# Sierra Club
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LATE

**SENATE COMMITTEE ON WAYS AND MEANS**
March 28th, 2008, 9:30 A.M.

**(Testimony is 4 pages long)**

**TESTIMONY IN SUPPORT OF HB 2843 HD2 SD1**

Chair Baker and and members of the Committee:

The Sierra Club, Hawai`i Chapter, with 5500 dues paying members statewide, supports HB 2843 HD2 SD1, providing additional funding for invasives inspections by expanding the inspections fee to include freight brought into the state based on net weight. **The nexus between Hawaii's ports of entry and alien species introductions could not be more clear. This measure makes that connection by expanding the existing importation fee to cover freight brought into the state.**

We believe that the adequate funding for the control and prevention of invasive species has been lacking for too long. As a result, Hawaii's residents, businesses, and agricultural operations are footing the bill. Estimates by one state biologist show that alien pests cost residents and the agriculture industry upwards of $400 million annually.

Hawai`i is losing the war on alien species. Some alien species, such as miconia, threaten to destroy watersheds and native ecosystems, jeopardizing freshwater supplies and pushing species to extinction. Other alien species, such as the coqui frog and dengue and its carriers, threaten our health, tourist industry, and our quality of life. Of particular concern is the introduction of the brown tree snake—a snake that nearly wiped out the native bird population on Guam.

Invasive pests from the Asia and the US mainland wreck havoc on native ecosystems. The cost—both economic and environmental—of introduced species in Hawai`i is astronomical. Tourism, agriculture, native species, and citizens' way of life are threatened with each new introduction. Sufficient funding to reduce introductions is clearly warranted; this is one are where an once of prevention is worth many pounds of cure.

The following pages contain articles highlighting the magnitude of Hawaii's invasive species problem. The first, from the February 7th, 2001 *Honolulu Advertiser,* describes the failure of the current mitigation methods efforts at the Kahului airport. The second, from the December 15th, 2005 Honolulu Advertiser, explains the dire situation with a recently introduced pest, the erythrina gall wasp, and the native wiliwili tree. Both make the case for expanded invasive species funding.

Thank you for the opportunity to testify.

# Airport inspectors find plenty of trouble

By Timothy Hurley
Advertiser Maui Bureau
February 7, 2001

KAHULUI, Maui — A trial period of beefed-up agricultural inspections under way at Kahului Airport has turned up hundreds of insects and diseases, many not known to occur in Hawai'i.

State agriculture officials said yesterday that inspectors have returned contaminated shipments to the Mainland and have destroyed others as part of an effort to see exactly what's needed to intercept alien species at an airport that is soon expected to be accepting international flights.

At the same time, they said, the project may shed some light on weaknesses that may exist at inspection points at other ports of entry across the state.

Agriculture officials described their pest risk assessment study last night at a meeting sponsored by the Maui Invasive Species Committee and the Maui Farm Bureau.

The effort, they said, is being financed by $300,000 in Federal Aviation Administration money and features more inspectors and dog teams, a doubling of the staff at Kahului Airport. The project was launched in late September and will continue during intermittent three- and four-week periods for a year.

Lyle Wong, Plant Industry Division administrator, said workers are conducting a 100 percent inspection of all incoming domestic flights and air cargo containers of agricultural products such as fresh fruits and vegetables and also are looking at aircraft cabin cargo and wheel wells.

Specifically, inspectors are looking for plant materials, insects, animals and other organisms that could wreak havoc on Maui's environment and crops.

Entomologist Neil Reimer said that Kahului Airport inspectors intercepted 90 plant diseases and 844 insects, mites, snails and other pests from Sept. 25 to Dec. 15. That compares to typical results of 1,200 interceptions a year islandwide.

Of the 844 pests, nearly 200 of them are not known to occur in Hawai'i, Reimer said, and about 200 more were too immature to be identified. The rest already are established in the Islands.

Lloyd Loope, U.S. Geological Survey scientist stationed at Haleakala National Park, said the numbers indicate the inspection system is "a leaky sieve."

"We're finding out just how leaky it is," Loope said.

The best solution for Hawai'i seems to be to push for pre-inspections before goods leave the Mainland, he said.

"Otherwise, Hawai'i will continue to accumulate a host of pests that impact all aspects of life and business in Hawai'i," Loope said.

When state officials announced plans to expand Kahului Airport 10 years ago, some critics questioned the wisdom of accommodating international flights and even more Mainland flights without a more serious quarantine effort to prevent invasive alien pests.

The critics complained that the existing inspection system was inadequate and getting less effective over time because of budget cuts.

More than two years ago, state and federal authorities signed an agreement on preventing introduction of alien species at Kahului Airport. A team of representatives from state and federal agencies, the airline industry and the Maui tourism industry was formed to look at the issue, and an Alien Species Action Plan was formulated.

