

# PRESS RELEASE

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## UOG survey shows rhino beetle damage in 20% of Guam's coconut palms

The latest island-wide roadside survey shows that 20% or one in every five coconut palms sustained damage caused by the coconut rhinoceros beetle.

The roadside survey was carried out the week of April 3 by University of Guam entomologist Dr. Aubrey Moore, who has been tracking the damage since 2020 using Artificial Intelligence.

In October 2020, the proportion of coconut palms with visible damage from the beetle ranged from 7% to 23%. That percentage dropped to about 7% during 2022 but is now back to 20%.

Moore's surveys involve taking high-definition digital images of the roadsides of all major routes in Guam at a rate of one per second. Back in the lab, a computer program developed using an AI technique called deep learning examines every image, finds all the coconut palms, assesses the damage to each, and generates an interactive map that is color-coded by damage level. The map from the April survey can be viewed at <https://bit.ly/2023crbsurvey>.



*Aubrey Moore*

This survey method is a big improvement over the standard CRB damage monitoring method, Moore said, which requires visual inspection and assessment of individual palms.

“We can quickly measure damage to thousands of palms visible from Guam’s major roads instead of looking at just a few hundred,” he said. “This means that our damage estimates are much more precise. The data will be used to measure changes in damage in response to CRB pest control activities.”

Moore will be presenting these latest findings at the Invasive Species Council later this month, a body created by law in 2011 and tasked to develop an invasive species management plan and to provide annual reports on progress with the plan’s objectives to the governor and Guam Legislature.

Moore’s work on monitoring CRB damage in Guam is supported by grants from the U.S. Department of the Interior – Office of Insular Affairs and the U.S. Forest Service.

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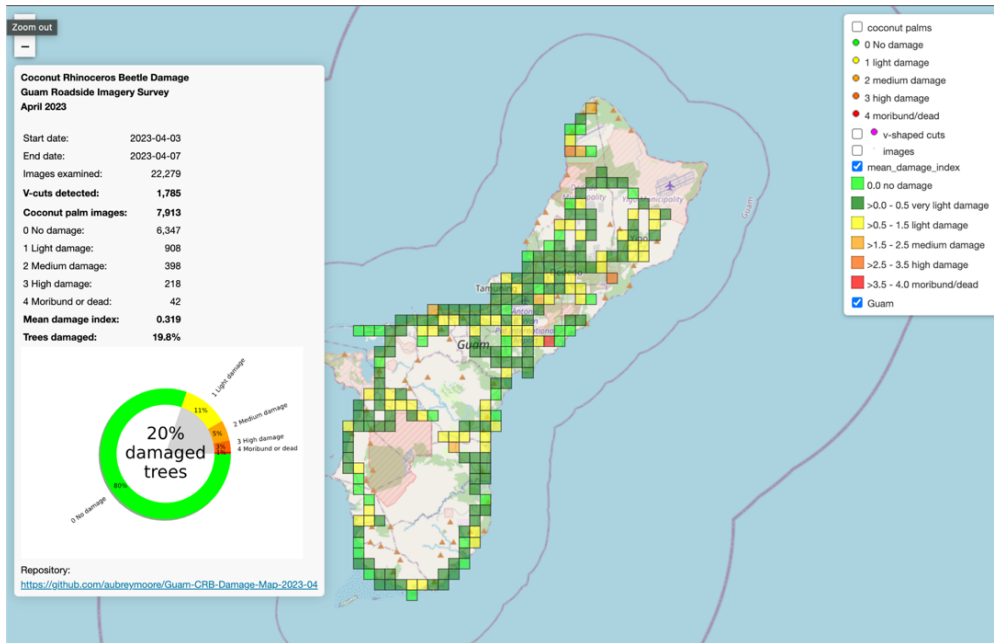
**Photo captions:**



*2023-uog-extension-dying-coconut-palms*

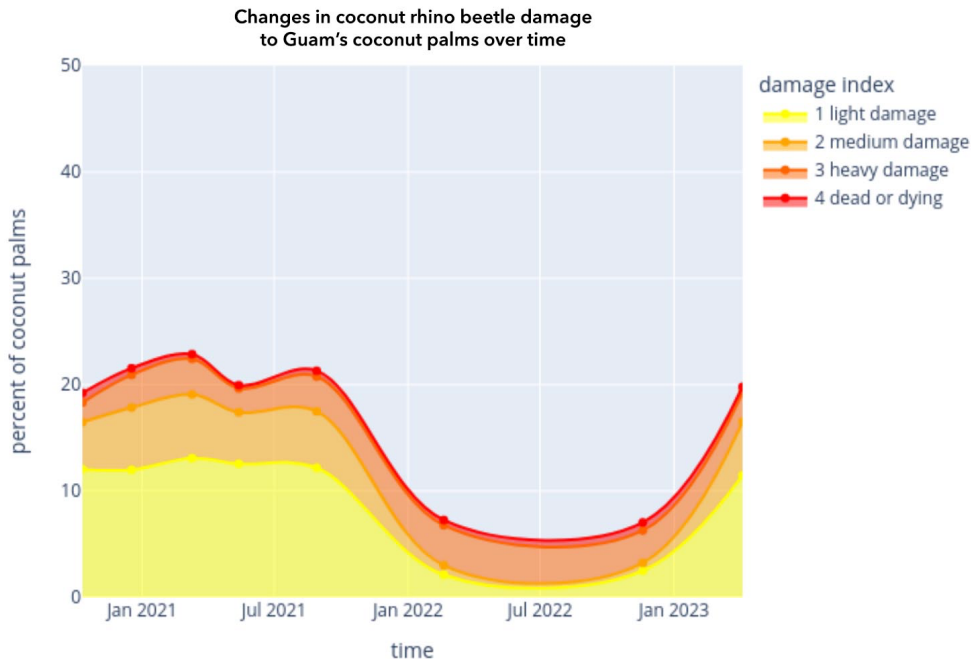
Coconut palms in Guam are severely damaged by coconut rhinoceros beetle.

*Photo courtesy of University of Guam*



### 2023-uog-survey map

An interactive online map shows the level of coconut rhinoceros beetle damage to coconut palms as assessed from major roadways throughout Guam in April 2023. The map may be viewed at <https://bit.ly/2023crbsurvey>.



### 2023-uog-crb-survey-graph

Visible damage to Guam's coconut palm trees from coconut rhino beetles ranged from 7% to 23% in 2020. That percentage dropped to about 7% during 2022 but is now back to 20%.