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# Article XXVI.—HAPLOSYLLIS CEPHALATA AS AN ECTOPARASITE.

By Aaron L. Treadwell.

In 1900 Professor A. E. Verrill published a description of *Haplosyllis cephalata* from Bermuda, which agrees in most respects with two specimens collected for the American Museum at Andros, Bahama, by Dahlgren and Mueller in 1908. The only points of difference that I can find between them is that it is the rule rather than the exception that there are two aciculi and two bidentate setæ in each parapodium, and that the bidentate setæ often show two minute terminal teeth instead of a single tip. In these, also, the dorsal cirrus of the third somite is no longer than that of the second, though from here backward there is a noticeable decrease in length of these cirri. The posterior ends of both specimens were too badly preserved to admit of description.

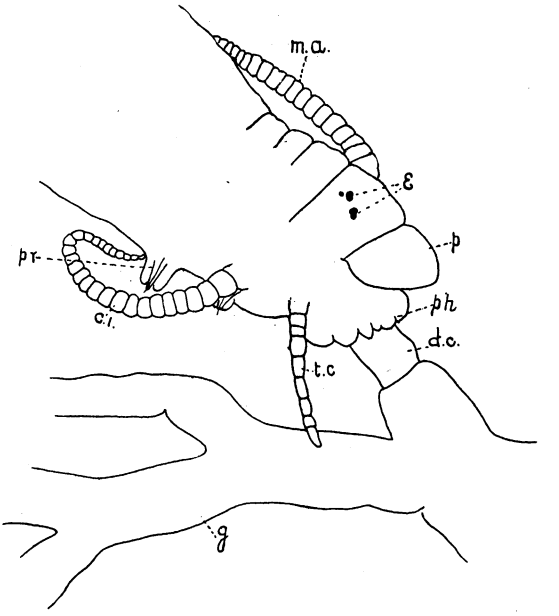


Fig. 1. Anterior end of *Haplosyllis* attached to cirrus of host. × 150. *m. a.*, median antenna; *e*, eye; *p*, palp; *ph*, pharynx; *d.c.*, dorsal cirrus; *t. c.*, tentacular cirrus; *c.i.*, cirrus of 1st somite; *pr*, parapodium; *g*, gill.

The especial interest in these individuals lies in the fact that both were firmly fastened, as external parasites, to the surface of the body of a large Eunicid. This latter was merely a fragment when it reached me, and identification was not possible. One *Haplosyllis* was attached to a ventral, the other to a dorsal, cirrus. In both cases the cirrus was surrounded by the pharynx and œsophagus of the parasite, though the one attached to the ventral cirrus broke away when I attempted to remove the parapodium. The

other retained its hold on the cirrus while the whole parapodium was removed from the body and stained for further study.

The relation of the anterior end of the parasite to the host is shown in Fig. 1. The figure is drawn on a scale which does not admit of representing the entire body of the *Haplosyllis*, but shows the head and anterior somites of the animal with a portion of the gills of the host. The dorsal cirrus is surrounded by the pharynx and œsophagus of the parasite, only about one quarter of the normal length of the cirrus being visible. An optical section of these parts is shown in outline in Fig. 2. Here it is seen that while the

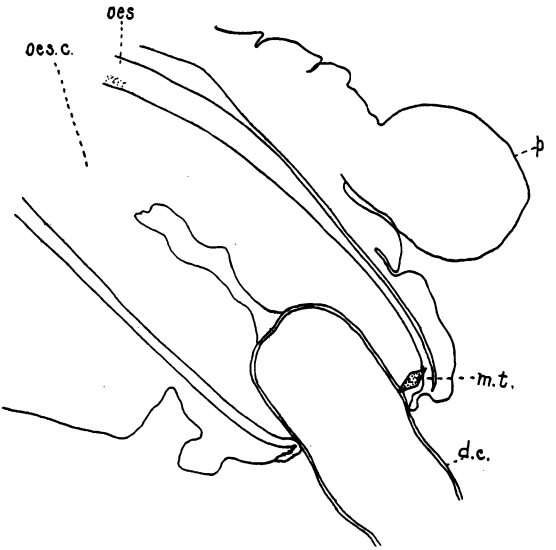


Fig. 2. Optical section of anterior end of *Haplosyllis*. × 250 *oes*, œsophagus wall; *oes.c.*, cavity of œsophagus; *m.t.*, median tooth. Other letters as in Fig. 1.

basal portion of the cirrus retains its form, the distal part has disintegrated and is apparently being digested in the œsophagus of the parasite. Fixation of parasite to host is partly accomplished by the single median tooth, which is imbedded in the wall of the cirrus.

The use of the term parasite in this connection may be criticised, as it may be said that the *Haplosyllis* is merely predatory and not truly parasitic. Inasmuch, however, as the attachment was close enough to survive the somewhat rough treatment incidental to preservation, staining and mounting, it seems to me that the attachment is sufficiently permanent to warrant the use of the term.