

Cypris of *Lepas*, and which probably correspond to the salivary glands of Cuvier; that they are here as rudimentary and as functionless as the oesophagus and the stomach itself is an argument, though a negative one, in favour of my interpretation.

In some of the sections and preparations I observed globular elements which I think are blood-corpuscles. I have figured some of them (Pl. IV. fig. 7). They have very distinct dark coloured nuclei and their size varies from 0·015 to 0·02 mm.; by their size alone they can be easily distinguished from the nuclei of the connective tissue.

From the condition of the mouth and the alimentary canal there can, I believe, be no doubt that these little animals never take food at all. For this reason it is necessary not only that the whole of the body with its well-developed genital apparatus develops from the yolk-mass in the Cypris-larva, but it must be supposed also that the little body can only furnish so much of the male genital product as may develop from the testis after it has once arrived at its full size and maturity. Probably therefore each male only once, or in one season with short interspaces, takes part in the act of propagation. And as it is highly probable that the species of *Scalpellum*, like most other animals, spawn only once a year, the male which has once furnished its quantum of the male genital product is to be replaced by another. The objection may be made that it is possible that only one part of the spermatozoid mother-cells develops into spermatozooids in one season, and a second part in a following year; but then it is difficult to understand, with our present knowledge of animal life, in what way the little animal is supplied with the material necessary for its maintenance.

The Male Organs.—The testis is heart-shaped with the incision directed towards the hinder or capitular extremity. Its length in some of the specimens was about 0·5 mm., in others, which themselves were longer, no less than 0·8 mm. In the latter case the incision was more than half as long as the organ.¹ This incision is remarkable, I believe, because it is the only sign of the original duplicity of the male genital gland.

The histological structure of the testis presents no points of special interest; the spermatozoid mother-cells have a size of 0·021 mm. and fill up the whole interior of the gland. They split into extremely small transparent cells with a dark coloured little body for a nucleus. These small cells are 0·004 mm. in diameter and I think each of them develops into a spermatozoid. The wall of the testis is built up of connective tissue with nuclei of 0·01 mm. in diameter; the wall of the vesicula seminalis presents about the same structure. It is an irregularly globular vesicle, having in the full-grown and mature males a diameter of 0·3 mm.; it is very closely pressed against the testis.² In younger specimens I did not observe this organ; the vas deferens in them only presented a very small swelling at the place where it communicates with the testis; the

¹ The testis of *Scalpellum darwini* when young does not show an incision; in older specimens, however, traces of an incision are present. Other species (e.g. *Scalpellum tenuis*, Hoek) have the testis triangular with a heart-shaped foot.

² In other species (*Scalpellum tenuis*, *Scalpellum darwini*, &c.) the testis is separated from the vesicula seminalis by means of a duct of not inconsiderable length.