

1884. BLANC, HENRI.

Die Amphipoden der Kieler Bucht nebst einer histologischen Darstellung der "Calceoli." Nova Acta der Ksl. Leop.-Carol. Deutschen Akademie der Naturforscher. Band XLVII. N<sup>r</sup>. 2. Mit 5 Tafeln N<sup>r</sup> VI-X. (*Eingegangen bei der Akademie den 25 Juni 1883.*) Halle. 1884.

According to Dr. Blanc the Amphipods of the Bay of Kiel forcibly illustrate the remark of Professor Möbius that the invertebrates of the Baltic are a degraded branch of the rich fauna of the North Atlantic and Arctic oceans.

The introduction discusses briefly the external structure, sexual differences, places of abode and length of life of Amphipods, and assigns their colouring to chromatophores in some species, and oil-drops in others, spread about in the body.

A special account of the "Calceoli" reviews the opinions of earlier writers upon them, describes their structure, and gives a preference to the view that they may be organs of hearing, rather than of clasping or smelling. The occurrence of the apparatus in the females as well as the males is urged against the suggestion that they are organs of clasping. In favour of Dr. Blanc's own view the circumstance is mentioned that the apparatus is met with in species which live in small depths, and that the number of the calceoli is greatest in those species which live on the surface, where enemies threaten most. The parts of the organ in question are the stem, the cup-shaped base with a central opening above carrying a circlet of very fine hairs, and, seated with its broader end in the cup, an ovoid bladder-like structure extremely thin-walled and marked with concentric stripes. Professor Blanc could not discover any termination of a nerve in the Calceolus or connection with the antennary-nerve, but a dark stripe within the stem he considers to be a sensory nerve-mass carrying the circlet of hairs. The so-called Riechzapfen (*bâtonnets hyalins*) he finds on the upper antennæ of both sexes of the Amphipoda, but Hoek's discovery of them on the lower antennæ of *Cheirocratus brevicornis* he is unable to corroborate.

Excellent figures and descriptions are given of the following species, with remarks of value upon them:—*Hyperia galba*, Montagu, found in late summer lodging in *Medusa aurita* and *Cyanea capitata*, commonly free in winter: *Orchestia littorea*, Montagu, with two forms of the male, on which light has since been thrown by Faxon's observations upon *Cambarus*; *Pontoporeia femorata*, Kröyer (with *Pontoporeia affinis*, Lindström, in the synonymy), and *Pontoporeia furcigera*, Bruzelius, which, however, should probably be named respectively *Pontoporeia affinis*, Lindstr., and *Pontoporeia femorata*, Kröyer (see Sars, Oversigt, p. 83, 1882); *Bathyporeia pilosa*, Lindström; *Dexamine spinosa*, Montagu; *Atylus bispinosus*, Sp. Bate, which Boeck calls *Halirages bispinosus*; *Calliopius læviusculus*, Kröyer; *Gammarus locusta*, Linné, found in almost fresh water as well as in salt water everywhere; *Cheirocratus brevicornis*, Hoek, the synonymy of which seems to be *Gammarus sundevallii*, Rathke, *Liljeborgia shetlandica*, Sp. Bate, *Protomedeia whitei*, Sp. Bate, *Liljeborgia normanni*, Stebbing, so that its proper designation is *Cheirocratus sundevallii*, Rathke; "*Amathilla Sabini*," Leach; *Microdeutopus gryllotalpa*, Costa, referred in accordance with Heller to the family Corophidæ, subfamily Podocerinæ; *Amphithoë podoceroïdes*, Rathke; *Podocerus falcatus*, Montagu; *Corophium longicorne*, Fabricius; *Proto ventricosa*, Müller, and lastly *Caprella linearis*, Linné, including therein, in agreement with Hoek and contrary to the view of Mayer, *Caprella hystrix* and *Caprella acuminifera* of Sp. Bate.