

The first century of plant collecting in the Simpson Desert

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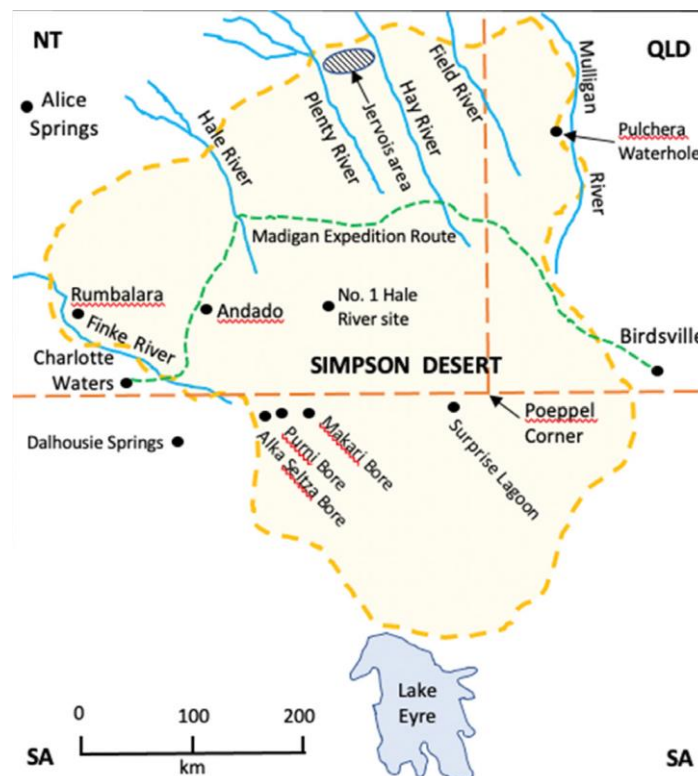
Supplement to the 'Major plant collectors in the Simpson Desert, 1879–1979',
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Central Simpson Desert carpeted in ephemeral daisies after good rainfall in 2016,
photo RW Purdie

Introduction

The Simpson Desert is an area of parallel, longitudinal sand dunes covering around 130,000 square kilometres of land where the Northern Territory (NT), Queensland (Qld) and South Australia (SA) adjoin. Although European explorers first entered the desert in the 1840s and 1860s, plant collectors only visited the area from the 1870s. The specimens they deposited in various Australian herbaria provide a history of the desert's plant collectors and collecting. Around 100 individuals collected some 3556 specimens from 1879 to 1979. This article provides a snapshot of their collectingⁱ. An article in *Australian Garden History*, vol. 33, no. 3, January 2022 presents the biographies of some of the most active collectors who together accounted for 66 per cent of all specimens.



1879–1889

Nine people are known to have collected just over 100 specimens during this period. Most were from the Mulligan River area on the northeastern side of the desert, about two-thirds of them gathered by pastoralist WH Cornish in 1885. However, the first collections were made in 1879–80 from the Finke River on the desert's western margins by Reverend Friedrich Adolf Kemp while he was a missionary based at Hermannsburg Mission southwest of Alice Springs.

1890s to 1920s

Over the next four decades only 56 collections were made, by six people. The most notable was John Burton Cleland, Professor of Pathology at the University of Adelaide. In 1929 he collected at Rumbalara, a siding on the just-completed narrow-gauge railway line between Oodnadatta and Alice Springsⁱⁱ. Rumbalara provided easy access to the western margins of the desert and paved the way for a burst of collecting in the following decade.

1930s

Eleven people collected just over 400 specimens during the 1930s, around 23 per cent of which came from the Rumbalara area during four visits by Cleland (in 1931, 1932, 1935 and 1936) and three by Ernest Horace Ising (in 1931, 1933 and 1936). Ising, a clerk with the South Australian Railways, was able to use his rail pass to travel to remote outback areas and pursue plant collecting in his spare time.

1939 was a landmark year, with the first west to east crossing of the dune fields by scientists as part of the Madigan Expedition in June-Julyⁱⁱⁱ. Travelling from Charlotte Waters to Birdsville (see map), the scientists aimed to study the area's physiography, zoology and botany, the latter aimed in part at making a comprehensive plant collection. Robert Langdon Crocker from the CSIR Soils Division collected around 285 specimens during the crossing, which was 70 per cent of the decade total. The main west-east crossing from the Hale River to the NT/Qld border took 19 days and saw the nine-member team and their 19 camels traverse 626 sand dunes over a distance of 328 kilometres. Film footage from the trip^{iv} includes shots of Crocker checking his plants in the presses.

