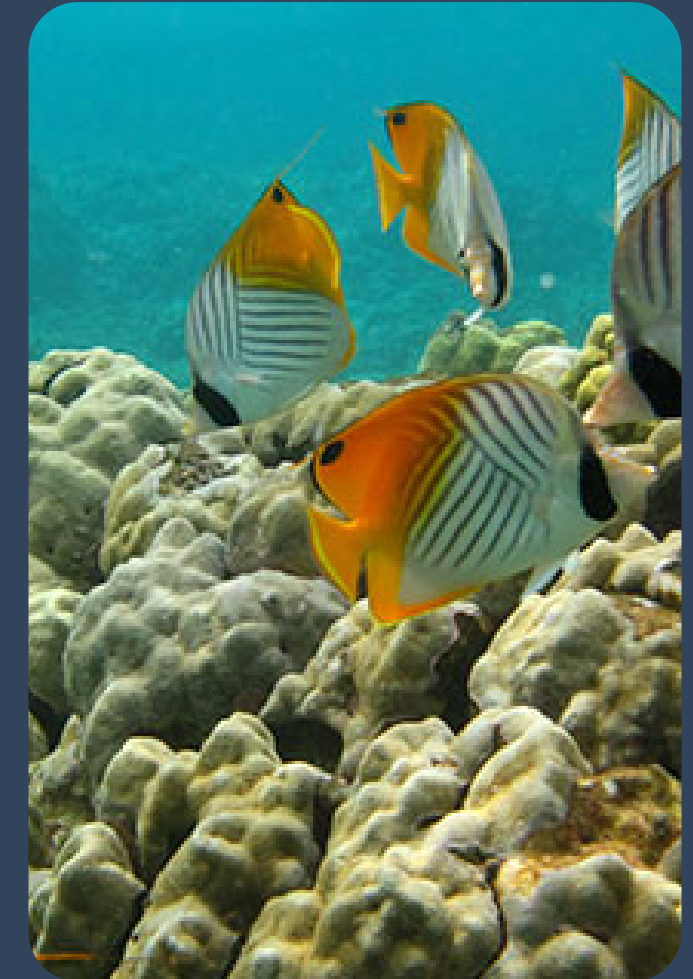


# Invasive Species & Biosecurity Informational Briefing



JANUARY 26, 2024  
12:30-2:30 PM

CHELSEA ARNOTT  
INVASIVE SPECIES COORDINATOR;  
DLNR & PROGRAM SUPPORT FOR THE HAWAI'I  
INVASIVE SPECIES COUNCIL







**REPORT INVASIVE SPECIES**  
**643-PEST**  
**643pest.org**  
**CALL OR CLICK TO PROTECT HAWAII**



**TOP 5 REPORTED PESTS OF 2023**

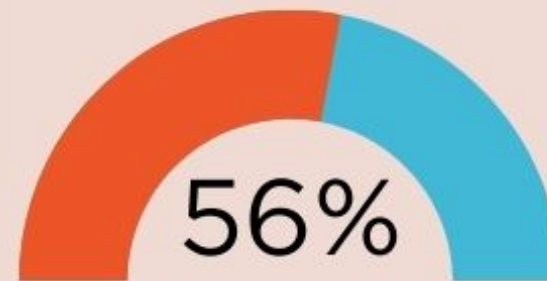
1. Coconut Rhinoceros Beetle (894)
2. Oriental Flower Beetle (107)
3. Coqui (86)
4. Rose-Ringed Parakeet (63)
5. Mongoose (62)



**2023 REPORTS BY ISLAND**

O'ahu leads with 366 reports, indicative of urban pest challenges, while the less populated islands like Moloka'i and Lana'i report far fewer incidents, reflecting their rural character and tight knit communities.

**REPORTS FORWARDED FOR ACTION**



**56% of pest reports** were resolved by forwarding them to the appropriate response agency, showcasing the effectiveness of community involvement and agency responsiveness.

