Hawaii Invasive Species Council - Established Pests Working Group July 27, 2004 10:30 – 12:30 Kalanimoku DLNR Room 322 A

Minutes

Participants

Cathy Goeggel – Animal Rights Hawaii, Larry Nakahara – HDOA, Lyle Wong – HDOA, Jean-Yves Meyer – Delegation al la Rederde Govt of French Polynesia, Mohsen M. Ramadan – HDOA, Arnold Hara – UH CTAHR, Kyle Onuma – HDOA, Becky Azama – HDOA, Ron Hew-HDOA, Pat Conant – HDOA, Ken Teramoto – HDOA, Nilton Matayoshi – HDOA, Alenka Remec – TNCH, Rob Hauff – DOFAW, Kim Langley – CGAPS, Anne Marie La Rosa – USFS, Earl Campbell – USFWS, Meghan Halabisky – OISC, Judith M. Earle – Wild Bird Rehab Haven, Juan Chavez – American Fellows Program Galapagos Islands, Katie Swift – USFWS, Peter Young – DLNR, Michael Buck
– Aloha Foundation, Pat Bily – TNCH, Tony Montgomery - DAR

Review of current programs

Hawaii Department of Agriculture - Larry Nakahara The Plant Pest Control Branch has undergone restructuring over last few years. This section includes 28 positions, 10 entomologists, 10 noxious weed specialists and has responsibility for all plant pest control problems through out the state Seed quality assurance as been moved out of HDOA so focus can return to chemical and mechanical control of noxious weeds and plant pests. There has been research done on coqui work although the department has no authority to control vertebrates.

The Department sets priorities for target pests and have prioritization for actions on key pests as well as biocontrol programs. Resources include a network to inform growers and other industry representatives about pest issues.

1 Eradication - most expensive and least effective (Chrysanthemum White Rust from Big Island is an exception to rule) still working on Banana Bunchy Top Virus in Kona, Kauai Invasive Species Committee to spray and remove fire weed, Little Fire Ant work - no fire weed on Pali but found on Schofield long way to go on eradication non Oahu. Chrysanthemum White Rust undertaken three days after disease was discovered

2 Containment - undertaken to buy time for other measures. Thorny kiawe contained on Oahu and Kauai by chemical control and rouging. Fountain grass is being contained on Kauai and Oahu. Fire weed being contained at Schofield. Banana Bunchy Top Virus contained on the Big Island and Maui as well as papaya ring spot virus. Working on coqui at Lawai, Wahiawa, Waimanalo. Little Fire Ant has expanded through out the Big Island. No baits cleared for crops

3 Biocontrol - short term costs are high but long term is the most cost effective. Discussion of bioncontrol projects.

4 Integrated control - combination of two or more control methods. Reduce pesticide use and allow biocontrol to become more effective. Assist CTAHR BBTV control program cooperation - spray for aphids and ants, planting clean propagules and biocontrol of aphid vectors. Support the containment of miconia on Maui and BI while fungus. Hand collecting and habitat modification for coqui are an integrated control method = expensive to control and

authority to control questionable so sought to empower other groups to deal with frogs within their areas of responsibilities. Community associations on BI are taking care of populations in own communities. Effectiveness of hydrated lime is the most effective when used as a drench during daylight hours. Pleased that the area of vertebrate pests is being addressed by the working group. Seek an AG review as to whether or not HISC or any agency has the authority to control any vertebrate pests. Committee should make recommendations on how to resolve this matter

Eradicate has been misused. Destroy a single individual or all reproductive potential of a species. Best use is for the term to be applied to a whole island.

