

1865. HELLER, CAMIL.

Kleine Beiträge zur Kenntniss der Süßwasser-Amphipoden. Mit 1 Tafel: (Taf. 17.) (Aus den Verhandlungen d. k. k. zoologisch-botanischer Gesellschaft in Wien [Jahrgang 1865] besonders abgedruckt.)

The new species *Orchestia cavimana* is here described and figured. It was taken on Mount Olympus in Cyprus, at a height of 4000 feet by Dr. Kotschy. The new species, "*Gammarus Veneris*" was also taken by Dr. Kotschy in Cyprus, 50 feet above the sea. This species is said by Heller to be intermediate between *Gammarus marinus* and *Gammarus pulex*. In "a review of the hitherto known South European fresh-water amphipods," he says that "they all belong to the genus *Gammarus Fabric.*" He arranges them as follows:—

"A. First gnathopod somewhat larger than the second, telson simple, undivided; third uropod with a single ramus. (Subg. *Crangonyx*, Sp. Bate.)

"1. *G. recurvus*.

"AA. First gnathopod not larger than the second, telson deeply split, or double; third uropod with two rami:—

"a. First gnathopod almost as large as the second, eyes rudimentary, the three last segments of the pleon without bundles of spines, the outer ramus of the third uropod bi-articulate. (Subg. *Niphargus*, Sch.).

"2. *G. puteanus*.

"b. First gnathopod smaller than the second, eyes well developed. The three last pleon-segments with bundles of spines, the outer ramus of the third uropod uni-articulate. (Subg. *Gammarus*, Sp. Bate).

"a. The three first pleon-segments prolonged backwards to a pointed spine-tooth.

"3. *G. Roeselii*.

"β. The three first pleon-segments straight behind, without spine-tooth.

"† The outer ramus of the last uropod only a little longer than the inner.

"4. *G. pulex*.

"†† The outer ramus of the last uropod much longer than the inner.

"5. *G. pungens*."

These divisions are founded on 1. *Crangonyx recurvus*, Grube; 2. *Niphargus* (*Gammarus*) *puteanus*, Caspary, with which Heller unites *Niphargus stygius*, Schiödte, and *Niphargus aquilex*, Sp. Bate; 3. *Gammarus roeselii*, Gervais, identified with *Squilla fluviatilis*, Rösel, and *Gammarellus pulex*, Herbst; 4. *Gammarus pulex*, Desmarest, identified with *Gammarus fluviatilis*, M.-Edwards, and 5. *Gammarus pungens*, M.-Edwards. Of this last he says that it closely agrees with his own new species *Gammarus veneris*, only that, according to M.-Edwards' short description, *Gammarus pungens* appears to have the inner ramus of the last uropod quite rudimentary. Of *Gammarus veneris* itself, Heller thus describes the last uropod, "ramus interior pedum sexti paris postabdominis exteriori multo brevior, ramis hirsutissimis." *Gammarus roeselii*, he says, "lebt in tiefen stehenden oder schwach fließenden Gewässern. Ich kenne ihn aus der Umgebung von Salzburg, Wien und Ofen, in Tirol habe ich ihn noch nicht angetroffen."