

# Invasive Species Committees of Hawai'i



Informational Briefing  
Senate Committee on Energy & Environment  
House Committee on Energy & Environmental Protection  
January 8, 2014

# Invasive Species don't care about boundaries:

- legal
- traditional
- watersheds
- jurisdictional



Whether they start in a backyard...



...or end up in a watershed





...come in undetected in a plant shipment







...or infest entire gulches or even islands.

# Jurisdictional Boundaries: Land Ownership



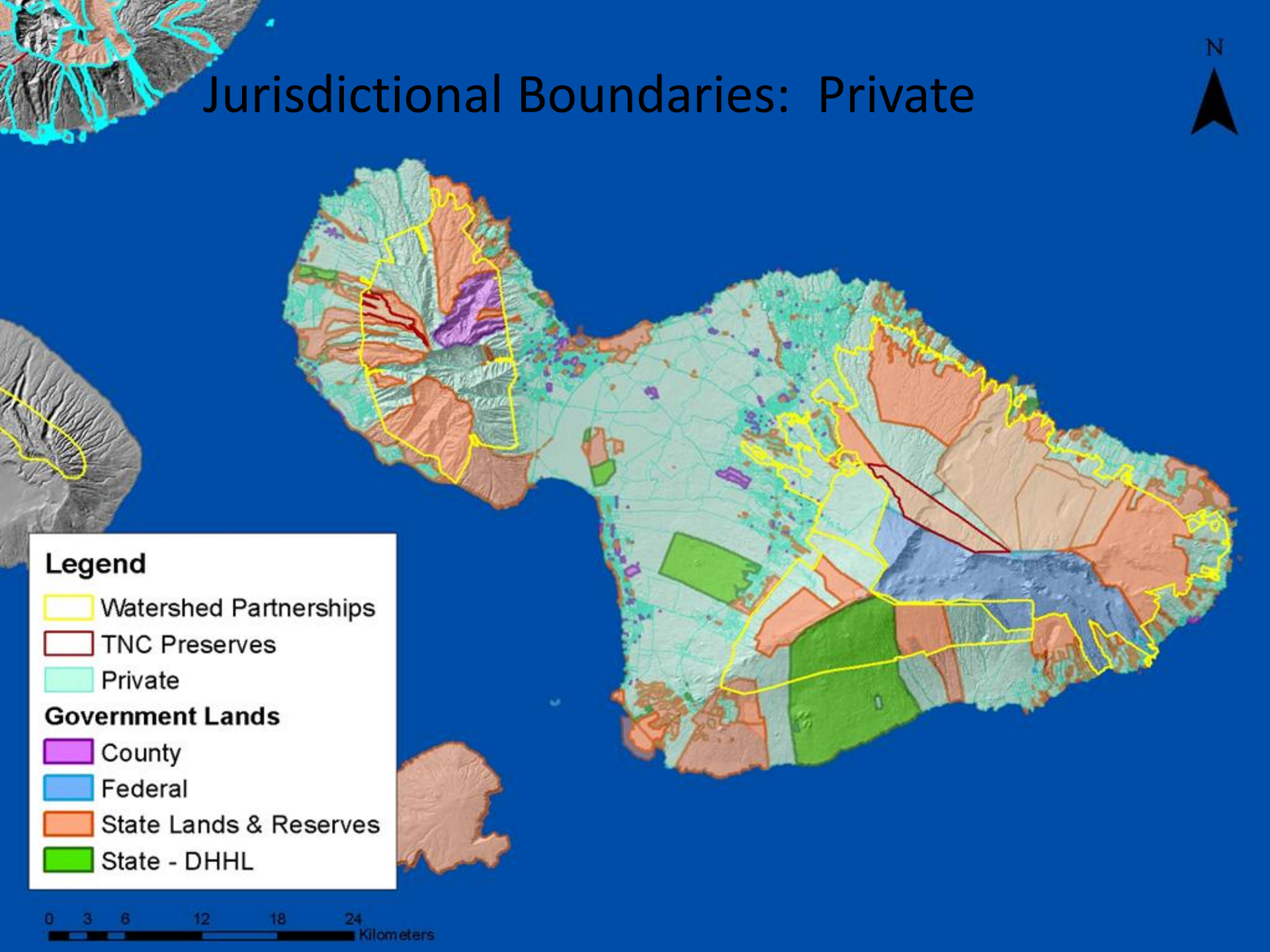


# Jurisdictional Boundaries: Private

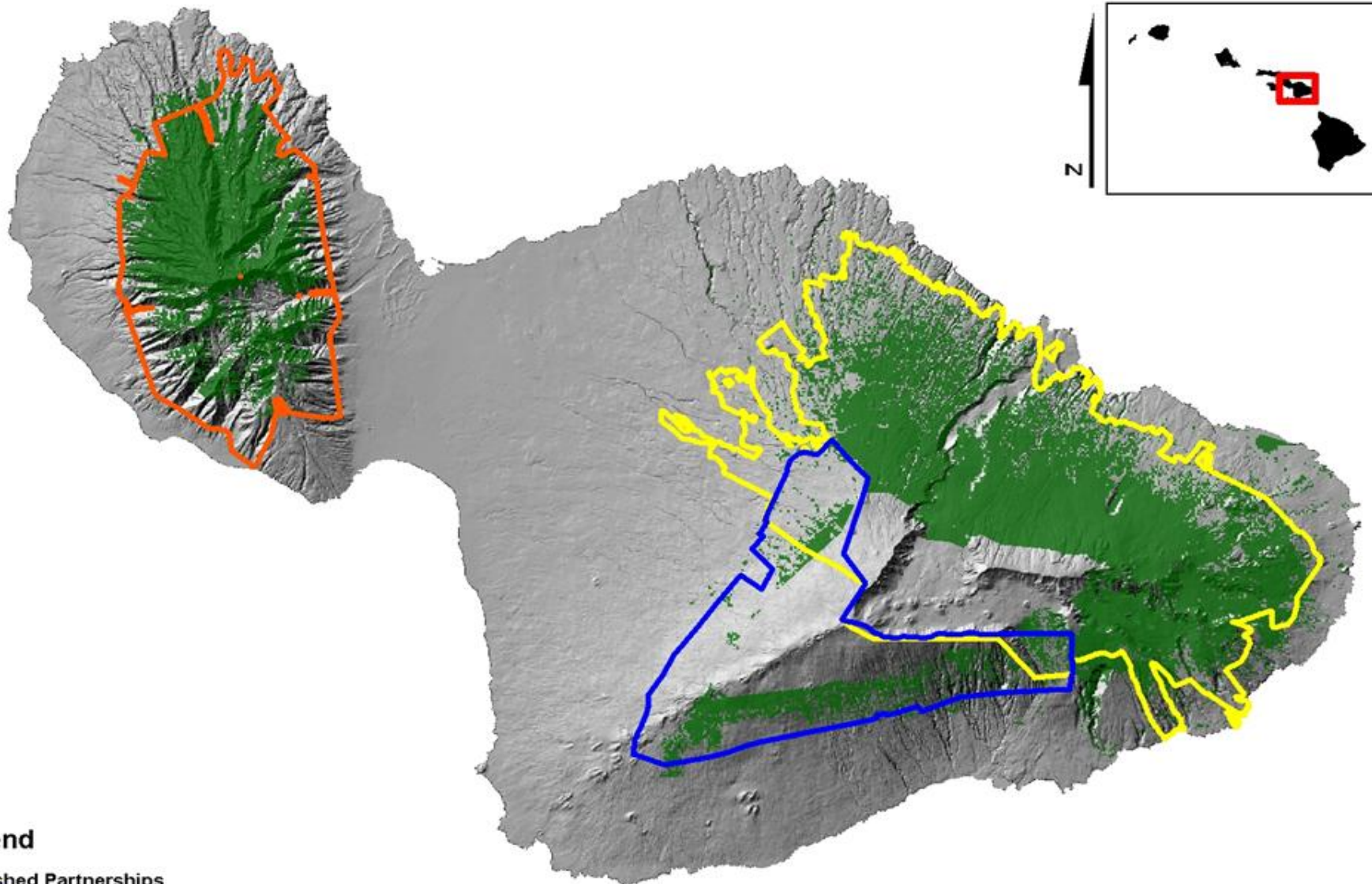


**Legend**

- Watershed Partnerships
- TNC Preserves
- Private
- Government Lands**
- County
- Federal
- State Lands & Reserves
- State - DHHL



