

# nā leo o ka 'āina

Voices of the land



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Winter 2007

Newsletter of the Hawai'i Department of Land and Natural Resources  
Division of Forestry and Wildlife

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## Over \$11 Million in Grant Funding Requested From New Legacy Land Conservation Program

Molly Schmidt, Legacy Land Conservation Program Planner,  
DOFAW

The initial grant process of Hawai'i's new Legacy Land Conservation Program (LLCP) has begun, and soon \$3.6 million dollars will be awarded to county agencies, state agencies, and land conservation organizations for the acquisition of lands that provide environmental, cultural, or historical benefits to the people of Hawai'i.

The first application deadline for the LLCP closed on October 16, 2006, and collectively, applicants requested over \$11 million in grants from the Land Conservation Fund (LCF), which will provide \$3.6 million in grants this year.

Due to a strong desire from Hawai'i's conservation-minded public to create a permanent form of protection for Hawai'i's valuable resource lands, in 2005, the Legislature renamed an existing unused land acquisition fund and replenished it with ten percent of the annual revenues from an increased conveyance tax. In addition to providing funding assistance to county and state agencies and local conservation organizations annually, the LCF draws federal funding towards Hawai'i's natural resources by allowing partnerships with federal programs which require matching state funds.

The 2006 Legislature created the Legacy Land Conservation Commission to determine and recommend to the BLNR the projects that have the strongest need for funding. Following its selection and orientation, the Commission will begin using criteria set forth by Legislature (Act 254, SLH 2006) to recommend project applicants for LCF funding. The Commission's recommendations will be considered by the BLNR, with the consultation of the Senate President and Speaker of

## OISC teams up with Bishop Museum for Early Detection

Rachel Neville, Oahu Invasive Species Committee

Since July, Alex Lau and Danielle Frohlich of the Bishop Museum have been surveying for new plant introductions to O'ahu. So far they have found about fifty new cultivated species not in the Museum's records and four new naturalized species. The new cultivated plants include several species of Tillandsias, an epiphytic bromeliad, and a new melastome, *Topobea parasitica*. One of the four new naturalized species is *Rubus ellipticus*, a blackberry that is notoriously difficult to control.

Through a grant from the Hawai'i Invasive Species Council, the Bishop Museum and the O'ahu Invasive Species Committee have teamed up to create a program that will protect O'ahu from new weeds while they are still easy to control. In her closing remarks at the Hawai'i Conservation Conference, New Zealand policy analyst Paula Warren remarked that in Hawai'i, we tend to study weeds spreading instead of eradicating them while its still easy. By the time the evidence is gathered and all the parties involved agree a certain plant is causing problems, it

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## William Jacintho Wins Award for Keeping Invasive Species Out of Maui

Joylynn Paman, Maui Invasive Species Committee

MAKAWAO – William Jacintho accepted the Fourth Annual Malama i ka 'Aina Award on Saturday at the Maui Association of Landscape Professional's Lawn & Garden Fair. Jacintho was honored for the actions he and his family take to keep invasive species out of their nursery and cattle operations and for his efforts to educate students at Maui Community College about pest species.

As a specialist at MCC's agriculture program, Jacintho has a passion for teaching students how to be good stewards of the land. He emphasizes the importance of planting the right tree in the right place and how to avoid planting invasive species in landscaping projects.

Jacintho is a fourth-generation farmer who has seen the devastation of what invasive species, such as fireweed and pampas grass, can do to the agriculture economy. He and his family own Beef and Blooms, a split certified organic cattle operation and nursery company, managed by his wife, Anne Marie. Through their company, the family keeps up with lists of invasive species and makes every effort possible to keep pests out of their operations.

When asked what other landscapers and people in agriculture can do to malama i ka 'aina (care for the land), he simply says, "the important thing is for everyone to do their part. Prevention is where everyone can help. It's so simple. I want to encourage all landscapers and plant producers to not plant invasive species. Be proactive and let MISC or Dept. of Agriculture know." Jacintho is also a Certified Arborist and has served on the Maui County Arborist Advisory Committee.

The Malama i ka 'Aina Award is sponsored by the Maui Invasive Species Committee (MISC), Maui Association of Landscape Professionals (MALP) and the County of Maui. The award recognizes a plant provider, landscape professional, or business for efforts to keep invasive species out of Maui County. Mayor Alan Arakawa, Senator Kalani English, MALP President Jeff Bantilan, and MISC Public Relations & Education Specialist, Joylynn Paman presented the award to Jacintho and his 'ohana.



