



United States
Department of
Agriculture

**Animal and
Plant Health
Inspection
Service**



USDA Wildlife Services Protects People

Guarding Against Wildlife-Borne Diseases, Attacks by Predators, and Wildlife Collisions with Planes, Trains, and Automobiles

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 are being transmitted to people, domestic animals, and livestock. Rabies is another critical wildlife disease issue that impacts people, pets, and livestock. The spread of these diseases can only be controlled if they are managed in wildlife populations first. WS plays a crucial role in the area of wildlife disease surveillance, prevention, and eradication. In fiscal year (FY) 2002, WS provided hands-on assistance, technical assistance, such as information and equipment, and research to suppress wildlife-borne diseases.

Rabies—WS' most active disease surveillance and management efforts in FY 2002 were focused on preventing the spread of raccoon rabies into new areas of the eastern United States, canine rabies in Texas, and a bat variant of rabies impacting skunks in Arizona. 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 increase if these rabies strains are not prevented from spreading to new, uninfected areas.

WS collaborates with a variety of organizations to carry out several oral rabies vaccination (ORV) programs 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. The ORV program currently represents 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. Between September and October of 2002, more than 5.5 million ORV baits were dropped from planes or



distributed by hand in New York, Ohio, Pennsylvania, Tennessee, Vermont, Virginia, and West Virginia. WS then live trapped and tested numerous raccoons to determine what percentage were immunized. Tennessee and Virginia joined the program for the first time in FY 2002, along with western Pennsylvania, which includes Pittsburgh, the largest urban area in the program.

The addition of these States has helped boost vaccination efforts already underway. By establishing an ORV barrier that runs along the Appalachian mountains chain, 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 and Texas began a cooperative ORV program in the southern part of the State to prevent a strain of canine rabies from spreading north in coyotes. Since the project began, WS has assisted in the distribution of more than 12 million oral vaccine baits.

WS also provides critical expertise in the collection of blood and tooth samples from coyotes and gray foxes 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 2000. On-going vaccination efforts help to ensure this milestone is maintained.

West Nile Virus—First documented in the United States in 1999, West Nile virus (WNV), is a disease that has enormous potential to impact public health, livestock, and wildlife. In FY 2002, WNV was detected in every State except Arizona, Nevada, Oregon, and Utah. This represents a significant geographic expansion of the disease from when it was first discovered 3 years ago in New York. More than 250 people have already died from the virus in the United States and nearly 4,000 people have become ill. Birds serve as a natural host for the virus, which is mainly transmitted to people and animals through the bite of mosquitoes.

In 2002, WS worked cooperatively in 34 States and Puerto Rico to provide operational and technical assistance related to WNV. In addition to the monitoring and surveillance of wild bird and mammal populations, WS provided educational assistance and data management for State health agencies. The program also helped to staff several WNV surveillance hotlines. In New York alone, WS specialists answered more than 7,000 hotline calls in 2002. Many callers provide information about the locations of dead birds, so that WS can have them tested for WNV. This sampling work provides valuable information that assists local health and agricultural agencies in preparing for and responding to WNV outbreaks.

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 1500-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. These assistance activities include removing wild deer that threaten livestock with infection, making observations of wildlife patterns on farms with TB-positive cattle, and providing fencing to farms to exclude deer from feed storage areas in order to prevent transmission between deer and cattle.

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 \$470 million annually and pose a serious safety hazard to flight crews and passengers. WS is recognized internationally for its scientific expertise in reducing wildlife hazards at airports and military bases throughout the United States.

Nearly 6,000 wildlife collisions with civil aircraft were reported in FY 2002. 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 11 years ago, more than 45,000 wildlife strikes with civil aviation have been reported.

WS works at approximately 500 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 2002, WS trained 1,131 airport personnel at 185 airports across the country. This marked a 100 percent increase in training over the previous year.

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 4-year-old boy required more than 200 stitches after a cougar attacked him as he played in his grandparent's backyard in Barstow, WA. 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 5-month-old baby at a New York vacation site as the baby's mother and two siblings helplessly watched. The incident made headlines around 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.