

Battle against destructive beetles hits hurdle

12 July 2015, by Gaynor Dumat-Ol Daleno And Mark Scott

Guam's war against the coconut rhinoceros beetles, which have ravaged many coconut trees, has become more challenging, an expert said.

At stake in the battle against the beetles is the survival of the remaining [coconut trees](#) on the island, which aren't just a source of food. They're also a vital part of Guam's image as a tropical island, the Pacific Daily News reported Sunday.

One challenge that has set back ongoing efforts to try to eradicate the coconut rhinoceros beetles is the recent discovery that the virus *Oryctes nudivrus*, which is being used as a biological agent to kill the beetles, isn't as effective as expected, said Aubrey Moore, an entomologist, an associate professor at the University of Guam and a leading expert on the issue.

The virus, which attacks only rhinoceros beetles, typically reduces damage caused by coconut rhinoceros beetles by up to 90 percent, and population suppression lasts indefinitely, Moore stated.

But there's a problem with the use of the virus on Guam's beetles. Guam's coconut rhinoceros beetles seemed to have developed an immunity to the virus, so the next step is to try to find a more effective biological control agent, possibly another strain of virus, Moore said.

Researchers at AgResearch, a leading research institute for New Zealand's agriculture industry, and UOG, recently have discovered that the Guam rhinoceros beetles are "genetically different" from other coconut [rhinoceros beetle](#) populations and they are resistant to all available strains of (*Oryctes nudivrus*, or OrNV)," Moore said.

New Zealand researcher Sean D.G. Marshall is expected to present the findings that Guam's invasive coconut rhinoceros beetles have become resistant to the virus that's meant to stop them at

an international conference in Canada in August.

Another challenge that has come up in the fight against the destructive beetles: The numerous trees toppled by Typhoon Dolphin now are decaying and providing a breeding ground for the beetles.

The decaying trees provide a haven for grubs before they become adult, flying beetles that destroy coconuts. In about six months the grubs will become mature beetles, posing an even tougher challenge for Guam to keep their population under control, Moore said.

"Worst-case scenario is that we may lose most of our coconut palms due to an impending (beetle) outbreak in response to abundant breeding sites left by Typhoon Dolphin," Moore said.

In Colorado, tiny [parasitic wasps](#) from China are being deployed as part of a test to kill emerald ash borer beetles, which have killed 50 million trees in more than two dozen states, the Coloradoan reported recently.

Guam isn't considering using parasitic wasps to combat beetles, Moore said. Parasitic wasps were used in Palau to try to eradicate coconut rhinoceros beetles, but they weren't effective, Moore said.

A chemical or insecticide can be used to zap the beetles, but it's not approved for consumer use and can be costly, Guam researchers said.

Here's the UOG team of bug experts' advice:

. Do not cut down trees believed destroyed by beetles. More than 90 percent of damaged trees will recover. Cutting [trees](#) magnifies the problem by producing decaying wood.

. Keep all green waste and compost under appropriate netting or removed from property.

. If you're unsure if a tree should be cut, call UOG's
Coconut Rhinoceros Beetle Program at 735-2085.

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