anonyx nanus*, and by Boeck referred to his genus *Tryphosa*; *Iphimedia carinata*, not figured, and not in my opinion specifically distinct from *Iphimedia obesa*, Rathke, which includes two other synonyms or varieties, *Iphimedia éblanæ*, Sp. Bate, and *Iphimedia multispinis*, Grube; *Eusirus bidens*, already described by Boeck as *Eusirus longipes*; "*Melita Coroninii*," *Mæra integrimana*; "*Mæra Donatoi*," which, like *Mæra grossimanus*, Montagu, and *Mæra Lovéni*, Bruzelius, has the finger of the second gnathopods fringed with hairs on the outer margin; *Amphithoe bicuspis*, a name preoccupied by Krøyer, and the species identical with *Sunamphithoe conformata*, Sp. Bate; from *Sunamphithoe hamulus* Heller himself observes that it is distinguished only by the greater