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U.S. Army Protects Critically Endangered Hawaiian Snails from Invasive Predators

By John R. Platt | February 15, 2012



Three hundred critically endangered kahuli tree snails (*Achatinella sowerbyana*) have a new home this week: a basketball court–size, predator-proof enclosure built for them by the U.S. Army in Hawaii’s Waianae Mountains.

The snails, according to the Army, spent the past two years in a lab at the University of Hawaii at Manoa while the new enclosure was built. The Army did not disclose the cost of the new habitat, but told the [Associated Press](#) it was built with the help of state and

federal agencies.

Kahuli tree snails were once quite common in Hawaii, but the introduction of nonnative rats and other animals to the islands nearly wiped them out along with many other indigenous Hawaiian species. Rats apparently love to dine on the tiny snails, as does the Rosy wolfsnail (*Euglandina rosea*), aka the “cannibal snail,” which is known for eating other snail species.

The wolfsnail, which originates in tropical North American sites such as Florida, was introduced to Hawaii in 1955 in a misguided attempt to kill off another invader, the giant African land snail (*Achatina fulica*), which itself was eating valuable agricultural crops. African snails first appeared on the islands in 1936, possibly after hitching a ride on cargo ships. Unfortunately, wolfsnails balked at eating the bigger African snails and instead traveled to higher elevations, preying there on smaller Hawaiian snails, quickly driving as many as 20 species into extinction.

In addition to being prey, kahuli tree snails have an evolutionary factor against them. They are one of the rare snail species that produces live young, with just one baby snail produced at a time. Rosy wolfsnails, on the other hand, lay eggs, yielding as many as 600 young a year.

The Army has a long history of work to protect the kahuli tree snail and other wildlife. “The Army, as a federal agency, is required to protect threatened and endangered species found on its installations,” Kapua Kawelo, a biologist with the [Oahu Army Natural Resource Program](#) (OANRP), told [ARMY.MIL](#) in 2010. “On Oahu the Army is required to stabilize the population of the endangered Oahu tree snail.” She said that the snail is currently found in eight locations in the Waianae Mountains, with around 300 snails per location.

One of the Army’s efforts involved using trained dogs to track down wolfsnails. A pilot program with two dogs was quite successful, locating nearly 1,000 of the cannibal invaders. Biologists with OANRP also maintain rat traps throughout the tree snails’ habitat.

Kahuli tree snails play an important role in Hawaiian cultural traditions. According to legend, the snails sing or whistle at night—although this has never been observed by scientists—and they are featured in several traditional songs, including a [chant for Queen Kapi’olani](#), a 19th-century Hawaiian ruler.

Photo courtesy of the U.S. Army

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About the Author: Several times a week, John Platt shines a light on endangered species from all over the globe, exploring not just why they are dying out but also what's being done to rescue them from oblivion. Follow on Twitter @johnrplatt.

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