For more information Joylynn Paman, Public Relations & Education Specialist, Maui Invasive Species Committee. PH: (808) 573-MISC (6472), Fax 573-6475 Email: [miscpr@hawaii.edu](mailto:miscpr@hawaii.edu)

Photo by Maui Invasive Species Committee: (Top L-R) Senator Kalani English, Mayor Alan Arakawa, William Jacintho, Joylynn Paman, Jeff Bantilan, (Bottom L-R) Katie Jacintho, Daniel Jacintho.

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### MĀLAMA HAWAI'I:

Mālama Hawai'i is a hui of over seventy organizations and hundreds of individuals committed to the vision that Hawai'i, our special island home, be a place where the people, land and sea are cared for, and communities are healthy and safe. Visit [malamahawaii.org](http://malamahawaii.org) to obtain information about service projects. If you have something to share contact [info@malamahawaii.org](mailto:info@malamahawaii.org)

## Resolution to Promote Ecosystem Services

Missy Sprecher, Forestry Program, DOFAW

The State of Hawai'i Department of Land and Natural Resources, Division of Forestry and Wildlife (DOFAW) has been engaged by the recently passed House Current Resolution 200 to, in conjunction with local landowners, educational institutions, and other knowledgeable agencies, develop information and resources related to ecosystem services and current or future incentive programs for landowners to preserve and promote mauka lands.

'Ecosystem services' is new eco-terminology used to describe the economic value that can be associated with processes and outputs of natural systems. Ecosystem services can range from carbon sequestration, flood protection, groundwater recharge and drinking water, wildlife habitat, and open space or aesthetic and cultural values.

Traditionally, many of these services have been viewed by governments and society as 'free' public goods that naturally replenish themselves. However, as world environments accommodate more large urban communities the natural resources in those areas continue to shrink to accommodate the increased needs. These public goods are no longer capable of supplying the volume of resources needed or previously supplied because of the negative impacts of urban sprawl. Furthermore, the ecosystem services associated with these natural systems are significantly diminishing.

In the case of most ecosystem services, the cost to maintain the natural resources/ecosystem services is through restoration, protection, preservation, and management. In Hawai'i much of these duties fall principally on a few landowners who own a majority of the mauka land areas that are identified as still largely capable of generating ecosystem services. There is a vast need to reevaluate the monetary significance of these services as well as develop incentives programs and/or tax benefits designed specifically for landowners who are bearing the costs of maintaining the environments that provide these ecosystem services.

This Concurrent Resolution seeks the acknowledgement of the importance, in Hawai'i and throughout the world, of protecting and preserving natural resources that in turn provide economic services to the communities

## New Directions for Hawai'i's Forestry Program

Jolie Wanger, Information & Education Spec. & Michael Constantinides, Forestry Program Manager, DOFAW

The DOFAW Forestry program has recently expanded its scope and boundaries through aggressive efforts to update program statues and rules, by participating in Federal programs and working to add lands to the Forest Reserve System (FRS). These efforts have resulted in protected status for more public lands in the state of Hawai'i and greater program support for watershed and natural resource values, and forest industry development in Hawai'i.

New amendments to statutes & rules have given the Department and Program more control and flexibility relating to prosecution of violations, revenue generation and commercial harvest permitting. Act 174 passed by the Legislature modified Hawai'i Revised Statutes Chapter 183 provided clearer guidance for responding to violations of statutes and rules relating to the FRS by authorizing the Board of Land and Natural Resources to impose Administrative fines. This new authority provided DLNR greater flexibility and capacity to respond to the increasing frequency and severity of violations in the FRS, an alternative to potentially costly and time-consuming prosecution through the judicial system, and a means for establishing disincentives for potential violators.

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surrounding them. DOFAW has been challenged to generate ideas and knowledge that supports the environment as a capital resource. More directly, DOFAW was directed to "conduct an analysis of local, national, and international incentives and other programs that promote landowner protection of important mauka lands and recognize the public benefits of the ecosystem services provided by those lands".

DOFAW has begun compiling informational resources and developed a Steering Committee consisting of private landowners, universities, and forestry-related agencies. An interim report has been generated and received by the Legislature and a final annual report is due in one year.

For more information contact Missy Sprecher, (808) 587-4167. [Melissa.I.Sprecher@hawaii.gov](mailto:Melissa.I.Sprecher@hawaii.gov)

## Dirty Nars Boyz And The Pirates Of East Maui

Kat Lui, East Maui Watershed Partnership

Sparks fly, pigs squeal, and the whole mountain seems to tremble when the DNB and the East Maui Watershed Pirates arrive to pound out a week's worth of hard labor during what has become an annual work exchange between three natural resource management teams on Maui and the Big Island.

