

Nothing wrong with 'eradication'

KIA'I MOKU

By Teya Penniman



When I first became immersed in work on invasive species, I encountered a reluctance to talk about eradication of target species. Instead, that possible goal was referred to as the “E-word.” I was cautioned not to use it lightly, as if to say it aloud could bring calamity, much like a casual reference to he-who-shall-not-be-named in the Harry Potter series.

Maui’s natural resource professionals, understanding all too well how difficult it is to eradicate something, didn’t want to promise too much. After all, the very traits that make a species successful as an invader also are likely to make it difficult to eradicate: easily dispersed, long-lived seed bank, highly reproductive, cryptic coloration. Pampas grass, miconia, coqui frogs and veiled chameleons come to mind; worthy targets but ones that require a long time to control.

So it was intriguing to learn of an entire conference dedicated to the topic “Island Invasives: Eradication and Management.” It turns out that elsewhere in the world people working to protect their natural environment are quite comfortable with the “E-word.” The conference provided the opportunity to highlight our successful control of 12 different plant species and to learn from other programs.

Preparing for the conference allowed us to examine the factors of our success, working across three islands of Maui County. We found that complete removal of some highly invasive plants can be accomplished relatively easily if they are found before they become well established, consistent with the concept of early detection and rapid response.

On Maui, we have removed all known plants of the innocuously named downy rose myr-

tle (*Rhodomyrtus tomentosa*), which has formed impenetrable thickets across vast acreages of Kauai. Yellow Himalayan raspberry (*Rubus ellipticus*) is now widely naturalized in moist to wet forests of the Big Island, but no longer found on Maui. Successes on Lanai include control of all known bingabing (*Macaranga mappa*) plants. Bingabing, with its huge, umbrella-like leaves, is common along the roadways of Hilo. On Molokai, consistent efforts by the Molokai Invasive Species Committee have resulted in the apparent eradication of the rancher’s scourge: gorse (*Ulex europaeus*). Also known as a “living fence,” gorse impoverishes soil, regenerates rapidly after disturbance, and has very long-lived seeds, up to 70 years by some accounts. Claims of “eradication” in such cases are bracketed by the understanding that known sites must be visited for many years to come.

There are several cautionary tales. Of the nearly 100 presentations at the conference, only five of them were about plants. The vast majority of papers were about vertebrates, with rodents (rats and mice) leading that pack. This makes sense as anyone who has ever tended a garden understands firsthand how difficult it can be to keep the weeds out.

We also wondered how differences among our islands might affect our ability to achieve eradication. Efforts on Lanai have been fairly straightforward, owing in part to strong support from the primary landowner and local residents. On Molokai, initial resistance by a homeowner to control pampas grass (*Cortaderia jubata*) was overcome with the offer of a replacement plant. Maui is larger and more populous, which translates into more private landowners from whom permission must be obtained. While the vast majority are cooperative, a few holdouts can thwart success.

Maui also has a larger economy and with it more opportunities for weedy plants to be introduced to the island. Molokai does not have a major



Above: Gorse forms a “living fence” in Upcountry Maui; it is no longer found on Molokai.



Middle: The prickly yellow Himalayan raspberry can hitch a ride on hapu’u ferns.



Bottom: The bingabing’s huge leaves make it easy to identify when full grown, but seedlings may arrive undetected as contaminants in nursery plants. All photos by Forest and Kim Starr.

commercial nursery. The single nursery on Lanai is easily surveyed on a regular basis for target species. One of the biggest hurdles to success is the unintentional reintroduction of a species formerly considered eradicated. This has happened several times as weedy species hitchhike a ride on hapu’u ferns brought to our islands for landscaping purposes. Checking new purchases for hitchhikers is something anyone can do to help stop the unintentional spread of super weeds between islands.

The conference also brought home how much we share with others in the world, especially in terms of island life. Almost every person began

a presentation by explaining just how wondrous and unique his or her island is. Maui, Molokai and Lanai are each unique, each worth protecting.

For more information about these and other target species, visit: www.mauiisc.org or www.reportapest.org.

■ Teya Penniman is the manager of the Maui Invasive Species Committee. She has a background in biology, management of natural resources, law, and alternative dispute resolution. “Kia’i Moku,” (*Guarding the Island*) is prepared by the Maui Invasive Species Committee to provide information on protecting the island from invasive plants and animals that can threaten the island’s environment, economy and quality of life.