



A new genus and species of fossil Eodromeinae from the Yixian Formation of Western Liaoning, China (Coleoptera: Adephaga: Trachypachidae)

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Abstract

A new genus and species of fossil trachypachid *Fortiseode pervalimand* Jia & Ren **gen. et sp. nov.**, is described and illustrated. The new fossil with large and strong mandibles, short and robust legs, and pronotum widest near apical angle differs from other members of Eodromeinae. It is the first record of fossil trachypachid from the Mesozoic Yixian Formation of Huangbanjigou, Liaoning, China.

Key words: Trachypachidae, fossil, new genus, new species, Yixian Formation, Late Jurassic-Early Cretaceous, China

Introduction

Thirty-nine fossil species of trachypachids classified in 18 genera have been reported from Mesozoic rocks (Table 1). According to the fossil record trachypachids probably originated no later than the Late Triassic.

A fossil trachypachid specimen was recently collected from the Huangbanjigou bed, Yixian Formation, Liaoning in China. The new finding of trachypachid is the first record of fossil trachypachid from the Late Jurassic-Early Cretaceous Yixian Formation. The strata of the Yixian Formation are mainly of lacustrine sediments intercalated with volcanoclastics (Ren *et al.* 1995). Paleobotanical data from fossil spores, pollen and plants indicates a climate that was warm and humid at that time (Ding *et al.* 2001).

Material and methods

The specimen were examined using a Leica MZ12.5 dissecting microscope, illustrated with the aid of a drawing tube attachment, and photographs acquired by a Nikon Digital Camera DXM1200C. The morphological terminology used here follows Newton (2001), and the Trachypachidae taxonomic system is adopted from Lorenz (2005).

Body length was measured along the midline from the anterior margin of frons to apex of elytra, and width was measured across the broadest part of elytra. The length of pronotum was measured along the midline; the width was measured across the broadest part of pronotum.

Systematic palaeontology

Class Insecta Linnaeus, 1758

Order Coleoptera Linnaeus, 1758

Family Trachypachidae C.G. Thomson, 1857