

Caring for the Land

Wildlife Biologist Tonnie Casey's job is to care for the plants and animals on Kamehameha Schools vast conservation and agricultural lands



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Tonnie Casey earns her living studying the plants and animals on Kamehameha Schools lands.

Armed with a bachelor's degree in animal science from the University of Hawai'i and a master's in zoology and entomology from Colorado State, Casey is based on the island of Hawai'i and serves as Kamehameha's only wildlife biologist.

Casey designs and conducts research studies to best manage threatened and endangered species, assists in plans for the regeneration and rehabilitation of native forest, and coordinates Kamehameha's wildlife program with state, federal and private agencies.

Her "office" includes Kamehameha's extensive conservation and agriculturally designated land holdings on the island, including roughly 160,000 acres in the Kona area and another 34,000 acres in the Volcano district. She also spends time on Kamehameha's neighbor island conservation lands.

A fact that few may realize is that 46 percent of Kamehameha's 366,000 acres of land holdings in Hawai'i are zoned for conservation.

"My greatest challenge here is actually getting the work done," Casey said. "Because we have so many acres that need stewardship, the challenge is finding the money and manpower to get the job done."

Casey's boss, **Robert "Bob" Lindsey '66**, agrees. Lindsey is the regional director for Kamehameha's Land Assets Division on the island of Hawai'i. "Our lands are so vast, so diverse and so spread out on all of the islands, that it really takes a 'village' to help us steward our conservation resources," he said. "The issues are many and the needs are great, be it helping species recover or restoring habitats for birds and plants.

"But we've got an army of people who help us, whether it's our own educators like Kamehameha staff members **Eli Nahulu '55**, **Patty Ikeda**, **Tom Chun '63** and **Ron Kimball '73**, or organizations like the Waipā Foundation at Lumaha'i, the U.S. Army at Kawailoa or the Edith Kanakaole Foundation at Honohononui."

Kamehameha Senior Land Manager Peter Simmons, also based on the Big Island, had similar thoughts. "We have a bounty of conservation partners, and we enjoy relationships and benefit from the interest in conservation demonstrated on our lands by federal, state and county organizations, local communities and even families and individuals," Simmons said.

"With this help, it is our *kuleana* to know, *aloha*, and *mālama* these vast, varied and magnificent acres. The challenge is to dynamically balance and find compatibility among programs of biodiversity enhancement, economic productivity, land based educational opportunities and enrichment of cultural use of our lands."

Casey's job involves managing alien species, like rats, pigs, sheep, goats, miconia and banana poka, which degrade conservation lands, and conducting bird counts and plant surveys. Her practical field work has included projects like attaching radio collars to rats to track their movement patterns, aiding efforts to manage the rat population.

"That's what I'm out here doing, trying to solve these types of environmental problems. Rats, which feed on bird eggs, and mosquitoes, which carry avian malaria, are just a huge problem," she said.

Casey said a simple occurrence like sheep overgrazing an area can have devastating effects – leading to topsoil runoff during rainstorms, ruining wetlands and eventually choking off coral reef systems.

“Sheep and goats eat tons and tons of forage every day,” Casey said. “We’re losing lots of plants – plants that could have great medicinal value – and plants that we don’t even know are there.”

According to Casey, the protection of endangered plants and animals has immense value that may not be readily apparent to casual observers.

“From a biological standpoint, you’re talking about the web of life,” she said. “When you eradicate plants or animals out of that web, you never know where that web is going to go or what connection it’s going to make. If just one small thing is changed, you’ve changed the entire web.”

Casey credits former trustee Myron “Pinky” Thompson with helping Kamehameha to re-examine its policies on conservation and agricultural lands.

“There’s been a huge turnaround in the interest in these lands,” Casey said. “We’re still trying to balance economy with conservation, and unfortunately, most conservation lands don’t deal well with any economic use.

“It’s also a maintenance issue. How much maintenance do you actually do to keep a system intact? And that system is always evolving because you can’t stop evolution. But to see that people are actually interested in what we’re doing up here, really makes my job worthwhile.”

With Kamehameha’s Strategic Plan objective to *mālama i ka ‘āina*: practice ethical, prudent and culturally appropriate stewardship of lands and resources, Casey is perhaps the schools’ biggest cheerleader when it comes to the new ‘Āina Ulu initiative to use Kamehameha lands to help educate students.

“‘Āina Ulu is going to be a great program,” she said. “I’d really like to see outdoor education come to the frontline. There’s so many things we can do with the kids – teach them about insects,



birds and plants, and they could also help with things like the regeneration of plants or weed control.

“Getting the kids out here is really a way to save and help preserve the land. If we can get the students out here, then they can really see the relationship of the integrated parts of the whole – it’s all a linked system.”

Casey said her ultimate dream would be to create a “conservation camp,” for island students. “We could have students come up for a week at a time, hold classes up here and really get into it – just for them to come out and spend time in the forest.”

Casey said another simple benefit of having students work with her is that she can use the help. “We have so many acres that it’s just impossible for me to do it all,” she said. “We have 65 miles of shoreline and miles and miles of streams that Kamehameha cares for.

“Island ecosystems are much more fragile than continental systems, and if we don’t get out there and see what’s going on, we can’t move things in the right direction. There are just so many opportunities out here to create things that will be good for the students, good for the land, and good for Kamehameha Schools.”

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