

much stouter than its endopodite, and forms an "operculum" divided by a transverse suture, which may be at right angles to the longitudinal axis (*Serolis tuberculata*, &c.) or inclined more obliquely to it (*Serolis schythei*, &c.); very commonly (*Serolis neæra*, Pl. V. fig. 11) the endopodite of this appendage is bifid at the tip, the inner branch being prolonged beyond the outer; in most cases, however, the endopodite is entire; the second pair of gills is always smaller than the anterior pair, the exopodite and sometimes the endopodite is divided by a transverse suture which follows the direction of the suture on the exopodite of the first pair of gills. The terminal appendages of the abdomen or "uropoda" are always comparatively small; in *Serolis antarctica* they are extremely minute; these appendages consist of a triangular basal joint attached by the apex to a notch on the lateral margin of the caudal shield, which varies in position in different species, being sometimes at the anterior end of the lateral margin of the caudal shield, sometimes close to its posterior extremity; the inner angle of the protopodite is always longer than the outer, and the endopodite is longer than the exopodite; in *Serolis latifrons* Studer¹ has correctly described the elongated and spine-like endopodite which becomes completely fused with the protopodite, while the exopodite remain very short; the appendage is capable of being flexed at right angles to the body, and its sharp spiniform character doubtless serves as a protection against many foes.

Sexual Characters.—The generative apertures of the male are always situated on the last thoracic segment, on either side of the median ventral line they are always closely approximated, but differ slightly in different species; in some (e.g., *Serolis antarctica*) they are so close together as almost to form a single orifice; in others (*Serolis schythei*, &c.) they are a little further apart.

The female generative apertures are more widely separated from each other than the male generative apertures; they are situated on the antepenultimate thoracic segment, and have the form of an oval slit, while the male generative apertures are invariably circular.

The ova are carried about by the female until the young are fully formed; the immature females have four ovigerous lamellæ (see Pl. V. fig. 4) developed on the second to the fifth thoracic segments inclusive, which are short, oval in shape, and attached close to the attachment of the thoracic limbs. Studer² was the first to point out that these lamellæ become much larger in the mature females with eggs, and overlap each other in the middle line, those on the right generally covering those on the left; this disposition of the ovigerous lamellæ, though general, is not, however, universal; occasionally (e.g., *Serolis convexa*) the arrangement of the lamellæ alternates, the right hand lamellæ of the second segment overlapping that of the left; in the two succeeding segments the left hand lamellæ overlaps the right, and finally the disposition of the lamellæ in the fourth segment is like that in the second. These cases appear, however, to be irregular, and not to be characteristic of different species. When these brood lamellæ are fully developed the sterna

¹ *Archiv f. Naturgesch.*, 1879, *loc. cit.*

² *Loc. cit.*, p. 20.