Hawaii Invasive Species Council Strategic Planning

Control Working Group Strategies Meeting Packet

Contents:

- Priorities Identified in HISC Statute, Chapter 194
- Priorities and rankings as identified at January 9-10 HISC/CGAPS Strategic Planning Workshop
- Implementation Strategies for:
  - Pest reporting system that integrates web, hotline, and an app
  - More biocontrol
- Wall Safe

In partnership with the Coordinating Group on Alien Pest Species

Priorities Identified in HISC Statute, Chapter 194:

- Identify and record all invasive species present in the State
- Review state agency mandates and commercial interests that sometimes call for the maintenance of potentially destructive alien species as resources for sport hunting, aesthetic resources, or other values
- Review the structure of fines and penalties to ensure maximum deterrence for invasive species-related crimes

---

Priorities and rankings as identified at January 9-10 HISC/CGAPS Strategic Planning Workshop:
The items are listed in no particular order. The HISC Priority Ranking Score number indicates how many votes an item received during a dot exercise performed by the stakeholders at the workshop (the number = how many dots the item received, higher number = higher priority)

Early Detection and Rapid Response (EDRR)	
Strengths	**HISC Priority Ranking Score**
Good group of field biologists on the ground	
Good with certain species (CAPS species), better with plants	
Technology: smart phones and information empowerment	
A lot of people on the ground in each county and a high level of training	
Notification protocol for detections coming through UH *(detect a lot but…)*	
Weed risk analysis staff (Bishop Museum Herbarium)	
643-pest	
Plant Dr. App through CTAHR	
Structure and function of the Island Invasive Species Committees	1
Hull fouling and ballast water program	
Spatial data and visualization	
Island Invasive Species Committees are not part of a state agency allowing flexibility in approach (and more public trust, public more likely to let non-state worker on their lands)	4
Island Invasive Species Committees are able to hire rapidly, but need funding	
HISC ability to draft admin rules	
A lot of communication among NGOs, all done by NGOs, little communication from departments (plants)	
Understand the culture we are working for	
Additional notes: Does EDRR actually exist (from an entomological perspective) i.e. LFA on Maui, EDRR has to occur at the point of entry, for land managers intervention is important, distinction between detection	
Weaknesses	**HISC Priority Ranking Score**
Training people on the ground, beyond the biologists	2
Lack of institutional EDRR program at the Department of Land and Natural Resources	
Lack of comprehensive EDRR beyond certain species	2
Good on plants, less to no capacity for others	

Need the infrastructure to take advantage of technology	
Rapid Response roles not clear or coordinated	1
Access to information both internal and external	4
Landowner recalcitrance	
Current plant pathogen policies are prohibitive to research	1
Lack of clear process and decision protocol to enact EDRR (for government body)	
USDA APHIS Wildlife Service capacity reduced	
Following success by implementing solutions (i.e. Christmas Trees)	
Lack of rapid response fund in place	1
Lack of capacity to respond to aquatic pests (including freshwater)	
Lack od surveillance for mosquitoes (disease vectors), prior to reductions in force had 100 monitoring sites on Oahu – it's down to 6	
Some species (i.e. insects) are very difficult to detect	
Lack of response plans	1
Loss of capacity for Bishop Museum Botany	2
Lack of herbarium capacity on each island (only on Oahu currently)	
Capacity to respond to 643-pest and other notifications	2
Hull fouling and ballast water program not always there	
Lack of dedicated funding	6
Legal expertise capacity to pursue legal options	
Confusion over Department of Agriculture legal ability to respond to threats in a timely way	1
Willingness to apply private property access law, needs more work to be applicable	
Not presenting EDRR successfully	
Policy and regulatory cohesion	1
US Mail	3
How do we define these categories?	
Adequate surveying and trapping	
Evaluation of success and justification of institutionalized EDRR	
Documentation of detection, delimination, success if achieved	
Lack of reliable risk assessment after detection	1
Invasive Species Committees need access to funding to ramp up when responses needed	3
Invasive Species Committees don't have mandate and authorities	
Game Changers	**HISC Priority Ranking Score**
Climate change	
Drones	1
Increase education (i.e. high school required botany, more interpretation at trails etc.)	
Technology – smart phones empowering people	
Engage volunteer networks (i.e. Master Gardeners) expanding eyes and ears	2
DOT is now funding service	1
Institutionalize online pest reporting that works with/ integrates hotline and an app	8
Education and outreach + utilization of law for private land entry, more engagement	
HISC list of invasive species that could be acted on	4
Changing/ update existing noxious weed list	1
US FWS taking a much more hands on approach to biosecurity	
Early detection botanist and entomologist on each island	4