The Dirty NARS Boyz (so called because they're dirty when they come out of the field and dirty when they went in too) consists of 6-9 crew members from the Big Island's Natural Area Reserve System (NARS) plus two members from the Maui NARS. Together with six "pirates" from the East Maui Watershed Partnership (EMWP), this swarthy crew of mountain men is able to accomplish tasks in remote areas at an astonishing rate.



Building fence at Kipahoe NAR

Haleakalā. That's seven rolls (700 m) of fence built, all the fence corners put in, and eight rolls worth of line brushed by a team of 15 people working five long hard days. If you've had the privilege of trekking within Hanawī's unforgiving terrain, you'll know what an accomplishment this is.

On a typical day, the crew is up before sunrise with "dirt in their ears and two months worth of dirt on their bodies", walking or driving out to the sight by 7:30 am. "The crews feed off each other's energy", says Jordan Jokiel, resource manager for EMWP. "They push each other in the field and have a good time doing it too."

It's not only the amount of work accomplished that makes these exchanges valuable. They also build morale

and team cohesiveness. Nick Agorastos, captain of the DNB recalls the exchange on the Big Island. "When you know you have to build 11 miles of fence through fields of Kīpāhoehoe lava rock, the task can seem quite daunting." But then the Maui boys show up and "whack 2 miles out in a week". That's uplifting. The amount of physical work per dollar spent more than makes up for the price paid in airfare. Plus, the motivation, learning experience, and camaraderie you get out of the ordeal is priceless.

Czar likens the work exchanges to resource management workshops. Here, ideas, techniques, and tools have a new audience, cutting down the need for research, trial and error. Bryon Stevens from Maui NAR introduced a core sampler as a better rock drill; the Big Island crew gathers cut lanтана in a pile instead of letting it lie where it was severed to better gauge the amount weeded.

"Each team member brings his own set of skills that complements the others," says Agorastos, "not just work skills, but social skills too." Whether clipping wires or hauling lanтана, the boys on the line talk story, crack jokes, and even sing songs. New terrain, new people, and seeing rare ecosystems keep the work fresh and exciting. Agorastos went so far as to describe it as a working vacation.

Like many things on the islands, this 'ōhana has a long history. Jokiel, who was one of the original DNB says "It's nice to work with old friends." The term "Dirty NARS Boyz" was first coined more than 10 years ago when Jokiel, Agorastos, Stevens and others first worked together for the Big Island NARS.

*(Continued on page 6)*



The Dirty NARS Boyz and East Maui Pirates

## Wildfires Keep Dofaw Personnel Busy

Wayne Ching, Protection Forestry Manager, DOFAW

Wildfires have kept DOFAW employees extremely busy since the beginning of the 2007 fiscal year. Since July 1, thirteen fires have occurred on five islands – two on Oʻahu, one on Molokaʻi, four on Maui, and six on Hawaiʻi. The following table illustrates the severity and impact:

Date	Name of Fire	Island	Acres Burned
July 4	Kanahā	Maui	3
July 13	Yokohama	Oʻahu	760
July 19	Puʻu Anahulu	Hawaiʻi	100
Aug. 10	Puʻu Waʻawaʻa Stockyard	Hawaiʻi	3
Aug. 11	Honoulimalo	Molokaʻi	4
Aug. 16	Puʻu Anahulu Kipuka	Hawaiʻi	630
Aug. 29	Puʻu Mali	Hawaiʻi	400
Sep. 1	Māʻalaea	Maui	3,942
Sep. 8	Puʻu Mali II	Hawaiʻi	320
Sep. 9	Pola Nui	Maui	540
Sep. 24	Kaupo	Maui	5,000
Oct. 3	Puʻu Anahulu Makai	Hawaiʻi	1,000
Oct. 10	Mānana Shelter	Oʻahu	16
<b>Total Acres Burned:</b>			<b>12,718</b>

Most of the fires impacted DOFAW's resources, including the Palila Critical Bird Habitat on Mauna Kea. The fire burned stands of koa and māmane, habitat critical to the survivability of the Palila. The Puʻu Mali and Puʻu Mali II fires were very difficult fires to suppress due to the terrain, soil type and location. DOFAW spent well over \$172,000 on a fire that lasted 3 weeks.

The Yokohama Fire burned into the U.S. Army's Kaluakauila Biological Sensitive Area, located adjacent to the western impact boundary of the Makua Military Reservation. Quick response and suppression efforts by the Honolulu Fire

Dept., Federal Fire Dept. and DOFAW kept the damage to a minimum. Less than ¼ acre burned in the Kuaokala Forest Reserve due to the firebreak road that exists along the Makua Rim. This firebreak road is maintained by the Oʻahu DOFAW Branch.

