



## Taxonomy of the myrmecophilous genus *Lomechusa* (Coleoptera: Staphylinidae: Aleocharinae: Lomechusini) from China

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### Abstract

This paper studies the taxonomy of the myrmecophilous genus *Lomechusa* Gravenhorst, 1806 from China and describes four new species: *Lomechusa elegans* Chen & Zhou, **n. sp.** from Beijing, *Lomechusa brevicornis* Chen & Zhou, **n. sp.** from Beijing, *Lomechusa seticornis* Chen & Zhou, **n. sp.** from Hunan, and *Lomechusa parva* Chen & Zhou, **n. sp.** from Tibet. A key to all seven Chinese species of the genus *Lomechusa* is provided.

**Key words:** myrmecophilous, Staphylinidae, *Lomechusa*, taxonomy, new species, China

### Introduction

The subtribe Lomechusina is a monophyletic group of the tribe Lomechusini (Coleoptera: Staphylinidae, Aleocharinae) and is composed of three genera: *Lomechusa* Gravenhorst, 1806, *Lomechusoides* Tottenham, 1939 and *Xenodusa* Wasmann, 1894; only the former two are found in China (Maruyama & Hlaváč 2004, Hlaváč 2005). In the subtribe Lomechusina, thirty four species have been described up to now (Hoebecke 1976, Smetana 2004, Maruyama & Hlaváč 2004, Hlaváč 2005); twenty eight species (*Lomechusa* and *Lomechusoides*) are distributed in the Palaearctic and Oriental regions, whereas the genus *Xenodusa* occurs in the Nearctic region (Hoebecke 1976, Hlaváč 2005).

The genus *Lomechusa* can be easily distinguished from the other two genera of the subtribe: from *Xenodusa* by more robust antennae; from *Lomechusoides* by lacking black erect setae on the lateral margins of pronotum and the base of elytra, and by lacking a hook or spine on lacinia (Hlaváč 2005).

The genus *Lomechusa* was erected by Gravenhorst (1806). *Staphylinus emarginata* Paykull, 1789 was subsequently designated as the type species (Latreille 1810). Later, Dillwyn (1829) described the genus *Atemeles*. *Atemeles paradoxus* (Gravenhorst, 1806) was subsequently designated as the type species (Westwood 1838). Afterwards, most authors (e.g., Bernhauer & Scheerpelts 1926) were using the name *Atemeles* for the genus which included the type species of both *Lomechusa* and *Atemeles*. For a long time, the name *Lomechusa* was misapplied to a different genus, which was named by Tottenham (1939) as *Lomechusoides* (with *L. strumoides* (Fabricius, 1775) fixed as the type species (by original designation)). Unfortunately, with a few exceptions (e.g., Blackwelder 1952), the incorrect application of the name *Lomechusa* continued (Palm 1949, Schilow 1977 a, b, 1981, Sawada 1994). Only recently, the name *Lomechusa* was again correctly treated as a senior synonym of *Atemeles* (Smetana 2004, Hlaváč 2005). Before this study, thirteen species were described worldwide and were categorized into three species groups (Hlaváč 2005).