



Summary: 2011 Silent Invasion Update

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Pages: 4

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The 2011 Silent Invasion Update was held at the State Capitol Auditorium from 4:00 p.m. – 5:15 p.m. on Tuesday, January 25, 2011. In attendance were public officials, the general public and the media. CGAPS is pleased to provide this summary of key points for those unable to attend.

Introduction (Christy Martin, CGAPS)

Issue: Protecting Hawai'i from invasive species is vital to our economy, environment, and our well-being. Once invasive species arrive and become established, they become costly and virtually impossible to eradicate. The estimated annual economic impacts to Hawai'i if red imported fire ants become established is \$211 million (Gutrich, et al. 2007), and the annual economic impacts to Hawai'i if brown tree snakes become established is between \$593 million and \$2.14 billion (Shwiff, et al. 2010). If the malaria-carrying *Anopheles* mosquito becomes established, our visitor industry and our health would suffer. Controlling established pests such as strawberry guava is imperative, as strawberry guava-infested forests reduce the amount of water entering the watershed by 30-50% (Giambelluca, et al. in press). Other invasive pests like varroa mite and small hive beetle reduce honey bee populations and the pollination services they provide. Less bees = less food produced.

Message: Although we are facing an \$800+ million dollar shortfall in the State budget, we stand to lose much more.

Preparing Hawai'i for the Guam Build-up (Domingo Cravalho, U.S. Fish and Wildlife Service)

Issue: The building of supporting infrastructure on Guam for the planned relocation of troops and their families and from Okinawa to Guam is underway. This means that there is and will continue to be an increase in equipment, cargo, people, planes and ships from Guam to Hawai'i, increasing the probability of the movement of brown treesnakes and other invasive species to Hawai'i.

Message: Hawai'i must take immediate action to enhance biosecurity measures at Honolulu International Airport.

- Improve surveillance capacity at ports of entry on O'ahu
- Build inspection, quarantine and treatment facilities, particularly at Honolulu International Airport, ASAP
- Re-establish the HDOA Detector Dog program
- Improve response capabilities and management: ensure that there are trained staff available and ready to respond to snake sightings or other invasive species reports

Biosecurity is not a Luxury (Carol Okada, Hawai‘i Department of Agriculture Plant Quarantine Branch)

Issue: The Plant Quarantine Branch is responsible for inspecting and clearing incoming domestic cargo at air and seaports statewide. The Reduction in Force (RIF) due to budget cuts has greatly affected HDOA’s ability to provide these services (table below).

PORT	Inspectors PRE-RIF	Inspectors ACTUAL 2011
STATEWIDE	92	60
OAHU	58	35
MAUI	17	14
KAUAI	3	2
KONA	4	2
HILO	10	7

Because of furloughs and RIFs, pest interceptions on incoming goods at ports have fallen drastically. The table below shows the interception stats at airports, which is the highest risk pathway with 80% of the pest interceptions. Special Funds (the Pest Inspection, Quarantine, and Eradication Fund) is inadequate to fund all current or necessary numbers of inspectors, or to build the joint Federal/State inspection facility at Honolulu International Airport.

AIRPORTS FY 2010

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
STATE	164	408	239	171	322	153	117	84	153	141	52	105	2109
OAHU	103	173	129	88	86	84	66	27	54	50	15	49	924
MAUI	38	228	108	70	224	54	38	49	84	83	24	46	1046
KAUAI	6	0	0	8	3	12	12	2	3	5	11	3	65
KONA	3	2	1	0	9	3	0	6	12	3	1	7	47
HILO	14	5	1	5	0	0	1	0	0	0	1	0	27

AIRPORTS FY 2011

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
STATE	131	397	280	33	42	36							730
OAHU	24	12	26	2	17	6							87
MAUI	104	255	194	31	25	30							639
KAUAI	0	0	0	0	0	0							0
KONA	3	1	0	0	0	0							4
HILO	0	0	0	0	0	0							0

Message: Implement HDOA’s Biosecurity Program at ports of entry.

- For inspectors, change the method of funding from special funds to general funds
- Increase fees going into special fund and find other sources of revenue into special fund

- Support the building of the joint inspection facility (status changes frequently—contact Carol Okada @ HDOA for up-to-date needs—HDOT currently does not plan to build a joint inspection facility at HIA, although in an information briefing on the topic on 1/28, they were, “...open to discussion.”)

Invasive Plants: (Chuck Chimera, Hawai‘i Invasive Species Council)

Issue: One of the biggest loopholes in the laws protecting Hawai‘i is that it is still legal to import more than 250,000 plants in the world. Of these, 10% will naturalize and spread on their own if imported and grown in Hawai‘i, and, of these, 10% will become invasive. In addition, of the 10,000 flowering plants have been introduced into Hawai‘i, about 1,215 have “jumped the fence” and established self-sustaining populations, some of which are considered harmfully invasive. Some of these are still being sold and planted, again because of inadequate laws. The Weed Risk Assessment System is a voluntary screening system that uses a Weed Risk Technician to use published information about a plant to answer 49 questions about its biology and invasive tendencies elsewhere, and it is 95% accurate at identifying invasive plants. To date, 1058 species have been screened.