One of the more spectacular fires that occurred and one that garnered national attention was the Māʻalaea Fire. This fire threatened the Māʻalaea community, forcing some residents to evacuate their homes. The fire also closed the Honoapiʻilani Highway, forcing traffic to a standstill for several hours, and diverting traffic to the north end along Kahakuloa Village. The fire also threatened the Maui Electric Company power lines as well as the Kahewa Windfarms, a multi-million dollar wind energy facility. The Hanaula Open-top Release Pen, a one-acre nēnē release facility in the West Maui Forest Reserve, was threatened. No nēnē were affected by the fire.



Firefighting resources included DOFAW, Maui Fire Dept., with aerial support from the Hawaiʻi Army National Guard and the Kāneohe Marine Corps Base Hawaiʻi. This fire was declared a FEMA disaster fire, meaning that at least 75% of all firefighting costs will be reimbursed through the FEMA Fire Management Assistance Grant program.

Thus far, the thirteen fires have garnered well over \$375,000 in firefighting costs to DOFAW. The Department's Firefighter Contingency Fund of \$300,000 is expected to cover most of the costs incurred. The Division has a budget proviso request to the Governor, requesting an additional \$300,000 to support the fire suppression activities for the rest of the current fiscal year.

For more information about wildfire protection contact Wayne Ching (808) 587-4173 or visit [www.dofaw.net](http://www.dofaw.net).

## Pouhala Marsh Make a Difference Day

Christina McGuire, Oahu Branch Wildlife Program,  
DOFAW



Many people are unaware that Pouhala Marsh is the largest intact coastal wetland remaining in the Pearl Harbor Basin of Oahu. The wetlands of Pearl Harbor have been degraded through filling, urban development, water pollution, and alien plant invasion. The once extensive system of wetlands in the area have declined to a few remaining basins and mud flats. Pouhala Marsh is a 70 acre wildlife sanctuary located in Waipahu town, and managed by DOFAW to provide habitat for four endangered Hawaiian waterbirds, including the Hawaiian Stilt or ae'o (*Himantopus mexicanus knudseni*), Hawaiian Coot or 'alae ke'oke'o (*Fulica alai*), Hawaiian Moorhen or 'alae 'ula (*Gallinula chloropus sandvicensis*), and the Hawaiian Duck or koloa maoli (*Anas wyvilliana*). In addition the Recovery Plan for Hawaiian Waterbirds (US Fish and Wildlife Service, 2005) identifies Pouhala Marsh as a core wetland of critical importance for the recovery of Hawai'i's endangered water birds.

On October 28th 235 volunteers descended upon Pouhala Marsh to make a difference for the native waterbirds that inhabit the marsh. In an effort coordinated by the Hawai'i Nature Center, the City and County of Honolulu and DLNR/ DOFAW volunteers removed 500 invasive cattail and water lettuce plants, 60 tires, 400 bags of trash and almost 2 tons of bulky debris. Community groups who helped in the clean-up effort included the U.S. Army Fort Shafter 70th Engineer Group, The U.S. Army Wheeler group, the Waipahu High School Key Club, the Waipahu High School Science class, Kickstart Karate, Moanalua High



(Continued from left)

School Class of 2007 and Class of 2010, Moanalua High School Science class, Starbucks Coffee Hawai'i, and The Judiciary group.

The event was a huge success and volunteers were treated to hamburgers and lemonade provided by Macdonald's. If you would like to come join in the fun the next Pouhala Marsh Clean-up event is scheduled for April 28, 2007. If your interested in participating please contact Christina McGuire at mcguirec@hawaii.edu.

("Dirty NARS Boyz" Continued from page 4)

Today, these three are still running tight (if dirty) ships. While it takes time to build such efficient working relationships, this continuity of leadership is what gets passed on to the next generation because of these work exchanges. The key, says Jokiel, is to make sure your team is as solid as the other guys.

As for the origins and meaning behind the East Maui "Pirates", no one has given a satisfactory answer. "What happens on the mountain stays on the mountain", as the saying goes. The story behind the benefits of these work exchanges, however, was just too good to let it stay on the mountain.