1940s and 1950s

After limited botanising by only five people during the 1940s, 18 people made 405 collections the following decade. The establishment in 1954 of the N.T. Herbarium in Alice Springs boosted collecting activity. Herbarium botanist George Chippendale collected 213 specimens (53 per cent of the decade total) during at least 14 trips to the western and north-western parts of the desert from 1954 to 1959. The CSIRO Division of Land Research and Regional Survey had also commenced work in the region, with staff collecting from the desert's western margins each year from 1954 to 1957. The main collectors were Senior Research Officers Bob Winkworth and Ray Perry and Botanical Assistant Mike Lazarides, who between them collected 39 per cent of the decade total.

1960s

Collections almost tripled in the 1960s, with 28 people amassing 1095 specimens, and reflected the activities of a wider range of botanists. Noel Lothian, Director of the Adelaide Botanic Gardens, made 454 collections in the desert east of Dalhousie Springs in 1963. David Symon, an Agronomist and Botanist with Waite Agricultural Research Institute in Adelaide, collected 77 specimens in the Purnie Bore and Hale River areas from one trip each in 1965 and 1966. The latter year saw Des Boyland, a botanist from the Qld Herbarium, make the first collections (68 specimens) in the Poeppel Corner area of the desert. NT Herbarium staff also continued to be active, with botanist John Maconochie and technician Jennifer Must collecting 133 specimens during two trips each to the Andado area in 1967 and 1968. On a joint trip in July 1968 they were joined by Tony Orchard (a PhD student at the University of Adelaide) and Joe Weber (a technician from the State Herbarium of South Australia), who together collected 90 specimens there. Bob Millington from the CSIRO's Rangelands Research Unit at Alice Springs also took back 37 specimens from Andado in 1967 and 1968.

Two amateur botanists were active in this decade. Cliff Beauglehole, an orchardist at Portland, Victoria, made 167 collections (including fungi) in 1968 on a visit to the Andado area. The following year Clifford Gittins, an engineer from Sydney, made a smaller number of collections in the Jervois area on the northern fringes of the desert.

1970s

Thirty-nine botanists collected 1434 specimens in the 1970s, with most collecting activity on the western and north-western parts of the desert. Around 52 per cent of the collections were by N.T. Herbarium staff. The most prolific was botanist Peter Latz who collected 452 specimens during eight trips from 1970 to 1977 in areas including Andado and the Field River in NT, Purnie Bore in S.A., and Pulchera Waterhole in Qld. Technician Tom Henshall and botanist Andrew Mitchell made 161 and 53 collections each in the Andado area from 1974 to 1978, while technician NM Henry collected 86 specimens from the north-west desert and Jervois areas from 1972 to 1975. Andado's accessibility also saw Ralf Buckley, a PhD student at the Australian National University, collect 240 specimens there for his research in 1975 and 1976, and Hansjörg Eichler, Curator at the Herbarium Australiense in Canberra, make 33 collections in 1978.

Purni and Makari bores in the south-western Simpson, S.A. were also visited. The main collectors were Sue Barker and Tim Fatchen from the University of Adelaide in 1972, David Symon in 1974 and Roger Callen, a geologist/palaeontologist with the S.A. Department of Mines and Energy in 1977. RG Lyons collected around Poeppel Corner and Surprise Lagoon, SA in 1971; he later became Director of the National Parks and Wildlife Service in SA.

The last collections in the 1970s were by Denis O'Byrne as part of a small group who retraced the Madigan Expedition route by vehicles in 1979^v. He brought back 53 specimens, and appears to have been an amateur botanist.

Conclusion

The majority of plant collecting in the Simpson Desert from 1879 to 1979 was carried out by professional botanists working in government herbaria or research organisations, although tertiary students and amateurs also visited the area and contributed a significant number of specimens. Most of the activity was in the western and northwestern part of the desert due to easier access or proximity to Alice Springs. Despite the ground-breaking west-east crossing by the Madigan Expedition, the flora of the eastern and central parts of the desert remained less well known. The first century of collecting provided the basic knowledge of the desert's plant diversity and paved the way for botanical activity in subsequent decades.

Dr Rosemary Purdie is a retired plant ecologist who has collected over 12,500 herbarium specimens from across Australia, including around 550 in the Simpson Desert during seven trips between 1977 and 2019.

ⁱ For further information about most of the collectors referred to in this article, see Murray Fagg, *Australian Plant Collectors and Illustrators*, <http://anbg.gov.au/bot-biog/index.html>

ⁱⁱ https://en.wikipedia.org/wiki/Central_Australia_Railway

ⁱⁱⁱ C.T. Madigan, The Simpson Desert Expedition, 1939. Scientific Reports: Introduction, Narrative, Physiography and Meteorology, *Transactions of the Royal Society of South Australia* vol 69, 118-139, 1945

^{iv} <https://unsealed4x4.com.au/video-cecil-madigans-1939-simpson-desert-expedition/>

^v Alan Day, *The A to Z of the Discovery and Exploration of Australia*, The A to Z Guide Series, No. 27. The Scarecrow Press Inc., Plymouth, UK, 2009