

Article

A new genus and species, *Simalurapolipus hiraii* (Acari: Heterostigmatina: Podapolipidae) parasitic on *Simalura coerulea* (Coleoptera: Tenebrionidae) in Japan

KAZUYOSHI KUROSA¹ & ROBERT W. HUSBAND²

¹Nishi-Ikebukuro 5-21-15, Tokyo 171-0021, Japan, e-mail: CQW35713@nifty.com

²Biology Department, Adrian College, Adrian, MI 49221 USA, e-mail: husbandadrian@aol.com

Abstract

Simalurapolipus hiraii n. gen., n. sp. (Acari: Podapolipidae) collected in Shizuoka Prefecture, Japan is described from *Simalura coerulea* (Lewis) (Coleoptera: Tenebrionidae) and compared with *Tenebrapolipus ceropriae* Kurosa and Husband, 2001 from *Ceropria induta* (Wiedemann, 1819) and *T. imasakai* Kurosa and Husband, 2001 from *Ceropria laticollis* Fairmaire, 1903 collected in Japan. The unusual occurrence of many larval females of the species on the host body surface is reported.

Key words: Acari, Podapolipidae, *Simalurapolipus*, new genus, new species, beetle parasite, *Simalura coerulea*, Tenebrionidae, systematics, Japan

Introduction

Including the species described herein, 251 species in the family Podapolipidae are parasites of five orders of insects: Blattodea, Orthoptera, Heteroptera, Hymenoptera and Coleoptera. The genus *Tenebrapolipus* was described with two new species and relationships with similar podapolipid species were discussed by Kurosa and Husband (2001). Eleven *Podapolipus* species, two *Tenebrapolipus* species, and the species of *Simalurapolipus* described in this paper, are subelytral and abdominal parasites of tenebrionid beetles. It is the purpose of this paper to describe a new genus of mite parasitic on a tenebrionid beetle, *Simalurapolipus*, describe a new species of *Simalurapolipus* from Japan and discuss its relationships with related podapolipid mites from tenebrionid beetles.

Materials and methods

Examination of three specimens of *Simalura coerulea* (Lewis) collected by Takeo Hirai in Shizuoka Prefecture, Japan yielded about 190 specimens of podapolipid mites. Mites were collected mainly from under the elytra, but also from the body surface (especially dorsum of elytra) of the host beetles. Excepting about 110 specimens used for temporal mounting, they were cleared in Nesbitt's fluid and mounted in Andre's fluid (modified Hoyer's medium). Measurements were taken with the aid of a Zeiss compound phase contrast microscope with an ocular micrometer. Length of gnathosoma was measured along the sagittal line from the tip of the anteromedial protuberance to the level of the most basal point of the gnathosoma.

All measurements refer to the length in μm unless otherwise stated. Setae no longer than the diameter of their setal acetabulae are labeled as microsetae (m) and setae represented only by