



## A new species of *Placusa* Erichson (Coleoptera, Staphylinidae, Aleocharinae) from China

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### Abstract

A new species, *Placusa pinearum* Gao, Ji, Liu, **sp. nov.** from China, is described and illustrated. The line drawings of aedeagus, spermatheca and scanning electron micrographs of different parts of mouthparts and body are provided.

**Key words:** Staphylinidae, Aleocharinae, *Placusa pinearum*, new species, China

### Introduction

The genus *Placusa* was originally reported by Erichson in 1837. It was characterized by 4-4-5 tarsal formula and subcortical habitat, and was classified under tribe Placusini (including *Placusa* Erichson and *Euvira* Sharp) based on the unique morphological characters of mouthpart structures (Ashe 1991). Klimaszewski (2007) argued that there are fundamentally different genital features between the two genera, and therefore the genus *Euvira* should be excluded from the tribe Placusini. The diagnostics of species from the subfamily Aleocharinae is based mainly on the shape of the aedeagus (Gusarov 2003).

Klimaszewski (2001) mentioned that *Placusa* embraces about 50 species worldwide. Alfred Newton provided us with a worldwide checklist of the genus *Placusa* with 143 species (the checklist will be placed on [http:// field-museum.org/](http://field-museum.org/) in the near future), including 9 species distributed in China (Appendix 1). Of the 9 Chinese species, Pace (1998, 1999, 2010) recorded 5 species: *P. kadooriorum*, *P. montium*, *P. sculpticollis*, *P. shimianensis*, *P. yunnanicola*. Mannerheim (1830) recorded 1 species: *P. atrata*; Mäklin (1945) recorded *P. depressa*; Bernhauer (1934) recorded *P. longipennis*; and Waltl (1838) recorded *P. tachyporoides*. The majority of the described species of *Placusa* occur in Holarctic, Oriental, Neotropical, and Australian regions (Klimaszewski 2001).

In our investigation (2008–2010) of the arthropods fauna of pine shoot tunnel bored by *Dioryctria rubella* Hampson (pine tip moth), we found a new species of *Placusa* based on a morphological comparison with the recorded species. This paper presents the key morphological characters of this new species, including the line drawings of aedeagus and spermatheca, and scanning electron micrographs of the different parts of mouthparts and body.

### Material and methods

41 adult specimens (Appendix 2) were examined. The specimens were cleaned in distilled water for 1–2 h, then transferred to cold 10% potassium hydroxide and kept for about 48 h, and dried in the air for 1–2 h. Dissection of male and female genitalia was performed by using the techniques described by Hanley (2003). All specimens examined were mounted in glycerin. Photographs were taken with a stereoscopic microscope Leica MZ 16. The images were captured with computer software DT300 (Image Manager), and the final versions of line drawings and photographs were prepared with Adobe Photoshop software, version 7.0.