Reimer said preliminary data show plants present a higher risk of bringing in pests, while passengers and baggage are a lower risk.

Fred Kraus, the state's alien species coordinator, said increased port-of-entry inspections statewide would help filter out many pests, including an increasing number of snakes.

Scientists have said more than 15 new pest species become established in Hawai'i each year.

*Honolulu Advertiser*
Thursday, December 15, 2005

# Scientists step up battle to save wiliwili

By Jan TenBruggencate

Hawai'i researchers and plant experts are working in laboratories, gardens, native forests and soon even in Africa toward a common goal of saving the embattled Hawaiian wiliwili tree, which is being threatened across the state by a mysterious bug called the erythrina gall wasp.

The almost microscopic wasps appeared in Hawai'i only this year and have invaded all the main islands. They are soon expected to be everywhere wiliwili is found in the wild landscape.

"They're so tiny and they're spread on winds, so it just seems they're going to reach every population," said Honolulu botanist Maya LeGrande, who specializes in wiliwili. She said wiliwili is the only native dryland tree species that is still widespread.

The urban landscape is suffering, too. Native wiliwili and its relatives, sometimes known as coral trees, are popular landscaping plants that belong to the genus erythrina. Many of trees in parks and along streets in Honolulu and across the state are now bare, their branch tips overtaken by misshapen lumps, or galls, that are unformed leaves, swollen in reaction to eggs injected by the female wasps.

Scientists, foresters, landscapers and natural-resources managers launched a statewide multi-agency response soon after the bug was first noticed on O'ahu in April. But the wasp has spread so rapidly and its impacts are so severe that saving the wiliwili in the Hawaiian dry forest is in doubt.

Some botanists say a biological control — a disease or another insect that attacks the wasp — is the wiliwili's best hope, but state entomologists say it could be years before such a remedy could be approved for release, even if one is found soon.

The next best hope is that something already in the Hawaiian environment will identify the wasp as prey and begin attacking it.

But scientists wonder if there's time, and they are leading a complex series of efforts to bring living plant material into storage, to protect plants still in the wild and to find the magic biological bullet as soon as possible.

Alvin Yoshinaga, who runs the Center for Conservation Research and Training at the University of Hawai'i's Lyon Arboretum, is taking delivery of tens of thousands of seeds from hundreds of populations of wiliwili around the state as part of an effort to preserve the genetic diversity of the wild plants.

"We're refrigerating or freezing them. We're splitting the collections into three different locations," said Lauren Weisenberger, who oversees the arboretum's seed conservation lab. Wiliwili seeds germinate at a high rate and should survive for several years in cold storage, she said.

Scientists at the National Tropical Botanical Garden's new tissue culture laboratory in Lawa'i Valley on Kaua'i are trying a different tack. They are growing rare relatives of wiliwili in a sterile lab, then clipping off bits of leaf and placing them on agar in test tubes and petri dishes. If they can develop

techniques to grow erythrina from sterile plant tissue in the lab, they can keep species alive indefinitely in bug-proof rooms.

"If we can do this, we can keep it safe until the gall wasp is controlled in the wild," said Ellen Coulombe, administrative assistant in the garden's conservation department.

The National Tropical Botanical Garden and the Waimea Valley Audubon Center on O'ahu together have the world's largest collection of wiliwili and other erythrina. Each garden has more than 80 species, and both are working hard to protect their collections.

Waimea botanist David Orr said his gardeners drenched their plants with an insecticide called imidacloprid, which enters the plant's tissues and may protect it against the wasps.

"I'm really amazed at our results. Our plants are doing pretty well," he said.

State foresters with the Department of Land and Natural Resources are experimentally treating wild trees at Kekaha, Kaua'i, and Wai'anae, O'ahu, with applications of imidacloprid. Similar treatments at the National Tropical Botanical Garden, however, have not been that successful.

It is clear that some wiliwili cousins, notably some thick-leaved species from Africa, appear to be naturally resistant.

On Dec. 24, state Department of Agriculture entomologist Mohsen Ramadan will fly to Tanzania in Africa, where there are known to be relatives of the erythrina gall wasp. His goal is to find other insects that naturally attack the gall wasp and might be effective in controlling the pest in Hawai'i. Other insect experts are looking in Kenya and elsewhere in Africa.

"The rainy season will be starting there and plants will be beginning to flush. That will be a good time to be looking for the wasps," said Neil Reimer, plant pest control branch manager at the Department of Agriculture.

"I am confident that there are parasites in Africa and that we can get them."

But that's just the first step. Reimer said it could take several years to completely test any parasites to be sure they don't threaten native Hawaiian insects.

University of Hawai'i entomologist Russell Messing said scientists still don't clearly understand the interaction between the gall wasp and the wiliwili plant.

"The thing that's tricky about the project is you can have entire communities of things living within a gall. There's a lot of biology that needs to be done," Messing said.