New isophlebioid dragonflies (Odonata: Isophlebioptera: Campterophlebiidae) from the Middle Jurassic of China

BING-LAN ZHANG¹, GUNTHER FLECK², DI-YING HUANG^{3,4}, ANDRÉ NEL^{2*}, DONG REN^{5*}, XIAO-DONG CHENG⁶ & QI-BIN LIN^{3,4}

Abstract

Three new representatives of the Odonata Campterophlebiidae are described from the Middle Jurassic of Daohugou (Inner Mongolia, China), i.e. *Amnifleckia guttata* **n. gen., n. sp.**, *Amnifleckia splendida* **n. sp.**, and *Parabrunetia celinea* **n. gen., n. sp.** Their close affinities with the genus *Pternopteron* (Dogger of Kirgizia) support a similar age for the Daohugou fauna.

Key words: Insecta, Odonata, Campterophlebiidae, **n. gen., n. sp.**, Middle Jurassic, Daohugou fauna, Inner Mongolia, China

Introduction

The Isophlebioptera Bechly, 1996 is an insect clade that flourished during the Triassic, Jurassic and Early Cretaceous in Europe and Central Asia (Fleck & Nel 2002). More than fifty species have been described (Nel *et al.* 1993; Bechly 1997), but many are based mainly on isolated, sometimes fragmentary, fossil wings. Fleck and Nel (2002) described a complete isophlebioid specimen from the Mesozoic of China, of great importance for the morphology and paleobiogeography of this group. Moreover, it is the first record of this group from China. Here we describe new rather well-preserved specimens attributable to

¹State Key Laboratory of Biocontrol and Institute of Entomology, Sun Yat-Sen University, Guangzhou 510275, China

²CNRS UMR 5202, Muséum National d'Histoire Naturelle, CP 50, Entomologie, 45 Rue Buffon, F-75005, Paris, France.

³Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences, Nanjing, 210008, P.R. China;

⁴State Key Laboratory of Palaeobiology and Stratigraphy, Chinese Academy of Sciences, Nanjing 210008, College of Life Sciences, Capital Normal University Beijing 100037, China

⁶Dalian Natural History Museum, Dalian 116023

^{*}Corresponding authors.