**CRB EXPANDS ACROSS THE STATE**

During 2023 Coconut rhinoceros beetle expanded from O'ahu to Kaua'i, Hawai'i Island and Maui. Community reports led to these detections.



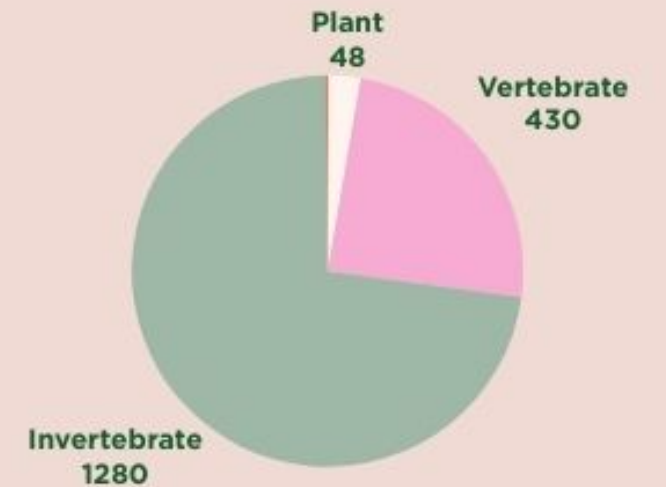
**CRB**



**47%**  
of all 2023 643pest.org reports

There were **894** reports of coconut rhinoceros beetle and CRB damage in 2023. This accounts for 47% of all reports and is an **391% increase since 2022.**

**WHAT TYPES OF INVASIVE SPECIES DO PEOPLE NOTICE AND REPORT?**



In 2023, invasive invertebrates (insects) dominated reports, likely driven by a surge in CRB sightings. Plants and other non-animal species were less frequently reported, highlighting the prominent visibility or impact of animal-related invasions.



**COQUI REPORTS**



Coqui reports increased to 86 in 2023, which represents a significant jump of about 75.5% from the 49 reports in the previous year.



# Agenda

- **Hawai'i Interagency Biosecurity Plan; Chelsea Arnott (DLNR/HISC)**
- **Department of Land & Natural Resources**
  - Division of Forestry & Wildlife; Dave Smith & Rob Hauff
  - Division of Aquatic Resources; Lizzy Monaghan
- **Hawai'i Department of Agriculture**
  - Animal Industry; Raquel Wong
- **Hawai'i Department of Health**
  - Vector Control Branch; Matt Kurano
- **University of Hawai'i**
  - College of Tropical Agriculture & Human Resources
- **Partner Projects**
  - CRB Response Team; Keith Weiser
  - UH PCSU Coordinating Group on Alien Pest Species; Christy Martin
  - Community Member; Joe Wat and John Reppun



## What's at Risk?



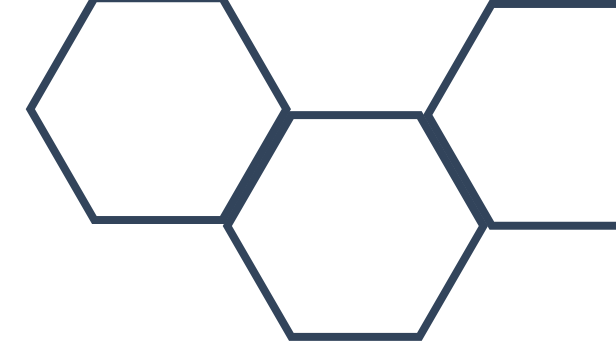
**Hawaii Interagency Biosecurity Plan**  
2017–2027

