

Introduction:

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Joining me is our VT District Supervisor and Wildlife Biologist, Mr. Fred Pogmore

From this point on I will refer to USDA, APHIS, WS as Wildlife Services

Mission:

WS Mission is to provide Federal leadership in managing human-wildlife conflicts.

WS Philosophy:

In the United States, wildlife is considered a public resource held in trust by State and Federal agencies. Our Government is required by law and regulation to conserve and manage wildlife resources while being responsive to public desires, views and attitudes. In so doing, agencies must also respond to requests for resolution of damage and other problems caused by wildlife. Wildlife Damage Management is defined as the alleviation of damage or other problems caused by or related to the presence of wildlife. Wildlife damage management is an integral part of managing the Nation's wildlife resource.

Authority:

APHIS WS has statutory authority under the Act of March 2, 1931 (46 Stat. 1468; 7 USCA 8351-7 USCA 8352) as amended, and the Act of December 22, 1987 (101 Stat. 1329-331, 7 USCA 8353), to cooperate with States, local jurisdictions, individuals, public and private agencies, organizations, and institutions while conducting a program of wildlife services involving mammal and bird species that are reservoirs for zoonotic diseases, or animal species that are injurious and/or a nuisance to, among other things, agriculture, horticulture, forestry, animal husbandry, wildlife, and human health and safety. WS is a non-regulatory federal agency.

National Feral Swine Damage Management Program:

In 2014, in response to the increasing damage and disease threats posed by expanding feral swine populations in the United States, Congress appropriated \$20 million to USDA, APHIS for the creation of a collaborative, national feral swine damage management program. The overarching goal of the APHIS National Feral Swine Damage Management Program is to protect agricultural and natural resources, property, animal health, and human health and safety by managing damage caused by feral swine in the United States and its territories. To accomplish this goal, APHIS is working in cooperation with states, tribes, other federal agencies, universities, organizations, the public, and other stakeholders. APHIS also collaborates with Canada and Mexico to support border activities and facilitate an informational exchange on feral swine disease monitoring and control activities.

Since environmental conditions and laws governing feral swine vary considerably among states, APHIS' strategy is to provide resources and expertise at a national level, while allowing flexibility to manage

operational activities from a local or state perspective. The overall objective of the program is to minimize damage inflicted by feral swine. APHIS implements activities to reduce problems associated with feral swine in most states where they are present. In states where feral swine are emerging or populations are low, APHIS cooperates with local and state agencies to implement strategies to eliminate them.

APHIS Objectives:

Stabilize and reduce the range and size of feral swine populations in the US; through cooperative relationships reduce impacts to agriculture, natural resources, property, animal health, and human, health & safety; expand the management program nationwide; monitor feral swine pathogens that affect domestic swine, livestock, and human health; develop and improve tools, methods, and a predictive model for population expansion and economic impacts, along with risk analysis to protected resources; develop outreach materials to educate the public; and coordination with Canada and Mexico to establish a collaborative plan to address threats along our common borders.

Definition: Invasive feral swine refers to free living members of the *Sus scrofa* family

History of Feral Swine in the US

Invasive swine in the US date back to 1539 stemming from introductions of domestic pigs by Spanish explorers. Initial populations were subsequently augmented by free-range pig husbandry, specifically the seasonal release of pigs into forested habitats to fatten on mast crops, which was a common practice in the US until the mid-1900s. With growing interest in recreational hunting through the late-1800s and early-1900s, wild boar were imported to the US from Europe and introduced into established invasive feral swine populations to improve the phenotypic appearance and hunting appeal of this species. Despite a long history of invasive feral swine in the contiguous US, populations were largely restricted to localized areas in the southeastern US, Texas, and California through 1988. However, since 1988 there has been a marked and accelerating increase in the distribution of feral swine, with populations expanding from 17 states in 1988 to 34 states in 2016 and a corresponding 2.8-fold increase in estimated abundance.

The recent and rapid expansion of invasive feral swine throughout the contiguous US has been associated with the propagation of individuals of mixed domestic and wild ancestry. Secondary introductions from established invasive populations, as opposed to novel introductions from distinct genetic lineages, have facilitated the expansion of this ecologically and economically destructive animal over the past 30 years. Specifically, less than 3% of sampled feral swine could be attributed to the influences of contemporary propagule pressure from commercial or heritage domestic breeds, European wild boar, companion animals, or the direct descendants of these distinct lineages. In contrast, invasive feral swine from both long-established and newly-emergent populations overwhelmingly were of admixed ancestry with dominant ancestral contributions from Western heritage breeds and European wild boar.

The geographic spread of a common, admixed genotype throughout the contiguous US unequivocally demonstrates that secondary introductions associated with the translocation of feral swine from

established populations to uninvaded habitats has served as the dominant pathway contributing to recent expansion of the invaded range.

WS Role in VT

In 2009, WS initiated feral swine damage management activities in NH due to the increase in sightings statewide and requests for landowner assistance. Since this time WS has removed over sixty feral swine. More recently in VT with no evidence of feral swine, WS began actively surveying areas west of the Connecticut River neighboring the high fence facility Blue Mountain Forest Association in Croydon, NH. WS has completed extensive camera, aerial surveillance, and detection dog surveys in this area, as well as around former high fence hunting facilities located in VT with no feral swine activity at that time. The summer of 2018, WS received its first credible feral swine sighting in Danville, VT. This pig was removed in early 2019 in Lyndon, VT. In June of 2019 a second pig was observed in Randolph and removed a month later. In September of 2019 a third feral swine was observed in the Thetford area and removed by a local farmer. Currently, investigating a report of a pig (poor game camera photo) in Charleston Vermont.

The summer of 2019, WS NH/VT also coordinated with VT State Agency of Agriculture, Vermont Fish and Wildlife Department and law enforcement to assist a pig farmer in the town of Topsham. With help from the farmer, state, town, and local landowners, WS assisted the farmer with the return of over 250 domestic swine that had been on the landscape for over 30 days. To date, all swine are believed to be returned to the fenced farm. Since then, WS is monitoring the area with trail cameras to determine if any pigs remain at large and have had no sightings to date.

All three feral swine removed in 2019 had disease surveillance and DNA samples collected. The first swine taken from the Lyndon area tested positive for pseudorabies. A WS geneticist from the USDA National Wildlife Research Center conducted DNA analyses of all three swine and found them genetically pure Eurasian wild boar, matching genotypes from wild boar populations sampled throughout Europe and characteristic of samples submitted from swine removed in New Hampshire.

NH/VT Feral Swine Task Force

In 2015, WS initiated the NH/VT Feral Swine Task Force working with the NH Fish and Game Department (NHFG), NH Department of Agriculture, Markets and Food (NHDAM&F), VT Fish and Wildlife Department (VFWD), VT Agency of Agriculture, Foods and Market (VAAFAM), USDA APHIS Veterinary Services (VS), US Fish and Wildlife, National Wildlife Refuges, and the Quebec Ministry of Forests, Wildlife and Parks to develop strategies to find and remove any free ranging feral swine from the two states and to stop immigration into or out of the US/Canada.

