

A louse and a mite: accident or opportunity?

YOSHIKA ONIKI¹

With 1 figure

Summary

On *Trochiloecetes* sp. (Ricinidae, Amblycera, Phthiraptera, Insecta) embedded durably in Canada balsam and collected off a Purple-crowned Fairy *Heliiothryx barrotti* (Trochilidae) dates from Colombia, a feather mite probably from the family Epidermoptidae, was found fastened on the coxa of the right hind leg. The find is illustrated and discussed briefly.

Zusammenfassung

Eine Milbe auf einem Federling: Zufall oder Gelegenheit?

Auf einem in Kanadabalsam dauerhaft eingebetteten *Trochiloecetes* sp. (Ricinidae, Amblycera, Phthiraptera, Insecta) der von einem Purpurkron-Schmuckkolibri *Heliiothryx barrotti* aus Kolumbien stammt, fand sich an der Hüfte des rechten Hinterbeins eine nicht näher bestimmte Federmilbe aus der Familie Epidermoptidae angeheftet. Der Fund wird illustriert und kurz diskutiert.

Keywords: Colombia, mite (Epidermoptidae), feather louse (*Trochiloecetes*), »phoresy«.

While studying the lice collection of the Smithsonian Institution in June–August 2002, I came across a slide with a permanent mount in Canada balsam of a louse *Trochiloecetes* (Ricinidae, Amblycera, Phthiraptera, Insecta) collected by M. CARRIKER, Jr., in which a mite had been caught on the left hind leg. The host was a Colombian hummingbird, Purple-crowned Fairy *Heliiothryx barrotti* (Trochilidae). A picture was sent to RON OCHOA (USDA, Washington, D. C.) for identification of the mite, who in turn sent it to BARRY M. O'CONNOR (University of Michigan), and a discussion of the matter followed because Yo had thought that the mite had been caught while the louse was moving. Another possibility was that the mite had been eaten by the louse as previously observed in a *Myrsidea* sp. that ate a springtail (ONIKI & BUTLER 1989).* OCHOA suggested that since this mite makes holes in the calamus of feathers to burrow into the shaft, there was a possibility that it tried to make a hole and burrow underneath the leg of the *Trochiloecetes*. If this was the case, a phenomenon called thanatochresis (PÉREZ & ATYEO 1984), we have to assume that the louse was dead. Both mite and louse were intact, in very good condition. The strong forelegs of the mite and the long legs on the third pair (Figure 1) led O'CONNOR to comment that

looking at the picture »the only group with short legs I ending in a claw like point is the Epidermoptidae.«

Due to the fact this is an exceptional case, it is difficult to predict what really occurred, but the possibilities can be listed here for future studies and observations:

1. that the mite was caught accidentally between the legs of the louse while the latter was moving.
2. that the mite attached itself to the louse to be transported to other parts of the host's body.

However, *Trochiloecetes* is a sedentary louse with strong legs and moves about slowly to lay eggs or to flee when the researcher is trying to capture it with a forceps. Most of the time it stays attached to the base of the feather's shaft next to an egg. I tend to opt for the second possibility: that the mite attached itself to the louse, especially near or below the legs and was transported around. However, we have to consider that *Trochiloecetes* does not move a lot, so it is easy to attach to it, but the mite also does not move a lot, because it is quite localized in specific areas of the bird body.

* This possibility seems very improbable in the face both of the piercing mouth-parts of *Trochiloecetes* and the good condition of the mite. Editorial note.

Acknowledgements: Yo had a short-term visitor grant of the Smithsonian Institution to study hummingbirds and lice in the collections. She appreciates help from NANCY ADAMS and her technician for making the lice collection available for study. She also appreciates help from KAROLYN DARROW for taking pictures of this and other lice in the collection and with logistics in general, and RON OCHOA and BARRY M. O'CONNOR for trying to identify the mite. Publication no. 42 of the Institute for Studies of Nature.