# JANUARY 2017 HDOA LAUNCHES HAWAII INTERAGENCY BIOSECURITY PLAN

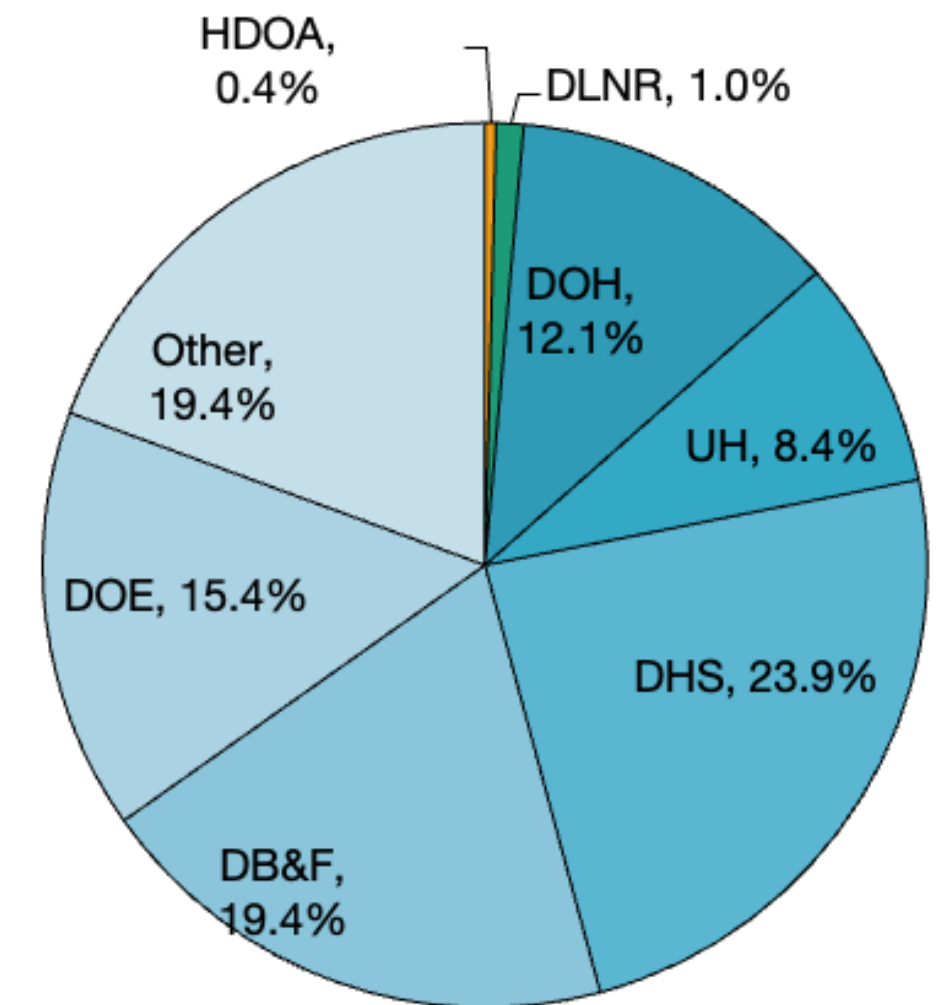
- Comprehensive
- Collaborative and multidisciplinary approach
- 147 action items to address gaps and weaknesses in our biosecurity system
- A 10-year path forward



