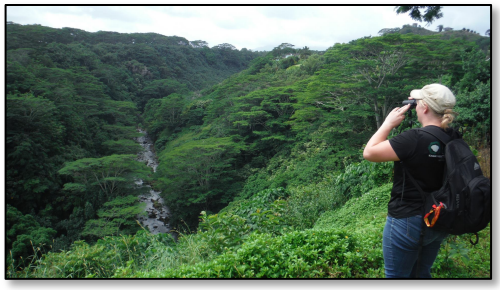
Title: Kauai Invasive Species Committee Detection & Control
Organization: Kaua'i Invasive Species Committee, Pacific Cooperative Studies Unit, UH
Award: $530,601

Introduction: The Kaua'i Invasive Species Committee (KISC) is a voluntary partnership of government, private, non-profit organizations, and individuals working together to: prevent the introduction of potentially damaging pest species to the island, eliminate recently arrived (incipient) pests before they spread beyond control, manage established pests in order to reduce their negative impacts, and educate and involve the public as to the magnitude of the invasive species problem and the need for control programs. KISC functions as an island-wide rapid response team that helps coordinate and fill gaps in the multi-agency effort to prevent the establishment of new pests. KISC has also evolved a highly effective early detection program that is continuously monitoring Kauai for threats that have evaded port detection and risk becoming new invasions. Priority is focused on species that are recognized as having the greatest potential to harm human welfare, agriculture, and native biodiversity, and where the use of limited resources is most likely to be successful.

Achievement Highlights in 2018

Early detection:



KISC's plant early detection program: Analysis complete from the 2015-2017 island wide survey. The data was used to prioritize plant species for early detection and control programs. The final report is due to release in early 2019 and includes:

- 42 species prioritization assessments, these species were ranked in order according to priority score, which reflects an additive value of eradication feasibility and potential invasive impacts.
- Background and distribution data for 61 species of interest, including 37 taxa considered too widespread for island-wide eradication.
- 53 record contributions including 7 new state naturalization records and 29 new island naturalization
- KISC began investigation of 15 species: 3 as potential partnership species, 11 as potential KISC targets, and 1 rapid response species. Delimiting surveys are continuing.

KISC's invertebrate and vertebrate early detection highlights:

- Kauai Mongoose Population Status Assessment complete: No mongoose detections throughout the assessment indicate with a degree of certainty that mongoose have not established a viable population on Kauai.
- A total of 6 coconut rhinoceros beetle traps and 8 swarm traps were monitored monthly in partnership with Mamalu Poepoe, with no species of interest detected.

Priority target species control

Control and eradication efforts centered on 12 plant species and one invertebrate species.

- *Miconia:* Survey and control of Miconia is focused on three primary areas of the Wailua District; Wailua River State Park (WRSP), Wailua Homesteads, and the Game Management Area (GMA) in the Halele'a Forest Reserve. Ground crews surveyed 351 acres and controlled 293 immature plants. No mature Miconia were detected in 2018.
- *Long Thorn Kiawe*: Ground crews surveyed 334 acres and controlled 2,975 plants.
- *Arundo, Barbados gooseberry, bingabing, buddleia, false kava, fountain grass, kudzu, ivy gourd, turkey berry, and velvetleaf glorybower:* 270 acres were surveyed and 3,936 individual plants were treated.
- *Little Fire Ant:* KISC assisted HDOA and the Hawaii Ant Lab with continued eradication efforts at Kauai's only established little fire ant infestation site in Kalihiwai. 60 acres were surveyed using 25,515 vials. The last detected little fire ant at the infestation site was in the spring 2018 survey, no LFA have been detected since.

Rapid Response. KISC's ability to quickly respond to reports of new invasive introductions helps to prevent establishment of new species on island.

- *Coqui:* 9 coqui frogs were controlled in 2018 at 3 distinct locations. The capture of multiple life stages at one location has initiated the next control phase with citric acid used for population control.
- *Little Fire Ant:* 4 rapid response little fire ant surveys were conducted at separate location island-wide with no LFA detected.
- *Mongoose:* 9 mongoose reports were received. None of the mongoose reports reached the response threshold defined in the Kauai Mongoose Standard Operating Procedures.
- *Rapid Ohia Death:* KISC continues to work with DOFAW on ROD detections on island. 3 positive locations of *C. huliohia* and 1 positive location of *C. lukuohia* were detected in 2018. KISC is part of the rapid response effort to delimit the surrounding trees and develop a management strategy.
- *Snake*: KISC assisted DLNR in the rapid response of a possible snake sighting, no snakes were detected.

Additional Activities in 2017

KISC began evaluating all target species management sites (229 total) to increase efficiency: 33 sites have been deemed extirpated out of the 74 sites evaluated. Revisit schedules and site status is based on biological information and control efforts: initial control date, last treatment date, life stage controlled, regeneration rate, last detection date, soil seedbank, and reproductive maturity age.

Partner collaboration: KISC is a project of the Pacific Cooperative Studies Unit (PCSU) with the University of Hawaii. KISC continued to work closely during 2018 with the Pacific Missile Range Facility, Hawaii Army National Guard, UH-CTAHR, DLNR-DOFAW, The Nature Conservancy, Hawaii Department of Agriculture, US Department of Agriculture, Hawaii Department of Transportation, the County of Kauai, Kokee Conservation Resource Conservation Program, National Tropical Botanical Garden, Kauai County Farm Bureau, and US Fish and Wildlife Service offices on Kauai and Oahu.

Contact Information

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