

South Carolina's Growing Wild Hog Problem: Recommendations for Management and Control

Presented by the South Carolina Wild Hog Task Force
A State and Federal Interagency Task Force

Overview of the Problem

Like most of the United States and at least four Canadian provinces, the State of South Carolina has seen a recent and dramatic increase in the distribution and abundance of wild hogs. The increase in wild hog numbers has led to an increase in the damage these animals cause to natural, agricultural, and developed landscapes. Recent data suggest a large and growing population of wild hogs (approximately 150,000 individuals). Wild hogs have been reported in every county in the state. Scaling the national annual estimate of economic damage done by wild hogs (Pimentel 2007) to population estimates for South Carolina, the collective yearly cost of agricultural damage and control of these animals alone would conservatively be in the tens of millions of dollars. Considering the potential impacts wild hogs have on the natural landscape and native species, in addition to the threat wild hogs pose to the state's livestock industry through the spread of zoonotic diseases, the economic impacts of wild hogs are even higher. As such, a coordinated, multi-agency, statewide effort must be implemented to effectively control and manage this rapidly emerging issue to a less critical level, with a long-term goal of reducing the threat of wild hogs in the Palmetto State. This white paper introduces a multi-agency proposal to achieve this goal.

Background

Wild hogs are not native to the Western Hemisphere. The presence of wild hogs in the New World is solely attributable to introductions by humans. Such introductions have been both intentional and accidental. "Wild hog," within the context of this white paper, is a general term that would include any wild-living or free-ranging member of the species *Sus scrofa* (i.e., Eurasian wild boar, feral hogs and hybrids between these two types). Feral hogs are further specifically defined as wild hogs that are solely of domestic ancestry (Mayer and Brisbin 2008, 2009).

Wild hogs have had a long history in the United States, having been introduced by Europeans as early as the 1500s. Until 1990, these non-native mammals existed in relatively

stable populations, a general condition dating back to 1900. However, in the two decades following 1990, populations of wild hogs in the U.S. increased from being found in 20 states up to a currently observed presence in 40 or more of the 50 states (Mayer and Brisbin 2009).

Even for states like South Carolina, which have had wild hog populations dating back to the Colonial Period (1500-1700s), comparable local increases in both distribution and abundance were recently detected (Charles Ruth, SCDNR, personal communication). Historically, wild hog populations in South Carolina were concentrated in the Coastal Plain and mountainous regions of the state; the Piedmont had few if any of these non-native animals. However, like the rest of the

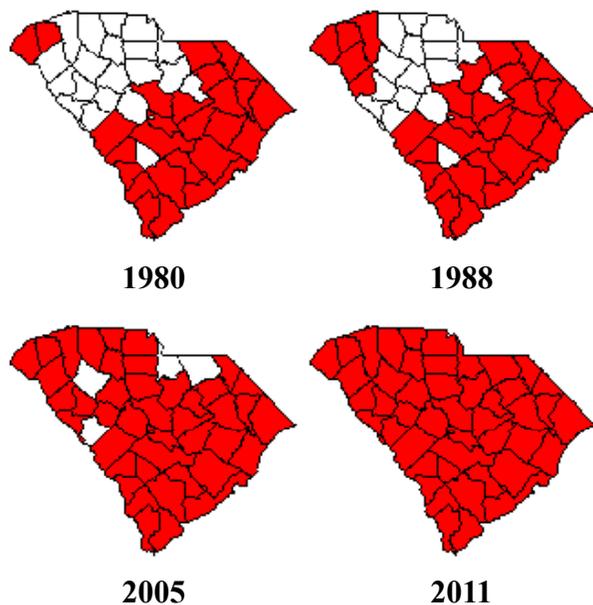


Fig. 1. South Carolina counties reporting the presence of wild hogs between 1980 and 2011 are shown in red.

nation, the range and numbers of wild hogs have increased in South Carolina. By 2008, wild hogs were reported in parts of every county in the state (Fig. 1; SCDNR 2011). In addition to this range expansion, the numbers of wild hogs have also increased in South Carolina; almost doubling between 2003 and 2011 (Fig. 2). Much of the recent expansion has been caused by human introductions, either through intentional releases into the wild or escaped hogs from commercial fenced enclosures.

This recent population increase resulted in an increase in the broad spectrum and extent of damage these animals do to natural, agricultural and developed environments. Reports of problems with wild hogs are nothing new to the Western Hemisphere, with wild hog damage reported as far back as 1505 (Mayer and Brisbin 2009). The Species Survival Commission of the World Conservation Union (IUCN) listed wild hogs as among the 100 worst invasive non-native species from around the world (Lowe et al. 2000), primarily as a result of their associated

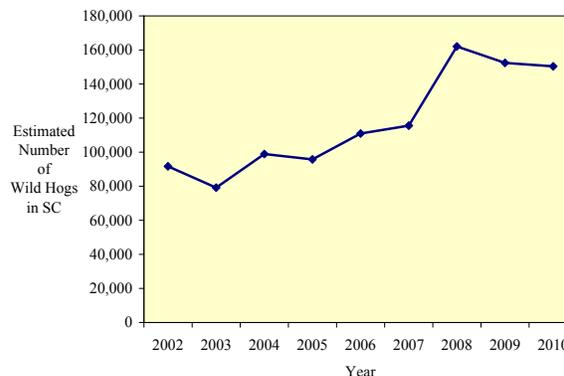


Fig. 2. Estimated numbers of wild hogs in South Carolina between 2002 and 2010.

impacts. Wild hog damage can include destructive rooting activity, depredation of crops and livestock, spreading disease to livestock and humans, property damage, competing with native wildlife, vehicle collisions, attacks on humans, and more (Figs. 3 and 4). Wild pigs have also been widely implicated in the declines and extinctions of numerous native species of flora and fauna, as well as in the spread of various noxious weed species worldwide (Mayer and Brisbin 2009, West et al. 2009). The annual economic loss due to wild hog damage to agricultural resources in this country added to the cost of their control is estimated at \$1.5 Billion (Pimentel 2007).

