

Rediscovery of the palm *Livistona alfredii* on the North West Cape Peninsula

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In 1899 Thomas Carter was shown some palm trees by aboriginal people (Vines 1968) on the North West Cape Peninsula of Western Australia; "In one place [behind the range] a few clumps of cabbage-tree palms occur, which is somewhat remarkable" (Carter 1902). However, due to the lack of specimens the authenticity of the record has not been accepted despite the otherwise impeccable natural history observations, especially of birds, made by Carter in that area (Carter 1903 a,b,c,d).

Examination of the correspondence between Thomas Carter (from Point Cloates) and B. Woodward, Curator of the Western Australian Museum (WAM), in the archives of the Museum shows that Thomas Carter collected specimens and sent them to the Museum. In a letter to Woodward (Carter 30.1.1899) he states: "I found a patch of remarkable Palm Trees last June about 40 ft high. Do not know species but take it to be the Cabbage Tree. Would it be any use sending a leaf or two?, (about 5 ft in length)". (This letter also refers to a rabbit caught on Point Cloates that year). Woodward replied (20.3.1899) that "It would be great to have leaves of the Cabbage Tree". On 7 December 1899, amongst a receipt for four bird specimens, Woodward acknowledges receipt of "A bundle of palm tree leaves".

In those days some botanical specimens were registered by the Museum. The bird specimens were recorded in 1899 in the catalogue as WAM (13989-1392) and, although the bird specimens were added twice to the Donations Book (6/11/1899 and 8/12/1899), the palm specimens were not recorded. The botanical collection was transferred from the Museum to the Department of Agriculture in 1957 and was later absorbed by the Western Australian Herbarium, now part of the Department of Conservation and Land Management. No trace of the specimens has been found.

On 2 September 1988 a palm tree, c. 9 m tall (Figure 1a), and the stump of another, were seen by D. Brooks and B. Vine while searching for caves in the southern part of Cape Range (22°23'S; 113°54'E) bearing initials carved into the bark, apparently 'JC' (Figure 1b).

On 29 September 1988 two additional palms (c. 6-7 m tall) and one stump (c. 2 m tall; Figure 1c) were found c. 250 m downstream from the lone palm. The taller palm had a fire damaged trunk and fruit stalks were found on the ground. Two fronds, old fruit stalks and bark were collected from the palms. The material was dried and some fresh frond tissue was stored in liquid nitrogen.

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Figure 1. a) Lone palm tree bearing initials. b) Initials, possibly of Thomas Carter, on a solitary palm tree. c) *Livistonia alfredii* in Cape Range. d) Note the form of the T in Thomas Carters signature from a letter of 18.12.1911 (WAM archives).

The fronds were identified by R.N. Rodd (N.S.W. Herbarium) as *Livistona alfredii* F. Muell., known elsewhere only from Millstream, 340 km ENE in the Fortescue Basin, and Duck Creek, 280 km to the east in the Ashburton Basin, both on the Pilbara Block. The record from Cape Range is the only location for *Livistona* sp. in the Carnarvon Geological Basin. The palms are in the proposed extension (CALM 1987) to Cape Range National Park.

Aerial reconnaissance on 30 September 1988 failed to reveal additional palm trees in the area. The palms are surrounded by spinifex plain between sand dunes and in a dry creek bed containing, near the lone palm, unusual rounded limestone pillars (karst feature C-206). The limestone pillars are exposed for only 20 m downstream and 100 m upstream, beyond which they are buried beneath sand.

The palms probably represent the relics of the more extensive grove seen by Carter who states that they were "few in number" (in Vines 1968) but refers to "a few clumps" (Carter 1902). The only other occurrences of *L. alfredii* are in major river valleys adjacent to pools. While there is clear speleological (S. White, pers. comm. 1988) and zoogeographic evidence (Humphreys *et al.* 1989 and unpublished) that the Cape Range area used to be much wetter, there is as yet no firm evidence as to the time of the last wet period. The Cape Range palms are probably dying relicts of this more humid past.

Nowhere does Carter mention having carved initials in the tree although he was in the habit of carving useful signs in trees (e.g. WELL with an arrow; Carter 1987). As the T in Thomas Carter's signature was written like a modern J (Figure 1d) it seems possible that it is Carter's initials which are carved in the lone palm tree. His diaries were destroyed in 1932 when he died and, except for a lone manuscript (the basis for Carter 1987) his remaining papers and memorabilia were lost in 1943 when his wife died in London (V. Carter; *pers. comm.* 1988).

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References

- CALM. 1987. *Parks and reserves of the Cape Range Peninsula. Part 1: Cape Range National Park draft management plan: 1987-1997.* Department of Conservation and Land Management, Perth.
- Carter, T. 1902. Exploration of the North-West Cape. *The Emu* 2: 77-84.
- Carter, T. 1903a. Birds occurring in the region of the North-West Cape: Part I. *The Emu* 3: 30-38.
- Carter, T. 1903b. Birds occurring in the region of the North-West Cape: Part II. *The Emu* 3: 89-96.
- Carter, T. 1903c. Birds occurring in the region of the North-West Cape: Part III. *The Emu* 3: 171-177.
- Carter, T. 1903d. Birds occurring in the region of the North-West Cape: Part IV. *The Emu* 3: 207-213.
- Carter, V. 1987. *No Sundays in the Bush: an English Jackeroo in Western Australia 1887-1889.* Lothian Publishing Company: Melbourne.

- Humphreys, W.F., Adams, M. and Vine, B. 1989. The biology of *Schizomus vinei* (Chelicerata: Schizomida) in the caves of Cape Range, Western Australia. *Journal of Zoology, London*. **217**: 177-201.
- Vines, F. 1968. Thomas Carter, ornithologist. *J. and Proc. Roy. Hist. Soc. West. Aust.* **6**(7): 7-21.