

王五力, 张立君, 郑少林, 任东, 郑月娟, 丁秋红, 张宏, 李之彤, 杨芳林. 义县阶的时代与侏罗系-白垩系界线——义县阶标准地层剖面建立和研究之三[J]. 地质论评, 2005, 51(3): 234-242

义县阶的时代与侏罗系-白垩系界线——义县阶标准地层剖面建立和研究之三 [点此下载全文](#)

[王五力](#) [张立君](#) [郑少林](#) [任东](#) [郑月娟](#) [丁秋红](#) [张宏](#) [李之彤](#) [杨芳林](#)

[1]沈阳地质矿产研究所, 110032 [2]首都师范大学生物系, 北京, 100037

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摘要:

义县阶中孔子鸟类、中华龙鸟类、翼龙类、叶肢介、昆虫、双壳类和植物(包括木化石)时代确定为晚侏罗世晚期或提塘晚期; 哺乳类、鸟臀类恐龙和孢粉为早白垩世早期或贝里阿斯期; 介形类、鱼类为晚侏罗世早白垩世过渡期或提塘晚期-贝里阿斯期。考虑到义县期生物群与德国索伦霍芬(Solnhofen)生物群、英国普尔贝克(Purbeck)生物群, 日本晚侏罗世手取(Tetori)型、领石(Ryoseki)型植物群可以比较、对比以及与中侏罗世约克郡(Yorkshire)植物群、大河口(Great Estuarine)叶肢介群的联系分析, 综合时代可确定为提塘晚期至贝里阿斯期; 尖山沟层时代倾向于提塘晚期, 大康堡层时代倾向于贝里阿斯期。由于可与义县组对比的英国普尔贝克(Purbeck)群(组或层)的侏罗系与白垩系界线仍未确定; 同时因缺乏实测数据, 国际地层表推荐的144Ma、145Ma、135Ma等侏罗系与白垩系界线年龄, 不能作为可靠的依据标准; 因此应据中国义县阶标准地层剖面的综合生物年代及实测同位素年代确定侏罗系与白垩系界线, 界线倾向于义县阶下部尖山沟层与上部大康堡层之间, 同位素年龄以124Ma为界线年龄符合目前综合生物年代, 是较优选的方案。

关键词: [义县阶](#) [侏罗系-白垩系界线](#) [标准地层剖面](#) [生物群](#) [综合生物年代](#)

The Age of the Yixianian Stage and the Boundary of Jurassic-Cretaceous--The Establishment and Study of Stratotypes of the Yixianian Stage [Download Fulltext](#)

WANG Wuli 1), ZHANG Lijun 1), ZHENG Shaolin 1), REN Dong 2), ZHENG Yuejuan 1), DING Qihong 1), ZHANG Hong 1), LI Zhitong 1), YANG Fanglin 1) 1) Shenyang Institute of Geology and Mineral Resources, Shenyang, Liaoning, 110032) Department of Biology, Capital Normal University, Beijing, 100037

Fund Project:

Abstract:

The Confuciusornis avifauna, Sinosauropteryx fauna, pterosaurs, conchostracans, insects, bivalves and plants (including fossil woods) of the Yixianian Stage are ascribed to the late Late Jurassic or Late Tithonian; the mammalia, dinosaurs of ornithischia and sporopollen to the early Early Cretaceous or the Berriasian Stage; and the ostracods and fishes to the transition from Late Jurassic to Early Cretaceous or the Late Tithonian-Berriasian. Considering that the Yixianian biota may be compared or correlated with the Solnhofen biota of Germany, the Purbeck biota in England, Late Jurassic Tetori-type and Ryoseki-type floras in Japan and that they are also related to the Middle Jurassic Yorkshire flora and the Great Estuarine conchostracans fauna, the synthetic age of the Yixianian Stage may be determined as Late Tithonian to Berriasian, and the ages of the Jianshangou Bed and the Dakangbu Bed tend to be the Late Tithonian and the Berriasian, respectively. Because the Jurassic-Cretaceous boundary of the Purbeck Group (Formation or Bed) that may be roughly correlated with the Yixianian Formation is not yet affirmed, and as there lack measured data, the 144 Ma, 145 Ma or 135 Ma data for the Jurassic-Cretaceous boundary ages recommended by the International Stratigraphical time table cannot be used as a reliable criterion. Therefore, the establishment of the Jurassic-Cretaceous boundary should be based on the synthetic biological age and measured isotope age of the Yixianian stratotypes in China. Accordingly, the boundary age is preferred to set between the Jianshangou Bed of the lower Yixianian Stage and the Dakangbu Bed of the upper Yixianian Stage, and the isotope age of 124 Ma is preferably chosen because it conforms the synthetic biological age at present.

Keywords: [Yixianian Stage](#) [boundary of Jurassic-Cretaceous](#) [Tithonian](#) [Berriasian](#) [Western Liaoning](#)

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