

THE LARVA OF *FELTRIA ROMIJNI*

BY

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Larvae of only three species in the genus *Feltria* have been described. That of *F. setigera* was described by WALTER (1922 *a*) and VITZTHUM (1941) and that of *F. minuta* by WALTER (1922 *b*). SCHECHTLA (1910) described the larva of an unknown species in the genus. SPARING (1959) reviewed these descriptions and used larval structure to discuss the relations of the genus.

In a series of papers on the watermites in a small woodland stream near Oxford, England, I have described the life-cycle, parasite : host relationships and ecology of *Feltria romijni* Besseling 1930 (EFFORD, 1962, 1963, 1965 and 1966). In this paper I give a brief description of the larva of the species and show how it differs from the other known species in the genus.

THE LARVA.

The structure of the larva of *Feltria romijni* is shown in Fig. 1. It is quite distinct from the larvae of the other species in the genus in being smaller and having the first epimera fused with the second epimera at the posterior end. In the larvae of *F. minuta* (Fig. 2) and *F. setigera* these epimera are distinctly separated. SCHECHTLA's larva differs from all the others in having all the epimera fused down the midline. *F. minuta* can be distinguished from *setigera* by the distinctly squat shape of the capitulum when viewed from the ventral side (Fig. 2 and VITZTHUM 1941, p. 366 Fig. 2).

Of the four larvae now known only *Feltria romijni* has been clearly associated with the adults of the species. The other larvae were apparently collected in the same streams as adults of species of *Feltria* and assumed to be larvae of that species.

HOSTS.

No host is recorded for SCHECHTLA's species. VITZTHUM (1941) records *F. setigera* on *Orthocladus rivulorum* Kieff. EFFORD (*op. cit.*) showed that in the parti-

cular streams he studied, *F. romijni* was host specific on *Tanytarsus* (*Stempellina*) *flavidulus* Edwards. *F. minuta* was found to be parasitic on the pupa of a chironomid; on the nymph of a stonefly *Protonemura meyeri* Pictet; and on a caddis larva in samples collected in the Wicklow Mountains in Eire. Chironomids emerging from Whelpside Ghyll, a mountain stream in the Lake District of England, were found to be parasitised by this same species of mite (EFFORD 1962, p. 170).

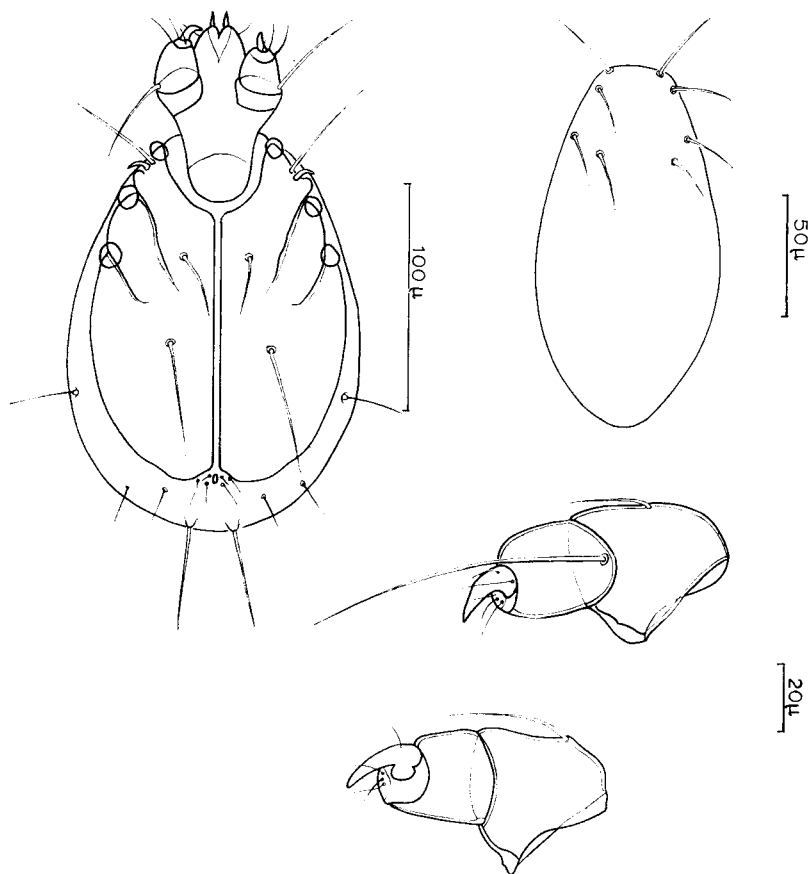


FIG. 1. — The larva of *Feltria romijni* showing ventral side with capitulum, dorsal shield and palps.