Discussion and questions for HDOA:

Request that HDOA pursue an AG's review - what are considered pests? Cathy Goeggel

An on going concern to be addressed is the intra-island movement of pests. Pat Conant

There is an ability to go after species that HISC declares invasive and this applies to all species adopted by the HISC as invasive. Mike Buck

HISC adopted existing lists so that there can be cooperation between agencies. Mark Fox

This should list should be broadened to include all non-native vertebrates where they become pests. Earl Campbell

In relation to adopting all non-native vertebrates as pests, it is unclear as to what it would mean and is draconian. Larry Nakahara

Department of Land and Natural Resources - Mindy Wilkinson Top Statewide priorities for invasive species funding and coordinated response and control include miconia, coqui frogs and brown treesnakes.
Miconia (Miconia calvescens) is a fast growing 30-50 foot tree native to Central and South America. Miconia was brought to Oahu as an ornamental in 1957 and plant collectors and nurseries moved it around the state. History was about to repeat itself since it was introduced to two botanical parks on Tahiti in 1937. Since that introduction, it spread to over 70% of the island, completely replacing existing vegetation and the associated ecosystems. Miconia grow close together, and the deep shade eliminates other plants and prevents water from reaching the forest floor and soaking into the watershed.

Miconia is a priority target for all island Invasive Species Committees but the control effort relies on field surveys and expensive helicopter support to reach otherwise inaccessible areas. To get the upper hand on this species, a effective suite of biocontrol agents are needed to slow the spread of this prolific species.

Coqui and greenhouse frogs arrived in the 1990’s and have spread to all of the Hawaiian islands in and on potted plants. By the time a legal control method was established, willing partnerships of agencies who would actually develop and carry out a control plan identified and

funds acquired the frog populations had expanded from several dozen to several hundred. When vertebrate species are spread via the horticultural trade questions about which agencies have the authority to respond arise.

The brown tree snake is the focus of one of the most intensive invasive species prevention, research and response programs currently operating. After arriving on Guam following WWII they caused the extinction of 12 of the forest bird species, numerous power outages due to their habit of hunting around transformers, and are the cause of 1 in 1200 emergency room visits. Although the risk from the introduction of this species is high, all interdiction efforts continue on soft money that has not increased with inflation or increasing cargo demands. The program is currently at 15% below optimal inspection capacity exposing Hawaii to an unacceptably high risk of receiving this species. Having crews trained and ready to respond to sightings of this species is critical but also a last resort.

In 1997 the first ISC was formed on the island of Maui in response to the need for an early detection and rapid on-the-ground response to an array of incipient invasive species. In subsequent years ISCs formed on all major Hawaiian islands: Oahu/OISC; Maui/MISC; Kauai/KISC; Big Island/BISC and Molokai/MoMISC.

The ISCs are voluntary partnerships of private, government, non-profit organizations, and concerned individuals working together under a unified state-wide approach to protect each island from the negative impacts caused by invasive species.

The overall goal of the ISCs is to prevent, eradicate or control priority incipient invasive plant and animal species that threaten Hawaii's most intact federal, state and private conservation lands.

Each ISC has a voluntary chairperson and committee comprised of concerned scientists, agency resource managers, and representatives from other nonprofit and private entities, and a paid coordinator and staff to implement on-the-ground work. Funding for ISC activities comes from a combination of federal, state and private sources.

Each ISC holds regular meetings where participants select target species based on threat to the environment or economy, cost to control and feasibility of control, establishes strategies and reviews past progress of the paid staff. Hired staff conducts mechanical and chemical control on an island-wide basis, using best available practices to ensure efficiency and effectiveness, while limiting non-target impacts. Increasingly, the ISCs are adopting strategies to enhance early detection of incipient invaders and to prevent new invaders from becoming established through outreach and public education activities. These committees serve as successful models of cooperation, driven by local concerns and local expertise, to address the invasive species threat in Hawaii. Each ISC operates as a project under the auspices of the Pacific Cooperative Studies Unit of the University of Hawaii.