# 2017 Baseline - Known Gaps



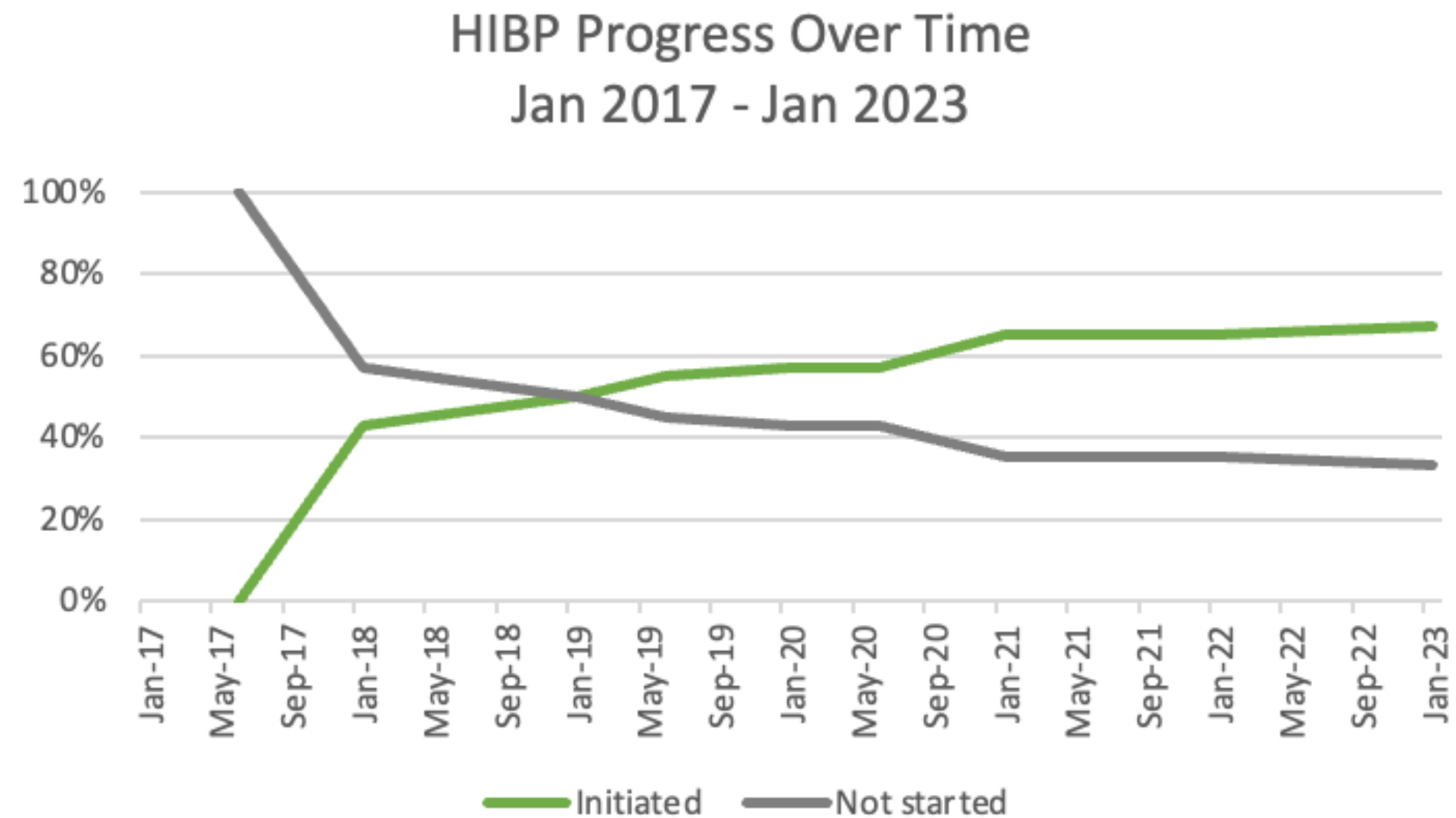
- STAFF
  - Increase branch capacity on each island
  - Specialist positions (pathologists, entomologists, IT)
- POLICY
  - Ballast water and Biofouling
  - Inspect non-Ag commodities
- FUNDING
  - Soft funded
  - Shrinking federal grants
  - HDOA and DLNR receive 1.4% of state budget
- FACILITIES
  - Transitional facilities for inspections
  - Pacific Regional Biocontrol Facilities





# Measuring Progress

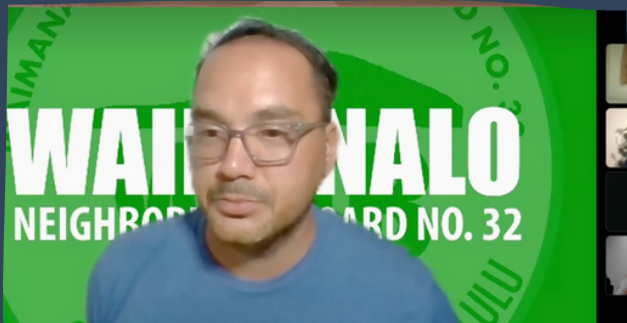
Implementation for 68% of actions has started as of January 2023





