

Two *Lomechusini* (Coleoptera: Staphylinidae: Aleocharinae) species new to Bulgaria

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Abstract. First records of the myrmecophilous species *Lomechusoides strumosus* Fabricius, 1793 and *Lomechusa paradoxa* Gravenhorst, 1806 are reported for Bulgaria. *Lomechusoides strumosus* is the only member of the genus in Bulgaria while *Lomechusa paradoxa* joins *L. emarginata* (Paykull, 1789) as the second member of the genus *Lomechusa*. Both beetle species were found in nests of *Formica* ants.

Key words: myrmecophiles, Staphylinidae, Lomechisini, Bulgaria

Introduction

The genera *Lomechusoides* and *Lomechusa* belong to the subtribe Lomechusina (tribe Lomechusini) whose members are known to be obligate myrmecophiles of the Palaearctic and Oriental regions (Chen & Zhou 2007, Hlaváč *et al.* 2011). The integration of beetle guests is facilitated by the presence of abdominal glandular hairs (trichomes). Both genera were recently revised as *Lomechusoides*, containing 16 species (Jászay & Hlaváč 2013) and *Lomechusa*, containing 18 species (Hlaváč 2005, Assing 2009, Chen & Zhou 2007, Hlaváč *et al.* 2011). To date the only representative of the subtribe Lomechusini reported from Bulgaria is *Lomechusa emarginata* (Paykull, 1789). Further, there are no Bulgarian records for *Lomechusoides* (Lapeva-Gjonova 2013).

Below we present the first records of two Lomechusina species for Bulgaria.

Material and methods

The beetles were collected by hand directly from the nests of ants. The specimens were preserved dry and their morphology studied. The genitalia of the *Lomechusa* specimen was examined even though in these genera the external characteristics are more useful than genital characteristics. The identification of each beetle was made by their respective collector using Schilow (1981), Hlaváč (2005) and Jászay & Hlaváč (2013).

Results

Lomechusoides strumosus Fabricius, 1793

Stara Planina Mt., Etropole district, near Boikovets village, Maniakov Kamik Peak, N42.823722 E23.857222, 1320 m alt., 10 October 2014, 1 male specimen from a nest of *Formica* sp., leg. T. Harrison.

The nest was located in a clearing in beech woodland in a montane area where the ants had formed a subterranean nest in a clay mound protected by a large stone. Ants were regrettably not collected but were characteristic of the genus *Formica*.

***Lomechusa paradoxa* Gravenhorst, 1806**

Strandzha Mt., Malko Tarnovo, N41.986826 E27.520416, 326 m alt., 18 April 2010, 1 female from a nest of *Formica cunicularia* Latreille, 1798, leg. A. Lapeva-Gjonova.

The nest was located under a stone in an area of grassy karst. The beetle was found together with two dealated queens and workers; samples of the queens and workers were also collected.

The ants of the genus *Formica* are host for both of the above listed beetle species. *Lomechusoides strumosus* is usually found with several *Formica* species and less frequently in *Myrmica* nests. In the case of *Lomechusa paradoxa* a characteristic seasonal change of hosts occurs; the beetle wintering with *Myrmica* and spending the summer with *Formica* spp. and accidentally with *Lasius* (Assing 2009). *Formica cunicularia* is rarely reported as the host of *Lomechusa paradoxa*.

Both species have a wide distribution in Europe; the range of *Lomechusa paradoxa* is known to extend to the Caucasus while *Lomechusoides strumosus* reaches the Far East and Kazakhstan (Hlaváč *et al.* 2011). Thus, these two recent finds in Bulgaria are not unexpected but they do indicate the need for more fieldwork to be carried out on this subtribe. This new data increases the number of reported myrmecophilous Lomechusini species for the country to 15.

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