

Green waste could boost rhino beetle population

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(Photo: PDN file)

The population of the invasive coconut rhinoceros beetle boomed in 2015 because of green waste caused by

"(Typhoon) Mangkhut definitely isn't going to make things any better," said Aubrey Moore, an entomologist at the University of Guam. "(Beetle) grubs eat dead vegetation, and there's undoubtedly lots of it now."

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Experts predict another boom in the beetle population in about six months unless residents take steps to "sanitize" their property by draping green waste piles in tekken fishing nets, which prevent adult beetles from escaping. Vegetation also be placed in 50-gallon drums housing solar-powered ultraviolet lights, and covered over with tekken netting.

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Traps should be placed in open areas away from coconut and other palm trees, to draw rhino beetles away from trees.

Beetle has spread

The control of Guam's unique rhino beetle population is a conversation that now involves multiple Pacific Island nations after being found in locations beyond the Marianas.

The invasive species, now named CRB-G, was first discovered on Guam on Sept. 11, 2007.

"Almost exactly 11 years ago," Moore said. "But it's now been found in Papua New Guinea, Rota, Hawaii and the Solomon Islands."





Moore and his colleagues last month attended a conference in Australia aimed at finding solutions to the beetle infestation. The unique species, he said, is resistant to all of the virus strains that have been tested so far in an effort to kill it.

"Elsewhere in the Pacific they use a virus, but it doesn't work on the ones here because it's genetically different," Moore said. "We think there may be a virus isolate that evolved alongside the CRB-G. But the problem is we don't know exactly where it came from. So, we have to go out and search for it, release it into our environment and control the populations here."

Vigorous invaders

Healthy beetles of the Guam biotype are more vigorous and more successful as invaders being able to survive, transport and establish in new environments, according to Trevor Jackson of AgResearch New Zealand.

"Once established they are extremely damaging and difficult to eradicate or contain," he said.





This file photo shows the grub stage of a coconut rhinoceros beetle, a beetle in its pupa stage and an adult rhino beetle. (Photo: PDN file)

An outbreak in Palau in the late 1940s resulted in about 50 percent of the coconut palms being killed by beetles throughout the archipelago. All coconut palms were killed off on some of the smaller islands.

Extension agent Roland Quitugua said unless every homeowner on Guam makes an effort to sanitize their properties, the island could see another beetle population boom in about six months.

"If you think things look bad now, wait until six months later," Quitugua said. "Before Typhoon Dolphin, the CRB-G population was steady. Six months later; that's when things really took off, and we're still seeing the effects."

Breeding sites

While green waste in villages is manageable through the use of air curtain burners, which the government has done in the past, the greater threat lies in harder-to-reach areas where dead vegetation can accumulate without interruption.

"These are breeding sites for grubs, which in time will become adults that will go out and attack trees around the island," Quitugua said. "Our best hope is that we can find a virus to attack the CRB-G in the next year."

"We need to save our trees," Moore said.

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