Priority species for 2004 by County:

Hawaii	Maui	City and County of Honolulu	Kauai
Acacia mearnsii Batis meritima Bocconia fruitescens Coccinia grandis Eleutherodactylus coqui Escholzia californica Miconia calvescens Pennisetum setaceum Pittosporum virdiflorum Wasmania auropunctata	Arundo donax Caesalpinia decapetala Chamaeleo calyptratus Coccian grandis Cortaderia spp. Cryptostegia spp. Eleutherodactylus coqui Enchyiaena tomentosa Melastoma candidum Miconia calvescens Parkensonia acuelata Pennisetum setaceum Rhodomyrtus tomentosa Phomium tenax Ulex europeaus	Buddleia madagascariensis Eleutherodactylus coqui Leptospermum spp. Melastoma candidum Miconia calvescens Pennisetum setaceum Rubus discolor Senecio madagascariensis Schizachyrium condensatum	Arundo donax Coccian grandis Cortaderia spp. Eleutherodactylus coqui Miconia calvescens Pennisetum setaceum Piper auritum Prosopis juliflora Senecio madagascariensis Typha angustifolia Wasmania auropunctata

Hawaii Department of Health, Vector Control - Greg Olmsted (Following note was read to group). DOH's Vector Control Branch has a Vector Control Procedures Manual, dated 1991, that contains Contingency Plans for Vector Emergencies. The manual includes chapters on New Immigrant Vectors, Yellow Jackets, Honeybees, Brown Tree Snake, and the Africanized Honey Bee.

The chapter on New Immigrant Vectors is very cursory, but does define targeted vectors as "any animal, whether insect, mammal, or other fauna capable of harming or transmitting diseases to humans." It provides a general procedure/statement about immigrant vector eradication.
The chapter on Yellowjackets lists both the Western Yellowjacket, Vespula pensylvanica, and Vespula vulgaris as targeted vectors.

VC role with Brown Tree Snake eradication would be to eliminate rats and mice from a 25 acre area around suspected sites of brown tree snake infestations. The purpose of rodent eradication is to remove potential food sources from the infested area so that the snakes will be attracted to traps baited with live mice.

We routinely work complaints regarding rodents, mongoose, cockroaches, mosquitoes, flies, bees, wasps, ants, spiders and centipedes.

I reviewed the list of prohibited animals and noted that honey bees are on the list. Last month VC on Oahu responded to 4 complaints about honeybees.

Department of Land and Natural Resources, Division of Aquatic Resources – Tony Montgomery

Top issues include ballast water/hull fouling, control of species that are freshwater pests like Salvinia and some fishes. Marine realm has few control examples worldwide because of complications by needing to dive. Currently UH efforts integrated algae controls off Waikiki, and education efforts - primarily awareness. Snowflake coral - difficult species because of broad depth range. Areas below current ability to dive. Discovered 2001 off Maui - up to 90% area covered. Can change ecosystem to be dominated by this species. Important not Kauai may be a recent introduction if this is the case only 2-3 confirmed reports

Questions and discussion for DLNR – DAR:
Are surveys for Mediterranean caluerpa being carried out? Larry Nakahara

Tony - Caulerpa is native to Hawaii.

Review lists adopted as Hawaii Invasive Species Council target species and discuss mechanism for revision and amendment of this list

Are all of the plants subject to control on the list? Reviewing model state law document indicates that the noxious weed list has different goals and currently these are the only plants on the HISC invasive species list. The plants identified as weeds by the current Weed Risk Assessment should be included. Alenka Remek

The lists contained in HISC list were promulgated for different reasons. If challenged would break down. The list doesn't include pests for control and eradication (HDOA) and should be discussed in this committee. We are setting ourselves up. Larry Nakahara

HISC has approved list that trigger the access provisions of law so that control efforts can succeed. Now to stay current the HISC must add and subtract species. 2nd level issue of resources and what are going to be the priority species. Michael Buck Courts suggest that lists that impacts the public must have a public hearing. Force of law requires rule making. Larry Nakahara

Is HISC a separate list from the agency lists? Pat Conant

Red Imported Fire Ant is everywhere in FL. Wait for FL is a lost cause. Judith Earle

There should be evaluation on priority pests that have undergone control and continuing opportunities for review. The reality is that we're not doing anything. What have we accomplished is different from what lists have been generated. Will HISC be accountable for success or failure of control of priority species? Lyle Wong

