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Conchostracans of the Middle-Late Jurassic Daohugou and Linglongta beds in NE China

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The Yanliao Biota is widely distributed in western Liaoning, northern Hebei and the adjacent eastern Inner Mongonia (e.g. Sullivan et al. [1]; Huang [2]). It has become highlight of palaeontological studies during recent years. The biota consists of two major faunas: 1) the Daohougou fauna at Ningcheng County, Inner Mongolia, characterized by feathered dinosaurs, pterosaurs, salamanders, early mammals, insects, spiders, conchostracans and bivalves (e.g. Sullivan et al. [1]; Huang [2]) and 2) the Linglongta fauna at Daxishan of Linglongta Town, Jianchang County, Liaoning Province, characterized by feathered dinosaurs, pterosaurs, salamanders, fishes, early mammals, insects, conchostracans, ostracodes, bivalves, and gastropods (e.g. Sullivan et al. [1]; Duan et al. [3]). The Daohugou beds are widely distributed in Wuhua Town of Ningcheng County and the adjacent Reshuitang of Lingyuan City, Liaoning Province (Huang [2]). Whereas the Linglongta beds, belonging to the Tiaojishan Formation, distributes at Daxishan of Jianchang County, Guancaishan of Jianping County, Liaoning Province and Bawanggou of Qinglong County, Hebei Province (Liao et al. [4]). A large number of fossil conchostracans from the Daohugou and Linglongta beds had been collected and observed under SEM. Only one species "*Triglypta haifanggouensis*", which is small, elliptical-shaped, and ornamented with dense minute puncta, is found in Daohugou beds. However, the Linglongta beds (belong to the Tiaojishan Formation) contain *Qaidamestheria liaoningensis*, *Qaidamestheria* sp., *Tianzhuestheria Liaoningensis* (Wang[5]) and some indeterminate species. *Qaidamestheria liaoningensis* is the most abundant taxa, which is small, elliptical-shaped, and ornamented with small reticulations and the sparse minute puncta which are evolved from reticulations. According to conchostracan biostratigraphic correlations, the Douhugou beds correlate with the Haifanggou Formation of Beipiao City, Liaoning Province.

On the basis of the isotope dating, the age of the Daohugou beds is about 165 Ma (Liu et al. [6]), belonging to the latest Middle Jurassic. Whereas the age of the Linglongta beds is about 160 Ma (Wang et al. [7]), belonging to the earliest Late Jurassic. Therefore, the Daohugou and Linglongta faunas represent the early and late stage of the Yanliao Biota respectively.

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References:

[1] Sullivan et al. (2014) Journal of Vertebrate Paleontology, 34 (2), 243-280.

[2] Huang (2015) Acta Palaeontologica Sinica, 54 (4), 501-546.

[3] Duan et al. (2009) Global Geology, 28 (2), 143-147.

[4] Liao et al. (2014) Journal of Stratigraphy, 38 (4), 433-438.

[5] Wang (2014) Acta Palaeontologica Sinica, 53 (4), 486-496.

[6] Liu et al. (2006) Chinese Science Bulletin, 51 (21), 2273-2282

[7] Wang et al. (2013) Chinese Science Bulletin, 58 (14), 1346-1353