

1857. VALETTE ST. GEORGE, ADOLPHE JEAN HUBERT, Baron de la, born November 14, 1831 (Valette).

De *Gammaro puteano*. Dissertatio inauguralis. Accedunt duæ tabulæ æri incisæ. Berolini, 1857. pp. 5-16.

The *Gammarus puteanus*, Koch, of this dissertation is referred by Bate and Westwood to *Niphargus aquilex*, Schiødte. La Valette gives numerous measurements of the animal at different ages and in both sexes, as well as of various parts of it. The statement of Hosius that the third joint of the mandible-palp in all *Gammari* ends in an incurved nail will not, he says, apply to *Gammarus puteanus*. He never found more than two articulations in the secondary flagellum of the antennæ. In the very short, leaf-like branch of the third uropods, he could not find the plumose seta described by Caspary, though he found, as Caspary had done, several setæ on the long two-jointed branch. He corrects some oversights committed by Milne-Edwards and Hosius in regard to the telson, and denies the statement of Caspary that the first pereon-segment carries branchiæ, and of Hosius that all the feet but the first are furnished with them, there being in fact only five pairs.

He reckons 12 ganglia in the nerve-chain; refers doubtfully to the cone at the base of the 2d antennæ as subservient to the sense of hearing; describes the organs on the antennæ since known as "calceoli," questioning whether they may be olfactory organs, and remarking by the way that their size increases towards the end of the antennæ, which, however, I may say, is certainly not the case in all Amphipods. He describes the œsophagus, stomach and intestinal canal, mentions the liver-tubes as having been already observed by Siebold and Leydig in *Gammarus pulex*, and further states that the intestinal canal about the beginning of the fourth pleon-segment sends forth two caecal tubes directed forwards. He thinks that these may have a renal function, but cannot decide the question, not having succeeded in obtaining evidence of the presence of uric acid. Together with other anatomical observations he notices that the heart has three pairs of lateral valves for the introduction of the venous blood, situated in the second, third, and fourth pereon-segments. For his priority in this observation, Delage by an oversight has omitted to give him his due credit.

1857. WHITE, ADAM.

A popular history of British Crustacea; comprising a familiar account of their classification and habits. London, 1857.

In the preface White says, "the general arrangement is that of the classical 'Histoire Naturelle des Crustacés,' by Professor Milne-Edwards. Among the *Amphipoda*, I have been chiefly guided by Mr. Spence Bate's synopsis, published in the February number of the 'Annals and Magazine of Natural History.'" Of the "Division EDRIOPHTHALMA, Leach," the two Orders, Amphipoda and Læmodipoda, occupy from page 158 to page 220.

Of *Talitrus locusta* he says, "it is to this species Archdeacon Paley alludes in the 26th chapter of his 'Natural Theology,' as an instance of the abundance of happiness in the lower creatures." The notion appears to be that as children skip when they are in good spirits, the skipping of *Talitri* must be due to mental emotion rather than the structure of their tails. Mr. Halliday's observation, Ent. Mag. iv. 252, is cited, that a small beetle, *Cillenum laterale*, feeds on this sandhopper.

On plate x., which is due to Mr. Spence Bate, there is figured *Orchestia littorea*, var., which Spence Bate subsequently identified both with his own *Orchestia lævis*, and the earlier *Orchestia mediterranea*, Costa.