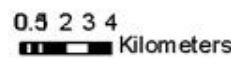
# Maui Island - Watershed Partnerships



## Legend

### Watershed Partnerships

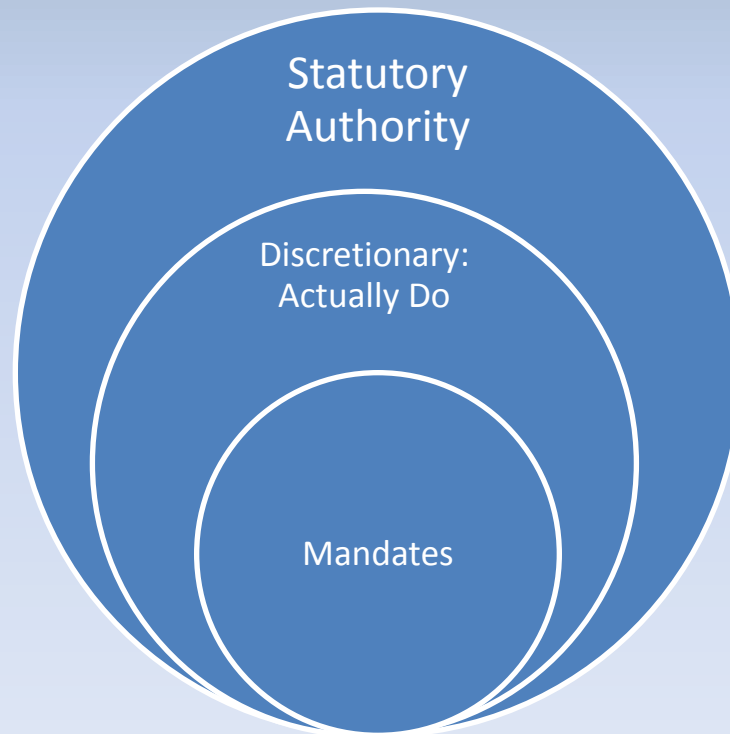
-  EMWP
-  LHWRP
-  WMMWP
-  State Priority Watersheds





# Jurisdictional Boundaries: Actions

- Statutory authority
  - Mandates: What must you do?
  - Discretionary: What can you do?



# Challenges with our Biosecurity System

- Agencies are impeded in their work by inadequate powers, resources and public support.  
(Warren 2006)
- Environmental pests arriving in Hawaii have had an unchallenged opportunity for establishment in the wide jurisdictional gap existing between the ports of entry and the upland forests.  
(Kraus & Duffy 2009)









# One response to perceived problems – Formation of Invasive Species Committees

- Fill gaps created by multi-agency responsibility for invasive species
- Develop rapid response capacity on each island.
- Develop community support on invasive species issues
- Targets and plans are island-based

# Invasive Species Committees

- **Early 1990s:** Maui Melastome Action Committee
- **1995:**
  - Coordinating Group on Alien Pest Species
  - Big Island Melastome Action Committee
- **1999:**
  - Maui Invasive Species Committee
  - Big Island Invasive Species Committee
- **2000:** O'ahu Invasive Species Committee
- **2001:** Kaua'i Invasive Species Committee
- **2002:** Moloka'i Invasive Species Committee
- **2003:** Hawai'i Invasive Species Council