### Hawai'i's Superferry- What You Need to Know

Hawai'i Invasive Species Council - Public Outreach Working Group

Beginning July, 2007 Hawai'i's Superferry will begin service between O'ahu - Maui and O'ahu - Kaua'i. While this is an exciting prospect for many travelers, some unwanted hitchhikers may also try and catch a ride. With the added convenience of bringing our car and other goods with us to the neighbor islands comes the added risk of spreading unwanted pests such as seeds from weedy plants, coqui frogs, and insects that travel in plant material. Although the Superferry will inspect vehicles and cargo for such pests, travelers can be a step ahead of the process by becoming aware:

Be weed wise and wash your car!

Do you have hitchhikers on your car? The dirt in your tires or on your car may contain seeds of invasive plants like Koster's curse, fountain grass, and even miconia. These weeds block access to recreation areas and endanger our native forest. Help stop seed spread-- wash your car before bringing it on the Superferry.

The Little Fire Ant is a new type of stinging red ant—they are known to spread hidden in plants and may even be transported in vehicles. Little Fire Ants are just one of the reasons that all plants need to be inspected by Hawai'i Department of Agriculture before your trip. You can find out how to use peanut butter to look for Little Fire Ants around your house or before you ride the Superferry (learn how at <http://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-LFA.pdf>)

Thrips Love Trips!

What are thrips?? Thrips are small, sap-sucking insects that can transmit devastating plant diseases that affect our agriculture industry and ultimately cost us money in higher prices. Thrips can be spread from island to island hidden even on a single piece of fruit. Help protect Hawai'i by having all produce and plants inspected by the Hawai'i Department of Agriculture before your trip.

Some seaweeds are real Weeds.

Invasive alien seaweeds have proved to be devastating on some Hawai'i reefs. To help keep invasive marine

species from spreading from island to island, the Hawai'i Superferry has used growth-retardant paint, and does not use ballast water. Please do your part by making sure all your gear is clean before AND after your trip.

Did you know that coqui frogs can travel at 60 mph? Coqui have been known to spread from infested areas on the Big Island by hiding on cars and trucks. If you are traveling to or from an area with coqui frogs, take steps to minimize the chances of transporting unwanted frog hitch hikers. Park in open lots, away from vegetation. Consider a car wash that uses warm water and an undercarriage wash. And be aware that even with these measures, coqui can still travel. If you hear (audio of frog calls) on any island but the Big Island, call 643-PEST.

Hawai'i's Superferry is working with the Hawai'i Invasive Species Council to develop public outreach tools for their website and facilities in order to minimize the spread of invasive species.

**What's the story Super ferry?**

#5 of an Informative Series for Hawai'i's Community

8" DENIED ENTRY

6" Mongoose (State of Hawaii 262377-A)

4" Coqui Frog (State of Hawaii 553667-F)

Miconia (State of Hawaii 889788-P)

Little Fire Ant (State of Hawaii 565789-B)

Pay Attention - Education programs for our staff and the public to increase responsibility and awareness.

Clean Bill of Health - Vehicles must be clean before boarding our vessels.

Cultivating Good Habits - Plants must be inspected by HDOA.

No Free-loaders - The vessel's eco-friendly features reduce the chances of unwanted organisms traveling between islands.

Travel Buddies - Only domestic dogs, cats and livestock with HDOA certificates are allowed onboard.

Young Brother's is also currently joining forces with the Invasive Species Committees (ISC's) to provide its employees with informational workshops on invasive species. The ISC's aim to help workers understand what to look for during daily cargo operations and Young Brother's hopes to do their part to help Hawai'i's environment.

## News From The NARS

Jolie Wanger, Information & Education Spec., DOFAW

### OAHU

#### Kaena Point NAR

This year has been full of ups and downs for Kaena Point and its magnificent wildlife resources:

**Laysan albatross\*** have made a substantial comeback at Kaena Pt. in recent years with increasing nesting pairs and fledglings each consecutive year. This past year we saw 42 nesting attempts (eggs laid), 24 chicks hatched and 24 chicks fledged! This year, 3 of the breeding birds have

returned to Kaena where they were born to nest. Plans are in the works to build an observation area to observe nesting Laysan



Black-footed albatross with a pair of nesting Laysan albatross. Photo by Lindsay Young

Albatross. This would allow people to view the birds from a safe vantage point, while protecting the birds from curious viewers. A Black-footed albatross also made an appearance in the reserve, although no nesting has been recorded.

This year, we saw the second largest breeding attempt by **wedgetailed shearwaters\***, with 725 fledgling shearwaters counted by volunteers on October 28. 64 dead birds were also counted at this time, likely killed by predators such as cats, mongoose and dogs. On November 5, just

prior to when they were expected to make their first journey to sea, an additional 113 carcasses were discovered, 21 of these chicks were killed in a single night by feral dogs that were found in the reserve. Although dogs are strictly

prohibited in the reserve, and this is clearly marked on information signs at entry points, some people are still seen bringing their dogs into the reserve. New signs are being placed within the reserve to alert people to the presence of the protected seabirds and what behavior is prohibited in order to protect them.



