

MEDIA RELEASE

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ATTENTION: Chiefs of Staff, News Directors



Humans may explain the enigma of outback palms

A new research project has found that a plant previously thought of as an ancient relic may have actually been introduced by humans.

Professor David Bowman from the UTAS School of Plant Science was part of the Japanese - Australian team that conducted the research.

The isolated palms (*Livistona mariae*) in central Australia's Palm Valley were widely believed to be relics from a great Gondwanan rainforest that perished when Australia dried out around 15 million years ago.

However, the new study, using DNA and statistical analysis, has shown that this species is almost identical genetically to a small population of palms that occurs near Katherine NT, 1000 km to the north, previously thought to belong to another species called *L. rigida*.

Prof Bowman said the research found that the northern and central Australian palms are basically brother and sister in their similarities, with genetic divergence due to slow mutation of the DNA.

"Calculations suggest that the seeds of the Palm Valley palms were moved away from their northern relatives as recently as 15,000 years ago," he said.

Prof Bowman said the palm shoots of *Livistona mariae* are eaten by Aboriginal people and the bark is used for weaving.

"It is possible Aboriginal people, who have been in Australia for 30,000 years, carried the palm seeds to Palm Valley."

Prof Bowman said Palm Valley is botanically one of the most intriguing places in Australia.

"Palm Valley is something of a mystery, given the weird plants that grow there; it is thought of as a throwback to the time Australia was covered in a rain forest.

“We have no idea if (or indeed why) Aboriginal people did indeed transport the palm seeds, but birds eating the seeds and crossing 1000 km during a period drier than now seems far more unlikely an explanation as human transportation.”

Prof Bowman said the study highlights the power of genetic analysis to reconstruct ancient migrations, with often surprising results.

The paper, published in the Royal Society of London’s journal online *Proceedings B*, is titled: *Not an ancient relic: the endemic Livistona palms of arid central Australia could have been introduced by humans.*

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