

ectoderm," he says, "I have termed the 'stomodæum,' and the corresponding passage leading from the anus I similarly propose to call the 'proctodæum.' These three primary factors of the alimentary tract are most equally developed in the Arthropoda and some Mollusca."

In Professor Lankester's Classification the Arthropoda are the "Branch. Gnathopoda" of the "Appendiculata," which "include animals with lateral locomotive appendages, and usually a segmented body," a group, "excepting that it has the addition of the Rotifera, nearly coextensive with the Annulosa" of Huxley's Classification in 1869.

1878. GODET, PAUL.

Note sur le *Gammarus puteanus*. Bullet. de la soc. des Scienc. nat. de Neufchatel. XI. 2. pp. 284-5. 1878.

Gives measurements. See also Note on Godet, 1873, in Appendix.

1879. HALLER, GOTTFRIED OTTO, born May 30, 1853, died May 1, 1886 (Mlle. A. Haller).

Vorläufige Notizen über die Systematik der in Mittelmeer vorkommenden Caprelliden. Zoologischer Anzeiger. II. Jahrgang. Leipzig, 1879. pp. 230-233.

Short descriptions are given of the following species, *Protella major*, n. s., subsequently recognised by Haller as the male of *Protella phasma*, Montagu; *Caprella liparotensis*, n. s.; "*Caprella Helli*," n. s.; "*Caprella Dohrni*," n. s.; *Caprella elongata*, n. s., for which, and for the two preceding, see the next Note; *Caprella antennata*, n. s., identified with *Caprella acanthifera* by Mayer, who notices that Haller himself does not again mention this species; and lastly, "*Podalirius Kröyeri*," n. s.

1879. HALLER, G. O.

Beiträge zur Kenntniss der Læmodipodes filiformes. Mit Tafel XXI.-XXIII. Zeitschrift für wissenschaftliche Zoologie. XXXIII. Band. Leipzig, 1879. pp. 350-422.

Of the genera *Podalirius*, *Proto*, *Protella*, and *Caprella*, Dr. Haller found *Protella* most, *Podalirius* least, suited for his anatomical investigations. His discussion of the nerve-system should be read under the light thrown by Mayer's later investigations. In the section headed "Sinnesorgane," Haller denies the existence of the "trichterförmige Frontalorgan" which Gamroth discovered lying immediately behind the origin of the upper antennæ. But the existence of this frontal- or nuchal-gland is reaffirmed by Mayer. After the discussion of various hairs destined for sensation, Haller gives in his third section, "Einige mikroskopische Beobachtungen über Haargebilde, welche theils zum Ergreifen und Festhalten, theils zum Schwimmen dienen." While, he says, the upper pair of antennæ is "stets und überall Sinnesorgan," and therefore beset with all sorts of hairs for purposes of sensation, the hinder pair does not always agree with it in this purpose. It often loses almost entirely the importance of an organ of sense, and by way of compensation becomes destined to support the organs of locomotion. Hence arise swimming-antennæ, as among the Copepoda. In the genus *Caprella* it is possible to form two subgenera, one with the lower antennæ acting as organs of sense, the other in which they have become swimming organs. In this