

In the females there is no trace whatever of these penial filaments.

2. Under this head I may briefly review certain outward differences in male and female individuals which are peculiar to one or more species, and of which a fuller description is given below.

In *Serolis convexa* (Pl. VI. fig. 10) and *Serolis gaudichaudii* the second pair of thoracic appendages in the male are furnished with a tuft of pinnate hairs upon the inner side of the antepenultimate joint, and in the male of the former species, at any rate, the sterna of certain of the thoracic segments are provided with patches of similar hairs.

In *Serolis septemcarinata* the epimera of the males bear a row of five or six elongated ridge-like tentacles on the under surface which are entirely wanting in the female.

The females of *Serolis neæra* are distinguished from the males by the far greater development of the frontal "sense organ"¹ (cf. Pl. V. figs. 1, 3), and the epimera themselves show certain differences in the two sexes, being considerably wider in the male, where the anterior margin from the point of junction with the lateral angle of the cephalic shield slopes gradually backwards and outwards to the termination of the epimeron; in the females the anterior margin passes at first directly backwards almost parallel to the longitudinal axis of the body, and then slopes outwards so that in this sex the anterior epimera look as if a piece had been cut out.

Another sexual difference is found in *Serolis gracilis* and *Serolis convexa*, and is mentioned by Audouin and Milne-Edwards as occurring in *Serolis gaudichaudii*.² In these species the terminal thoracic appendages of the males are beset with fine hairs, which are similar in shape to the hairs upon the second thoracic appendages of the males of *Serolis convexa* and *Serolis gaudichaudii*; these same appendages in the females do not differ in any way from the preceding thoracic appendages.

On Pl. II. fig. 6 is figured a single joint from the filament of the second antenna of a male *Serolis schythei*; along the inner margin of the joint are a series of delicate fan-shaped lamellæ which I did not succeed in finding in any female example of this species; it is possible, however, that on account of their extreme delicacy they may have been overlooked.

Alimentary Canal.—The alimentary canal of *Serolis* agrees closely with that of other Isopoda; the point to which I may call special attention is the presence of salivary glands, which I have noticed in *Serolis paradoxa* and *Serolis septemcarinata*. On account of

¹ Grube was the first to point out the presence of a transparent oval area on the first epimera which he imagined might cover some sense organ; Dr. Woodward (*Geol. Mag.*, 1883, p. 21) has compared this structure to certain pores which are to be found in many Trilobites occupying an identical position. I have found that this structure exists in nearly all the species of *Serolis*, generally having the form of a deep and narrow groove surrounded by a specially thickened rim; in *Serolis schythei* and *Serolis cornuta* the structure is precisely as described by Grube in *Serolis paradoxa*, and as in that species there is a pore on the under surface of the epimeron exactly beneath it. In *Serolis antarctica* and others I could discover no trace of it. Concerning the minute anatomy of this "sense organ," I am unfortunately able to say nothing.

² *Loc. cit.*, p. 19.