The first recorded **Hawaiian Monk Seal** pup was born in the reserve just before July 4th. The pup remains in or near the reserve.

\*Mahalo to Lindsay Young and Jaap Eijzenga for sharing their research data on Laysan Albatross and Wedgetail Shearwaters.

### KAUAI

#### Kuia NAR

Long awaited fencing projects in Kuia NAR are now underway. Five proposed fenced exclosures within the Kuia NAR have been surveyed and flagged for fence alignment and installation. These exclosures will protect some good examples of native mesic forests on the northwest portion of Kauai. Several listed endangered plant species, and at least 2 yet to be identified taxa will be protected by the ungulate-proof fence. John Hinton has been awarded the contract to build the fences.

### MAUI

#### 'Ahihi Kina'u NAR

Rangers are monitoring visitor access to a volcanic vent which appears to have become unstable during last year's earthquake. Visitors are said to be directed to the area via guide books. This is of concern as this is a remote area that visitors are not invited to visit by official publications or signage. Division-wide, incidents related to guide book misinformation or irresponsible publication are increasing. Nā Ala Hele and Wildlife program staff are working on appropriate signage and protocol for posting hazard warnings in the Kahakuloa Game Management Area where island visitors are directed, via island guide books, to access coastal tidal pools, and where several visitors were recently swept into the sea and died.

### BIG ISLAND

#### Manukā NAR

Coqui frog eradication is the primary focus of activities at Manukā. Recent surveys have shown that treatment actions using citric acid have significantly reduced frog densities and sound levels. Pre-treatment assessments were conducted by the newly-hired Coqui frog Coordinator on December 7 and post-treatment assessments on December 20, 2006. No frogs were observed/heard within the treated sections post-treatment.

The Natural Area Reserve Commission approved at its last meeting a permit for the newly formed USDA Forest Service National Tropical Experimental Forest at Laupahoehoe NAR.

### Safe Harbor For Five Endangered Birds

Bill Standley, Conservation Initiatives Coord., DOFAW



Hawaiian stilt (*Aeʻo*)

The U.S. Department of Agriculture’s (USDA) Natural Resources Conservation Service (NRCS), the Hawai‘i Department of Land and Natural Resources (DLNR) and the U.S. Fish and Wildlife Service (USFWS) have

announced the formation of what will be the first statewide “safe harbor agreement” for Hawai‘i.

The agreement streamlines the ability to form partnerships with private landowners to help recover endangered species. The safe harbor agreement will provide cooperating landowners assurances that future land use requirements will not be imposed because of conservation efforts carried out under NRCS Farm Bill conservation programs throughout the state.



Hawaiian Moorhen (*ʻAlae ʻula*)

NRCS administers several programs created under the Farm Bill to alleviate environmental impacts of agriculture and offer financial and technical assistance to address resource concerns, including management of endangered species habitat. To be eligible for the safe harbor agreement, landowners must be enrolled in one of these NRCS Farm Bill conservation programs and making improvements to wetlands, riparian or uplands habitat that will benefit any of the five covered endangered birds: Hawaiian Goose (Nēnē), Hawaiian Duck (Koloa maoli), Hawaiian Moorhen (ʻAlae ʻula),

Hawaiian Goose (*Nēnē*)

Hawaiian Coot (ʻAlae keʻokeʻo), and Hawaiian Stilt (Aeʻo). This agreement will be the sixth safe harbor agreement in Hawai‘i and the second that is “programmatic,” or covering multiple landowners.



Hawaiian Moorhen (*ʻAlae ʻula*)

Hawaiian Coot (ʻAlae keʻokeʻo), and Hawaiian Stilt (Aeʻo).

This agreement will be the sixth safe harbor agreement in Hawai‘i and the second that is “programmatic,” or covering multiple landowners.

Local NRCS staff will deliver the Farm Bill portion of the agreement, and Hawai‘i’s four Resource Conservation & Development (RC&D) Councils will administer individual landowner agreements and conduct outreach, and DLNR and USFWS will provide expertise on endangered species and the safe harbor agreement program.

DLNR published a notice in the Office of Environmental Quality Control’s Environmental Notice offering the public the opportunity to review and comment on the agreement and associated documents. The U.S. Fish and Wildlife Service will publish a notice in the Federal Register at a later date.



