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## SCIENTIFIC NOTE

## Cymbionotum Larvae (Coleoptera: Carabidae) Are Still Unknown; a Case of Larval Misidentification

Among carabid larvac, those of the genus Cymbionotum Baudi, the sole member of the tribe Cymbionotini, have long been desired for morphological study. During an expedition to Turkmenia in 1996, I collected all three species known from the region, namely C. pictulum Bates, C. semelederi (Chaudoir) and C. transcaspicum Semenov. Adult beetles were placed in plastic containers with soil for subsequent rearing of larvac. About ten days later I discovered nine apparently first-instar larvae in the box containing the C. pictulum adults. Six larvae were transferred into ethanol, and the remaining three were kept for subsequent instars. The live larvae were provided with a wide variety of food items, however they refused to eat and soon died. Next year I went again to Turkmenia and kept two Cymbionotum species for larval rearing. However no larvae were obtained.

The six preserved larvae from 1996 were recently described (V. V. Grebennikov and Y. Bousquet, 1999, Advances in Carabidology. Papers Dedicated to the Memory of Dr. Prof. O. L. Kryzhanovskij. Krasnodar, MUISO Publishers, pp. 109-114). While the manuscript was in press, Professor Inessa Kh. Sharova called my attention to the fact that the drawings of the larvae that we believed to be those of Cymbionotum pictulum resembled those of the first-instar larva of Lebia scapularis (Fourcroy). Immature stages of this latter species were first described by F. Silvestri (1904, Redia 2: 68-84) and his drawings were reproduced in Sharova's monograph (I. Kh. Sharova, 1958, Uchenye zapiski Moskovskogo Gosudarstvennogo Pedagogicheskogo Instituta Imeni Linina 124: pp. 1-165 (in Russian)). The more detailed drawings and description of first-instar larvae of L. chlorocephala (Hoffmannsegg) provided by E. Arndt (1991, Die Larven der Käfer Mitteleuropas. Band 1: Adephaga. (B. Klausnitzer, ed.). Goecke and Evers, Krefeld, pp. 45-141) convinced me that the "Cymbionotum pictulum" larvae are in fact those of Lebia sp. An effort was made to withdraw the paper from print, but it was too late. I feel it is my duty to report this unfortunate fact as soon as possible. Apparently, Lebia eggs were unwittingly brought into the rearing container with the soil. It seems to be a rather rare case because during two field seasons in Turkmenia I collected about 100 Cymbionotum adult specimens and only two adult specimens of the genus Lebia. In conclusion I will repeat van Emden's words that "... even breeding may result in misidentification . . . " (p. 80, F. van Emden, 1941, Transactions of the Royal Entomological Society of London 92: 1-99). Cymbionotum larvae are still unknown.

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