

Fadang photo makes the cover of major botanical journal

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The endangered *Cycas micronesica* produces a photogenic female reproductive structure. Credit: Thomas Marler

The research efforts of University of Guam scientist Thomas Marler have put Guam's endangered native cycad, *Cycas micronesica* (fadang is the Chamorro name) on the cover of the June 2011 *International Journal of Plant Sciences* (IJPS). Published by the University of Chicago Press, IJPS is an important source for researchers looking for new and dynamic articles in the field of botany.

In this recently published article, Marler and Cornell University [botanist](#) Karl Niklas compared Guam [cycads](#) growing in different habitats to examine the influence of the environment on [reproductive success](#). Their methods were designed to more fully understand the role of wind during the events that lead to [seed production](#).

"We were able to quantitatively demonstrate that cycads growing in locations exposed to trade winds and salt air on Guam's east coast produced fewer seeds and were less robust than plants growing on the protected west side of the island," says Marler. "We used these results to convey the need to include multiple locations whenever conducting research on rare and endangered species."

The research also informed the ongoing desire to determine the role of insects versus wind for [pollination](#) of fadang. The results indicated these ancient plants more likely rely on the help of insects rather than wind for pollination. These answers to critical questions are invaluable for developing a plan to conserve the species.

A scientist with the Western Pacific Tropical Research Center, Marler's long-term research on fadang is more crucial than ever considering its future is in jeopardy due to damage by several invasive insects. The data used in this study were collected in 2004, which was the year of the last major reproductive event before the insects began killing fadang plants. *Cycas micronesica* went from being the most abundant tree on Guam in 2002 to endangered status in 2006, according to the International Union for [Conservation of Nature](#) & Natural Resources.

The beauty and symmetry of *Cycas micronesica* make it a worthy photographic and research subject, as Guam forests would lose an important species if the invasive insects continue to go unchecked. The important work of Marler and other scientists on Guam's native plants and animals is invaluable for the future health of island ecosystems.

Provided by University of Guam

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