

# Wildlife Services

Protecting People  
Protecting Agriculture  
Protecting Wildlife

State Report

FY 2012

# South Carolina



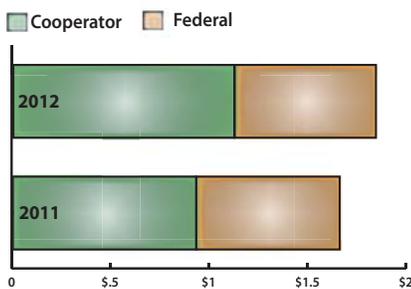
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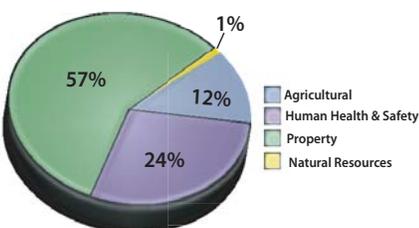
## Major Cooperators

- Clemson University
- Clemson University Livestock and Poultry Health
- Congaree National Park
- Horry County Stormwater Department
- Joint Base Charleston
- Kershaw County
- Marlboro/Darlington County
- Marine Corps Air Station-Beaufort
- McEntire Joint National Guard Base
- South Carolina Department of Natural Resources
- South Carolina Department of Transportation
- U.S. Army Garrison and Fort Jackson

## Total Funding (Millions)



## Resources Protected % of Total Funds



## USDA Resolves Wildlife Conflicts in South Carolina

Every day, the Wildlife Services (WS) program in South Carolina helps citizens, organizations, industries, and Government agencies resolve conflicts with wildlife to protect agriculture, other property, and natural resources, and to safeguard human health and safety. WS' professional wildlife biologists and specialists implement effective, selective, and responsible strategies that value wildlife, the environment, and the resources being protected. WS manages wildlife damage according to its public trust stewardship responsibilities as a Federal natural resource management program. WS supports the North American Model of Wildlife Conservation, based on the principle that wildlife resources are owned collectively and held in trust by Government for the benefit of present and future generations.

WS biologists address serious beaver damage to South Carolina's transportation infrastructure, crops, timber, and natural resources. WS protects pilots, passengers, and aircraft from wildlife collisions with airplanes at civilian airports and military installations. WS also manages the damage caused by vultures, Canada geese, feral swine, white-tailed deer, and other wildlife.

## Applying Science and Expertise to Help the Public

WS frequently provides information, advice, equipment, and materials that enable people to resolve wildlife conflicts on their own. Often, this technical assistance can be provided in person, by telephone or through the mail or internet. During 2012, WS delivered technical advice and recommendations to more than 1.6 million people.

In South Carolina, WS presented information on feral swine, coyotes, and beaver to land managers, farmers, and Extension agents. Additionally, WS co-taught a Wildlife Damage Management class at Clemson University in 2012.

WS also implements solutions on-site, through direct management assistance, when the wildlife-related problem is complex and cannot be safely or effectively resolved by others. WS' National Wildlife Research Center conducts scientific research and assessments to refine methods and develop new science-based solutions to wildlife challenges.

WS applies and recommends an integrated wildlife damage management approach that incorporates biological, economic, public, environmental, and other information into decision making. WS implements a wide range of damage management activities; the following examples highlight WS' role in protecting resources in South Carolina.

**Protecting Human Health and Safety at Airports**—Globally, wildlife strikes with aircraft have killed more than 231 people and destroyed more than 220 aircraft since 1988. Wildlife strikes cause more than 760,000 hours of aircraft down time and cost the nation's civil aviation industry approximately \$700 million annually. American military aircraft sustain losses exceeding \$10 million annually. WS has assisted the Nation's airports for decades and collaborates closely with the Federal Aviation Administration, Department of Defense, and other Government agencies. WS provided assistance to 772 airports in 2012, including advice, training, on-site evaluations and assessments of wildlife hazards, and direct operational management to reduce wildlife strikes.

While black vultures and turkey vultures occur in South Carolina throughout the year, some turkey vultures make long-distance seasonal movements between wintering areas and northern breeding grounds. Following a turkey vulture strike that caused approximately \$300,000 in aircraft engine damage at the Marine Corps Air Station in Beaufort, the facility funded a WS study to analyze the threat to base aircraft. The study showed that bird harassment activities on the base are helpful in reducing the number of vultures in the areas surrounding the air station. Bird harassment and modifications to flight training schedules to avoid periods of high vulture activity are reducing the threats these birds pose to pilots and aircraft.



United States Department of Agriculture  
Animal and Plant Health Inspection Service

**Monitoring and Controlling Wildlife Diseases**—WS works with Federal and State wildlife, health, and agriculture agencies to monitor and conduct surveillance for diseases in wildlife that could impact agriculture or human health. The program's Wildlife Disease Biologists act as WS' first responders through the National Wildlife Disease Program's Surveillance and Emergency Response System (SERS). Information obtained through disease surveillance in wildlife populations enables agencies to better prepare for and respond to outbreaks and emergencies.

