

Sphaeropteris cooperi

Australian tree fern

Sphaeropteris cooperi (F. Mueller) R.M. Tryon
Syn. *Cyathea cooperi*, *C. australis* (erroneous)

Family: Cyatheaceae

Description: Tall tree fern to 40 ft in its native Queensland, leaves large triangular fronds with lacy blades, to 20 ft long. Trees not as tall in Hawai‘i, but they may not have had enough time to reach their full size yet. Stipes (stems of fronds) fall off when leaves die, leaving oval scars on scaly brown stems clear of dead fronds. Does not have the thick layer of fibers (*hāpu‘u*) of the native tree ferns⁽³⁵⁾. Spreads by spores carried by wind and water. Listed by Neal⁽⁵⁹⁾ as *Cyathea australis*, a different plant. Meaning of *Sphaeropteris* unclear. Botanical authority provided by G. Staples, Bishop Museum.

Distribution: Naturalized in southeastern and western Australia and on Mauritius. In Hawai‘i, naturalized in forests at Hanalei, Koloa, and Kōke‘e on Kaua‘i; in Mānoa Valley on O‘ahu; and at Kipahulu Valley, Peahi and Haiku, Maui. Recent introduction as an ornamental, is still sold as an ornamental⁽³⁵⁾.

Environmental impact: Suited to shade, fast growing, displaces understory vegetation⁽³⁵⁾.



Management: Medeiros et al.⁽³⁵⁾ suggested that Australian tree ferns be replaced in commerce by tree fern species that are not as aggressive. Initial control of the Australian tree fern has been mechanical, wherein the trees are felled and the apical meristem removed and chopped up or set above ground to avoid contact with the soil so it cannot resprout, although it is not certain if it is capable of resprouting, as can some other tree ferns. At Kōke‘e, felled tree ferns apparently do not resprout (Galen Kawakami, DOFAW). However, it is not certain if resprouting is possible in higher-rainfall sites. Australian tree fern was susceptible to sprays of concentrates of dicamba and of 2,4-D directly on the stem terminals. Triclopyr was not as effective⁽⁵⁰⁾.