Superiortrapa (Lythraceae s.l.) from the Miocene of North China

Li, Ya^{1,*}, Liang, X.-Q.², Wang, Yongdong¹, Li, C.-S.³

- 1) Nanjing Institute of Geology and Palaeontology, Chinese Academy of Sciences, Nanjing, China, *E-mail: yali@nigpas.ac.cn
- 2) Yuxi Normal University, Yuxi, China

3) Institute of Botany, Chinese Academy of Sciences, Beijing, China)

Superiortrapa weichangensis gen. et sp. nov. (Lythraceae s.l.) is described on the basis of receptacle, calyx and fruit remains, collected from the early Miocene of Weichang County, Hebei Province, North China. Superiortrapa has actinomorphic, 4-merous, hypogynous flower, 4 decussate antennae-shaped sepals with recurved barbs, 4 inter-sepal appendages (or epicalyx segments), and a superior ovary. Fruits are fusiform with persistent sepals and approximately 8 slender ribs on the fruit body. Detailed morphological analyses and comparison of the genus with related fossil and extant genera allowed the placement into the subfamily Trapoideae of the Lythraceae s.l. based on a suite of characters. Superiortrapa can be distinguished from all the other genera of the family Lythraceae s.l. by having hypogynous flower rather than perigynous flowers in Lythraceae s.str., or hemiepigynous to epigynous flowers in Duabanga, Punica, Sonneratia and Trapa. It might represent an extinct linage, probably secondarily derived from the extinct genus Hemitrapa of Trapoideae, Lythraceae s.l.