

Ostracod biostratigraphy suggests no non-marine J/K boundary in the Dabeigou Formation or Dadianzi Formation, Luanping Basin, China

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The non-marine Jurassic/Cretaceous boundary was thought in the Luanping Basin. But the definition of this boundary in the Luanping Basin is still problematic. Some researchers defined the J/K boundary at the basal part of the Fourth Member of the Dadianzi Formation, based on ostracod biostratigraphy (e.g. TIAN et al., 2004). While in some opinions, the J/K boundary is at the basal part of the Dabeigou Formation or the upper part of the Tuchengzi Formation according to the radiometric date's data (e.g. WAN et al., 2003). They also mentioned that the non-marine J/K boundary from fossil biostratigraphic results does not match the radiometric dates.

In this study, we revised ostracod species from the genera *Cypridea*, *Ziziphocypris*, *Rhinocypris*, *Alicenula*, *Luanpingella*, *Torinina* and *Daurina* of the Dabeigou and Dadianzi formations. Among them, four species are valuable for biostratigraphic correlations and age determination. The species *Luanpingella postacuta* is found in the Dabeigou Formation of China, the Tsagentsabskaya Suite/Formation (Tithonian to Valanginian) and Gurvan Eren Formation of Mongolia and the Member Supérieur of the Iouaridènes Formation of Morocco (Hauterivian to Barremian [ANDREU et al., 2003]). *Torinina tersa* and *Torinina chimkae* occur in the Dabeigou Formation of China (PANG, 1984), the Unduruhinskaya Formation (Lower Cretaceous) of Mongolia, and the Torey? and Turga formations (Valanginian to Hauterivian) and the Gidar Suite (Valanginian to Barremian) of Russian. The species *Daurina eggeri* is known from the Dadianzi (PANG, 1984) and Yixian formation (CAO, 1999) (Hauterivian to Barremian) of China, the Turga Formation (Valanginian to Hauterivian), the Gidar and the Godimboy suites of Russian and the Ulugeyskaya? Formation of Mongolia (Lower Cretaceous). In conclusion, our ostracod biostratigraphic study suggests that the age of Dabeigou Formation is Valanginian to Hauterivian, and that of the Dadianzi Formation is Hauterivian to Barremian. Therefore, the J/K boundary in the Luanping Basin is neither in the Dabeigou Formation nor in the Dadianzi Formation. This matches the radiometric dates from the Dabeigou and Dadianzi formation very well.

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