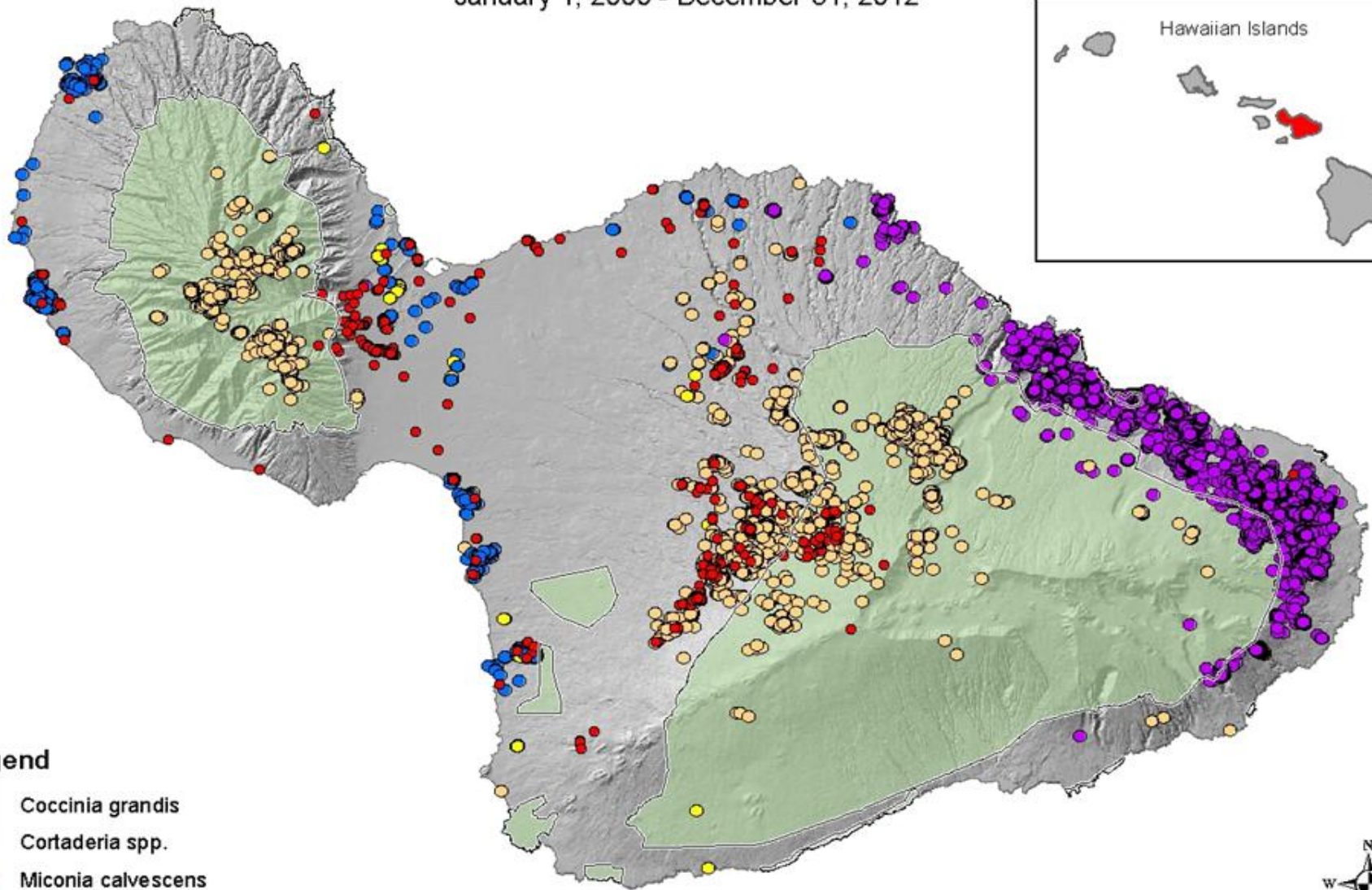
## Key Elements:

- Trained Staff: 77 across the islands – most field
- Annual total budget: \$4.3 million
  - 1/3 state, county, federal
  - Varies by island
- Flexibility in operations
  - Multiple species
  - Ground and aerial
  - Remote field sites
- Science-based, data-driven



# Maui Invasive Species Committee Treatment Locations

January 1, 2000 - December 31, 2012



## Legend

- *Coccinia grandis*
- *Cortaderia* spp.
- *Miconia calvenscens*
- *Pennisetum setaceum*
- Other Treatment Points
- PIFWO State Strategic Plan

