

# The Rabies Management Challenge

## Rabies Background

Rabies is one of the oldest recorded diseases; yet today it remains a significant management challenge for public health officials. Over the past 30 years, rabies management has grown in complexity in the United States as a result of wild animals replacing domestic dogs as the primary reservoir for the disease. In addition, the costs of living with rabies are high and growing, exceeding \$300 million per year. Addressing this significant public health problem requires expertise from a variety of sources, including public health, wildlife, and agriculture agencies.

In most years since 1980, more than 90 percent of reported rabies cases have involved wild animals. Several different strains of the rabies virus are in the United States. Each strain is spread predominantly by one wildlife species, but all strains are capable of infecting warmblooded mammals, including humans. Currently, raccoons and skunks spread most reported rabies cases in the United States, but bats, foxes, and coyotes also have a significant impact as wildlife carriers of rabies.



*Raccoon*

People are almost always exposed to rabies through the bite of an infected animal. People may also be exposed if saliva from an infected animal gets into a cut or open wound or makes contact with the mucous membranes of the eyes, nose, or mouth. Fortunately, there is a safe, effective, postexposure treatment for rabies. However, left untreated, rabies is always fatal.

## Protect Yourself From Rabies

- Do not touch or pick up wild animals or stray domestic animals.
- Properly vaccinate all family pets against rabies.
- Report unknown or strangely acting animals to your local animal control officer or, if the animal is wild, to State wildlife officials.
- Do not make your yard inviting to wild animals. Remove trash and secure garbage cans.
- Keep family pets indoors at night. During the day, do not let them roam.

## If You Are Bitten

- Wash the bite with soap and water for 5 minutes.
- Try to capture the animal only if you can do it without receiving additional bites.
- Immediately report the bite to your doctor and your local health officer.

## The Role of the Wildlife Services (WS) Program

The WS program, part of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS), helps alleviate or minimize wildlife damage to agricultural, urban, and natural resources and protects health and human safety. An important part of WS' mission includes assisting in wildlife disease-management efforts necessary to provide for public health and safety.

WS has a long history of involvement with State, local, and other Federal authorities in the fight against rabies. In Texas, WS cooperated with officials from the State Department of Health and other agencies and organizations to develop an oral rabies vaccine program to prevent the northward spread of a canine strain of rabies in coyotes. WS is also cooperating in a similar control effort to eliminate rabies in gray foxes in Texas.

In Vermont and Ohio, WS assisted in cooperative programs to distribute bait to prevent the spread of rabies in raccoons. In addition, WS will assist with monitoring racoon populations collecting surveillance data necessary to evaluate these field trials.

In the rabies control efforts in Texas and field trials in the Eastern United States, the vaccine used (vaccina–rabies glycoprote) immunizes coyotes, foxes, and raccoons that consume bait containing the vaccine. However, because the rabies glycoprotein portion of the vaccine is noninfective, it cannot cause rabies.

In the Northeastern United States, WS serves in an advisory capacity on rabies task forces to help plan rabies management efforts. Since 1992, WS has managed a toll–free rabies hotline in Vermont to help Vermont citizens cope with raccoon, fox, and bat rabies strains that continue to spread throughout the State. This cooperative effort between WS and the Vermont departments of health, agriculture, and fish and wildlife operates under the principle that an educated public is at lower risk.

### **Rabies Management in the Future**

The development of safe, effective oral rabies vaccines will likely change the approach to rabies management in the future. The preliminary success of oral vaccination campaigns in Europe and Ontario, Canada, and several field trials in the United States have already advanced our understanding of this approach to rabies management. Researchers continue to investigate the cost effectiveness of vaccines to contain and eliminate specific strains of rabies. Using oral rabies vaccines will not lessen the need for sound disease and wildlife population surveillance, however. Site–specific habitat management and population reduction will also continue to be integral components of rabies management campaigns involving the oral vaccines.

Since its inception, the WS program has provided a wide variety of technical and operational services in rabies management, including surveillance, population reduction, and habitat modification. WS research has also helped develop bait to deliver oral vaccines and toxicants. WS' mission, history, and current blend of expertise equip the program to assist with future rabies management efforts.

### **Additional Information**

You can get more information about rabies and other WS issues from any State APHIS WS office. WS' "Living With Wildlife" factsheet provides helpful tips on dealing with backyard wildlife. For the addresses and telephone numbers of State offices, call the WS Operational Support Staff at (301) 734–7921. You can also visit the WS Web site at <http://www.aphis.usda.gov/ws>.

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