

nine of these segments, which are characterised by having a dorsal and a ventral cirrus of nearly equal size. The tenth shows the large ventral process characteristic of the subsequent segments, though it is more ventral in position, and has not attained the development it afterwards assumes. Minute branchiæ of the usual form appear on the twelfth bristled segment, and slowly increase in size from before backward.

The anterior feet present a dense tuft dorsally and ventrally of the same kind of bristles as in *Scoloplos armiger*, viz., transversely barred forms (Pl. XXIIA. fig. 19), only they are much longer, and it is to be noted that the appearance of such bristles varies considerably according to the adjustment of the focus. Toward the termination of the region (*i.e.*, about the twelfth and thirteenth somites) these bristles have increased considerably in length, though they are much less numerous. A few of the dorsal are extremely elongated, with the transverse markings distinct and wide apart. The latter kind only remain in the ventral tuft of the twentieth foot, and, so far as the examples show, a similar arrangement exists posteriorly.

After the transition of the feet anteriorly is fairly accomplished, we have from above downward, first the tongue-shaped branchia, then the filiform dorsal papilla (which at the twentieth foot is only a little longer than in front), and lastly the double ventral process on the pedicle. In contrast with the foot of *Scoloplos armiger*, there are in the Challenger form much longer bristles, a filiform dorsal cirrus, instead of one dilated above the basal pedicle, and the ventral (double) process is shorter and thicker than in the common species.

The intestine contained a quantity of dark sand.

The body of this species presents in section a decided difference from that of *Scoloplos armiger*, in which the greater part of the area is filled up by muscles. Externally is a thin but firm cuticle, which exactly in the centre ventrally has a linear thickening. The hypoderm has the same proportional depth as in the British form just mentioned, and is also increased in the subneural region. The circular muscular coat is less developed than in the latter species. The longitudinal ventral muscles form in section long flat bands on each side of the nerve-area, and stretch far upward laterally. The dorsal are somewhat less. Both are distinguished from the condition in *Scoloplos armiger* by the absence of the densely interwoven vertical muscles which occupy the entire area with the exception of the limited central alimentary region. The nerve-area is proportionally large and rounded, has the circular layer externally, and is clasped internally between the longitudinal ventral muscles. The region thus contrasts strongly with that in *Scoloplos armiger*, which lies beneath the powerful and nearly horizontal oblique muscles, with the vertical fibres bounding it laterally, and the massive circular layer externally. In the new form, therefore, the muscular environment is less striking. The central space of the body is occupied by large folds of the alimentary canal.