

SHORT NOTE: FIRST EUROPEAN RECORD OF THE FAMILY CERCOMEGISTIDAE TRÄGARDH, 1937 (ACARI: MESOSTIGMATA) IN SPAIN

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ABSTRACT - Presence of *Cercoleipus coelonotus* Kinn, 1970 (Acari: Mesostigmata: Cercomegistidae) in Spain, the first record of this mite and family in Europe, is reported from *Ips sexdentatus* Boern (Coleoptera: Scolytidae) in León on *Pinus pinaster* Aiton.

Key words - Acari, Mesostigmata, Cercomegistidae, *Cercoleipus coelonotus* Kinn, Spain.

INTRODUCTION

In studies carried out on phoretic mites associated with the bark beetle, *Ips sexdentatus* Boern (Coleoptera: Scolytidae), in León (NW Spain), adults and immature stages of *Cercoleipus coelonotus* Kinn, 1970 were collected. Immature mites were obtained from bark samples of *Pinus pinaster* Aiton using Berlesse-Tullgren funnels whereas adults were collected directly from galleries and from the body of male and female *Ips sexdentatus* adults captured in funnel traps during their dispersal flight. Mite specimens were stored in 70% alcohol, cleared in Nesbitt's solution and mounted in Hoyer's medium.

Cercoleipus coelonotus Kinn

Cercoleipus coelonotus Kinn, 1970: 245.

Geographical distribution - *Cercoleipus coelonotus* was first reported in California (North America) (Kinn, 1970) associated with *Ips confusus* (Le Conte) from galleries in *Pinus monophylla* Torr and Frém. Since then, it has been found associated with other bark beetle species such as *Ips paraconfusus* Lanier, *Ips montanus* (Eichhoff), *Ips avulsus* (Eichhoff), *Ips calligraphus* (Germar) and *Ips grandicollis* Eichhoff (Kinn, 1971; Moser and Roton, 1971).

Adult males and females are phoretic whereas the immature stages are found in the bark of the host tree

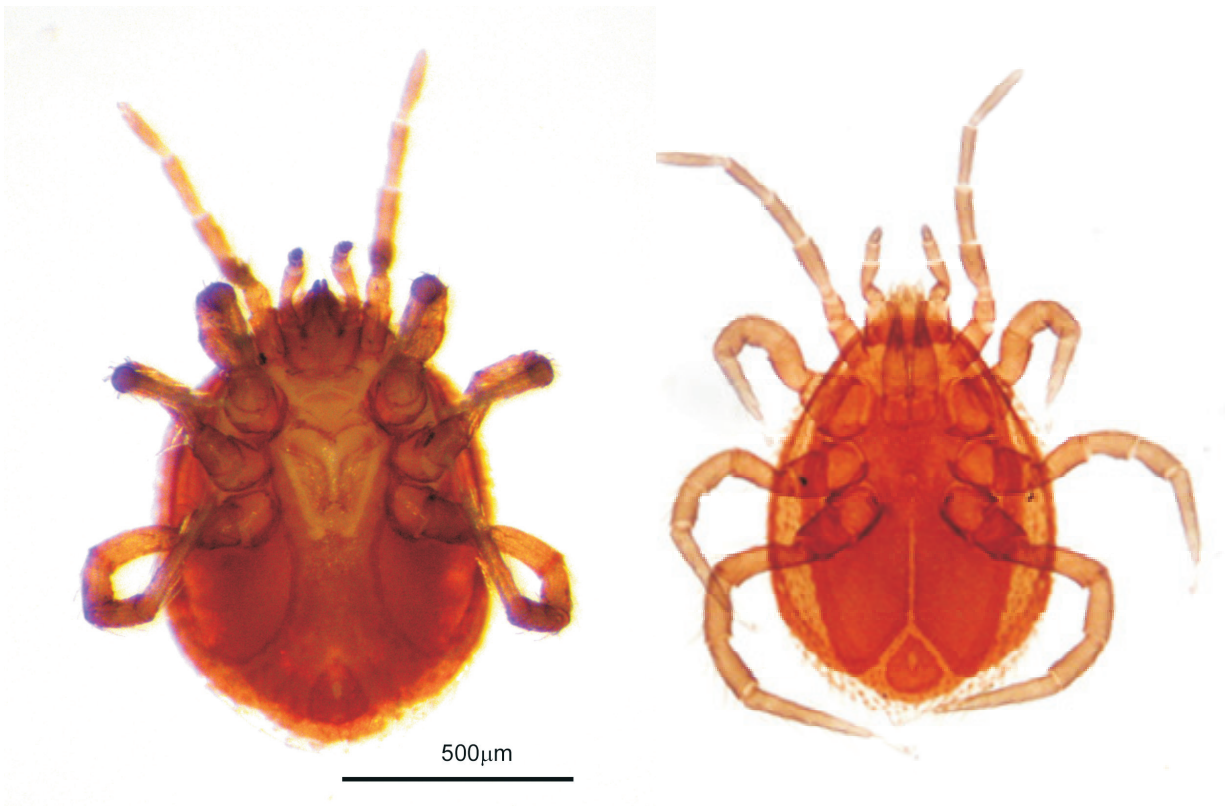
(Camin and Gorirossi, 1955). *Cercoleipus coelonotus*, phoretic on *Ips* species, feeds preferentially on nematodes over other prey, and occasionally on the eggs and larvae of *Dendrolaelaps quadrisetus* (Berlesse) and other mites, the eggs of *Ips*, and fungi (Kinn, 1971).

This nematophagous mite may be beneficial to beetle development. The association may even be mutualistic as the mite preys on nematodes which are bark beetle endoparasites (Kinn, 1973).

This finding constitutes the first record of the family Cercomegistidae Trägårdh, 1937 in Europe. The family has been previously recorded from Australia (Domrow 1976), North America, Central America (Cuba) (Hirschmann and Wisniewski, 1994), South America (Argentina), Middle East (Lebanon) and the Pacific (Polynesian Marquesas Islands) (Kinn, 1972).

Studied material - On *Ips sexdentatus* Boern (Coleoptera: Scolytidae): 2 females, 2 males, Villameca (León), Spain, 3.XI.2006. From galleries of *Pinus pinaster*: 26 females, 19 males, 8 protonymphs, 2 larvae, Quintana del Castillo (León), Spain, 5.X.2006. Specimens are slightly larger than types from North America (Kinn, 1970). Two female and two male slides of the mite are deposited in the Acarology Laboratory, Museum of Biological Diversity, The Ohio State University, 1315 Kinnear Road, Columbus, Ohio 43212, USA.

Measurements - Female, body size, 988-1051 µm long, 730-737 µm wide; male, 900-1010 µm long, 741-776 µm wide.



Figs. 1-2. *Cercoleipus coelonotus* Kinn - 1. Female, ventral view (left); 2. Male, ventral view (right).

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