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**Wildlife  
Services**

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## USDA Wildlife Services Protects People

### Guarding Against Wildlife-Borne Diseases, Attacks by Predators, and Wildlife Collisions with Aircraft, Automobiles, Trains, and other Vehicles

#### Overview

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 public health and safety. WS works in every State to prevent the spread of wildlife-borne diseases, reduce wildlife collisions with aircraft, and protect the public from attacks by mountain lions, bears, and coyotes.

#### Protecting People From Wildlife-Borne Diseases

Increasingly, wildlife diseases such as West Nile virus (WNV) are being transmitted to people, pets, and livestock. Rabies is another critical wildlife disease that also negatively impacts people, pets, and livestock. The spread of these and other diseases can only be controlled if integrated with wildlife management. WS plays a crucial role in the area of wildlife disease surveillance, prevention, and eradication through its Wildlife Disease Surveillance and Emergency Response Program and Cooperative Rabies Management Program. In fiscal year (FY) 2004, WS provided hands-on assistance, technical assistance, such as information and equipment, and research to assist in managing wildlife-borne diseases.

**West Nile Virus**—First documented in the United States in 1999, WNV is a disease that has enormous potential to impact public health, livestock, and wildlife. Wildlife often serves as a natural host for the virus, which is mainly transmitted to people and animals through mosquito bites. According to the Centers for Disease Control and Prevention (CDC), 47 states currently have reported avian or animal infections from WNV. This represents a significant geographic expansion of the disease from when it was first discovered 5 years ago in New York. Also according to the CDC, 348 people have already died from the virus in the United States and over 12,000 people have become ill.

In 2004, WS worked cooperatively in 19 States to provide operational and technical assistance related to WNV. In addition to monitoring wildlife populations for disease exposure, WS provided educational assistance and data management for State health agencies. The program also helped to staff several WNV surveillance hotlines. In New York, WS specialists answered more than 2,200 hotline calls in 2004. Many callers provide information about the locations of dead birds so WS can submit samples for testing. This sampling provides valuable information that assists local health and agricultural agencies in preparing for and responding to WNV outbreaks.

**Rabies**—Increased health care, education, vaccination, and animal control needs associated with persistent strains of rabies are estimated to cost \$300 to \$450 million annually. This estimate is expected to continue increasing if rabies strains are not prevented from spreading. To



combat the spread of rabies, WS has implemented a Cooperative Rabies Management Program. The Cooperative Rabies Management Program focuses on coordinated oral rabies vaccination (ORV) projects targeting raccoon rabies in 15 eastern States. In addition to raccoon rabies, WS conducts ORV projects targeting canine rabies in Texas, bat variant rabies in skunks in Arizona, and other rabies related projects.

To achieve the objectives of the Cooperative Rabies Management Program, WS collaborates with a variety of organizations to carry out ORV projects that minimize risks to public health and safety. Through these programs, oral bait, containing the rabies vaccination, is distributed within targeted areas to immunize specific wildlife populations against the disease. Orally administering rabies vaccinations are currently the only available technology to strategically contain and eliminate specific strains of rabies in the United States. The American public, livestock producers, pet owners, and wildlife are all beneficiaries of these innovative programs.

**Rabies Management in the Eastern United States**—In the eastern United States, WS is focusing on preventing the spread of a raccoon variant of rabies. Serum samples are being evaluated for detection of immune responses to vaccine uptake. Immunity indices based on the presence of antibodies to rabies in raccoon population samples after ORV operations ranges between 25 and 55 percent.

Georgia, Alabama, southeastern Tennessee, and Maine joined the program for the first time in FY 2003. The addition of these States has helped boost vaccination efforts already underway. By establishing an ORV barrier that runs along the Appalachian Mountains, program managers hope to prevent this strain of raccoon rabies from spreading west. The success of this effort has renewed interest in expanding smaller-focus programs in Massachusetts, Maryland, Alabama, and Florida. Each time a new region joins the program, WS and its cooperators move

one-step closer to reaching their goal of stopping the westward spread of rabies and reducing the incidence of raccoon rabies in areas where the disease is already endemic.

**Rabies Management in Texas**—In 1995, WS partnered with several cooperators in Texas to begin a cooperative ORV program in the southern part of the State to prevent a strain of canine rabies from spreading north in coyotes and gray fox. Since the project began, WS has assisted in the distribution of almost 20 million baits to combat the spread of rabies in Texas.

