

# Wildlife Services

Protecting People  
Protecting Agriculture  
Protecting Wildlife

## State Report

FY 2008

# Hawaii



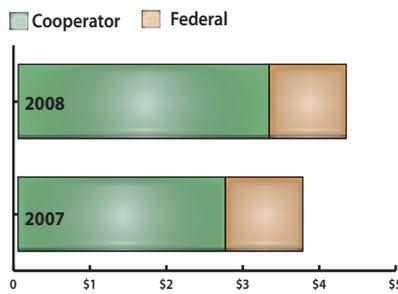
### Contact Information:

Mikel E. Pitzler, Hawaii, Guam, and Pacific Islands Wildlife Services State Director  
3375 Koapaka Street, Ste. H420, Honolulu, HI 96819  
Phone: (808) 861-8575  
FAX: (808) 861-8570  
Toll-Free Number 1-866-4USDAWS 1-866-487-3297  
E-mail: [mike.e.pitzler@aphis.usda.gov](mailto:mike.e.pitzler@aphis.usda.gov)  
[www.aphis.usda.gov/wildlife\\_damage/](http://www.aphis.usda.gov/wildlife_damage/)

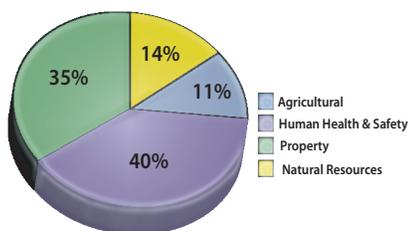
### Major Cooperators

- Hawaii Department of Agriculture
- Hawaii Department of Transportation, Airports Division
- Hawaii Department of Land and Natural Resources
- County of Hawaii
- U.S. Department of Defense
- U.S. Fish and Wildlife Service
- Two major seed companies
- Four major land owners

### Total Funding (Millions)



### Resources Protected % of Total Funds



### USDA Resolves Wildlife Conflicts in Hawaii

Every day, Hawaii residents, industries, and agencies call on Wildlife Services (WS) for help in protecting agriculture, human health and safety, natural resources, and property from damage or threats posed by wildlife. WS' professional wildlife biologists respond with effective, selective, and humane strategies to resolve wildlife conflicts.

WS works to reduce wildlife damage to agriculture, native forests, endangered species, and game species, while educating the public about wildlife and wildlife damage management. Specific projects conducted by Hawaii WS include:

- Managing wildlife hazards to aviation at civil airports and military airfields
- Protecting corn seed research crops from bird, feral pigs and deer depredation
- Protecting endangered plants from rodents, feral sheep and goats
- Protecting endangered birds and native seabird nesting colonies from predation
- Conducting sampling and monitoring for West Nile virus and avian influenza
- Conducting control of invasive species, such as frogs and parrot species

### Applying Science & Expertise to Wildlife Challenges

WS offers advice, equipment, and materials that enable many people to resolve wildlife conflicts on their own. Often, this technical assistance can be provided over the phone. WS also provides on-site expertise, or direct assistance, to manage complex problems that cannot be safely resolved by others. To support this effort, WS conducts scientific research across the Nation to develop solutions to new problems posed by wildlife and to ensure the program benefits from the latest science and technology.

**Protecting Air Travelers**—From 1990 to 2007, Hawaii's airports ranked 15th in the total reported wildlife strikes in the United States. Airfield managers rely on WS' expertise to manage wildlife problems at all major State airports. WS also provides wildlife hazard management at several privately-owned commercial airports and military airfields on six islands. WS successfully reduced wildlife strikes at airfields where it conducts daily control operations. In addition to direct assistance, WS conducted wildlife hazard assessments (ecological studies) at all the major airports in Hawaii to identify and develop plans to reduce hazards to aviation. In July 2008, a three-year wildlife hazard assessment project was initiated involving the remaining airfields in Hawaii. WS maintains a wildlife strike database and reports all collisions with civil and commercial aircraft occurring in Hawaii to the Federal Aviation Administration.

**Protecting Corn Seed Research Crops**—Research on corn has become important in Hawaiian agriculture since the end of major sugarcane production. The tropical climate allows seed companies and researchers to continue studies all year. WS assisted corn seed researchers in protecting seedlings and mature plants from depredation caused by birds, feral swine and deer. Farm managers rely on WS expertise in reducing bird depredation where public hunting is not feasible.

**Protecting Threatened and Endangered Species**—Many unique Pacific Island plants and animals are threatened with extinction. Hawaii has the highest number of endangered species in the Nation. WS protects endangered waterbirds at State sanctuaries and wetland sites on military installations from introduced predators such as the small Indian mongoose. Where feral goats, sheep, pigs, and deer impact endangered plants and public hunting is not feasible, WS works closely with State, Federal, and private organizations to remove animals that are causing damage.

**Protecting Seabird Nesting Colonies**—Seabirds within the Hawaiian archipelago are vital to a well-balanced marine ecosystem. Fisheries depend heavily on these birds to locate schooling fish. Urban expansion on the major islands decreased suitable nesting habitat, segmented from historic ranges. Most seabird nesting occurs on islets off major



United States Department of Agriculture  
Animal and Plant Health Inspection Service

island coasts, mainly due to lack of predators and human activity, on small parcels managed by other Federal and State agencies. WS assists with wildlife damage management projects involving the removal of avian and mammalian predators from natural area reserves and seabird sanctuaries. The resounding success can be observed by the annual increase in nesting colonial seabirds and fledgling success rates.

