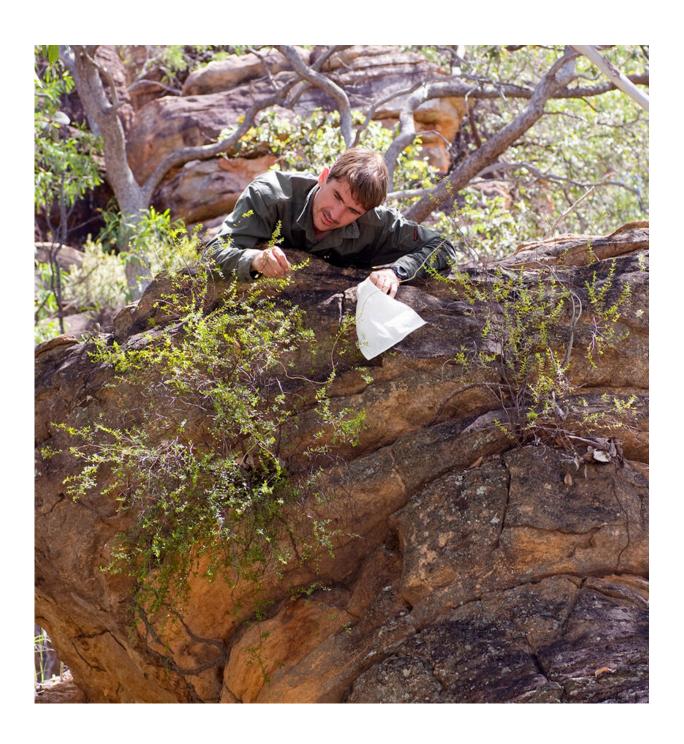


A new species of fig discovered on Uluru

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Credit: Australian Institute of Botanical Science

Figs are one of the world's most recognizable trees and extensively used by First Nations peoples, but until recently a single widespread species, Ficus brachypoda, was the only kind recognized in central Australia.

Systematic botanist Dr. Russell Barrett says new research shows central Australian populations represent a <u>distinct species</u>, previously confused with northern relatives, which they've now described as Ficus desertorum, or the desert fig.

"Careful study of collections held in herbaria across Australia, and with reference to historical specimens held in European herbaria, showed that the central Australian populations were indeed morphologically distinct from more northern or western populations," Dr. Barrett says.

"These figs are an incredibly significant <u>species</u> to First Nations peoples in central Australia, for food, shelter, and spirituality. Damaging these trees could be punishable by death historically, such is their significance to the whole community.

"We hope the description of this species with a new scientific name will enhance its protection in such an arid environment. While the species is quite widespread, and not currently threatened, it is only found in small populations, so shifts in climate, or localized impacts such as hot fires, could impact the species in the near future."

The culturally significant plant also grows on other elevated landscapes in central Australia, including Kata Tjuta (The Olgas) and Karlu Karlu (Devils Marbles).



The new name was chosen after consultation with the Central Land Council to see if an indigenous name might be appropriate. Indigenous names include tywerrk (Alyawarr; Anmatyerr); tjurrka (Arrente); utyeerk, utyeerke (Eastern Arrente); tywerrke (Western Arrente); ili, witjirrki, yili (Pintupi); ili (Pitjantjatjara / Yankunytjatjara); wÿirrki (Warlpiri). The figs as a food are known as mai pulka (Yankunytjatjara).

"Indigenous names for the species each have their own contexts and significance within a language group, and the species spans several language groups," Dr. Barrett says.

"No indigenous name spans all language groups, so choosing any one of the existing names could effectively exclude others from the same degree of significance. Based on these considerations, we were respectfully asked to choose a 'standard' scientific name for the species.

"We then chose to call the species Ficus desertorum, as the most commonly used English name for this species is the 'desert fig." The name also highlights how unusual it is to find a fig in the desert."

Honors student Brendan Wilde, who has been studying Australian native figs for a decade, first saw the species and enlisted Dr. Barrett, an expert in plants of Northern Australia, to help find out more.

"To recognize a new species for science is always exciting but to find one on Uluru is not something you expect in a lifetime of research," Dr. Barrett says.

The main differentiating factor for this species is its leaves, being smoother, narrower and thicker than related Australian fig species.

The trees are used as shelter for the western bowerbird and a wide variety of native snails that gain valuable shade in an otherwise arid



environment.

"Figs are famous for their long roots which seek out water, and this species has perfected that art," Dr. Barrett says.

"Roots have been reported following cracks in cliff walls for over 40 meters to reach precious water which might be hiding deep within the rock, or far below in a secluded pool. This is how the desert fig persists in the arid conditions found in the heart of Australia."

The novel scientific name was formally described in the journal of the National Herbarium of New South Wales, *Telopea*, an open access publication.

More information: Brendan Wilde, Hiding in plain sight, Ficus desertorum (Moraceae), a new species of rock fig for Central Australia, *Telopea* (2021). DOI: 10.7751/telopea14668

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