

## Taxonomic revision of *Cypridea* (Ostracoda: Cyprideidae) from the Lower Cretaceous Jinju Formation of the Gyeongsang Basin, South Korea

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The representatives of the non-marine ostracod genus *Cypridea* (Family Cyprideidae) from the Jinju Formation (Albian) of the Gyeongsang Basin, Korean Peninsula have been reported with 12 species (Paik et al., 1988; Choi, 1990). However, based on new data and detailed revision, 12 species of *Cypridea* are merged into 4 species thus far (Choi, in progress). In this study, we focus on significant features of 4 species of *Cypridea*: *C. jinjuria*, *C. sp.*, *C. cf. yumenensis*, *C. ex gr. alta*.

1) *Cypridea jinjuria* was first discovered from the Gwanghyeon section (Gunwi area) by CHOI (1990). This species is an endemic taxon of the Jinju Formation, which has punctated surface and a distinct swelling-like node at the anterior cardinal angle in the left valve. CHOI (1990) noted that the diagnostic feature of *Cypridea*, the anteroventral rostrum and alveolus, was either lacking in *C. jinjuria* or is characterized by just a weakly developed rostrum in the anteroventral area. However, her specimens have been examined by the first author (visit to KIGAM, June, 2016), and in the view of our examination, this species has both a small but distinct rostrum and alveolus (alveolar notch and furrow). Additionally, *C. jinjuria* of CHOI (op. cit.) probably represents juveniles because newly collected specimens from the Hotan section (Jinju City) have a very distinct rostrum/alveolus and larger carapaces. However, both morphotypes have never been found to co-occur, this view is uncertain thus far. Thus, these two morphs are described as different species herein (*C. jinjuria* and *C. sp.*). 2) *Cypridea yumenensis* HOU was first reported from the Gansu province of China, but HOU (1958) did not give the detailed formation name, therefore, its stratigraphic range remains uncertain (pers. comm. Dr. Yaqiong Wang). Thus, *C. cf. yumenensis* from the Jinju Formation is able to constrain the possible stratigraphic range of this species. However, this information is hitherto fragmentary. More specimens should be investigated in further studies. 3) *Cypridea ex gr. alta* herein is badly preserved, and many morphologic features are dependent on the figures of KIM (1987), and therefore, the detailed comparison remains very difficult. However, its lateral outline is very similar to specimens from North America (see SAMES, 2011). Although of bad preservation, *C. ex gr. alta* from the Jinju Formation is considered to be a species of the *C. alta*-group and, consequently, would extend the stratigraphic range of this group to late Albian.

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