# Where have we made progress?

## Enhancing Public Awareness & Community Engagement



## Increased Funding for Invasive Species Prevention & Control

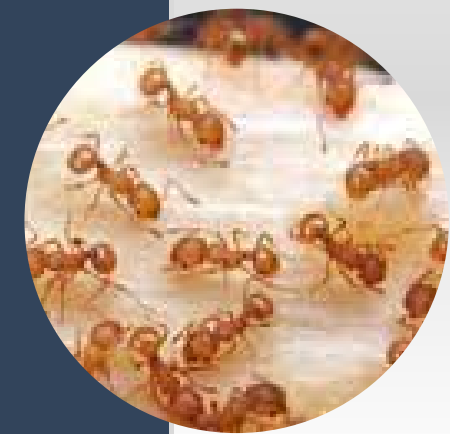


## Research & Implementation of Landscape Level Tools

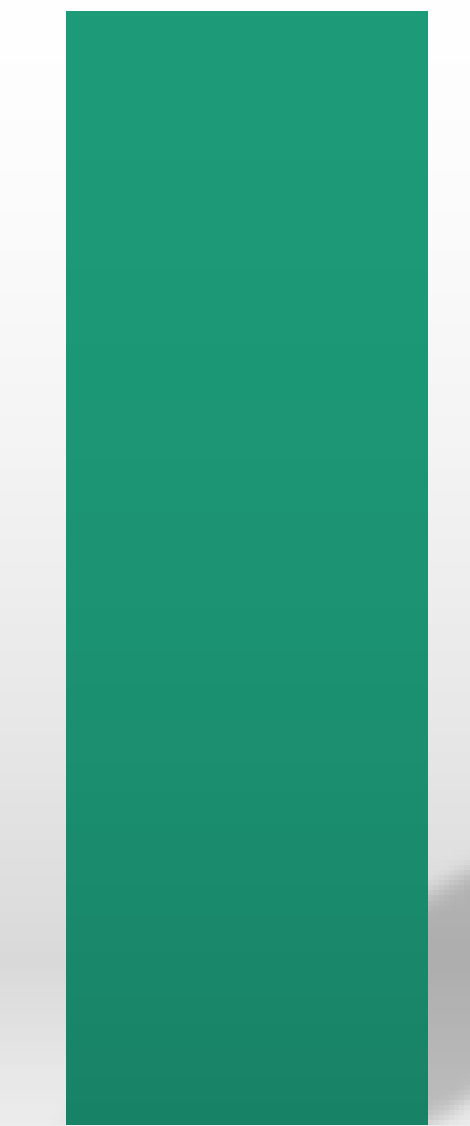




# The Costs of Implementation

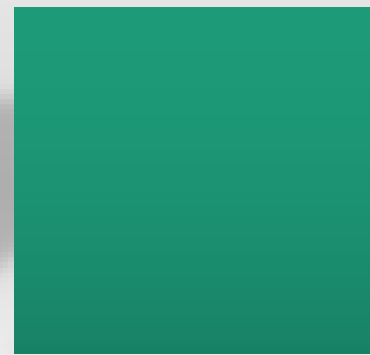


\$2.14B



Brown Tree Snake

\$672M



Miconia

\$200M



Red Imported Fire Ant

\$174M



Little Fire Ant (HI County only)

\$38M



Est. statewide prevention/control cost

**\$47.5M in 2024**





# Climate Change

- SHIFTING RANGES
- ALTERED EFFICACY OF TREATMENTS
- NEW DIRECT PATHWAYS FOR SPECIES INTROS
- INCREASED "WEEDINESS"
- INCREASING ECOSYSTEM STRESS
- WORSENING DECLINES OF NATIVE SPECIES
- REDUCING CARBON SEQUESTRATION

