

ensheathing epithelial cells are tall and granular. Both the wall of the cuticular tube and its lumen rapidly narrow, however, then remain constant throughout most of the length, except that a further very slight reduction in diameter is seen a short distance before the tube ends abruptly in the anterior portion of the organ. The epithelial cells surrounding the greatest length of the spermathecal duct are cubical and obviously secretory (Fig. 9).

The spermatheca might be useful in the systematics of the Dermaptera, but has not been used up to the present. With this possibility in view, an investigation of the organ throughout the group could be of value.

Copulation in *Anisolabis littorea* has been observed to take place at all times of the year and up to 11 months before egg-laying (Giles, 1953). In the course of the work it was found that adult females always had spermatozoa in the spermathecal tube (Fig. 9). The duct was usually filled with quiescent sperms which became active again on gently crushing the spermatheca in 1% saline, the sperms being progressively stimulated to activity as the saline passed along the tube. Nutrition of the sperms is undoubtedly carried on by the activity of the epithelium ensheathing the spermathecal tube. The complete absence of accessory glands of any kind is a noteworthy feature of the reproductive system.

THE GENITAL SEGMENTS

The genital segments of the female of *Anisolabis littorea* are the eighth and ninth, but the terga are considerably reduced and fused to the tenth tergum, forming a narrow band on the anterior edge of the latter (Fig. 2). The eighth and ninth sterna have virtually disappeared and the seventh is modified to the triangular subgenital plate which resembles that of the male but, of course, lacks the manubrium. In the female of *A. littorea* there are no external genitalia but a series of sclerotised patches and free flaps probably represent the vestiges of the ovipositor valves. For the interpretation of the valves it is necessary to consider also the reduced sclerites of the eighth and ninth segments.

The eighth tergum (Fig. 2) is a narrow sclerite terminating on each side in the ventro-lateral region where it is relatively wide. This free edge is deeply concave around the eighth abdominal spiracle. The antecostal suture is submarginal and the antecosta at each side is developed to a large phragma.

The eighth sternum (Fig. 2) is divided into two small triangular plates each of which is situated behind the spiracle. The identity of these sclerites is confirmed by the presence on each of the typical antero-lateral projection of an abdominal sternum.

The ninth tergum is reduced to a very narrow strip and is fused to the eighth in front and the tenth behind (Fig. 2). Ventrolaterally it extends round to the same level as the eighth. A free flap is associated with the line of fusion to both the sclerite in front and that behind, but it has not been possible to tell whether these are parts of the terga or represent the intersegmental membranes. Internally there is a most complex arrangement of ridges representing the vestiges of the antecostae of the fused sclerites and the interior sutural ridges. These series of ridges commonly link up in an apparently indiscriminate manner.

The ninth sternum (Fig. 2) is also divided into two sclerites. Each is a small triangular plate in contact with the eighth sternite in front, the ninth tergum at the side and the tenth tergum behind. A very small process on the anterior margin is comparable with that of a typical sternum.

The membrane behind the subgenital plate (the seventh sternum) forms a sheet which runs, closely applied to the plate, forward to a line between the bases of the lateral processes of the eighth tergum where it is reflected backwards as a wide strip between the edges of the postgenital plates (Fig. 2). The genital chamber opens towards the anterior edge of the latter strip and many structures