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A MITE (ACARI: ERYTHRAEIDAE) AS UNUSUAL PARASITE ON  
AN ADULT CADDISFLY (TRICHOPTERA: HYDROPTILIDAE)  
FROM THE DOMINICAN REPUBLIC (WEST INDIES)

by

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ABSTRACT

BOTOSANEANU, L. & H.R. BOLLAND, 1997. A mite (Acari: Erythraeidae) as unusual parasite on an adult caddisfly (Trichoptera: Hydroptilidae) from the Dominican Republic (West Indies). *Studies Nat. Hist. Caribbean Region* 73, Amsterdam 1997: 71-76.

First known case of a caddisfly (adult *Leucotrichia tubifex* Flint, 1964) parasitized by a mite (larva of *Leptus* sp.) belonging to another group than Hydrachnellae.

Key words: Trichoptera: Hydroptilidae, Acari: Erythraeidae, parasitism, Dominican Republic.

INTRODUCTION

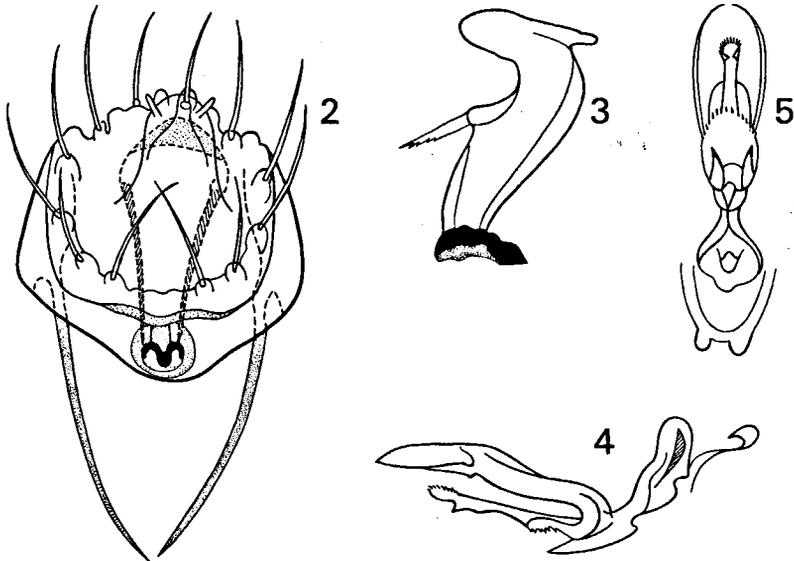
It is a well-known fact that adult caddisflies (Trichoptera) are – like other, mostly amphibiotic, insects – very frequently parasitized by larvae (nymphs) of various Hydrachnellae. For instance, numerous infested – and in some cases heavily infested – specimens belonging to various species of Trichoptera were caught by the first author on several Caribbean islands. But a mite belonging to another group than Hydrachnellae was never found as para-

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FIG. 1. Female *Leucotrichia tubifex* Flint, 1964 parasitized by larva of *Leptus* sp.

