

class. Among the Dermaptera, he again considers *A. maritima*, *Hemimerus* spp. and *F. auricularia*. There is considerable difference between the genitalia of *A. maritima*, as described and figured by Snodgrass, and that of *Anisolabis littorea*. Walker (1922) figures the genitalia of *Anisolabis maritima* and of *Forficula auricularia* and briefly discusses the condition of the organ in the Dermaptera. Verhoeff (1902) initiated the study and use of the genitalia as a taxonomic character for Dermaptera. This work was developed and extended by Zacher (1911) who, by using large collections of a wide range of Forficulina, put Verhoeff's ideas into order.

#### *Technique*

Fresh specimens were examined in 1% saline to observe the condition and colour, etc., of the organ in life. However, most dissections were carried out in 70% alcohol. For histology, aqueous Bouin's Fluid or Eltringham's Fixative B (Eltringham, 1930) were used; Ehrlich's haematoxylin counterstained with van Gieson gave satisfactory results.

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#### OUTLINE OF THE STRUCTURE AND RELATIONS OF THE REPRODUCTIVE ORGANS AND GENITALIA

The male reproductive system of *Anisolabis littorea* (Figs. 1, 2) possesses many unusual features. The testes are large and fusiform, lying alongside the hinder end of the midgut. The vasa deferentia are long, slender tubes; each snakes down from the base of the testis to the ventral body wall, where it passes between two of the ventral muscles and then up to join the large median vesicula seminalis. This is ovoid, and with the rest of the system lies beneath the gut but above the manubrium (p. 209).

The common ejaculatory duct emerges from the vesicula posteriorly and, remaining attached to it, runs upwards and then forwards to the dorsal aspect of the vesicula, where it narrows down and bifurcates. The paired ducts, which are slightly inflated distally, are here called the "ejaculatory dilations". These soon become free from the vesicula wall and narrow to their junction with the ejaculatory ducts. Each ductus continues forward as a discrete tube until it passes through a muscle loop attached to the apex of the manubrium and then turns backwards, enters the genital organ, and eventually becomes continuous with the long, slender, sclerotised virga. The two virgae open separately on paired mesal lobes (the penes of systematists). The paired ejaculatory ducts, virgae and penes are asymmetrical. All the reproductive organs are creamy-white in colour.

The genitalia, paired as is typical of the Labiduridae, consist of a median flattened organ which is single basally and double apically (Fig. 1). Each apical portion is composed of a penis which is itself single proximally and double distally. The latter is made up of a mesal lobe traversed by the virga and a lateral lobe. The mesal lobes are always asymmetrical, one passing straight backwards and the other being reflected forwards.

#### THE REPRODUCTIVE ORGANS

##### *The Testes*

The testes are in general fusiform (Fig. 2) but there is some variation between the two testes of an individual as well as in a series of specimens. In fresh material the investing sheath of each testis is richly supplied with tracheae and is lightly