



Declining rainforests and arid emergence: Ancient Kurrajongs (*Brachychiton*) of South Australia's Late Miocene-Pliocene (~7 – 2.3 Mya).

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Brachychiton is composed of 36 species, of which 34 are endemic to Australia. The genus is uniquely diverse, regarding distribution and morphology. Within the literature on the Australian fossil plant record, there are many unsubstantiated reports informally attributing various fossilised leaf specimens to *Brachychiton*. However, a distinct lack of a formal classification of these specimens and their relationship with living *Brachychiton* is apparent. However, there is no doubt that *Brachychiton* is a likely candidate for fossilization during the Cenozoic and many of the leaves attributed to *Brachychiton* are very similar in form to some living species of the genus. Stuart Creek in South Australia, a Late Miocene-Pliocene age fossil site, has been subject to reports informally attributing fossil specimens to *Brachychiton*. More than 500 individual silcrete rock specimens from the site, were examined for similarities with living *Brachychiton*. Comparisons between fossil specimens and extant *Brachychiton* (additionally, extant species with morphological similarity to *Brachychiton*), involved characters such as leaf shape, size, venation, and cuticle morphology. Results revealed two extant *Brachychiton* species fossilised at Stuart Creek. Furthermore, these species also inhabited the site at the same time, with several rock specimens found with both species fossilised together.

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