

Wildlife Services

Protecting People
Protecting Agriculture
Protecting Wildlife

State Report

FY 2010

Hawaii



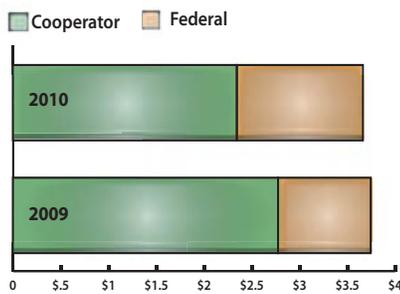
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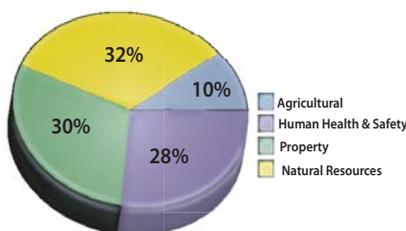
Major Cooperators

- Hawaii Department of Agriculture
- Hawaii Department of Transportation, Airports Division
- Hawaii Department of Land and Natural Resources
- U.S. Department of Defense
- U.S. Fish and Wildlife Service

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 swine and deer
- Protecting endangered plants from rodents, feral sheep and goats
- Protecting endangered birds and native seabird nesting colonies from predation
- Conducting surveillance and monitoring for foreign animal and endemic diseases in wildlife
- Controlling invasive species, such as frogs and parrots

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—Hawaii's airports ranked 15th in the U.S. for total reported wildlife strikes from 1990 to 2008. Airfield managers in Hawaii rely on WS' expertise to manage wildlife problems at all major Hawaii airports. WS also provides wildlife hazard management at several military airfields. Wildlife is a treasured public resource but birds can threaten aviation safety when they are present on or near airfields. WS biologists work closely with airfield managers, the Federal Aviation Administration and State and Federal wildlife agencies to reduce the threat birds may pose to the flying public. Some species, like the endangered Hawaiian goose, or nene, are of particular concern because of their large size, flocking behavior, and their abundance near airports. Other species like the Pacific golden plover can cause damaging strikes. WS is currently conducting a two year study to evaluate the use of trained dogs to discourage plovers from using airfields.

Protecting Corn Seed Research Crops—Research on corn has become important to Hawaii's agriculture since the end of major sugarcane production; the tropical climate allows seed companies and researchers to continue studies all year. Hawaii is the world's leading producer of seed corn, which accounts for 96% of the state's \$176 million agricultural biotechnology industry. WS assisted corn seed researchers in protecting seedlings and mature plants from depredation caused by birds, feral swine and deer.

Protecting Threatened and Endangered Species—Many 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, swine, 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.



United States Department of Agriculture
Animal and Plant Health Inspection Service

Protecting Seabird Nesting Colonies— Seabirds within the Hawaiian archipelago are vital to the marine ecosystem. Fisheries depend heavily on these birds to locate schooling fish. Urban expansion on the major islands has decreased suitable nesting habitat. Most seabird nesting occurs on islets off major island coasts, mainly due to lack of predators and human activity, on small parcels managed by other Federal and State agencies. WS assists by removing predators from natural area reserves and seabird sanctuaries. This has resulted in annual increases in nesting colonial seabirds and fledgling success rates.

Invasive mammals such as cats, mongooses and rodents imperil threatened and endangered native plants, invertebrates and birds on Hawaii in some cases, the eradication or control of invasive rodents could allow natural recovery and active restoration of native species and ecosystems. In the early 1990s, diphacinone was selected as the primary rodenticide for conservation uses in Hawaii because of its long track record of safe and effective use in agriculture worldwide. Aerial broadcast was conducted in February 2008 on Mōkapu and in January 2009 on Lehua, while hand broadcast was conducted on Cocos Island (Guam) in March 2009. To further these goals WS has joined a programmatic Environmental Impact Statement process as a co-lead agency to evaluate the environmental impacts of rodent and mongoose control projects statewide.

Wildlife Disease Surveillance and Emergency Response

Hawaii's people and agriculture industry are intimately linked with the health of its wildlife. Diseases can be transmitted between domestic animals and wildlife (and vice versa) and in some cases between wildlife and humans (i.e., zoonotic diseases). WS works with State and Federal agencies throughout the Pacific to conduct early detection surveillance for foreign animal diseases in wildlife such as highly pathogenic avian influenza and Japanese encephalitis virus – both zoonotic diseases - in wild birds and classical swine fever in feral swine. WS also assists state agencies in monitoring leptospirosis, pseudorabies, swine brucellosis, and swine influenza.

Looking to the Future

- Off Shore Island Restoration— In January 2008, in cooperation with the U.S. Fish and Wildlife Service and the Hawaii Department of Land and Natural Resources, WS successfully eradicated invasive rats from Mōkapu Island (off Molokai) via aerial drop using diphacinone (first ever use of this rodenticide which has the lowest toxicity of any other available toxicant for this use).
- Collaboration with the National Wildlife Research Center (NWRC)— (1) Investigate the distribution of alien parrot species and their impacts on agriculture and natural resources. (2) In FY11, NWRC will be continuing a two-year study to provide 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 is working with the Hawaii Cattlemen's Council to better understand how prevalent and widespread the feral/free-ranging dog depredation issues are for Hawaiian sheep producers.
- Bovine tuberculosis (bTB)— WS is collaborating with State and Federal agencies to eradicate bTB from feral swine on the island of Molokai.

Hawaii Wildlife Services Funding

In addition to receiving Federally allocated funds, WS also receives funding from agricultural 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

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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 in 2010:

- 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, swine and cattle
- Reducing predation on endangered Hawaiian water bird populations and native seabird colonies
- Developing strategies and methods for the control of invasive frogs and parrots

Top 5 WS Research Projects of Interest to Hawaii in 2010:

- Improving management methods for rats and mice to reduce damage to tropical fruits, seed crops, macadamia nuts
- Developing control methods to manage invasive species
- 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 reduce bird aircraft hazards