

one comprehensive article on the group. In 1825 this article, without material alteration, was converted into a separate volume. Its treatment of the Amphipoda may be understood from the note on Desmarest under that date.

1823. FLEMING, JOHN, born 1785, died 1857 (Rev. J. Duns, in Lithology of Edinburgh).

Gleanings of Natural History, gathered on the Coast of Scotland during a voyage in 1821. By the Rev. JOHN FLEMING, D.D., F.R.S.E., M.W.S., &c. In a letter to Professor JAMESON. The Edinburgh Philosophical Journal, &c., from October 1, 1822, to April 1, 1823. Vol. VIII. Edinburgh, 1823. pp. 296-297.

In *Proto pedatus*, Fleming says that he readily distinguished "the four minute appendiculæ of the posterior end, which are figured by Müller, but which Montagu was unable to detect in his specimens." Of Latreille's definition of the genus *Proto*, Leach, he says, "it is true that there are only ten feet, if we exclude the two pairs belonging to the first and last segments of the body; but if these be included, the number of feet should be stated at fourteen. This precision in enumerating the feet becomes the more necessary, since Latreille has added another genus, termed *Leptomera*, to the family CAPRELLADÆ, which, in the character assigned to it, 'Ont quatorze pieds, disposés dans une série continue, depuis la tête jusqu' à l'extrémité postérieure du corps,' would appear to differ only in having four additional feet. But the *Squilla ventricosa* of Müller (Zool. Dan. tab. 56.), referred to as the type of the genus *Leptomera*, possesses the same number of feet as the *Gammarus pedatus* of the same author, referred to as the type of the genus *Proto*. The feet of the first and last segments of the body, however, have been enumerated by Latreille, in the character of his genus *Leptomera*, while they have been excluded from the character of the genus *Proto*. The two genera, in consequence of this arrangement, seem to differ in a character in which they agree." He criticises Lamarck for retaining "dix ou quatorze pattes" as a character of the genus *Leptomera*, of which he made *Proto* a synonym, instead of giving *Proto* the priority. But Fleming himself would retain both genera on new grounds. "In the *Leptomera*," he says, "the tarsi of the second pair of feet only are furnished with a moveable claw; while in *Proto*, all the feet are unguiculated. In the latter genus, the second, third, and fourth pairs of feet have appendages at the base, which are wanting in *Leptomera*. We are not aware that the *Leptomera ventricosa* has ever been detected on the British shores."

Of *Cancer phasma* of Montagu, which he refers to *Caprella*, he says, "it is subject to considerable variation in the number and position of the spines, and the hairiness of the different parts. In the example now before us, the claw and last joint of the first pair of feet were deeply serrated. It is probable that the *Caprella Pennantii* and *acanthifera* of Dr. Leach (Edin. Encyclopædia, vol. vii. p. 404), are merely varieties of this species."

1824. MARTENS, GEORGIO.

Reise nach Venedig. Ulm, 1824.

According to G. D. Nardo, he mentions *Gammarus pulex*, Fab., *Oniscus (Caprella) linearis*, Latr., with many other Crustacea. Zenker, 1832, speaking of the universal distribution of *Gammarus pulex* in the rivers and streams of Europe, adds, "vix tamen in tepidis aut calidis inveniatur aquis, licet Martens (*Reise nach Venedig*. Wien. 1824. II., 197) ipsum in thermis Albanis vivere contenderit, sine dubio *Gammarum Locustam* cum nostro commutans." Zenker had found that *Gammarus pulex* speedily died in warm water, but he had probably not put *Gammarus locusta* to the test.