Accepted Manuscript

New Scarabaeoidea (Coleoptera) from the Lower Cretaceous Yixian Formation, western Liaoning Province, China: Elucidating the systematics of Mesozoic Hybosoridae

Yuanyuan Lu, Ruie Nie, Chungkun Shih, Dong Ren, Xingke Yang, Ming Bai

PII: S0195-6671(17)30409-3

DOI: 10.1016/j.cretres.2018.02.005

Reference: YCRES 3806

To appear in: Cretaceous Research

Received Date: 18 September 2017

Revised Date: 2 January 2018
Accepted Date: 6 February 2018

Please cite this article as: Lu, Y., Nie, R., Shih, C., Ren, D., Yang, X., Bai, M., New Scarabaeoidea (Coleoptera) from the Lower Cretaceous Yixian Formation, western Liaoning Province, China: Elucidating the systematics of Mesozoic Hybosoridae, *Cretaceous Research* (2018), doi: 10.1016/j.cretres.2018.02.005.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

New Scarabaeoidea (Coleoptera) from the Lower Cretaceous Yixian Formation, western Liaoning Province, China: elucidating the systematics of Mesozoic Hybosoridae

Yuanyuan Lu^{1,2#}, Ruie Nie^{1#}, Chungkun Shih^{3,4}, Dong Ren^{3*}, Xingke Yang¹, Ming Bai^{1*}

Abstract. Two new genera are created to accommodate two new Hybosoridae (Coleoptera: Scarabaeoidea) species: Sinohybosorus cheni gen. et sp. n. and Sinochaetodus tridentatus gen. et sp. n.. The new species are described and illustrated based on two nearly complete fossil specimens from the Lower Cretaceous (Barremian– lower Aptian) Yixian Formation of western Liaoning Province, China. A key of described species of Hybosoridae from the Mesozoic and a catalogue of extinct Hybosoridae are provided. Based on the morphological characters, Fortishybosorus ericeusicus Yan, Bai et Ren, 2013 is transferred back to Fortishybosorus instead of Lithohypna in Glaphyridae. The discovery and description of these two new taxa provide further evidence for the Jurassic and Cretaceous diversification of lineages of Hybosoridae. Although the extant Hybosoridae constitute a relative small group in Scarabaeoidea, Hybosoridae are a relatively old group of scarab beetles with relative high diversity in the Mesozoic.

¹ Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, 92 box, No. 1 Beichen West Road, Chaoyang District, Beijing, 100101, China;

² University of Chinese Academy of Sciences, Yuquan Road, Shijingshan District, Beijing, 100049, China;

³ College of Life Sciences, Capital Normal University, Beijing, 100048, China;

⁴ Department of Paleobiology, National Museum of Natural History, Smithsonian Institution, Washington, DC 20013-7012, USA

[#] Contributed equally

^{*} Corresponding authors: Ming Bai: baim@ioz.ac.cn; Dong Ren: rendong@mail.cnu.edu.cn

Download English Version:

https://daneshyari.com/en/article/8916323

Download Persian Version:

 $\underline{https://daneshyari.com/article/8916323}$

Daneshyari.com