These latter chironomids have subsequently been identified by Dr. Harold MUNDIE. The collections were made during June, July, August and September and the mites found were parasitic on the following hosts. *Feltria minuta* on *Microsectra subviridis* Goetgh. and *Orthocladius* (?) *veralli*; *Ljanina bipappillata* on *Orthocladius* (?) *veralli*; *Hydrovolzia placophora* on Empididae (all the larvae in this species were found to be attached to the legs of the host); *Atractides* sp. on *Microsectra subviridis*.

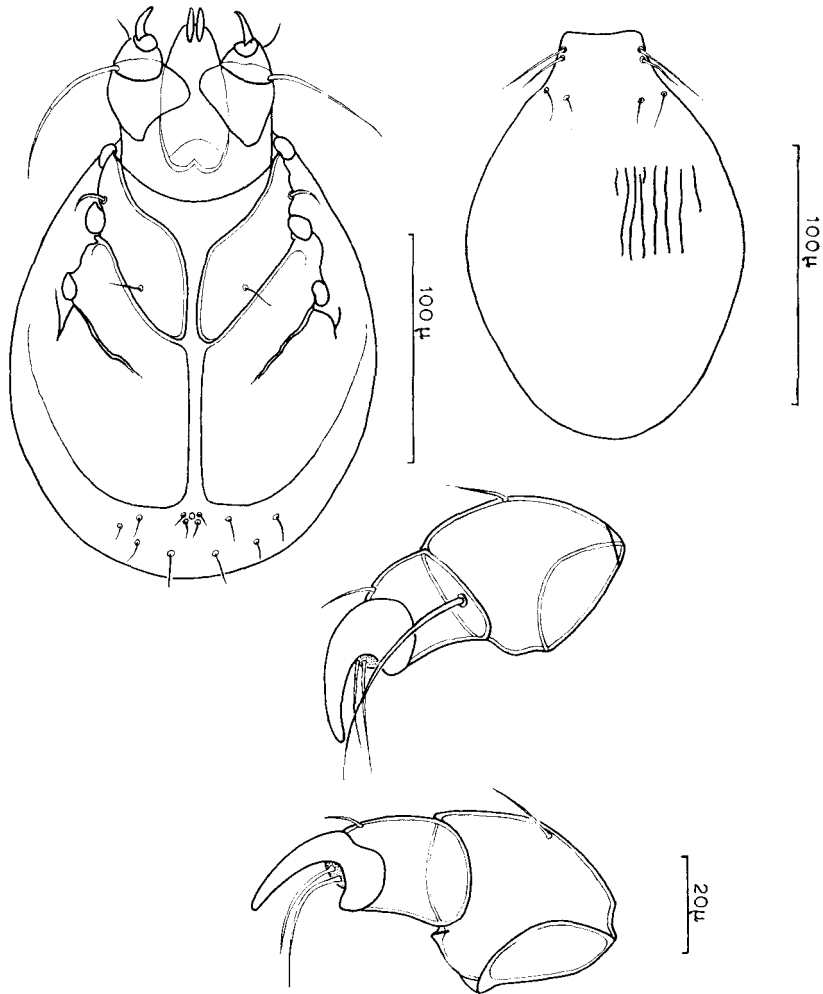


FIG. 2. — The larva of *Feltria minuta* showing ventral side and capitulum, dorsal shield (surface sculpturing illustrated) and palps.

It is clear from the information now available that whilst *F. romijni* is apparently host specific, *F. minuta* parasitises stonefly nymphs, caddis larvae and at least two species of chironomids. This latter species has a wide distribution in North America, Asia and Europe and is common in many regions. I suggested earlier (1962, p. 171) that this success may result to a large extent from its ability to live at low temperatures in springs etc. and from its ability to parasitize a wide range of hosts.

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