Info boards at trail heads w/contact info and reporting info	
Using social media	
Decent facilities	1
Contingency funds	2
Department of Defense partnership for equipment use for EDRR	
LFA sniffing dogs	1
HISC drafting administrative rules	4
Legal approaches: require landowner to control, determine liability	3
Department of Land and Natural Resources restructuring approach to invasive species, attached to invasive species on the ground	1

Control	
Strengths	**HISC Priority Ranking Score**
The Pacific Cooperative Studies Unit	
Biocontrol: getting momentum at the University of Hawaii, acceptance, and resources	4
Little fire ant premier on Maui (all islands)	
Pesticide registration program	2
First predator proof fence at Kaena	2
CTAHR's training capacity	3
Skilled personal on each island	
Intellectual capacity and expertise in Hawaii	
Watershed Partnerships are coordinating across lands	
OISC collaboration with army for control	
New Zealand and Australia taking lead and being able access their data	
Hawaii County ordinance for control on private property for invasive species or dangerous species	
Isolation	
Weaknesses	**HISC Priority Ranking Score**
Biocontrol – not doing enough, need facility, public perception issues	2
Public perception generally	1
Perception it can all be done by volunteers	
Prioritizing what, where, when, to control	3
Discrepancy between cultural and socioeconomic profile of conservation professionals and user groups	
All Hawaii crops are minor crops which limits treatment options due to small programs	1
Some control projects are doable but need time which makes it a hard sell and requires long term commitment	
Conflicting agency mandates	2
Access to a statewide database on how to control	
Differing levels of access to control tools	
Not using technology and tools from other places (i.e. poisons, traps, snares)	
Lack of coordination among landowners	
Lack of recognition by tourists and some locals of prevalence and domination of invasive	

species in Hawaii environment	
Public misperception of how and what we control	
Growing public resistance to pesticides	
Unpublished results	
Language barriers with partners and stakeholders, no longer have the resources to overcome these	
Restrictive policies on aerial control	1
Lack of updated management plans for species (i.e. Miconia)	1
California has gotten ahead on hull fouling regulation	
We're risk adverse	
High turnover of skilled people due to lack of funding	
We're action averse	
Facilities	
Environmental policy/regulation can be used to prevent/delay work getting done (i.e. EA process, biocontrol)	1
Game Changers	**HISC Priority Ranking Score**
Regulatory and socio-political impediments to using toxicants in the state	1
More biocontrol (joint facilities, post-release monitoring, international collaborations)	10
Threat when pesticide regulatory program people retire	1
Tools for control (database of how too, access different places, etc.)	
Understand the culture we are working for	1
Herbicide ballistic technology	1
Public campaign all speaking with the same voice about control	
Drones	
More sophisticated cost/benefit analysis of control	5
Identify 2-6 species we know we can control and show success	
Understanding of how Island Invasive Species Committees work on each island	
Comprehensive plans updated with everyone on board	
Growing public resistance to pesticides (requests for anti-pesticide legislation)	2
Ballast water and hull fouling national and international advances	
Establish Aquatic Invasive Species Team on each island	6
Policy statement on ungulates as both game and invasive species	3
View certain weeds as potential economic drivers	
Dedicated funding source	12
Getting civil defense involved in hazard mitigation	
Utilize tools that already exist (i.e. toxicants, tree removal equipment, technology)	
Have tourists pay into systems that fund work	6

Implementation Strategies for: Pest reporting system that integrates web, hotline, and an app