Scaling the national annual economic loss (i.e., in Pimentel 2007) to the recent number of wild hogs in South Carolina (i.e., approx. 150,000 animals), the damage done by these animals costs the Palmetto State \$45 million each year. Further, the potential for widespread disease impacts to the state's livestock industry (especially that of domestic swine) and potential risks to human health would greatly increase the cost of these impacts. Such damage estimates do not even include any costs for the extensive environmental damage associated with the presence of wild hogs.

State laws in South Carolina have been promulgated with the general intent of



Fig. 3. Rooting damage by wild hogs can be extensive, even in developed areas.

controlling the numbers of these animals. Aside from requiring a valid state hunting license (except on one's own property), there are no seasons or bag limits. The exception is on state lands, where hunting is concurrent (i.e., seasons and weapons restrictions) for other legal game. Night hunting is even allowed on private lands with certain restrictions on weapons and lights. The release of any hogs into the wild, or even the sale of such animals with that intended purpose, is illegal in South Carolina. Wild caught hogs may not be transported from the woods alive without a permit from SCDNR and they may only be taken to a permitted hog hunting enclosure that is located within the county in which the hogs were taken.

Identified Needs

The solution to the wild hog problem in South Carolina is not readily apparent. The largest challenge is the high reproductive potential wild hogs have (e.g., young age at sexual maturity, large litter sizes, and multiple litters produced annually). Lethal removal in the form of sport hunting does not remove enough animals from the population to serve as an effective control technique. To stabilize or reduce a wild hog population, approximately 50 to 75 percent of the population needs to be removed annually.



Fig. 4. Involvement of wild hogs in vehicle collisions is increasing nationally.

Sport hunting typically only removes between 20 to 30 percent of a wild hog population annually. Other forms of lethal removal (e.g., trapping and the use of trained hunting dogs) are also unsuccessful in controlling or reducing population sizes.

Exclusion in the form of hog-proof fencing is very expensive (e.g., \$40-50,000 per mile), and as such, is typically only viable for small applications. Annual maintenance of such fences requires an additional \$1-2,000 per mile. Hog-specific oral contraceptives and toxins/poisons are the subjects of research in several labs in this country, but to date, no viable options for wild hog control have been developed. In summary, statewide control for the wild hog problem in South Carolina would be prohibitively expensive (i.e., using both lethal removal and hog-proof fencing), assuming that it is possible at all.

Since a large portion of the recent problem with wild hogs has been man-made, there is critical need for an increased awareness and education of this issue among the general public. Many state residents do not even know that South Carolina has wild hogs, much less that these animals are a growing problem. In fact, most people are completely unaware of any problems with these non-native animals until they walk out of their front doors in the morning to find that their yards were

“roto-tilled” by wandering wild hogs during the night. Such rude awakenings to this issue have increased within the last two decades in a number of suburban areas in the state. The word needs to get out to the citizens of South Carolina in the form of information about these animals and the growing problem with the presence of wild hogs in the state.

Following such an information campaign, there is a need for a statewide path forward toward dealing with this issue. A patchwork of responses currently exists across South Carolina, with one farmer aggressively working to control these animals, while their immediate neighbor does nothing, effectively providing a refuge for the animals destroying his neighbor’s crops. If South Carolina is to be successful in an endeavor to deal with these animals, then that effort needs to be coordinated and unified.

Proposed Strategy

The proposed path forward is creation of a focused working/technical partnership of state and federal government agencies, academic/research institutions and interested public-sector groups charged with identifying problems and solutions, developing and implementing legislative/lobbying strategies, and educating the public regarding the current and potential problems associated with wild hogs in South Carolina. Identified as the South Carolina Wild Hog Task Force, the goal of this group would be to reduce the wild hog population size and impacts in South Carolina to an acceptable level (i.e., exactly what that “level” is would have to be determined by the proposed organization). The specific functions of the proposed organization would be to do the following:

- Develop and issue statewide guidance/ planning documents;

- Support/oversee the ongoing wild hog population survey, monitoring and assessment work in South Carolina;
- Conduct/prepare a statewide risk assessment on wild hogs in South Carolina associated with the population expansion of these animals in existing areas as well as range expansion into new/heretofore unoccupied areas of the state;
- Support legislative actions associated with wild hogs in South Carolina;
- Develop/conduct/support public education/ outreach associated with wild hogs in South Carolina; and
- Develop a statewide plan for managing wild hogs in South Carolina.

Benefits

The benefits of a task force on wild hogs would be planned statewide management of a species that is projected to be the greatest wildlife damage management challenge of the next decade. To do nothing would result in the ongoing loss of tens, if not hundreds, of millions of dollars annually to the state of South Carolina.

Task Force Members

- Clemson University
 - Livestock Poultry Health
 - School of Agricultural, Forest and Environmental Sciences
- Savannah River National Laboratory
- National Park Service
- SC Department of Health and Environmental Control
- SC Department of Natural Resources
- SC Farm Bureau

- SC Pork Board
- SC Pork Producers
- USDA-APHIS Veterinary Services
- USDA Wildlife Services
- U.S. Fish and Wildlife Service
- USDA Natural Resources Conservation Service

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