EXALLOANTHUM, A NEW NAME FOR A FOSSIL ANGIOSPERM FLOWER IN MYANMAR AMBER

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ABSTRACT

In a recent article, a flower from Burmese amber was described as *Diaphoranthus burmensis*. It was later discovered that the genus *Diaphorathus* Meyen had been used previously for an asterid, *Diaphoranthus fuscus* (Meyen 1834). The new name for *Diaphoranthus burmensis* is changed below to **Exalloanthum burmense**.

RESUMEN

En un artículo reciente se describe una flor del ámbar birmano como *Diaphoranthus burmensis*. Más tarde se descubrió que el género *Diaphorathus* Meyen se había usado previamente para una astérida, *Diaphoranthus fuscus* (Meyen 1834). El nuevo nombre para *Diaphoranthus burmensis* se cambia a **Exalloanthum burmense.**

INTRODUCTION

Angiosperm flowers in Burmese amber are extremely interesting and often possess morphological features not observed in extant angiosperms. Of 12 generic lineages described from Burmese amber, only two could be placed in modern families. Five other lineages showed possible affinities with some extant angiosperm groups while five other lineages could not be aligned with any contemporary angiosperm families (Poinar 2018).

SYSTEMATIC TREATMENT

In the above paper (Poinar 2018), a flower from Burmese amber was described as *Diaphoranthus burmensis*. It was later discovered that the genus *Diaphoranthus* Meyen had been used previously for an asterid, *Diaphoranthus fuscus* (Meyen 1834). In the present work, a new generic name for *Diaphoranthus* is created and a comb. nov. for *Diaphoranthus burmensis* is presented as *Exalloanthum burmense*.

Exalloanthum Poinar, **nom. nov.** Basionym: *Diaphoranthus* Poinar, In: G.O. Poinar, Jr. 2018. Mid-Cretaceous angiosperm flowers in Myanmar amber. In: B. Welch & M. Wilkerson, eds. Recent Advances in Plant Research. Nova Science Publishers, New York, U.S.A. Pp. 196–204. Not *Diaphoranthus* Meyen, 1834.

Etymology.—The new generic name is taken from the Greek "exallos" = quite different and the Greek "anthos" = flower, in regards to the strange shape and formation of the pollen.

Exalloanthum burmense Poinar, **comb. nov.** (**Fig. 1**). Basionym: *Diaphoranthus burmensis* Poinar, op. cit. Type: MYANMAR (BURMA). Kachin: amber mine in the Hukawng Valley SW of Maingkhwan, 26°20'N, 96°36'E, *horizon,* uppermost Albian-lowermost Cenomanian (mid-Cretaceous)(97–110 Mya), 2018, *unknown amber miner s.n.* (holotype: Curatorial # B-An-4 deposited in the Poinar amber collection maintained at Oregon State University, Corvallis, Oregon 97331, U.S.A.).

While the perfect 5-merous actinomorphic flower of *Exalloanthum burmense* appears fairly normal with its 10 stamens and superior ovary with 5 large stigmatic branches (Fig. 1A, B), the anthers are quite different from those of any extant angiosperm. They are athecal and occur along the tips of the filaments. Oblong monocolpate pollen grains are released through the anther walls (Fig. 1C).

Etymology.—Species name for country of origin, Burma.

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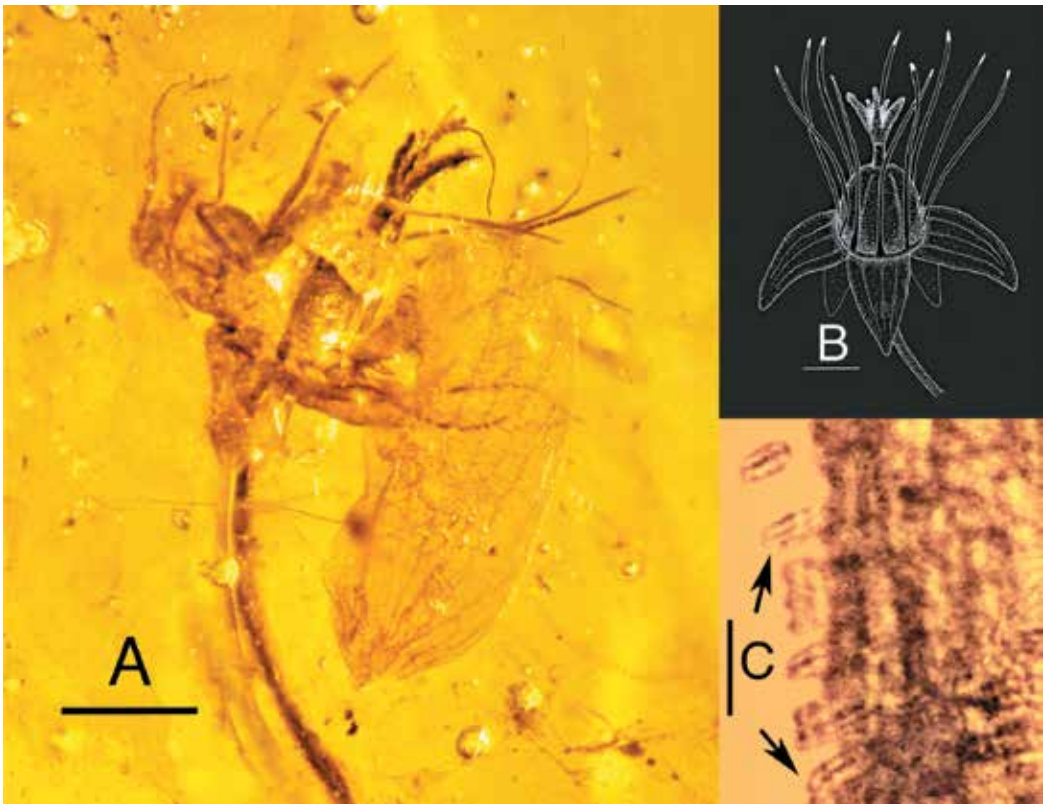

Fig. 1. *Exalloanthum burmense* comb. nov. A. Holotype. Scale bar = 460 µm. B. Reconstruction. Scale bar = 250 µm. C. Section of anther showing oblong pollen grains (arrows) being released. Scale bar = 13 µm.

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