WS also provides critical expertise in the collection of blood and tooth samples from coyotes and gray fox to evaluate the project's effectiveness. Based on post-vaccination sampling efforts, 75 percent to 90 percent of coyotes in the ORV zone have been immunized. The success of the program is further highlighted by the fact that reported cases of canine-variant rabies in south Texas dropped from 166 in 1994 to 0 in 2002. On-going vaccination efforts help to ensure this milestone is maintained.

**Bovine Tuberculosis**—Tuberculosis (TB) is a contagious respiratory disease of both animals and humans. Bovine TB can be transmitted from livestock to people and other animals. Unless eradicated, bovine TB will continue to impact human health, animal health, and livestock production. Traditional control strategies have greatly reduced bovine TB in the United States but eradication is being complicated in Michigan due to unprecedented occurrence. For the first time in North America, bovine TB is being sustained in a wildlife population—Michigan's white-tailed deer.

WS has been involved in bovine TB eradication in several ways. In 1998, at the request of the Michigan Department of Agriculture, WS employees depopulated a TB-positive captive cervid herd from a 1,500-acre ranch. In 2001, an office was established in Gaylord, MI to more effectively provide assistance to the affected areas of the northeast Lower Peninsula. In 2003, a wildlife disease biologist was hired by WS in Michigan to assist in addressing these concerns. These assistance activities include removing wild deer that threaten livestock with infection, making observations of wildlife patterns on farms with TB-positive cattle, providing fencing to farms to exclude deer from feed storage areas in order to prevent transmission between deer and cattle, and providing assistance in sampling and monitoring the disease.

WS is also playing a critical role by conducting research. The program's National Wildlife Research Center has undertaken studies to better understand the movement of bovine TB in the environment, the interactions of cattle and deer, methods to detect bovine TB, and techniques to prevent transmission between deer and cattle.

## Protecting Air Passengers

Wildlife collisions with aircraft cost U.S. civil aviation more than \$500 million annually and pose a serious safety hazard to flight crews and passengers. Nearly 6,000 wildlife collisions with civil aircraft were reported in FY 2003. WS is recognized internationally for its scientific expertise in reducing wildlife hazards at airports and military bases throughout the United States.



These incidents are cataloged in the National Wildlife Strike database that is maintained by WS for the Federal Aviation Administration. Since WS began keeping records 14 years ago, more than 63,000 wildlife strikes with civil aviation have been reported.

WS works at approximately 565 airports around the Nation to identify potential wildlife hazards and reduce the threat that they pose to air passengers. While deer and other large mammals occasionally collide with aircraft, the vast majority of incidents involve birds. WS provides information and equipment to airport managers in order to reduce the presence of wildlife, especially birds, around runways and airport operations areas. In addition, WS provides hands-on assistance to trap and remove wildlife that are a threat to air safety. WS also provides critical training to airport personnel on how to identify and manage certain wildlife hazards on airport grounds. In FY 2003, WS trained 1,458 airport personnel at 151 airports across the country.

## Protecting People From Predators

As a result of conservation efforts, mountain lion, coyote, and bear populations are thriving across much of the western United States. This has led to an increase in encounters between predators and people, with sometimes life-threatening results.

In August 1999, a four-year-old boy required more than 200 stitches after a cougar attacked him as he played in his grandparent's backyard in Barstow, Washington. The cougar released the boy only after being chased by the boy's screaming grandfather.

More recently, in 2001, two children were attacked by several coyotes during recess at a California school. An eight-year-old girl was bitten on the back of her neck, and a seven-year-old boy was bitten on his back and arm. Both children underwent precautionary rabies treatments. In 2002, a black bear killed a five-month-old baby at a New York vacation site as the baby's mother and two siblings helplessly watched. The incident made headlines across the country.

WS specialists are increasingly called upon to locate and capture animals that have attacked people or are spotted sniffing around residential areas and campgrounds. For example, WS has responded to a growing number of requests to relocate or remove bears causing public safety concerns. WS has both the expertise and the equipment to respond to these threats, and restore public safety. In fact, WS has conducted training in several western States to teach other Federal and State agencies how to respond to wildlife attacks on people.

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