In 2012, WS-South Carolina submitted 79 feral swine samples for disease testing. During the past five years, surveillance has determined that approximately 20% of feral swine carry psuedorabies and approximately 16% of feral swine carry swine brucellosis. WS also conducts other surveillance activities, including: collecting lymph nodes from feral swine for a *Brucella* culturing project; participating in a Leptospirosis project; and taking Baylisascaris samples from raccoons.

**Reducing the Negative Impacts of Feral Swine**—Feral swine, an invasive species, are prolific breeders and thrive in rural, suburban, and urban habitats. By 2012, their populations had expanded to at least 38 States, numbering approximately 5 million animals. This expanding population and distribution is associated with property damage and negative effects on public health, domestic animal health, crop production, and natural resources. Currently, the total aggregate cost of damage is estimated to be \$1.5 billion annually, with at least \$800 million related to direct costs to agriculture.

WS-South Carolina continues to assist the National Park Service (NPS) to reduce the feral swine population at Congaree National Park. WS management helps reduce the impact of feral swine on park vegetation (including trampling, uprooting of plants, eating roots and tubers, increasing tree root exposure, damaging tree roots, and changing plant community composition and structure) and park landscapes (including disturbing soil/litter, changing local geomorphology and hydrology, soil erosion, and soil compaction).

**Protecting Multiple Resources from Beaver Damage**—Beaver historically have been a valuable economic and natural resource. During the past 20 years their populations have increased throughout the United States due to lower demand for beaver products and subsequent decreases in recreational trapping. This growth has positive effects, such as increased wetland habitat, as well as negative impacts from dam building and tree cutting. Beaver dams back up water that floods and kills valuable timber and destroys or damages cropland, roadways, sewer and septic systems, and water treatment and electric utilities. Dams may also negatively impact fish populations by changing the movement and temperature of stream water. Beaver cut down trees that are valued for timber production and landscaping.

In South Carolina, WS assists several counties and the State Department of Transportation by removing beaver that are causing flooding in timber lands, crop lands, and on roadways. WS personnel are trained and certified in the safe and effective use of explosives prior to conducting any explosive work to remove beaver dams that are flooding property. By managing beaver damage, WS saves several million dollars in South Carolina resources annually. These savings are measured in terms of losses avoided as a result of managing the damage. During the last two years, WS damage management program prevented \$2.8 million in damage, with a benefit to cost ratio of 2:1 - WS saved \$2 for each dollar spent.

WS-South Carolina provides public training for integrated beaver management at workshops around the State and to individuals. Additionally, WS is participating in a study of beaver productivity and reproduction in the Southeast.

### **Looking to the Future**

WS continues to provide the citizens of South Carolina with safe, effective, and responsible management assistance for a variety of wildlife damage problems. The potential for human-wildlife conflicts likely will increase and WS' ability to respond will depend on the availability of personnel and resources, as well as legislative authorities to support these activities.

In South Carolina, WS is receiving increasing numbers of requests for assistance with problems associated with feral swine, wildlife at airports, wildlife diseases, beavers, and waterfowl.

The demand for beaver management continues to increase. WS strives to meet the demands for assistance so that all citizens have access to program services.

The southeastern United States vulture population rose dramatically in recent years, with a sharp rise in requests for assistance. Airport assistance requests and concerns over potential disease implications of feral swine and their damage to agricultural and natural resources are increasing.

WS strives to meet the demands for assistance within the constraints of its existing resources and capabilities so that all citizens have access to program services. Collaborative, partner-based approaches will be increasingly important among natural resource, agriculture, and health agencies to meet public needs.

### **Wildlife Services Funding in South Carolina**

In addition to receiving Federally allocated funds, WS receives funding from program beneficiaries such as agricultural producers, airports, individual citizens, businesses, organizations, and other Federal, State, and local Government agencies. See charts for sources of funding and resources protected.

#### **Top 5 Major WS Assistance Activities in South Carolina**

- Reducing feral swine damage to natural resources, agriculture, and human health
- Protecting bridges, roads, timber, crops, and natural resources from beaver damage
- Protecting public safety from wildlife hazards at airports
- Reducing impacts caused by migratory birds (i.e., Canada geese and vultures)
- Monitoring for diseases in wildlife populations

#### **Top 5 WS Research Projects of Interest to South Carolina**

- Quantifying and assessing the damage caused by beaver to roads and bridges
- Quantifying and assessing the damage caused by feral swine to agriculture, property, and natural resources
- Evaluating and monitoring feral swine for diseases such as pseudorabies, swine brucellosis, and classic swine fever
- Developing tools/methods to reduce vulture damage to property
- Evaluating the effectiveness of contraceptives in controlling gray squirrel populations in urban/suburban settings