**West Nile Virus Disease Monitoring**—Hawaii is one of the few States free of West Nile virus (WNV). Sometimes fatal to humans, the disease poses a significant threat to wild and domestic bird populations, especially endangered species unique to Hawaii. It can also impact the local poultry industry. Currently, WS cooperates with the State of Hawaii's Department of Health and a Federal agency by providing live-captured birds (from the airport protection programs) for blood extraction and screening as part of WNV surveillance. To date, no WNV positive tests have occurred.

**Avian Influenza (H5N1) Surveillance**—Pacific Islands could facilitate movement of Asian highly pathogenic avian influenza, (HPAI H5N1) from Asia to North America. Air and sea transportation links the islands to the U.S. mainland, so any appearance of HPAI H5N1 in the islands increases its probability of reaching North America. Migratory birds from Asia winter on many Pacific Islands and closely associate with local wildlife and people. Thus, surveillance for HPAI H5N1 in Hawaii and other Pacific Islands is a national priority. Hawaii WS, in coordination with the Hawaii Department of Land and Natural Resources, the Government of Guam, and other agencies joined the broad-scale avian influenza sampling program to detect the potential presence of AI in migratory birds in the main Hawaiian Islands, Guam, the Commonwealth of the Northern Mariana Islands, and Kwajalein, one of the Marshall Islands.

**Coqui Frog Control, Hawaii Island**—During 2007 and 2008, WS received funding from the Big Island County Mayor's office to continue with an island-wide coqui control and sprayer loan program. Twenty eight trailer mounted 100 to 400 gallon sprayers are under the care of WS personnel; the trailers are loaned to Big Island communities. The focus of this project is to provide technical and operational assistance to Hawaii Island communities who are involved in coqui control efforts. This community action support works in conjunction with the loan sprayer program and are both funded by the County of Hawaii. A total of 20,582 staff hours and 374,820 gallons of citric acid were expended during the period October 1, 2006 – September 30, 2007.

### Looking to the Future

- Off Shore Island Restoration - In January 2008, in cooperation with the U.S. Fish and Wildlife Service and Hawaii Department of Land and Natural Resources, WS successfully eradicated invasive rats from Mokuauia Island (off Molokai) via aerial drop using diphacinone (first ever use of this rodenticide; has the lowest toxicity of any other available toxicant for this use). In the winter of 2009, WS is on track to eradicate the rats off of Lehua Island (near Niihau) using the same methodology.
- E. coqui frog – WS will continue containment and reduction of populations and enhance community outreach and awareness on the Big Island of Hawaii.
- Collaboration with the WS National Wildlife Research Center (NWRC) - 1) Investigate effective wildlife repellants and other control methods to protect seed crop products (recently, NWRC worked with a pesticide company to coordinate with US-EPA to label the use of ROZAL (Chlorophacinone) for use against mice impacting corn and soybeans grown in Hawaii. 2) Investigate alien parrot species distribution and

impacts on agriculture and natural resources. 3) In FY 2009, WS NWRC will be initiating a two-year study in hope of providing new tools/techniques to assist with Pacific Golden plover control on airfields (plovers account for 29 percent of aircraft strike rates in Hawaii and Guam).

- Livestock protection – WS has a growing relationship with the sheep and cattlemen on the Big Island. There is \$15,000 in Federal dollars available to assist with the control of feral dogs.
- Avian influenza, West Nile virus, pseudorabies and brucellosis monitoring – Continual duties performed by a WS Wildlife Disease Specialist assigned to the Hawaii/Guam program.
- Agricultural Protection – WS will work to manage mammalian and avian predators depredating on corn and soybean seed crops on Kauai, Oahu, Molokai and Maui Islands, and expand work with Monsanto and Pioneer seed growing companies.

### Hawaii Wildlife Services Funding

In addition to receiving federally allocated funds, WS also receives money from cooperators who have a vested interest in the program: producers, private individuals, businesses, and other Federal, State, and local government agencies. In most cases, these cooperators need help to resolve wildlife damage problems or they play an active role in wildlife damage management.

NWRC Research Station in Hawaii  
Dr. William Pitt, Field Station Leader  
National Wildlife Research Center - Hilo Field Station  
P.O. Box 10880, Hilo, HI 96720  
Phone: (808) 961-4482 FAX: (808) 961-4776  
E-mail: will.pitt@aphis.usda.gov

The field station develops new tools and techniques for preventing, reducing, and in some cases eliminating, invasive species damage to Hawaii's agricultural crops, native ecosystems and wildlife.

### Top 5 Major Assistance Activities:

- Protecting civil and military aircraft from collisions with wildlife
- Managing damage on seed research crops caused by introduced game birds and rodents
- Protecting endangered plants and native ecosystems from damage caused by introduced rats, feral goats, sheep, pigs and cattle
- Reducing predation on endangered Hawaiian water bird populations and native seabird colonies
- Developing strategies and methods for the management of invasive species such as the Caribbean tree frogs and brown treesnake

### Top 5 WS Research Projects of Interest to Hawaii:

- Improving management methods for rats and mice to reduce damage to tropical fruits, seed crops, macadamia nuts
- Developing control methods to manage coqui frog populations
- Developing and improving interdiction and control efforts for brown treesnakes
- Improving detection and capture methods for small Indian mongoose and feral cats
- Improving management methods to risk bird aircraft hazards