Hawaiian duck (*koloa*)

For more information contact Bill Standley at William.G.Standley@hawaii.gov

The 2007 Hawai‘i Game Bird Stamp Contest will be seeking artist participation beginning January 2007. Interested artists should check the DOFAW website at [www.dofaw.net](http://www.dofaw.net) for an announcement with more information.

2006-07 Hawai‘i Game Bird Stamp- Gray Frankolin Artwork by David K. Hayes, winner of the 2006 game bird stamp contest.



## Controlling Feral Pig Populations - Responding to Public Concern Over Problem Pigs

Ed Johnson, State Hunting Coordinator, DOFAW

In 2006, mauka communities in and around Honolulu (primarily the Tantalus/Round Top area above Makiki Heights) that were experiencing new or rapidly increasing pig presence and damage to gardens and yards on private property worked with the Legislature to pass House Concurrent Resolution No. 98.

The resolution requests the Department of Land and Natural Resources to prepare a plan to identify problem feral pig areas and reduce the feral pig population by considering, but not being limited by the following approaches: (1) Expanding game management areas; (2) Expanding public hunting areas; (3) Lengthening the hunting season for feral pigs; (4) Eliminating the bag limit on feral pigs; (5) Contracting with private hunters for the removal of feral pigs; and (6) Providing cash bounties to licensed hunters for each feral pig captured.

To address these concerns on O'ahu, a preliminary meeting was held on April 6 with DLNR staff, watershed partnership personnel, legislative aides, and others to discuss the problem and plan a community meeting. On April 12, a Mānoa Town Meeting was held at the Mānoa Innovation Center to discuss feral pig control. "Got Pigs?" leaflets were temporarily posted around the neighborhoods to solicit participation. The objectives of the meeting were to 1) To Listen to Neighborhood Concerns, 2) To Gather Information, 3) To Talk about what's in place now, 4) And To Discuss Solutions.

Participants included elected Representative Kirk Caldwell and staff, Councilwoman Ann Kobayashi, Senator Brian Taniguchi; DLNR and DOFAW staff from the hunting trails and access, and watershed programs; Jason Sumiye, Coordinator, Ko'olau Mountains Watershed Partnership (KMWP), Pig Hunters Association of O'ahu and over 50 residents. A question and answer period was followed by general support for DLNR to respond to community concerns and develop a plan for action and timeline to reduce feral pig numbers in the Mānoa area.

Based on feedback from the public and discussions with key mauka landowners, the following transpired:

DLNR formed a working group to develop control

plans. The Group met on May 18 with members of the KMWP, staff from DOFAW, Honolulu Police Department, DLNR- Division of Conservation and Resources Enforcement, Kamehameha Schools, and several other groups and individuals. The group was charged to develop a hunting program acceptable to the community. On June 2, the working group met again to continue to assess property access for pig control and develop plans to control feral pigs in Mānoa area.

A public meeting was held on July 19, 2006 to solicit community review and comment on program design.

The working group drafted a liability agreement with the Board of Water Supply for special hunting access to Board-controlled lands. The agreement requires review by the state Attorney General's office.

Tantalus pig sign transects were surveyed by KWMP staff on September 1, 2006 to located areas with high pig density. Additionally, the working group obtained transect data from the Army to compare relative numbers in other areas on O'ahu.

On September 2, 2006, the working group conducted a pig trap-building workshop, which was convened at the Makiki Baseyard to demonstrate the techniques, materials, and effort required to build neighborhood-usable traps. Unfortunately attendance was poor at this workshop.

Finally, in anticipation of beginning a special hunting season, the working group developed a Legal Notice to be issued by the Chair of DLNR specifying the details of the hunts, with a news release for the press to accompany the Legal Notice.

The special hunt has been scheduled to begin February 4th and last through February 1st, 2008.

The hunts are expected to reduce the problem feral pig incidents, however; the success will only be temporary as hunting pressures subside following the special hunt. This problem will require continued monitoring and possible future hunts or other actions as well.

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*("Forestry Program" Continued from page 3)*

Act 174 also expanded the definition of revenue sources that can be deposited into the State Special Fund for forestry-related revenues. Now, more revenues can be reinvested in directly benefiting and managing the FRS. Added revenue sources include leases, permits, mineral extraction and non-timber forest products and values.

FRS Administrative Rules were recently amended to expand the value and quantity of commercial harvest permits that the Program can issue. The quantity of permits was increased from 3 per year for resources valued up to \$1,000 per permit, to 6 per year for up to \$10,000 in value per permit. The updated permit system provided greater support for revenue generation opportunities through the Division's standard field operations or to capture value in resources that would otherwise be lost. For example, these small-scale permits would allow the Division to recover value from removing trees that present a hazard to public safety or infrastructure, and in turn reinvest the proceeds in management of the FRS.