Message: Hawai‘i must move towards a more restrictive system to screen imported plants, just as other states and countries worldwide are doing. This should involve using the WRA and a plant industry/agency/conservation committee to ensure that harmful plants are excluded, while allowing entry to plants that are low risk for being invasive.

Biocontrol Past, Present, and Future: (Neil Reimer, Hawai‘i Department of Agriculture Plant Pest Control Branch)

Issue: Some invasive pests pose an unacceptable level of harm to the economy, native species, natural resources, or human health. When these invasive pests are beyond chemical and mechanical control, we sometimes turn to biocontrol for sustainable help. Biocontrol is the importation of a natural enemy from the native habitat of the pest for the purpose of controlling the pest. Today, these natural enemies undergo a rigorous testing process to ensure that they do not cause unintended harm.

Message: The biocontrol release to save the native wiliwili trees was a great success and the Erythrina gall wasp populations are being controlled in a sustainable manner. We are awaiting a decision on the proposed release of a natural enemy to control strawberry guava. However, we have a very limited capacity to conduct this work, our branch staff was cut in half, and our facilities are too small for the work that needs to be done. We understand that this is not the year to ask for a new biocontrol facility, but we need to start this conversation.

Some Biocontrol Successes

- Spiraling whitefly (1980)
- Woolly whitefly (1981)
- Vegetable leafminer (1975-1982)
- Diamondback moth (1983, 1985)
- Lesser cornstalk borer (1986)
- Blue coconut leaf beetle (1986)
- Miconia (1997)
- Ivy gourd (1996,1998)
- Silverleaf whitefly (1998)
- Citrus blackfly (1999)
- Giant whitefly (2004a)
- Papaya mealybug (2007a)
- Erythrina gall wasp (2008)

Released/Monitoring:

- Erythrina Gall Wasp
- Nettle Caterpillar

In Quarantine:

- Strawberry Guava
- Fireweed
- Banana aphid (BBTV)
- Fountain grass
- Maile pilau
- Fruit flies

Researching:

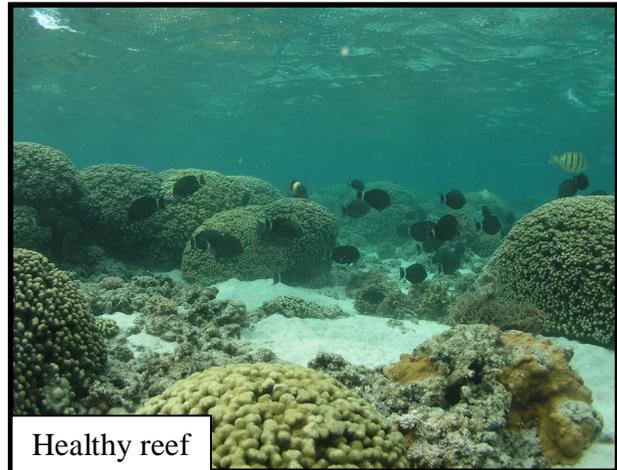
- Russian Thistle
- Small Hive Beetle
- Christmas berry
- Kahili ginger
- Pickleworm
- Naio thrips

From Seaweed to Super Suckers and Sea Urchins: (Tony Montgomery, DLNR Division of Aquatic Resources)

Issue: Invasive non-native seaweed (also known as invasive algae) is spreading on Hawai‘i’s nearshore reefs, killing coral and displacing the sea life that inhabits it. A mechanical underwater vacuum called the Super Sucker can be used by divers to remove the seaweed, but it grows back just as thick within a few months. Native herbivores (like surgeonfish and sea urchins) have been looked at for a more sustainable approach to controlling invasive seaweeds in Kāne‘ohe Bay. Native

collector urchins have been tested and found to be keep the seaweed from overgrowing the coral. DLNR Division of Aquatic Resources biologists will be releasing captive-reared collector urchins onto a Kāne‘ohe Bay patch reef in the next phase of this resource protection project.

Message: Not all the news is bad when it comes to invasive species. When we work together in partnerships on a problem, we can come up with good solutions. With the information we gain from this project, we will be able to apply it to invasive seaweed issues statewide.



Healthy reef



Invasive seaweed smothering reef

This Year at the Legislature: (Mark Fox, The Nature Conservancy of Hawai‘i)

Funding for programs like these comes from a variety of sources. More and more, we see how important it is to have dedicated funding, and there are some clear connections to funding sources such as a small fee on water for watershed protection, a portion of the barrel tax for invasive species work, and other sources. We look forward to working together to find solutions.

CGAPS was formed in 1995 as a voluntary, public-private partnership working to protect Hawai‘i from invasive species. The CGAPS Steering Committee is comprised of participants from the U.S. Department of Agriculture/Animal and Plant Health Inspection Service, U.S. Department of Homeland Security/Customs and Border Protection, U.S. Department of Agriculture/Institute of Pacific Islands Forestry, U.S. Geological Survey/Pacific Island Ecosystem Research Center, U.S. Fish and Wildlife Service, Hawai‘i Department of Agriculture (Plant Pest Control Branch and Plant Quarantine Branch), Department of Land and Natural Resources (Division of Aquatic Resources and Division of Forestry and Wildlife), The Nature Conservancy of Hawai‘i, Bishop Museum and the Invasive Species Committees of Hawai‘i.

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