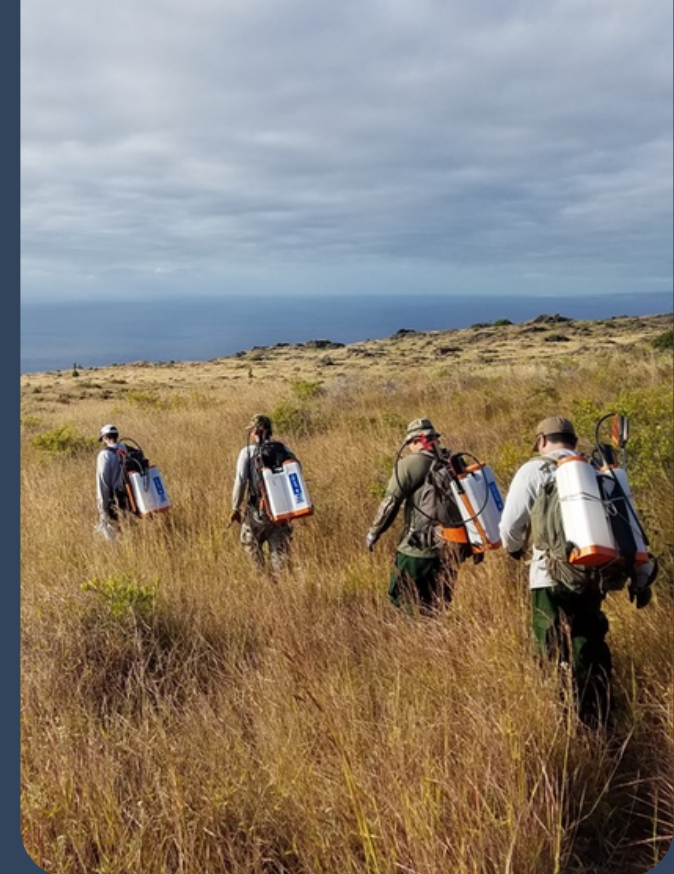
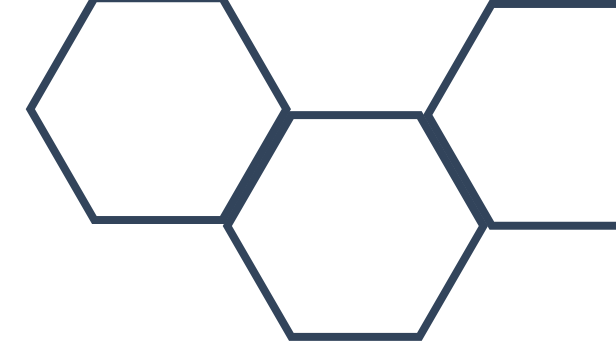


Photo credit: Top - HAVO Weed Crew (NPS), 2021 Hawaii Island Wildfire (Hawaii Tribune), Hurricane Iselle damage (Hawaii Tribune), Endangered Kiwikiu (DLNR), Cargo at seaports Canva stock image, sea level rise stock image Canva, Invasive algae covered reef (DLNR)



# Gap-Filling Projects



- **Hawai'i Department of Agriculture; Plant Industry**

- Regulatory authority to inspect domestic ag commodities
- Enter private property for control & eradication
- Control of Agricultural pests
- Quarantine/Restrict high-risk commodities

- **Island Invasive Species Committees**

- Control and Eradication of incipient pests, Community Outreach
- Enters private property with voluntary consent
- Works in areas and on species that agencies are not working
- Serve as boots on the ground for rapid response to new pest incursions

- **Department of Land & Natural Resources**

- Administers the Hawai'i Invasive Species Council
  - Draft administrative rules that will allow Depts & authorized agents to access private property for control & eradication
- Monitors and manages invasive species on DLNR lands
- Assists HDOA with rapid response and management when requested

- **Hawai'i Ant Lab**

- Invasive ant monitoring and treatment statewide, Community Outreach
- Research & development of tools and technology