There is currently a NFWF grant to look at success on Miconia - #killed doesn’t represent biological success. Alenka Remek

Planes inspected vs how well planes are being inspected - best quarantine program in the country is achievable only because of opportunities to evaluate work being done now. Creating lists is intangible for accomplishments. What are we trying to control and what are the goals. Lyle Wong

There should be a meeting of the minds for groups attacking problems. Inconsistencies of what agencies are doing ie miconia cut down where biocontrol was released. Coordinate actions for pests on islands. Larry Nakahara

Supporting local experts in their efforts to prioritize and control priority species is more effective than general mandates on a species by species basis statewide. Mindy Wilkinson

There are problems with how the Invasive Species Committees decide how this should be done vs HDOA - another way might be better. Larry Nakahara

ISCs determine actions and provide a forum on that island not just carry out control. Alenka Remek

There should be other tactics altogether such as empowering the public to take charge of frogs. Counter productive to take care of frogs at nursery when should work around area. Larry Nakahara

The discussion of tactics and decision making are indicative of poor communication on a whole. There are mechanical issues but not institutional issues. Who's responsibility for which species or aspect of control? ISCs will continue to do grass roots work because that's what they do - some staff work well with them on a local issue but still rely on agencies for interdiction and authority. Earl Campbell Speaking for BIISC - widespread area and number of species we are targeting species around conservation areas next to parks and NARS because that is where the defense is being set up. Those valuable areas may slip through the cracks. Anne Marie La Rosa

What kinds of pest are creating serous problems? ISCs work independently on each island - at some point we need to look at what pests are statewide pests. How should this be addressed statewide? Larry Nakahara

Just how much animal control is actually going on? It is impossible to access that information. Want that to be transparent. Cathy Goeggel

Control of widespread species is carried out by groups like the Natural Area Reserve System staff. Have a discussion of what is being done on NARS for control and the priorities of land managers. Earl Campbell

When should biocontrol be supported? When species are passed the threshold of physical control. Issues for discussion include regulatory problems, methodology and continuing impacts. Pat Conant

Should the ISC’s continue to be funded at their current the level? What are funds missing in the

NARS budget because funds were taken for the HISC? A review of funding for non-conservation issues as well to ensure that best bang for buck on issues that cross boundaries is being achieved. Biocontrol efforts should be funded by NARS. Earl Campbell

As a budgetary recommendation for the short term - use the structure of the ISC to expend the funds. Caveat is that we need to deal with the marine issue. Michael Buck

What is the strategy? A funding judgment based on a strategy we can all agree to is what makes the most sense. We could choose to give it to the ISCs to move for numbers - it would not be responsible to give money with out a plan. Need to justify a chunk for learning about keeping pests out of certain areas - capacity studies legitimate request next year because we know how the resources are effecting goals. Lyle Wong

Priorities are species that I would group as prevention/ quarantine issues/ and incipient. There are a few strong established species from a natural area point of view. What's happening in NARS and Nature Conservancy land? Is there a way for the HISC to help current efforts? Pat Bily

The funding should go to ISCS/conservation/NARS - needs to have funding go to marine response team as well. Tony Montgomery

The aquatic response team should be incorporated into the invasive species community. Earl Campbell We can discuss marine invasive species control but my reaction is to be overwhelmed with current targets - some funding should go to marine work but be carefully prioritized. Pat Bily

HISC was not to compete with existing programs or add staff to state agencies - show ability to coordinate on a statewide basis. Funding $3m new dollars not funding to replace an existing program. Also has a requirement for 1:1 match. It is suggested that funding should go to existing ISC programs and allows additional funds go to existing response and control. Use for terrestrial and marine. With the current levels of funding it sounds like $200,000 should go to marine issues and the rest to ISCS. Peter Young

Working Group Tasks

For the HISC list of invasive species submit marine species, invasive plant species, and suggest species for removal on the list.

Review tasks of the working group and prioritize.

Presentation on what is being done by local managers including the Natural Area Reserve System.