- A lot already exists, don't need to reinvent the wheel
- Establish early detection networks
- Components:
  - ✓ Usable by public and agency
  - ✓ Includes species of concern in Hawaii
  - ✓ ID Service: If you don't know what it is, take a picture it is evaluated
  - ✓ GPS location aware
  - ✓ Offline capable: fill out everything and will upload later when network is available
  - ✓ Photo capable: take pictures, select from pictures already there, etc.
  - ✓ IOS android compatible
- Look-alikes for people non-experts.
- Usable by any agency for their needs, e.g., DOT where is all albizia?
- Result from all data could be a distribution-mapping tool.
- Data Management: App would produce a bunch of new data.
  - ✓ App data should be exportable and able to be analyzed
  - ✓ Who is responsible for housing/administrating data?
- Reportapest.org is a current example to potentially build from.
- Having an app that all agencies can use and agree where data is going will allow for better communication between partners, and allow for follow-up and authority.
- Challenges:
  - ✓ Clear policy agreements between partners that is priority
  - ✓ Who will house/own/be responsible for data
  - ✓ How are responses routed
  - ✓ Importance of knowing a report has been made, is being followed up on
  - ✓ Reduce lag time.
  - ✓ Involving multiple agencies will lead to better response
  - ✓ Funding
  - ✓ Who is responsible for making this a priority? Which working group?
  - ✓ Privacy issues? Don't have to advertise where it is, just alert that it has been detected. But should at least let stakeholders know.
- Clearly HISC responsibility!
- Big issue is how to integrate with pest hotline.
- Apps are multi-agency, not just one person. Putting it under HISC gives creditability but shared responsibility by agencies.
- UH security emergency alerts are instantaneously, something similar? So everyone can be informed of what is going on around state.
- Have to be careful how we release info. For some things, info should not be let out until confirmed.
- What is the official mechanism for notifying about detection? Mechanisms need to be set up to create consistency.
- Response matrix? i.e., mongoose on Kauai: DLNR notified but response agency is KISC.
- What are the recent metrics from the pest hotline? False positives or negatives?
- Existing challenges both phone number and online.
- A context for continuing discussion: Reportapest should be integrated into agencies. 643-PEST integrated into Reportapest, interagency notification system, passive or active reception of notifications.

Implementation Strategies for: More biocontrol

1. Funding
2. Capacity/oversight: to help facilitate biocontrol, need help with species prioritization. Capacity: no lab space, tracking milestones is challenging, → archaic facilities. Need upgraded facilities (provide outreach opportunities as well, i.e. bringing school groups, stakeholders to visit, make lasting impressions)
3. Outreach: most is targeted to specific agent, needs to be broader to help public perception. Drawing more attention to biocontrol. Issue is much bigger than HDOA, HISC needs to come in and try to assist.

- More than agricultural issue also affects DOT, etc. so need HISC help coordinating with other agencies.
- Professional marketing assistance, especially for biocontrol.
- Antiquated facilities (both DOA and US FS). Ideal: Joint-use facilities, HISC would be much more successful pushing for joint use facility, maybe at UH. With right funding, let people in and see how it works.
- Prioritization—HISC should not set priorities. HISC should present options to biocontrol practitioners, help facilitate the process of setting priorities.
- HISC should help coordinate outreach and advocacy for biocontrol.
- What is the decision making process for biocontrol within HDOA?
    - ✓ No checklists for prioritization.
    - ✓ Often political.
    - ✓ Looks at significant pests, see if biocontrol is being done elsewhere, collaborate with them. Or look where stuff comes from (foreign exploration)
    - ✓ Or just deal with problems that show up
    - ✓ What is known for similar organisms?
- Albizia is a big problem but may not be a good candidate for biocontrol, no known solutions.
- Good for agencies to know because need to know if biocontrol is even an option.
- Given current facilities, how many species can you work on?
    - ✓ Individual agents: about 5 currently being worked on
    - ✓ Depends on type of agent, and threat. (EGW time: whole facility dedicated to EGW)
- Current facility old but safe.
- Is there a role HISC can play in facilitation? What can constituency do to make it as easy as possible? HISC can help getting more capacity i.e. biocontrol facility in Ewa.

Wall Safe	
	HISC Priority Ranking Score
Administrative rules for departments should be part of strategic plan and the definition of invasive species	4
Invasive species definition should go into chapter 194	5
Internal audit/self assessment of state agencies	4
Challenge: A plan and mechanism to deliver to new administration, etc. for steady coordinated progress. Must last and be prioritized regardless of administration or staff	3
A point was made that the HISC coordinator and support staff should not be DOFAW employees because this slants the mission toward DLNR/DOFAW mission at the expense of others. HISC should be housed within the Governors office (like the old agricultural council). It would be less biased and have more clout.	
Incorporate aloha aina concept in all HISC does	4
Don't forget the bigger picture of our vision. Be able to incorporate more culturally-related elements to vision of HISC	
Control: Need an environmental toxicologist to address misinformation about pesticide use. Carl Winter fills this position at UC-Davis	
Domestic airline departure has agricultural inspectors to mainland only	
Engaging non-conservation agencies at different levels, i.e. road crew for EDRR, planners in prevention	
Definition of invasive species must not be limited to species on a declared list or prevention and preemption become impossible	2
EDRR vs. Control: • Early Detection is the 1st step in determining a control strategy • Rapid Response can range from intensifying monitoring, trapping, control, mitigation etc. • Control – goals can vary from eradication to containment to exclusion • Eradication, to be successful, requires effective early detection *These are typical land manager definitions but can be viewed as artificial distinctions to some scientists*	