



Cyathea cooperi (Hook. ex F. Muell.) Domin- The Tree fern

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Received : 08. 07. 2020; Revised: 15. 08. 2020; Accepted and published online: 01. 09. 2020

The tree ferns belong to the family Cyatheaceae in the monophyletic order Cyatheales, class Polypodiopsida with three genera, *Alsophila* (275 species), *Cyathea* (265 species), and 103 species in *Sphaeropteris* (PPG 2016). *Cyathea cooperi* is found in eastern Queensland and eastern New South Wales and locally naturalized in south-western West Australia and native to northeast Australia (McCarthy 1998).

Large numbers of tree ferns (*Cyathea cooperi*) were observed growing in Mount Lofty Botanic Garden, 16 Lampert Road, Crafrers 5152, Adelaide, Australia (Figs.1A, B, C). This beautiful Botanic Garden is owned by Government of South Australia and operated by the Botanic Gardens of South Australia. It spreads over 97 hectares on the eastern slopes of Mount Lofty in the Adelaide Hills east of Adelaide in South Australia (34°59'21.3" S 138°42'25.03" E). The Botanic Garden was first opened in 1857 and later for visitors in 1877. World's cool-climate plants are cultivated and displayed in the garden. Amongst the native Australian flora there are large number tree ferns (*Cyathea cooperi*), as well as exotic cultivated plants from cool climates including *Rhododendron* and *Magnolia* and the National Species Rose Collection.

The trunk, is 12±3 m high and 15±5 cm in diameter (n=15). Plant height was measured by simple shadow method (Kearns and Inouye 1993). It is covered by oval leaf scars. Young leaves appear with circinate vernation. Fronds are 3±1 m long and 0.75-1± m wide with their stalks 40±10 cm long (Fig. 2). Leaflets deeply lobed and are paler underneath and up to 60±5 cm long, consisting of 12±2 cm long and 2.5±0.5 cm wide pinnules. Sori develop at the forks of veins. They are round and 1±0.5 mm in diameter. They produce large amount of spores in summers which disperse by wind and water.

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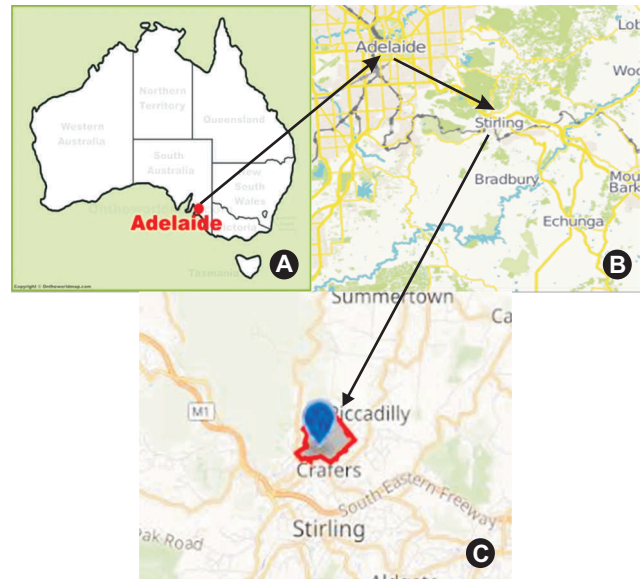


Fig.1: Maps showing: A: Location of Adelaide in Australia, B: Adelaide and Stirling; C: Mount Lofty Botanic Garden, Crafrers, Adelaide



Fig.2 : Tree ferns (*Cyathea cooperi*) at Mount Lofty Botanical Garden Crafrers, Adelaide.