https://www.postguam.com/news/local/challenges-hamper-response-against-invasive-species/article\_309209ce-449f-11e9-afco-175d8ad1d1ff.html

# Challenges hamper response against invasive species

DAILY POST STAFF MAR 24, 2019 UPDATED 22 HRS AGO



MOORE: University of Guam entomologist Aubrey Moore displays a coconut rhinoceros beetle while explaining the impact i had on the island's coconut trees during a discussion on invasive species Tuesday at the agriculture department's headqua in Mangilao. Post file photo

DONTANA KERASKES

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## - Aubrey Moore, associate professor of entomology, University of **Guam College of Natural and Applied Sciences**

#### REPORT INVASIVE SPECIES

To report any suspected invasive species, call the Guam Department of Agriculture Biosecurity Division at 475-PEST (7378).

From the need for more personnel to the lack of adequate control mechanisms at Guam's commercial points of entry, the fight to keep invasive species away from the island continues to be a challenge, according to experts.

The damage caused by invasive species to the island has become the focal point of efforts by agencies that compose the Guam Invasive Species Council. The council's members gathered recently at the governor's office in Adelup for a ceremony declaring Feb. 24 to March 1 as Guam Invasive Species Awareness Week.

The introduction of invasive plants and animals to the island's ecosystem has caused economic losses, environmental hardship and harm to human health. In some cases, the introduction of an invasive species has caused the extinction or near extinction of certain native animal or plant species, such as in the case of the brown tree snake and Asian cycad scale.

The resolution declaring Guam Invasive Species Awareness Week stated, "Invasive species are everyone's responsibility. As a community, we must work together to protect and preserve our island's finite natural resources for future generations."

## Biodiversity inventory needed

The Guam Daily Post sat down with several experts in the fields of agriculture, biodiversity and conservation. The Post asked each of them to share the challenges faced by those at the front line of invasive species awareness and conservation work.

The lack of a biodiversity inventory hampers the work of organizations addressing invasive species on island, according to Aubrey Moore, associate professor of entomology with the University of Guam College of Natural and Applied Sciences.

"We don't know what organisms we share this island with. It makes it hard to combat invasive species because the first question is usually: What is it? Is it something new to the island? So it might be endemic, a rare plant or an animal that has been here all along," Moore said.

According to Moore, he has collected a list of more than 300 species of crop pests, insects and mites. Majority of the species on the list are invasive and have come in over the last seven or eight years. But that's just the tip of the iceberg, he said.

"We don't even detect most of the invasive species that come in. We don't even have a list of most of the invasives that come here. That is something that we can talk about here for a long time," Moore said.

And this is where the importance of a biodiversity inventory for Guam comes in - the inventory documents all plants, animals and biological organisms living on Guam.

The island also lacks enough specialized personnel to handle various aspects of invasive species work. The inventory, for one, requires a taxonomist who can properly identify and categorize a potentially invasive insect, animal or plant when it comes to the island. Moore said more biologists are needed to do frontline invasive species work.

## **Aggressive interdiction**

Even without the biodiversity inventory, the council listed several priority species for aggressive and continuous interdiction in the 2017-2019 Interim Guam Invasive Species Management Plan. The list includes the brown tree snake, little fire ant, coconut rhinoceros beetle, Asian cycad scale, greater banded hornet, feral swine and Antigonon leptopus, known locally as kadena de amor.

The brown tree snake tops the list. Diane Vice, wildlife supervisor and brown tree snake control program manager at the Guam Department of Agriculture Division of Aquatic and Wildlife Resources, described the snake as the poster child for invasive species. The invasive snake caused the loss of native bird species on island, such as the Mariana fruit dove, Guam flycatcher, Micronesian myzomela and the rufous fantail.

Vice oversees Kontra I Kulepbla - Challenge the Snake, which is the brown tree snake control program under the Guam Department of Agriculture.

According to Vice, the inventory is just one gap, one of several challenges. "We are not going to do a biodiversity checklist right now because we are too busy saving the species that we have left," she said.

Glenn Dulla, an agriculturalist with the Biosecurity Division of the local agriculture department, cited a lack of funding and the professional capacity to handle the work as difficulties the department faces.

"We don't have enough people to take care of research and management for each individual invasive species. There's just too many and not enough of us," Dulla said.

Compounding the issue, the Guam Customs and Quarantine Agency - which is at the frontline of the island's defense against invasive species - lacks the capability to fully inspect every piece of cargo that comes into the island, according to Dulla.

Moore agrees that globalization and increased trade activities opened the door to hitchhiking species.

"With globalization, things are getting in here really quickly from all points in the world. It doesn't take long for stuff to get here. And there has been a big uptick in the arrival of invasive species since globalization started 25 years ago," Moore said.