

## Palm trees may be not be native to Australia: study

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(PhysOrg.com) -- University of Queensland research has found cabbage palms have not always called Australia home.

Dr Lyn Cook, from the School of Biological Sciences, used <u>ancient</u> <u>DNA</u> sequencing to disprove the popular myth that cabbage palms were here before Australia split from the ancient continent of Gondwana.

Dr Cook said cabbage palms (Livistona species) were commonly thought to be relics of ancient rainforests that once covered much of Australia.

"Many plants and animals in Australia today have arrived since the Australian continent became isolated from the rest of Gondwana especially many grasses, daisies and chenopods," Dr Cook said.

"We found that cabbage palms entered Australia sometime in the last 16 million years, long after the former super-continent of Gondwana had broken up, and that they probably came from South-east Asia.

"Australia has been drifting closer to South-east Asia since it separated from Gondwana, and the shorter distances have allowed more dispersal of plants and animals between South-east Asia and Australia."

Dr Cook said cabbage palms seemed to be 'pre-adapted' to fire and seasonal climates, making them ideally suited to life in the Australian monsoon tropics.



"We also found that the palms of Palm Valley in central Australia are very similar to palms in the northernmost parts of the Northern Territory," she said.

"They possibly dispersed into central <u>Australia</u> along water courses that today flow only when there is cyclonic rainfall but which had good flows at several times in the past.

"The palms of Palm Valley are special because they cling to life in a very tough environment, but they have only been there for less than one or two million years.

"They were not there when the area was rainforest about 30 million years ago."

Provided by University of Queensland

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