

Literature on cycads continues to accumulate

May 3 2016



Cycas revoluta is the subject of more publications than any other cycad species.
Credit: Thomas Marler

As traditional print journals merge with contemporary web-based journals, publishing scientists find themselves in a rapidly evolving transition. In order to understand how these changes in publishing culture have influenced the literature on cycads, authors April Cascasan

and Thomas Marler recently conducted comparisons of online search approaches and the established foundation of printed proceedings from international conferences focused on cycads. The result of the endeavor appeared in the March 2016 issue of the *Journal of Threatened Taxa*.

Working out of the University of Guam and the University of Hawaii, the outcomes were used to uncover which cycad disciplines have been well-studied and which have been inadequately studied. Systematics and phylogeny were represented in a high percentage of cycad publications in recent decades, and the trends indicated these disciplines will continue to draw the interest of cycad biologists in the near future as evolving molecular methods enable reassessments of inter-specific relationships. In contrast, the applied sciences such as horticulture and plant protection science have not been adequately represented in the cumulative cycad literature.

Several interesting outcomes were identified by the authors. "For example, when cycad species names are discontinued for portions of their former geographic range, a critical need emerges for connecting the contemporary accepted binomial with historical publications that employed the discontinued binomial," said Cascasan. This problematic outcome of the ongoing changes in systematics is substantial for *Zamia pumila* throughout the Caribbean cycad species and *Cycas circinalis* throughout the Pacific and Asian cycad species.

A number of important publications that contained data on cycads were not included in the literature searches because the original authors failed to include appropriate keywords in their title or additional index word list. Cascasan and Marler suggest that authors include the word "cycad" in an article's title or index word list as a minimum. This suggestion cannot address past articles that were published in the absence of the requisite keywords. But the recent development of social networking sites for scientists enables an updated opportunity for the original

authors to expand the list of keywords when they upload historical publications to their home page. For example, ResearchGate allows an author to add "cycad" to the custom index words to improve the potential for the published cycad data to be found in future searches.

The oldest cycad publication that the experimental approach captured was from 1802, and few publications were found from the years between 1802 and 1950. The authors point out that cycad publications found during online literature searches in future years may include more publications from this historical period. Their assertion may seem counterintuitive, but the basis of the prediction is that more historical print journals are being digitized and uploaded to the internet every year. As more obscure historical journals become digitized, the cycad publications that are currently hidden in these journals may indeed become hits in future literature searches.

The authors also point out that the substantial cycad literature has not been subjected to many examples of meta-analysis or traditional reviews. They are hopeful that the *Journal of Threatened Taxa* article may prompt the cycad biologist to address this need.

More information: April N. Cascasan et al, Publishing trends for the Cycadales, the most threatened plant group, *Journal of Threatened Taxa* (2016). [DOI: 10.11609/jott.2369.8.3.8575-8582](https://doi.org/10.11609/jott.2369.8.3.8575-8582)

Provided by University of Guam

Citation: Literature on cycads continues to accumulate (2016, May 3) retrieved 13 March 2024 from <https://phys.org/news/2016-05-literature-cycads-accumulate.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.