

# Date Palms in Central Australia *Phoenix dactylifera*

Central Australia has only one native palm, the Central Australian Cabbage Tree Palm, *Livistona australis*, but there are also *introduced* Date Palms, *Phoenix dactylifera*, that can be found in some surprisingly remote and isolated desert regions.

There is uncertainty surrounding the origins of the Date Palm, which has been in cultivation in the Middle East, Egypt, Arabia and the western regions of Pakistan for at least 10,000 years. Some believe they originated in the region between Egypt and Mesopotamia ('Western Asia'), others consider they are native to the Persian Gulf or western India. Regardless, most of the world's 8.5 million tonnes of dates still come from the Middle East and North Africa. Dates therefore have great significance in Islam, Judaism and Christianity.

So how did date palms find their way to Central Australia? There is anecdotal evidence that the famous botanist, Ferdinand von Mueller, encouraged early explorers and travellers to plant date seeds around waterholes to provide a food source for future travellers. The problem is that Date Palms are dioecious; that is, there are male date palms and female date palms. Wind pollination is unreliable so most commercial date production is dependent on hand pollination, and von Mueller was supposedly unaware of this fact. However, there is evidence that in the 1880s, von Mueller sent



Date Palm with massive bunches of young dates



Young, freshly harvested dates.





Date Palms at Hermannsburg Mission. Photo: Clark, Darren, 2012. Hermannsburg mission. Available at: <https://hdi.handle.net/10070/589426> (accessed 18 May 2022).

seeds to the Hermannsburg Mission, 130 km west of Alice Springs where the first Central Australian date palm plantation was established.

Date palms were grown by Afghan cameleers in their own camps usually on the outskirts of railheads or ports, and they also distributed them, by planting date seeds when they travelled overland on the many routes between Adelaide and Alice Springs.

This is certainly the origin of many palms at remote springs and waterholes. However, the cultivation of date palms in Australia preceded the arrival of the first Afghan cameleers by at least 15 years, sold by a South Australian Nursery as early as 1845. Between 1884 and 1887, the South Australian Government planted palms at various locations in the north of the state, but with little success. At that time, a cameleer, Abdul Kadir, planted nine acres of date palms just outside Maree. He understood the need for hand pollination and his plantation was a commercial success. In 1899, the leaseholder of Dalhousie Springs, now part of Witjira National Park in the far north of South Australia, arranged for dates to be planted on his property. Curiously, dingoes eat the dates and are the main seed dispersal agents.

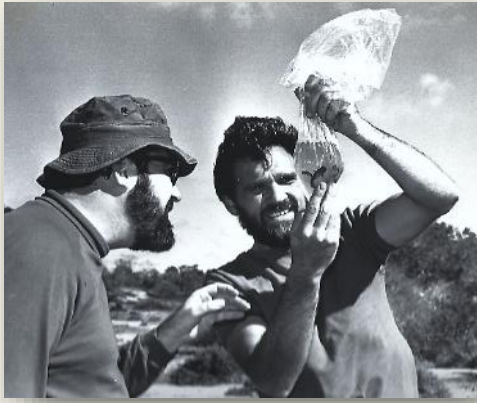


Dalhousie Springs from the air.



Dates at the Mercat Central de València, Spain. ©Hans Hillewaert/[CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/)

In 2015, a new ultra-fertile variety of date palm was discovered in the Alice Springs Arid Zone Research Institute. This new variety produces remarkably large amounts of pollen and is believed that it will be exceptional in pollination of female palm flowers. The high volume of pollen ensures that fewer unproductive male date palms will be needed in plantations. DNA analysis shows that this new variety is unique, and unrelated to other male palm varieties found elsewhere in the world.



Biologists John Glover and Walter Ivantsoff with Desert Hardyhead at Dalhousie Springs in what is now Witjira National Park. Photo: Kevin Berry. Crown of a date palm is visible behind.

The Dalhousie Springs connection is of particular interest to those from the School of Biological Sciences at Macquarie. In 1974, biologist Walter Ivantsoff organised a field trip to Dalhousie Springs to collect a particular species of fish, the Desert Hardy head, *Craterocephalus dalhousiensis*, a very small species known to be able to



Date Palms at Dalhousie Springs. Foreground journalist Gavin Souter with Alison Downing: Photo: Kevin Berry

survive for short periods of time in extremely hot water of the springs. Others included biologist John Glover from the South Australian Museum, together with journalist Gavin Souter and photographer Kevin Berry, both from the *Sydney Morning Herald*. Alison Downing, a horticulturist in the School, flew the aircraft used for the mission. Walter Ivantsoff and John Glover were successful in retrieving the fish needed for the taxonomic description of the new species.



Steam rising from Dalhousie Springs in what is now Witjira National Park. Photo: Kevin Berry



Ellen R. 2015. ABC: [New ultra-fertile variety of date palm found in Alice Springs exciting growers - ABC News](#)  
 Friedel M H. 2020. Unwelcome guests: a selective history of weed introductions to arid and semi-arid Australia. *Australian Journal of Botany* 68: 75-99.  
 Ivantsoff W I, Glover C J M 1974. *Craterocephalus dalhousiensis* n.sp., a sexually dimorphic freshwater teleost (Atherinidae) from South Australia. *Australian Zoologist* 18: 88-98.  
 Kelham M. *Visiting Desert Dates*. Alice Springs Field Naturalists Club Newsletter May 2021, pp. 3-5.  
 Reilly D, Reilly A. 2014. Chronicle of a new date palm grower. Developing a date industry in Australia. *Emir. J. Food Agric.* 26(11): 1000-1013.  
 Souter, G. 1974. Quest for the Desert Hardyhead. The Sydney Morning Herald, Saturday 1<sup>st</sup> June 1974 p 11.  
 Wikipedia: [https://en.wikipedia.org/wiki/date\\_palm](https://en.wikipedia.org/wiki/date_palm)

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