0 1.5 3 6 Miles

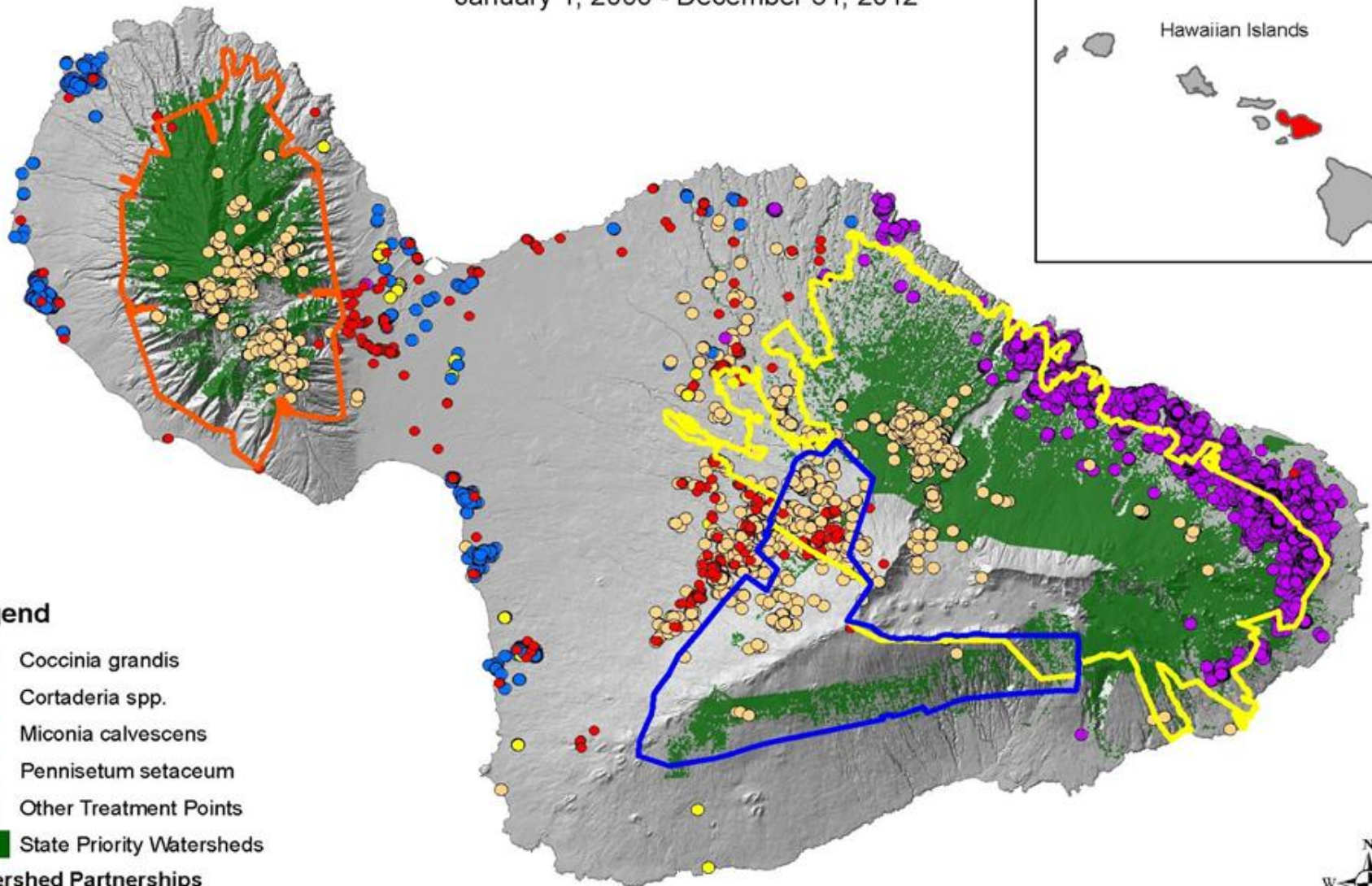
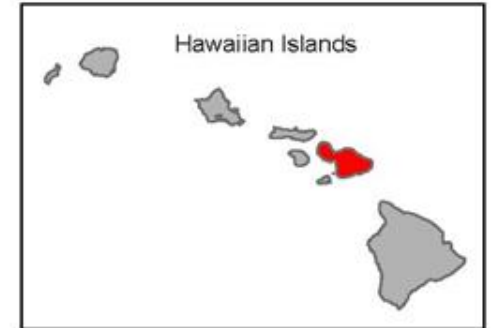


Maui Invasive Species Committee  
Projection: NAD83 UTM Zone 4N meters  
02/01/2013 BVM MISC\_Maui\_PIFWO\_Map.mxd