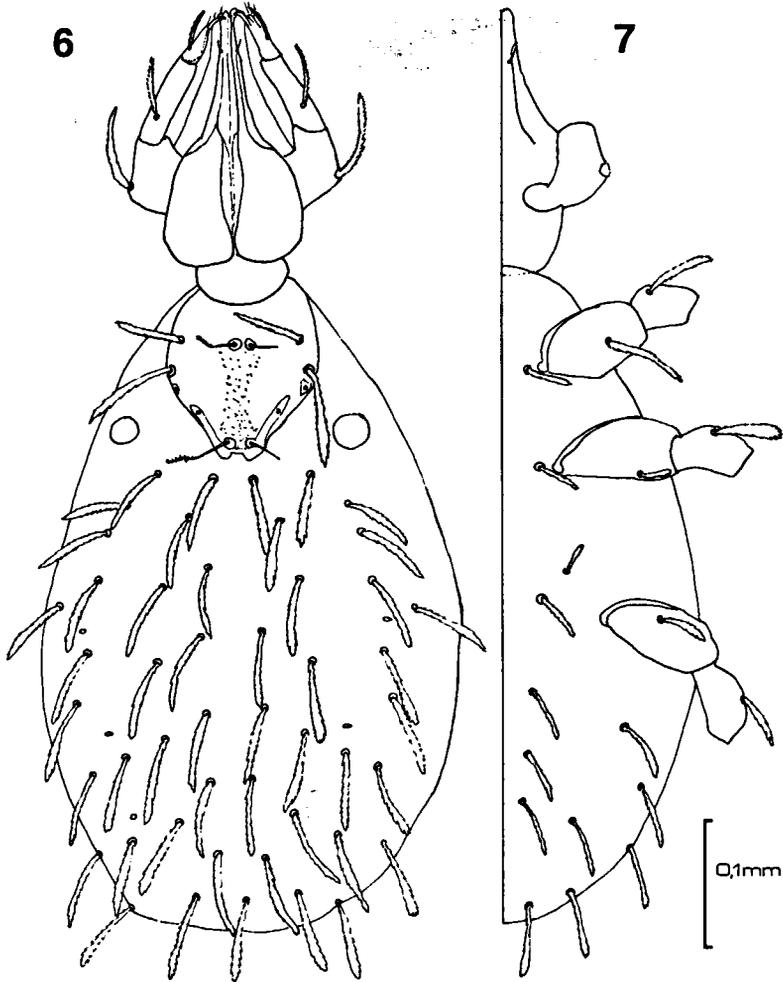


FIGS. 2-5. Female genitalia of *Leucotrichia tubifex* Flint, 1964. 2: segments VIII and beyond, ventral; 3: sclerite of segment VIII, lateral, apodeme broken; 4-5: the internal sclerites, lateral and ventral.

site on a caddisfly. The aim of the present paper is to shortly describe for the first time such a case.

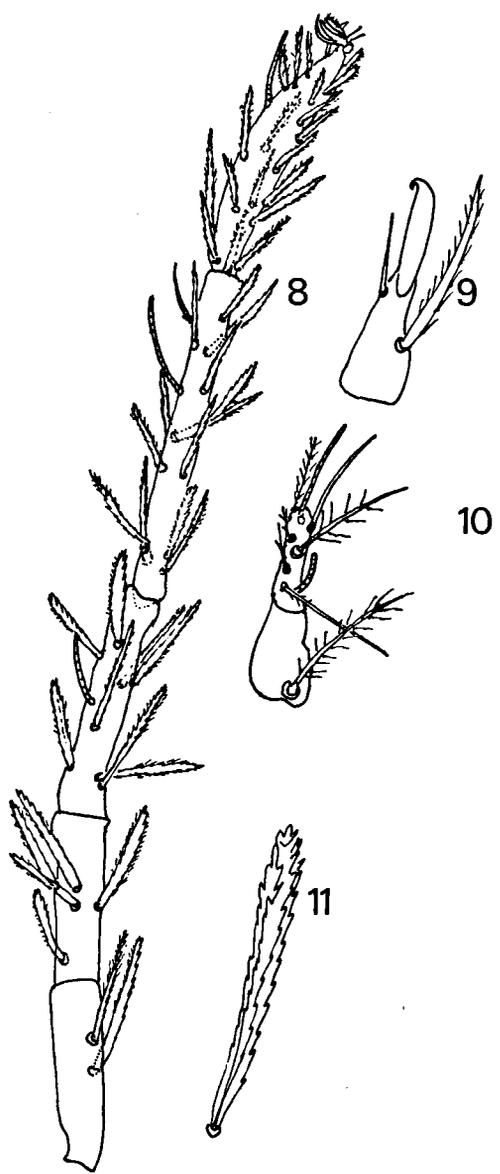
### THE HOST

*Leucotrichia tubifex* Flint, 1964 is a representative of the 'microcaddisfly' family Hydroptilidae, first described from Puerto Rico and subsequently recorded also from Jamaica and Hispaniola (Haiti and the Dominican Republic). In material sampled with an UV-lamp by the first author in this last country (BOTOSANEANU 1995) it was encountered in small numbers in samples from 3 localities in the Cordillera Central. A sample from Rio Yaque del Norte at 'La Cienaga', a short distance W from Jarabacoa – Manavao (25.04.1995) contained also 2 ♀♀, one of them parasitized by a mite obviously not belonging to Hydrachnellae. The parasite is fastened in a rather lugubrious manner (Fig. 1) to the throat of the host, more exactly between its lateral cervical sclerites.



FIGS. 6-7. Larva of *Leptus* sp. 6: dorsal, legs omitted; 7: ventral, left half, legs beyond trochanters omitted.

We take this opportunity for illustrating (Figs. 2-5) the female genitalia of *L. tubifex* with more details than in the original description (FLINT 1964, figs. 11D,E).



FIGS. 8-11. Larva of *Leptus* sp. 8: leg I; 9: palpal tibia, dorsal; 10: palpal tibia and tarsus, ventral; 11: a dorsal idiosomal seta strongly magnified.

## THE PARASITE

The parasitic mite larva belongs to the superfamily Erythraeoidea. It keys out as the genus *Leptus* Latreille, 1796, by having: one pair of eyes, coxal fields II and III with one seta, and the trochantera of legs I and II each with one seta. Because of the palpal genu and femur having one B seta each, the species belongs to group IV according to FAIN (1991); there are about one hundred species known in this group, which will be listed in a paper by A. FAIN (in prep.). WELBOURN (1983) lists 31 species of *Leptus* with their hosts. The papers quoted above as well as other relevant publications record no LEPTUS species as parasitic on Trichoptera, and none was found in the Dominican Republic.

An illustration is here given (Figs. 6-11) for this *Leptus* sp. larva.

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