

# Wildlife Services

Protecting People  
Protecting Agriculture  
Protecting Wildlife

## Protecting Wildlife

FY 2008

### Recovering Threatened and Endangered Species, Guarding Against Invasive Species, Preserving Habitats



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Wildlife Services (WS), a program within the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, provides Federal leadership and expertise to resolve wildlife conflicts that threaten the Nation's natural resources. WS works in every State to protect and preserve natural resources, such as wetland habitats, forests, and threatened and endangered (T&E) species that are vital parts of America's unique landscape. This includes operations directly protecting and enhancing natural resources as well as scientific and technological inquiries at WS National Wildlife Research Center (NWRC), WS' study arm. Scientists there collaborate with field operations, developing strategies and products to improve natural resource protection.

#### Protecting Threatened and Endangered Species

In FY 2008, WS efforts assisted 131 threatened or endangered species in 36 States, Puerto Rico, Guam, the U.S. Virgin Islands, and Cuba. In more than 95% of the projects, local T&E species either increased or remained stable. In addition to direct species-conservation projects, WS' beaver damage management in the eastern United States has secondarily benefited approximately 200 listed fish, mussels, and plants by maintaining natural riverbank habitats and improving the water quality and water flow. Beaver projects generally are intended to assist landowners by reducing flooding.

While acknowledging that protection and recovery of listed species requires input from a wide range of contributors, WS is proud of its contribution in protecting many vital wildlife resources. In 2008, for the first time in decades, the endangered Kirtland warbler successfully nested outside of Michigan, with 10 young warblers surviving to leave their nests due to partnership of private, State and Federal agencies in Wisconsin. WS aided the project by constructing and monitoring traps to remove cowbirds, known to reduce successful warbler nesting.

WS activities to aid T&E species can be categorized as either direct protection or recovery enhancement of endangered species.

#### Direct Protection

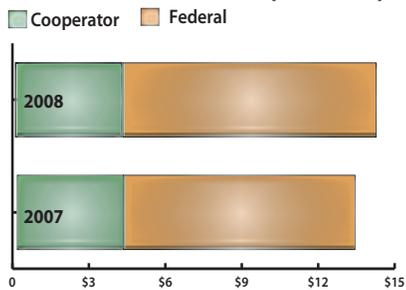
Direct protection serves as a useful management tool in island/isolated ecosystems. Examples are protecting the avifauna of Guam and Hawaii from the brown tree snake or the endemic species of Puerto Rico from rats and mongoose. To protect five species of nesting sea turtles in Florida, control efforts targeted coyote, raccoon, skunk, and fox predators on beach nesting areas. WS and Federal and State partners work together to protect nesting sea turtles from fox and raccoon predation in North Carolina, and to protect threatened and endangered salmon and steelhead from gulls in the state of Washington. WS and the U.S. Fish and Wildlife Service have partnered on a long-term cooperative program to protect the Aleutian Canada goose from predation from the introduced arctic fox on Alaska's Aleutian Island chain.

#### Recovery Enhancement

In the ongoing recovery of the gray wolf throughout the United States, WS plays a crucial role, which can be categorized as recovery enhancement. As wolf populations become established, WS works to prevent livestock predation by packs and relocates or removes problem animals. By providing prompt and effective responses to wolf predation complaints, WS helps reduce the loss of livestock to wolves and promotes greater tolerance for wolves by affected local communities and ranchers.

In Wisconsin and Michigan, where wolf numbers increase annually, WS works closely with State game agencies and FWS to lessen the impact of expanding populations on landowners. The successful wolf reintroduction program in Yellowstone National Park can be directly attributed to cooperation among Federal and State agencies and local and regional landowners to enhance wolf recovery.

#### Expenditure for Natural Resource Protection (Millions)



United States Department of Agriculture  
Animal and Plant Health Inspection Service

A similar recovery enhancement effort is being implemented by WS in the Southwest. There, reintroduction efforts for the southwest (Mexican) wolf is in its initial stages and landowner cooperation is critical to program success.

### **Preserving Wildlife and Game Habitats**

WS activities can directly aid wildlife and game habitats or can contribute to a more hospitable natural environment. Work to control invasive species, especially feral swine populations, is expected to benefit natural resources. Feral swine can destroy riparian plants and topography as well as compete with native wildlife for limited food resources. In a direct assistance project, WS trapped river otters causing damage in Washington communities and assessed their health. In a cooperative partnership involving State, Federal, local and private agencies, WS transported and released the otters on Tribal lands in New Mexico, part of their natural range where the mammals had not been seen in years.

#### *Beaver Related Issues*

Dramatic increases in beaver populations, associated with low demand for beaver products, have intensified the negative impact of beaver on hardwood timber, crops, and river habitats. Beaver activity can negatively impact bridges, roads, water control structures, municipal sewer systems, water treatment facilities, and even other aquatic species. Economists estimate beaver damage exceeds millions of dollars each year, greater than the costs caused by any other U.S. wildlife species. The economic damage due to beavers in the southeast alone is estimated to have exceeded \$4 billion over a 40-year period. In North Carolina alone, the beaver population is estimated to exceed 500,000. Management activities conducted there in FY 2008 prevented \$7.1 million in damages. In FY 2008, WS prevented approximately \$81.7 million in beaver damage in 15 states.

WS employs certified explosives experts who are frequently called upon to remove beaver dams that block water flow and cause flooding to forests and other wildlife habitat. In Wisconsin, WS continues to maintain more than 750 miles of pristine trout streams, which had been seriously degraded by overabundant beaver populations and dam-building activities. WS manages beaver populations on these streams to eliminate the widespread flooding of forested land and to allow native trout to once again reproduce naturally.