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## Watershed Partnerships

- EMWP
- LHWRP
- VMMWP

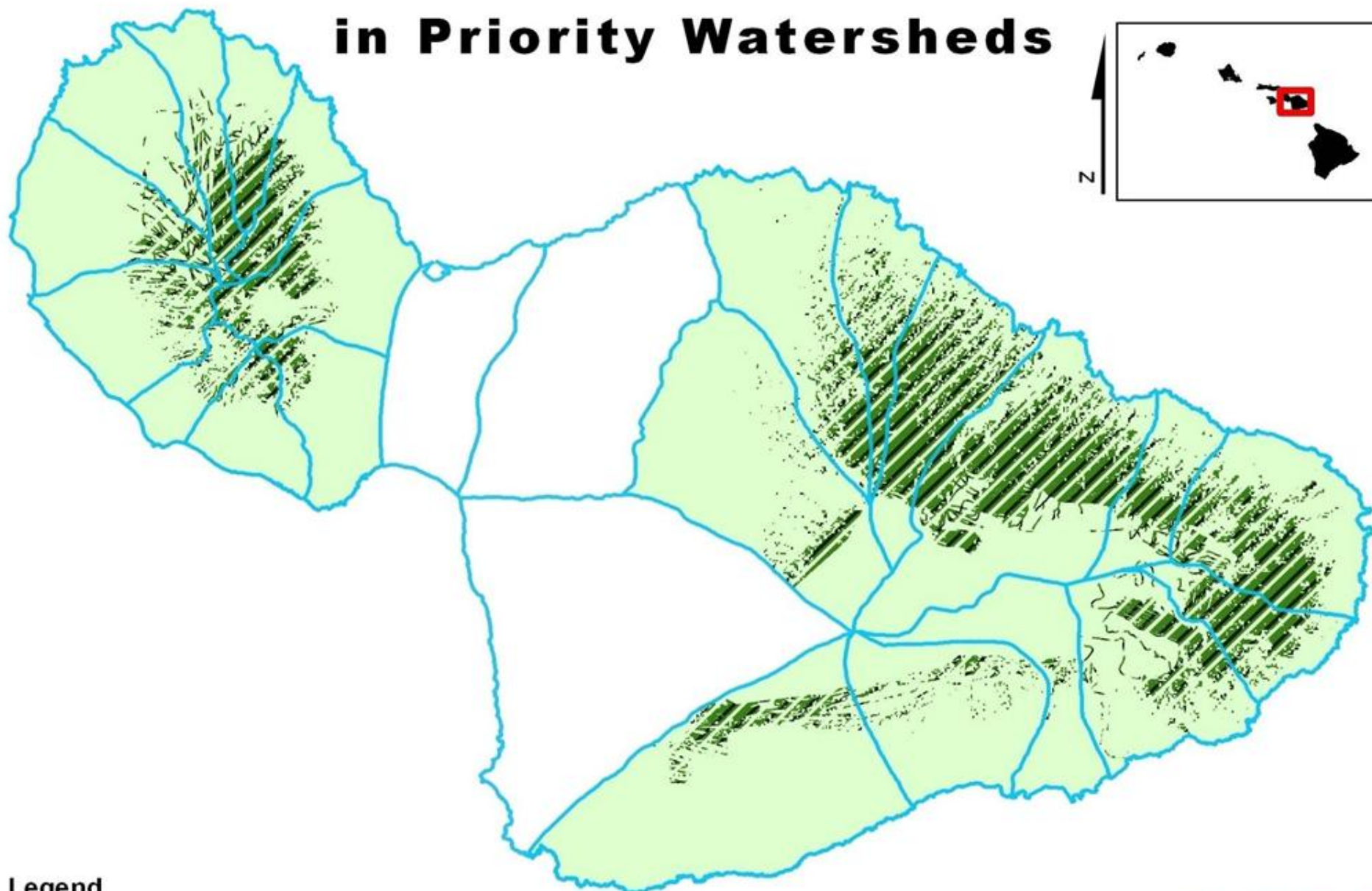
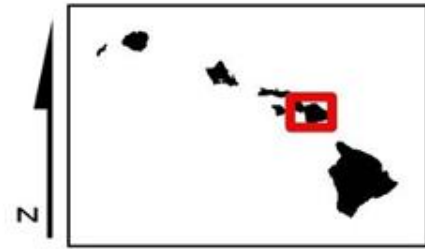
0 1.5 3 6 Miles





Maui Invasive Species Committee  
Projection: NAD83 UTM Zone 4N meters  
10/15/2013 BVM MISC\_Maui\_PIFWO\_Map.mxd



