



A new species of *Aboilus* (Insecta, Orthoptera, Prophalangopsidae) from the Middle Jurassic of Daohugou, Inner Mongolia, China

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Abstract

A new species, *Aboilus chinensis* sp. nov., is described and attributed to *Aboilus* (Insecta, Orthoptera, Prophalangopsidae, Aboilinae), from the Middle Jurassic of Daohugou in Inner Mongolia, China. The tegminal diagnostic characters for *Aboilus Martynov*, 1925 are revised. The fossil record of *Aboilus* from China is reviewed.

Key words: Orthoptera, Prophalangopsidae, new species, Middle Jurassic, Daohugou, China

Introduction

The Mesozoic genus *Aboilus* Martynov, 1925 was originally placed in the family Aboilidae (Martynov 1925), and later transferred to Prophalangopsidae by Zeuner (1939). Although being a diverse group of Prophalangopsidae (Orthoptera), the genus is rarely represented by male tegmina. It occurs in Middle–Late Mesozoic deposits throughout Europe and East-Middle Asia (Martynov 1925; Zeuner 1939; Sharov 1962, 1968; Lin 1965, 2006; Fujiyama 1978; Hong 1982, 1983; Gorochov 1995, 2003; Gorochov *et al.* 2006). Very recently, we collected some Prophalangopsidae from the Middle Jurassic of Daohugou, China. Herein, we report a new species assigned to *Aboilus*, and review the record of *Aboilus* from China.

Material and methods

The male tegmen (part and counterpart), preserved as impressions on the surface of grey tuffaceous siltstones, described herein was collected from the Middle Jurassic Daohugou deposits (41°18' N, 119°13' E) in Ningcheng County, Chifeng City, Inner Mongolia of China.

A new venation nomenclature has been proposed by Béthoux & Nel (2001, 2002), and there is no consensus on the interpretation of vein nomenclature in Hagloidea between Sharov (1968), Gorochov (1995) and Béthoux & Nel (2001, 2002) (Béthoux, 2007; Rasnitsyn, 2007). We here follow the wing venation nomenclature amended by Gorochov (1995), and the venational terms by Béthoux & Nel (2001, 2002) are listed here followed by their corresponding ones by Gorochov (1995) in the parentheses if any differences are present between the two terminologies: C (ScA), Costa; Sc (ScP), Subcosta; RA, Radius anterior; RS (RP), Radial sector; M (M+CuA), Media; MA (M), Media anterior; MP (CuA), Media posterior; Cu (CuPa), Cubitus; CuA (CuPa α), Cubitus anterior; CuP (CuPb), Cubitus posterior; A, analis; and 1A, first anal vein.

The specimens were examined dry and in alcohol, using a Nikon SMZ1000 stereomicroscope and drawings were made with the aid of a camera lucida. The photographs were prepared using a NIKON D100 digital camera, and the line drawing was readjusted on the photograph using image-editing software