

## ***Craigia changchangensis*, a new capsular fruit from the Eocene of Hainan Island, South China**

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This study reports a new fruit fossil record of the genus *Craigia*, *C. changchangensis* sp. nov., from the Eocene coal-bearing series of Changchang Basin of Hainan Island, South China. This is the second fossil *Craigia* species found in South China, which is the modern distribution center of the genus *Craigia*, and provides new evidence to spur an investigation of the phytogeographical history of the genus.

A palynoflora study of the Eocene of the Changchang Basin, Hainan Island, indicated that the Eocene temperature was lower than today as Eocene flora contains many more subtropic-temperate components and fewer pantropic and tropic-subtropic components than does the modern flora (Zhao et al., 2009). In addition, the appearance of temperate plants, such as *Abies* and *Tsuga*, that can survive severe winters suggests that high-altitude mountains might have surrounded the Changchang Basin during the Eocene (Zhao et al., 2009). We speculate that the fossil *Craigia* species of Hainan Island might have lived in high-altitude mountains during the Eocene and became extinct later as crustal subsidence reduced the altitude of the mountains and temperatures increased. Nonetheless, in Yunnan and Guangxi provinces, *Craigia* plants survived and evolved extant species due to these provinces' cooler climates.

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