# Invasive Plant Work in Priority Watersheds

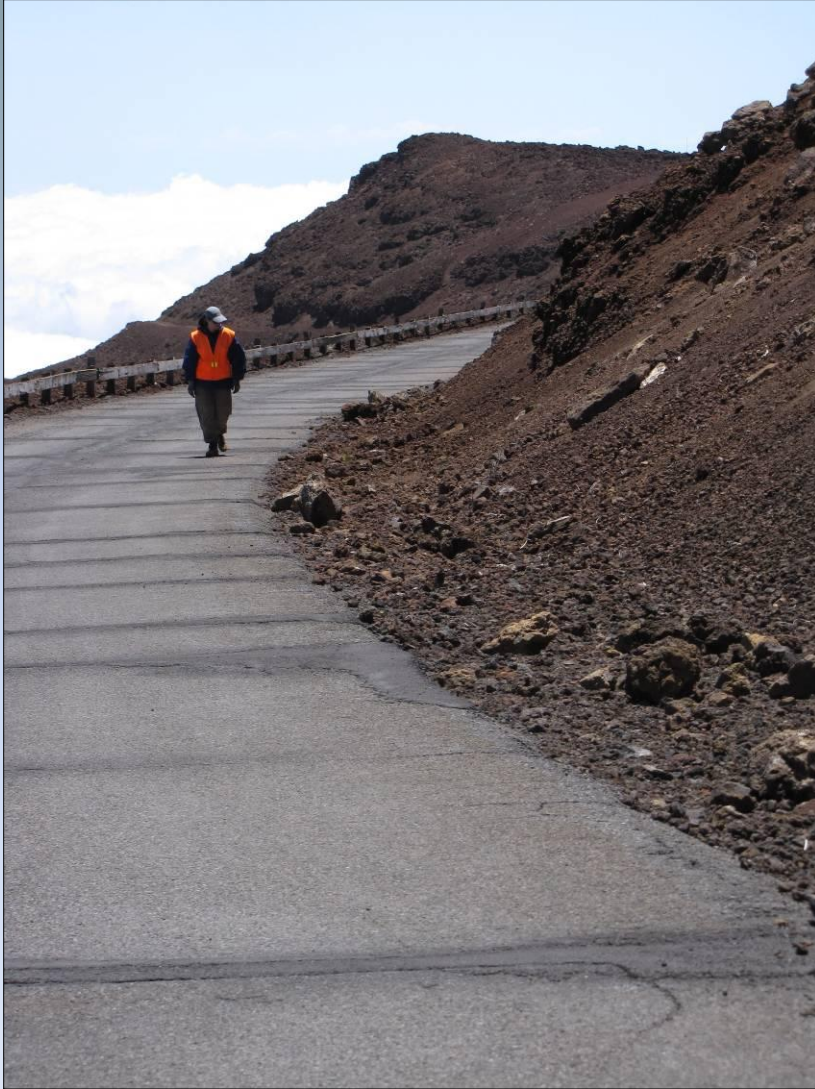


## Legend

-  MISC Survey & Control Work in Watershed Priority Forests
-  Groundwater aquifers Benefitting from Porposed Projects



The ISCs work from the mountain...



...to the sea





on plants...



...and plant diseases



animals...



invertebrates...





in backyards...



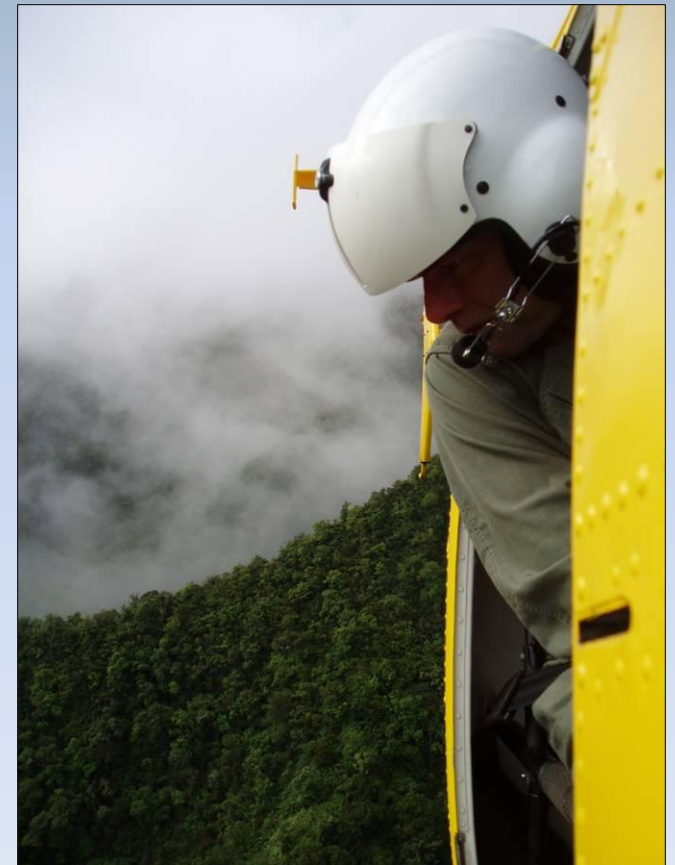
...and wildlands



on the ground...