#### *Avian Related Issues*

Natural resources are damaged by more wildlife than just beavers. WS works to protect shell-fish beds in Connecticut from contamination by Canada geese. The double-crested cormorant, a bird species, can cause significant damage to natural resources. Over time, concentrations of cormorant nesting colonies can denude a site of all viable vegetation, as dramatically demonstrated on Great Lakes' islands, where cormorant populations have significantly increased in recent years. WS conducts damage control activities in several States to protect the nesting habitats of other colonial birds from cormorant impact and conducts research to determine the extent of the damage on native Great Lakes region sport-fish populations caused by the birds' voracious appetite.

#### *Disease Issues and Game Recovery*

Disease surveillance and removal of potentially infected game species can improve the long-term health of wildlife populations. Diseases in wildlife concerns WS, both diseases limited to animals and those that can affect humans. Research is underway to develop methods to lessen and manage wildlife diseases and to identify bacteria and other pathogens that may cross from wildlife reservoirs. Research focuses on development of surveillance and monitoring techniques as well as effective and

safe vaccines, barriers and other methods to reduce or eliminate disease transmission. Among WS programs are an oral vaccine program to limit the geographic spread, and suppress rabies in raccoons, coyotes, and gray fox. Another example is chronic wasting disease (CWD), a fatal, wasting condition primarily confined to cervids, such as elk, white-tailed deer, and mule deer.

WS works to protect natural resources and to assist State wildlife agencies and private game ranches. These efforts enhance opportunities for the hunting and fishing public to enjoy species that are impacted by predation and other factors. WS currently conducts programs in eight States to bolster populations of game and sport species. For example, programs have been implemented to revive declining deer herds in several Western States. In the Southeast, work is underway to determine methods to restore bobwhite quail populations, which have steadily declined.

### **Managing Invasive Species**

WS plays a central role in several initiatives being developed by the Federal Invasive Terrestrial Animals and Pathogens Committee (ITAP). ITAP facilitates information gathering, planning and action implementation among various Federal, State, public and private entities, which pursue invasive species management of terrestrial animals and pathogens.

WS predator management efforts are especially important in protecting Federally-listed species and preserving island ecosystems, such as Hawaii, Puerto Rico, and San Clemente Island, California. Nonnative, or invasive, predators can devastate island ecosystems where a lack of natural enemies and resource competition can allow invasives to thrive at the same time they destroy native wildlife. WS' research efforts target these introduced, invasive, species. Of special concern are rodents, a main cause of damage to island habitats. This research has led to development of more efficient removal techniques, allowing WS to target only those predators directly impacting populations of T&E species.

One of the most ecologically damaging invasive species is the brown tree snake (BTS). This native of the South Pacific and Australia is responsible for large economic losses in damaged electrical lines and resulting power outages, and poses hazards to human safety from bites. Accidentally introduced to Guam in the late 1940s or early 1950s, BTS has caused extensive economic and ecological damage to the island. In just half a century, BTS have eliminated 10 of 12 native bird species and most lizard and bat species on Guam. While managing the BTS population on Guam, WS actively works to prevent its spread to other Pacific islands, especially Hawaii. Efforts are concentrated at military and sea ports and commercial warehouses. WS uses specially trained Jack Russell terriers to inspect departing cargo for "hitchhiking" snakes and sets specially-designed snake traps around cargo areas. Also, WS continues the use of the oral BTS toxicant, acetaminophen, resulting in a significant reduction of BTS from ports of exit. Since the BTS program began in 1993, an average of 5,000 snakes are removed from Guam's ports each year. In FY 2008, WS intercepted 12,212 BTS on Guam or near ports of exit.

BTS is not the only invasive animal threatening the Nation's natural resources. WS is currently engaged in managing two invasive frog species introduced into Hawaii from the Caribbean about 12 years ago along with shipments of nursery plants. These frogs compete with native birds for prey and are significant predators of local Hawaiian invertebrates. WS has investigated potential nonlethal and lethal management methods, including small scale trapping, hand capture, and the development of pesticides utilizing caffeine and citric acid. Also, WS cooperates

with public and private agencies to control feral hogs that prey on several species of endangered plants, tree snails, and forest birds. WS' mongoose control work has had a tremendous impact on the conservation of the entire Puerto Rican parrot population.

In Florida, WS launched an eradication program in 2006 targeting the invasive Gambian pouched rat, which threatened native species in the Florida Keys. Partners included WS operational staff, the NWRC and State agencies. Currently, the project is in a monitoring phase, which will continue for several years before WS can be confident that Gambian rats have been eradicated from the Florida Keys.

WS also provided valuable assistance to protect natural resources in the Everglades when invasive Burmese pythons were identified as a major threat to many wild species. Large pythons can consume a wide variety of native wildlife, including: raccoons, rabbits, bobcats, ibis, and limpkins. Pythons are also affecting the previously endangered American alligator and the currently endangered Key Largo wood rat.

Several other projects conducted by WS are designed to protect critical species and habitat from invasive species. In California, WS works to protect the western snowy plover, California clapper rail, salt marsh harvest mouse, and other T&E species from various invasive carnivores. In Maryland, WS initiated the first large-scale North American effort to eradicate a mainland nutria population on the Delmarva Peninsula where the invasive rodents have devastated coastal Chesapeake Bay marshes. In cooperation with other State and federal entities, WS completed an initial nutria removal from more than 150,000 acres of Maryland coastal marsh in 2008.



Fox dig deeper to get around nonlethal fencing which was erected to protect eggs of the endangered loggerhead turtle.