

have been called in question. In a note to p. 41 Professor Sars says that in some males of the genus *Tanais* the eyes are not only pedunculate (pédicellés) but even mobile. This statement, to say the least, requires confirmation. In regard to the apparatus for the circulation of the blood, Delage observes that, while Sars is the first who clearly pointed out the existence of a posterior aorta with definite walls, he reproduces the old mistake of attributing to the heart six, instead of three, pairs of lateral slits (valvules); nor does he recognise the delicate walls which more or less confine the currents of the blood. In regard to the species *Gammarus neglectus*, which Sars describes with so much valuable detail, Fr. Meinert inclines to believe that it should not be separated from *Gammarus pulex*, auctorum, the differences being at best minute, and these capable of being bridged over by intermediate examples. If the species stands, Meinert thinks it should retain the name *Gammarus lacustris*, which Sars gave it in 1863. For altering this Sars gives the insufficient reason that he had met with a casual reference in Nilsson's "Skandinavisk Fauna," tome 4, page 420, to a species named in parenthesis "(*Gammarus neglectus* Lilljeborg)," on which the trout, var. *Salmo punctatus*, fatten in the Scandinavian mountain-tarns. It is certainly an error to suppose, as Sars appears to do on the authority of Hosius, that *Gammarus pulex* is only found in very rapid rivers.

On page 59, under the heading *Organes excréteurs*, Sars observes "Comme organes excréteurs et avant tout urinaires, correspondant aux vaisseaux de Malpighi des insectes, on doit indubitablement considérer les 2 minces appendices cylindriques (pl. 5, fig. 25 p.), qui débouchent en haut dans l'intestin à la naissance du rectum. Placés l'un tout contre l'autre et contre la face dorsale de l'intestin, ces appendices pénètrent profondément, chez les individus adultes, avec leurs bouts obtusément arrondis dans le dernier segment thoracique. . . . On doit sans doute encore faire entrer dans cette catégorie un canal flexueux en forme de fronde, de structure glanduleuse, qui se trouve dans le premier article fortement tuméfié des antennes inférieures et débouche sur la pointe du procès conique que le 2<sup>e</sup> article envoie en bas, la soi-disant épine olfactive." The reader therefore must not be led astray by the references to the "olfactory spines" on page 48, and in the descriptions of pl. iv. fig. 21 and pl. vi. fig. 27. A further safeguard is supplied on page 62, where Professor Sars says, "Le sens *olfactif* ou le sens qui chez les crustacés semble s'en rapprocher le plus, est, comme chez le genre *Mysis*, restreint à la tige extérieure des antennes supérieures; chacune de ses articulations porte généralement au bout, dans le bord supérieur, un appendice cylindrique très petit, correspondant exactement dans sa structure aux papilles appelées olfactives des décapodes." As to the analogy of the urinary organs first mentioned with the Malpighian tubes of insects, see Note on Spencer, 1885.

Of the pleopods Sars figures and describes the peculiar spines and special setæ (à bout bifurqué), which have either escaped the notice of authors in general or not been thought worthy of attention.

The other Amphipods described in this work are *Pallasea cancelloides*, Gerstfeldt, var. *quadri-spinosa*, Esmark; *Gammaracanthus loricatus*, Sabine, var. *lacustris*; *Pontoporeia affinis*, Lindström, said to come very close to *Pontoporeia femorata*, Krøyer.

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A history of the British Sessile-eyed Crustacea, Part XXII. and Part XXIII. December 31, 1868. pp. 497-536, and Introduction, signed (C. S. B.), pp. iii.-lvi. London.

The gnathopods of *Orchestia brevidigitata*, n. s., from Banff are figured and described. The length is given as about eight-twentieths of an inch, the colour a light olive-green. It is