Literature

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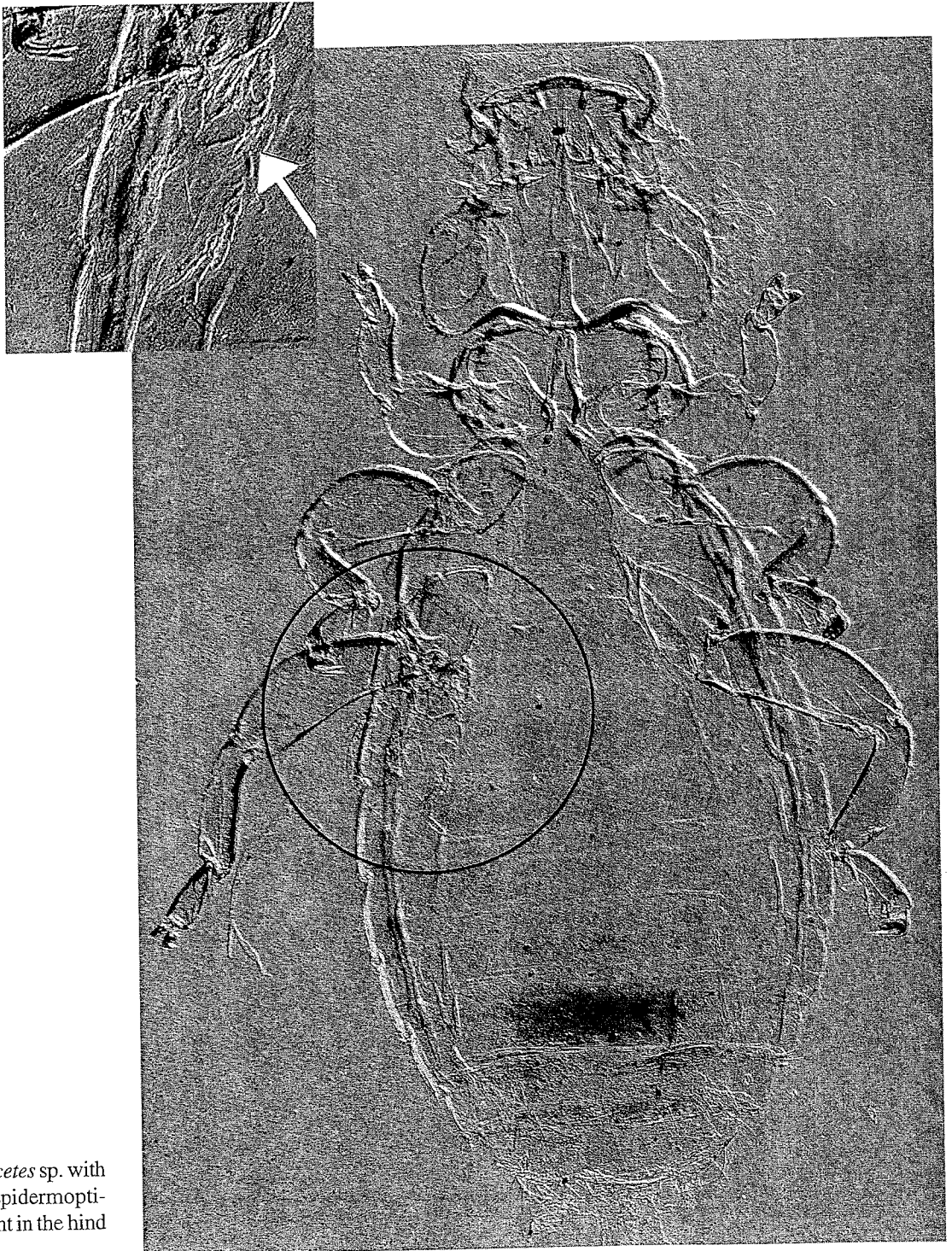


Figure 1.
Trochiloecetes sp. with
a mite (Epidermopti-
dae) caught in the hind
left coxa.