

got only a *Scalpellum*, an *Arcturus*, and a spiny Amphipod, which is the corresponding form to the *Gammarus loricatus* of the North. Near Heard Island, in 75 fathoms, we found the same animal and a *Sphæroma*, but no other Crustacea at all." The spiny Amphipod is named in this Report *Acanthechinus tricarinatus*. I have seen no second specimen of this striking species, but as *Iphimedia pulchridentata* was dredged in 75 fathoms near Heard Island, it is probable that on a cursory inspection this species was mistaken for the other.

1877. BATE, C. SPENCE.

Report on the present state of our knowledge of the Crustacea. Part I. On the homologies of the dermal skeleton (*continued*). [*From the Report of the British Association for the Advancement of Science for 1876.*] London, 1877. Plates II. & III. pp. 75-94.

At page 81 Mr. Spence Bate says, "the fact that the supposed side-plates, or epimera, were merely the first joint of the normal legs or appendages has been satisfactorily demonstrated in the *Edriophthalmia*, as far as relates to the somites of the perceion; but hitherto the relation of the side-plates of the pleon to the normal condition of the mobile appendages had not been demonstrated until the structure of the dermal anatomy of the genus *Apseudes* had been made out. [*Hist. Brit. Sessile-eyed Crust.*, vol. ii. p. 146 (*Apseudes*)]; that 'one interesting and, as far as we know, unique feature in these Crustacea yet remains to be noticed. The segments of the pleon have the lateral walls (long known as the epimera of Milne-Edwards, called also the pleura by many authors) existing as articulated appendages, demonstrating two important features in the homologies of these parts: 1st, that they are all really portions of the appendages, being the first joint or coxæ of the pleopod . . . and 2nd, that, since the peduncle consists of three joints, the second branch in the appendages of the pleon, as in other parts, is shown to take place invariably at the extremity of the third joint.'" It seems to me, however, that the force of this argument is weakened or destroyed, by the fact that numerous species of *Apseudes* have now been examined and described by various authors, and in regard to no one of the species has any author followed Mr. Spence Bate in speaking of the epimera of the pleon as articulated.

As a curious fact in comparative carcinology, Mr. Spence Bate observes, that "contrary to a possible condition of all other appendages, the coxal joint of the first pair of antennæ is never absorbed into or fused with the sternal portion or ventral arc of the somite to which it belongs" (p. 85). Numerous allusions to the Amphipoda occur, as might be expected, in different parts of this memoir.

1877. CHATIN, JOANNES.

Recherches pour servir à l'histoire du batonnet optique chez les crustacés et les vers. *Annales des Sciences Naturelles*. Sixième série. Zoologie, Tome V. Paris, 1877.

A list is given of earlier works bearing on the subject. In regard to the *cône*, "cette pièce généralement brillante et réfringente qui surmonte le bâtonnet optique dans les Arthropodes," he says, "La forme du cône est, de tous ses caractères, celui qui présente les variations les plus nombreuses et les plus considérables. Il est en général prismatique chez les *Typton*, *Epimeria*, *Lichomolgus*; ovoïde dans les *Eupagurus*, *Paguristes*, *Caprella*, *Notopterophorus*;