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Progress made in fight with invasive beetle

By Rosemarie Bernardo

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The number of coconut rhinoceros beetles trapped on Oahu has significantly dropped over the past few months, according to the state Department of Agriculture program focused on eradicating the invasive pests.

From August to November, trap captures decreased by as much as 50 percent, said Rob Curtiss, incident commander of the coconut rhinoceros beetle eradication program.

"We have been seeing the effects of our efforts. A lot of trees are starting to recover. They haven't had any new damage in the last four to five months," said Curtiss, an entomologist with the Department of Agriculture's Plant Pest Control Branch. "It means we're on the right track."

In addition, Curtiss said, cooler weather may have contributed to the decline.

The beetle poses a grave threat to Hawaii's coconut palm trees, especially native coconut groves. The insects bore into the center of the crown of developing leaves and feed on the sap, causing damage to the fronds. V-shaped cut fronds and holes through the midrib are visible when the leaves mature.

About 2,700 lantern-shaped traps are in place in areas throughout Oahu and checked weekly. Each has a pheromone lure and a solar-powered UV/LED light to attract beetles.

Much of the infestation is at Joint Base Pearl Harbor-Hickam, where the first beetle was discovered in a survey trap on Dec. 23, 2013.

So far, about 1,500 adult beetles have been captured on Oahu. Of those, about 1,440 were captured at Hickam and 60 caught off base. The pests have been found to breed in mulch piles.

The beetles are captured alive and kept in a quarantine facility. Scientists are studying their biology and conducting insecticide testing.

About 130 coconut trees were cut down on Oahu because they were devastated by the beetles.

After the holiday season, experts plan to conduct field trials at Hickam using a natural insecticide as part of their strategy to tackle the pest problem.

Arnold Hara, entomologist of the University of Hawaii's College of Tropical Agriculture and Human Resources, who is based at the Komo-hana Research Extension Center at UH-Hilo, said they have identified a natural insecticide, Onyx, that is partially effective in eradicating the large bugs.

"We're trying all the different control strategies," he said, adding that the aim is full eradication of the beetles.

Part of the challenge of identifying an effective insecticide is tied to the size of the pest. Hara said the coconut rhinoceros beetle is similar to the size of a mouse, while most pesticides are developed for smaller bugs. Dark brown adult beetles measure up to 2 inches long.

With the upcoming anniversary of the beetle's discovery on Oahu, Curtiss said researchers are still gathering data to try to learn more about the pest, including its breeding patterns. Eradication of the beetles is expected to take several years.

So far, the pest has not been spotted on neighbor islands.

Now a major pest in India, the Philippines, Palau, Fiji, Wallis, Nuku-nono, Samoa, American Samoa and Guam, it's still unknown how the beetle arrived on Oahu. Scientists speculate the pest probably hitchhiked to the island on an airplane.

Anyone who spots a coconut rhinoceros beetle is urged to call the state pest hotline at 643-PEST (7378) or the CRB hotline at 679-5244. Individuals also can email photos of a beetle or damaged palm trees to stop-rhino@gmail.com.

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