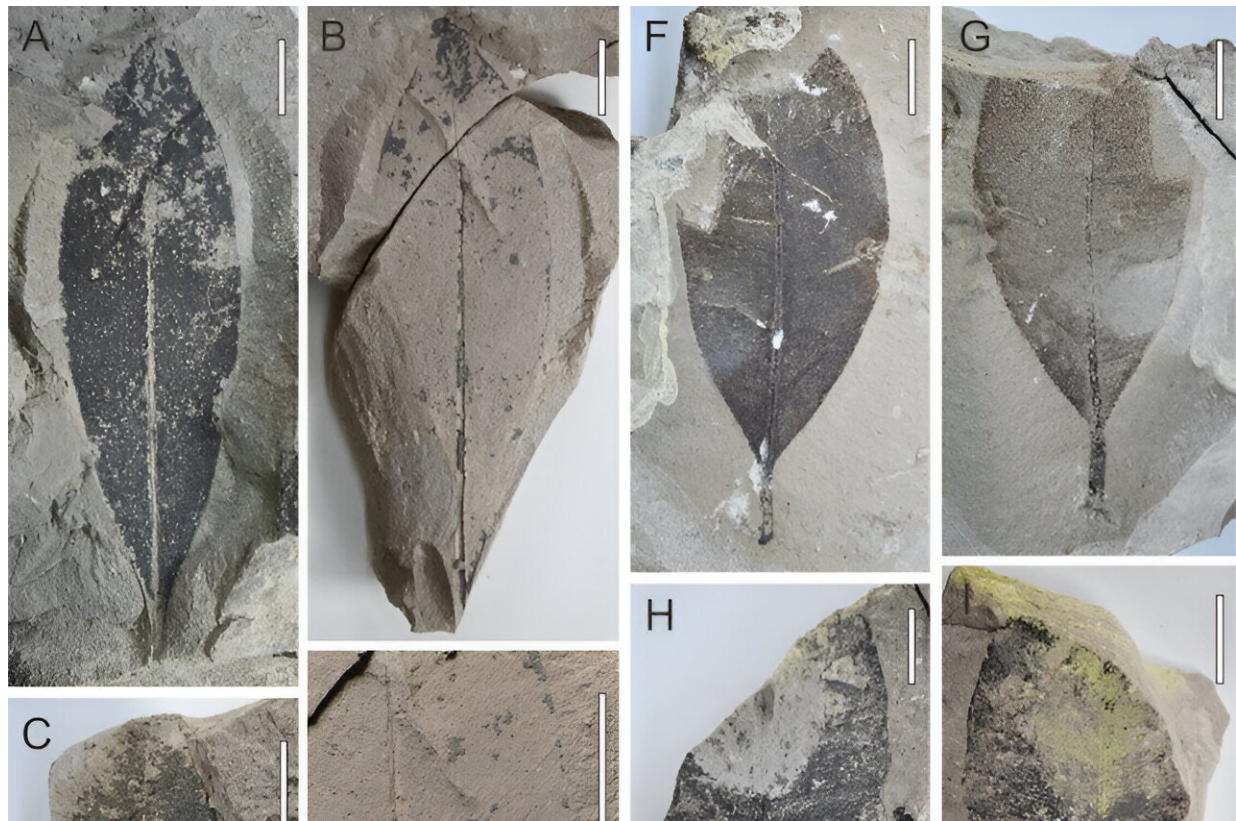


First macrofossil record of *Calophyllum* in Thailand reported

September 15 2023, by Zhang Nannan



Fossil leaves of *Calophyllum suraikholaensis*. Credit: XTBG

Calophyllum linnaeus is one of the largest genera of Calophyllaceae with about 190 living species. Until now, there have been two pollen records of *Calophyllum* from the Middle Miocene of Thailand.

In a study published in *Palaeoworld*, researchers from the Xishuangbanna Tropical Botanical Garden (XTBG) of the Chinese Academy of Sciences reported well-preserved [fossil](#) leaves of *Calophyllum* from the late Oligocene–Early Miocene of the Ban Pu sub-basin in the Li Basin, Lamphun Province, northern Thailand. It is the first macrofossil record of this genus in Thailand.

The researchers collected five fossil *Calophyllum* leaves from the Ban Pu sub-basin of Li Basin, Thailand. They identified the fossils by detailed morphological comparison with leaves of extant and fossils.

The fossils were assigned to *Calophyllum*, based on several key leaf characteristics, such as oblanceolate or oblong in shape and parallel secondary veins, nearly perpendicular to the mid-vein, and secondary veins alternate, closely placed, craspedodromous, parallel, dense, and distinct on the surface, forming marginal veins.

The leaf fossils from the Li Basin are most similar to *C. suraikholaensis*. Based on the morphological details, it is difficult to further assign the fossil leaves to the species level with the limited morphological characters preserved. Therefore, the researchers treated these fossils as *Calophyllum* sp.

"Our fossils are the first macrofossil record of *Calophyllum* in Indochina. The fossils in this study, together with previous [fossil](#) records, show that, the vast regions from India through the Indochina Peninsula to south China were connected by subtropical forests with floristic exchange in the Miocene. It suggests that India may have been a center of origin for *Calophyllum* and that it spread to other regions," said Su Tao of XTBG.

The discovery of *Calophyllum* fossils represents a humid, subtropical to [tropical climate](#) in the late Oligocene–Early Miocene in the Li Basin.

More information: Napussawan Thongsangtum et al, *Calophyllum* (Calophyllaceae) from late Oligocene–Early Miocene of Li Basin, northern Thailand and its biogeographic and paleoclimatic implications, *Palaeoworld* (2023). [DOI: 10.1016/j.palwor.2023.09.002](https://doi.org/10.1016/j.palwor.2023.09.002)

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