

characteristic that the three lowest joints of the maxillipeds are expanded, since alike in *Talitrus*, *Orchestia* and *Talorchestia* it is not the first but the second joint of the palp that has an expansion, nor is that one of such a laminar form as to be properly comparable with the plates attached to the two joints below the palp. The remark that the palp is wanting to the first maxillæ also requires qualification, since in *Talitrus locusta*, for example, one is present though rudimentary in size.

In describing *Talitrus locusta* (Taf. 1) Zaddach affirms that there is no trace of a mandibular palp; he says that the function of the mandibular spine-row is obviously to pass on the morsels bitten off by the cutting-edge to the molar tubercle. What is commonly called the under lip should, he thinks, be called the tongue, both from its function and from its answering morphologically to the tongue of many insects. He considers that Linnæus in the description of his *Cancer locusta* in the Fauna suecica could not have intended any other species of Amphipod than this.

In describing the family Gammaridæ, Zaddach maintains that the peduncle of the lower antennæ has but four joints, not admitting the composite character of what he calls the first joint. In the description of *Gammarus locusta* (Taf. 2) he points out that young specimens (Taf. 3) differ from the adults in the size and shape of the eyes, in the number of the joints of the antennary flagella, in the rami of the third uropods, and in the telson. He argues that Linnæus in the Fauna suecica, No. 2041 and No. 2042, by *Cancer pulex*, which gnaws the fishing-nets, meant only *Gammarus locusta*, and by *Cancer locusta* meant only *Talitrus locusta*, since that alone by its leaping, its powerful head and long antennæ, was fit for comparison with a grasshopper or locust. At the same time he considers the name *Gammarus locusta* too firmly established for alteration. He here recognises that the Amphipod in amber, *Palæogammarus sambiensis*, which he described in 1864, may belong to the genus *Gammarus*, or come very near it.

In describing *Melita palmata* (Mont.) Leach, (Taf. 4), Zaddach mentions that the side-plate of the sixth peræon-segment in the female, and not as Boeck states in the male, is prolonged downwards at the front angle and bent upwards into a blunt hook, destined, he thinks, to provide the large claw of the male with a holdfast. (Bruzelius had already, in 1859, rightly ascribed the peculiarity in these side-plates to the female.) *Amphitoe norvegica*, Rathke, he does not consider distinct from *Calliope læviscula* (Krøyer) Bate, which he figures (Taf. 5) and describes.

It may be noticed that in this paper Zaddach accepts the name *Protomedeia pilosa* for the species which he himself in 1844 named *Leptocheirus pilosus*, but Boeck maintains that *Leptocheirus*, Zaddach, is a genus quite distinct from *Protomedeia*, Krøyer.

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p. 525.

In a letter to the editor, dated from Dorf Elenowka am Goktschai, den 26. Juli 1879, Dr. Alexander Brandt reports that in the Goktschai there were swarms of Gammarids, especially on the shore. Those discovered were very uniform, corresponding in size and habit to *Gammarus pulex*. Individuals brought up from a depth of 34 fathoms showed a brighter colouring than those from the upper waters. He remarks that their eyes are not dark or continuously pigmented, but offer only lighter pigment-flakes of a roundish stellate form, so that at first sight he could fancy them destitute of eyes. Have we, he asks, by any chance here to do with a blind variety in statu nascenti?