

# EXORCISTS OF INVASIVE PLANTS DEVIL WEED CREW - O'AHU, HI

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OISC is a project of the Pacific Cooperative Studies Unit at the University of Hawai'i

## SUMMARY

Over the past 100 years, devil weed (*Chromolaena odorata*) introductions have spread to India, Africa, SE Asia and the South Pacific islands. It is now one of the world's worst 100 invasive species! An aggressive invader of disturbed soils and open areas, toxic to livestock, it takes over pastures and farmlands. First detected on O'ahu in 2011, devil weed has spread beyond existing resources for island-wide eradication.

The **Devil Weed Crew Volunteer Program** is designed to engage the community in surveying for and controlling invasive devil weed along trail sides. The project was launched in February 2021 by the O'ahu Invasive Species Committee (OISC) and is aimed to reduce risk of long-range introductions by removing plants from high-risk pathways, to identify infestations in their early stages, and to collect location data for the island of O'ahu. Location data can provide helpful information on future biocontrol efforts regarding release sites.



## THE PROBLEM: ONE DEVIL OF A PLANT

### It's so good at being so bad...

- Aggressively infests farm and pasturelands.
- Toxic to livestock when ingested.
- Skin & respiratory irritant.
- Allelopathic: alters soil chemistry suppressing other plant growth.
- Dense thickets shade out and smother other plants.
- Prolific: each plant can produce 800,000 seeds annually.
- Seeds windblown & spread by hitchhiking on people & animals.
- High amounts essential oils in leaves increases wildfire risks.



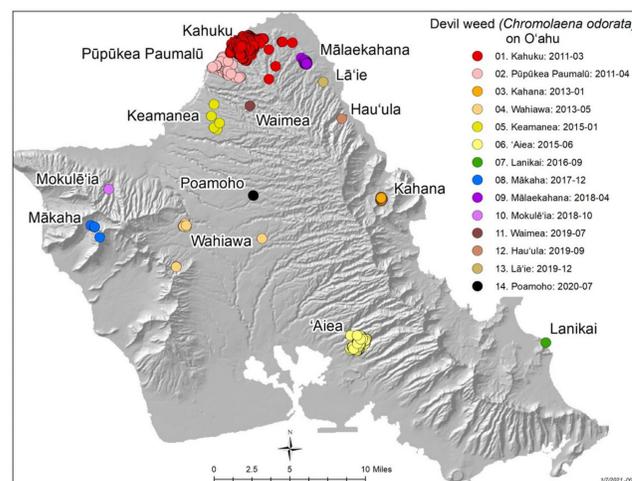
Plants readily grow in disturbed, open soil such as pastures, farms, trails, roadsides...and even gutters! OISC crew removed a devil weed plant from gutter of a park pavilion on North Shore of O'ahu.



Devil weed has rapid growth with maturation within 12 months. However, in Hawai'i maturation has been seen in as little as 6 months.



Seeds are easily windblown and when wet, they are like wet hair, clinging to anything they touch. This greatly aids in long-range introductions.



Long-range dispersals by hitchhiking seeds have overwhelmed OISC's current resources to manage all the areas. At this point, eradication is unlikely so, the management strategy had to change. The new goal for O'ahu is to reduce the risk of spread to uninfested areas and the diminish the potential impacts.

## THE DEVIL WEED CREW PROGRAM



- Early detection surveys on O'ahu public trails (presence/absence surveys)
- Remove any plants found
- Collect and store island-wide trails surveyed and plant points
- Community driven effort with educational components



## JOINING "THE CREW"

### VOLUNTEER STEPS

1. **Choose a trail** to survey from list on OISC's Devil Weed Volunteer Page.
2. **Watch the video** about devil weed and ID tips.
3. **Download the (free) AllTrails app** to your phone.
4. **Go survey! Record hike/survey** and plant points found.
5. **Remove any plants found** & log the number of plants removed using the "waypoints" on AllTrails.
6. **Share the survey** with OISC via email or text.

**RESOURCES:** OISC created a [webpage](#) & [Facebook Group](#) to house all educational materials for devil weed crew volunteers.

- **List of O'ahu Trails**
  - includes last survey date and if plants were found & removed
  - links to the [Na Ala Hele](#) trail information & maps
  - list also has coordinates for a [hotspot map](#) (small area with 100+ plants) linked via AllTrails app
- **Free Identification Guide**
  - free, pocket-sized look-a-like guide mailed upon request
- **Data Collection & Sharing with AllTrails App**
  - free app to record survey tracklog & plants points.
  - [video on how to use the app](#)
  - [infograph on how to use the app](#)



## CURRENT STATUS & PARTNERSHIPS

**DISTRIBUTION IN HAWAII:** Only known to be on the islands of O'ahu (detected 2011) and most recently in limited areas on Hawai'i Island (detected 2021).

In 2018, the biocontrol process began for the proposed gall-forming fly, *Cecidochares connexa*, as a means to contain devil weed in Hawai'i. Click here for more information on [BIOCONTROL IN HAWAII](#).

- [OISC](#) and the [Army Natural Resources Program-O'ahu \(ANRP\)](#) continue to manage devil weed in several locations on O'ahu.
- [Conservation Dogs of Hawai'i](#) have been providing support for early detection & trail surveys since 2018 using scent detection dogs.
- The [Big Island Invasive Species Committee \(BIISC\)](#) is continuing to survey for and remove plants, working toward eradication on Hawai'i Island.