...and in the air





ISCs work to stop invasive species from becoming widely established by conducting surveys at:

- nurseries & botanical gardens
- along roadsides
- at remote landing zones





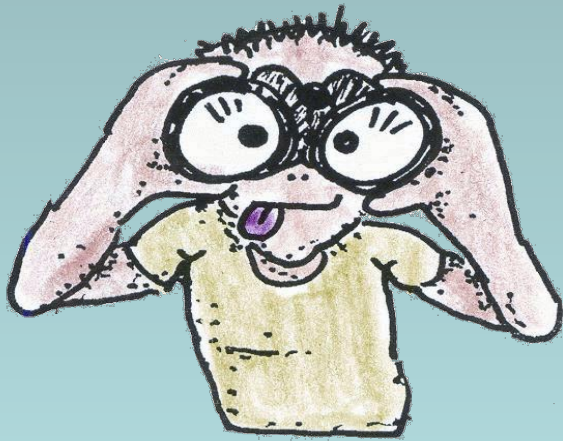
## Eradications / Containment / Detection:

- 18 single-island plant species eradications
- 9 plant targets en route for eradication
- Coqui frogs eradicated from Kaua‘i, O‘ahu
  - 12/17 coqui population centers on Maui
  - 3 interceptions on Moloka‘i
  - Coqui-free certification program – Maui County
- Veiled chameleons – below detectable levels – Maui
- Miconia contained on all but Big Island
- First mongoose confirmed on Kaua‘i
- Roadside and nursery surveys



# Early Detection: Working with the Public

- Workshops
- Informative guide
- Contact information



**Snake Sightings & Reports on Maui call:**  
**HDOA office:**  
873-3962 from 7:45am to 4:30pm  
872-3848 from 4:30pm to 10:00pm  
**After 10pm, on holidays, weekends, & furlough days:**  
**Maui Police Department \***  
244-6400 (non-emergency)  
*\*MPD will contact the Snake Response Team*

Engaging the next generation...



& teaching the teachers





# Hō'ike o Haleakalā Curriculum

High school science curriculum designed by Maui teachers and field biologists



ALPINE /  
AEOLIAN



RAIN  
FOREST



COASTAL



MARINE



INVASIVE  
SPECIES

Unit  
1 Beach Today, Gone  
Tomorrow?

Unit  
2 Coastal  
Connections

Unit  
3 Anchiāline  
Detectives

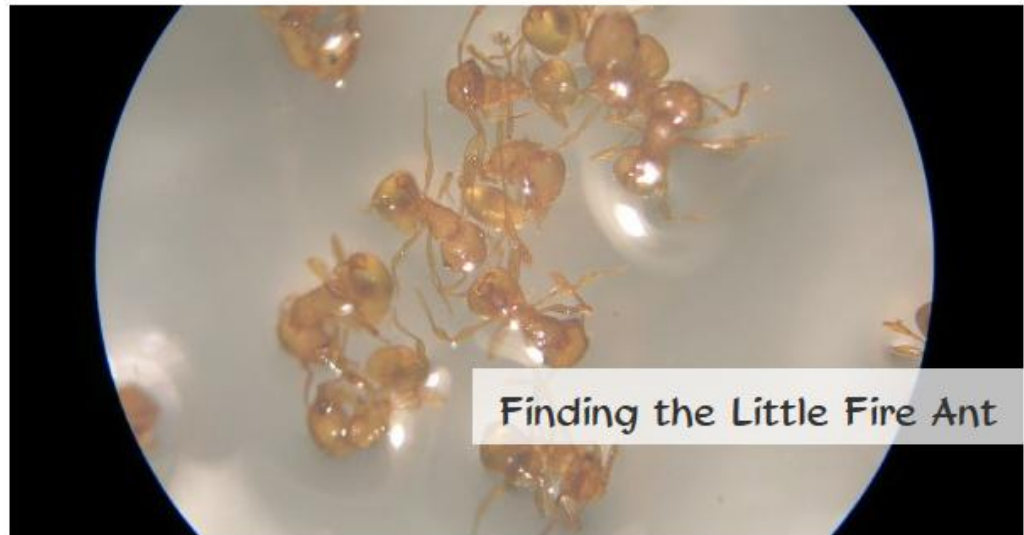
Unit  
4 Fire Ants And The  
Future of Maui  
Wetlands

Unit  
5 Coastal Issues In  
The News

Activity #1 Finding the Little Fire Ant

Activity #2 Red Imported Fire Ant  
Prevention and Quick  
Response Plan

Activity #3 Race to the Wetlands Game



## Giant tree in Hāna



Miconia all the way to the sea: Tahiti





# Most Important Element: Partnerships





The Invasive Species Committees are projects of the University of Hawaii- Pacific Cooperative Studies Unit.