The forestry program is working to support the establishment of a viable forest product industry for forest plantations in Hawai'i. Some of the potential industries include a sawmill, a veneer mill, pulp chip export, and a biomass energy production industry. The latter has the potential to utilize green waste from forestry industries and potentially other sources such as biomass from land clearing or residential landscaping activities to produce usable energy. Commercial timber stands on Departmental lands are being made available to entities seeking to become established or expand pre-existing operations in Hawai'i. The Program seeks to support this industry that is based on a renewable resource for several social and economic reasons, including a reduction in Hawai'i's reliance on external material and energy sources.

The Forestry Program has worked steadily to add new lands to the FRS in order to provide protected status under our existing Program statutes and rules. The majority of new acreage is comprised of mauka forest lands with watershed and other natural resource values that were previously fallow or subject to other agricultural or pastoral uses. Approximate land acreages added to the FRS include:

- 3,800 acres- S. Kona F.R., Big Island
- 900 acres- Ewa F.R., Oahu
- 4,700 acres- Kau F.R., Big Island
- 7,100 acres- Honuaula F.R., Big Island

The Program has actively participated in the Federal Forest Legacy program in recent years and has been highly successful in competing nationally for Federal grant funds to purchase fee titles or conservation easements for new FRS land areas. For example, approximately 26,000 acres of previously private-owned lands were purchased in fee through the Forest Legacy program in an area known as Wao Kele O Puna. This area is designated for addition to the FRS and will be owned and managed by the Office of Hawaiian Affairs under a new type of cooperative arrangement with DLNR.

Over the next 2-3 years, DOFAW plans to add significant additional acreage to the FRS. While management capacity has not increased proportional to the size of the FRS, DOFAW continues to seek additional funding and resources. However, new protections to important watershed and threatened land areas within the State have been provided as an important first step.

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*("Legacy Land" Continued from page 1)*

the House of Representatives. The projects will then be subject to the approval of the Governor.

After the creation of the LCF and Commission, the DLNR, Division of Forestry and Wildlife, formed the LLCP to manage the grant and land acquisition processes and to provide administrative support to the Commission. In the last year, the LLCP has developed a grant process and a web site, has hired a Program Coordinator, and has successfully navigated through the beginning half of its first land acquisition.

This year the program will work on refining and conducting the grant process and will work with the Commission to create a Resource Land Acquisition Plan to guide the BLNR in its powers under HRS Chapter 173A. The LLCP will continue to provide funding assistance to county and state agencies and local conservation organizations annually and to will work to develop and strengthen its successful conservation partnerships with these entities.

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*("Early Detection" Continued from page 1)*

is already too late for a cheap and easy solution.

The Oʻahu Early Detection program aims to change that. With a diagnostic tool that will help predict a plant's propensity for weediness and a crew to survey roads, nurseries and other pathways of introduction, the Oʻahu Early Detection program can find out what is being introduced to Hawai'i, what is safe, and what might jump the garden fence.

The diagnostic tool is called the Weed Risk Assessment (WRA) and was developed in Australia and New Zealand and modified for use in Hawai'i and other Pacific Islands by Professor Curt Daehler of the University of Hawai'i. The WRA screens plant species and assigns them a score based on their propensity to become weedy. A high scoring plant poses a high risk of becoming an invasive pest. The assessment is based on 49 questions that address several plant characteristics such as number of seeds produced and habitat preferences to determine if a species is likely to become weedy in Hawai'i. Shahin Ansari, a botanist working out of Lyon Arboretum, is responsible for screening plant species with the WRA.

Alex and Danielle will survey roadsides looking for new plants and forward what they find to the WRA. If they find something that appears to be naturalizing, the Oʻahu Invasive Species Committee field crew will do the actual control work. The OISC crew has already removed the *Rubus ellipticus*.

"With the Bishop Museum survey team, the WRA evaluation tool, and the OISC field crew on call we can find weeds early and remove them immediately," says OISC Project Manager Ryan Smith. "In a lot of cases, weeds have run rampant on other islands before we realize control is necessary. *Miconia* is a great example. If we had the WRA decades ago, we might have known that *Miconia* does not belong in Pacific forests. We could have saved thousands of acres of Tahitian forests, not to mention millions of dollars and lots of labor here in Hawai'i. Now that we have this tool, we can make predictions and take care of weeds the most efficient way possible—before they start to spread."

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