

# Feral Swine in Ohio: Managing Damage and Conflicts

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## Introduction

Feral swine (*Sus scrofa*) are a non-native and invasive species that present significant threats to agricultural and natural resources (Figure 1). Feral swine were introduced as livestock to the continental United States in 1539. Estimates as of 2013 are that more than 5 million feral swine exist in at least 36 states, with the greatest concentration in southern and western states. Feral swine are well established in many midwestern states, including Ohio (Figure 2). Feral swine have a wide variety of common names that reflect wild and domestic stocks, mixed ancestries, and unique origins and histories in different regions of the United States. Common names include feral hog or pig, Eurasian or Russian wild boar, razorback and piney woods roter, but all swine whether feral or domestic are of the same genus and species, *Sus scrofa*. These mixed ancestries lend variability in physical shape, color, size and reproduction to feral swine.

Feral swine are highly adaptable and destructive animals. Problems caused by feral swine include damage to public and private property such as wildlife habitat

and other natural areas, agricultural crops and livestock fencing. Additional problems include surface water pollution, predation and competition with native wildlife and livestock, and disease and parasite transmission such as swine brucellosis and pseudorabies. Although feral swine are non-native and destructive, the species is the second-most popular large mammal pursued by hunters in North America.

## Feral Swine in Ohio

The feral swine population in Ohio is a combination of escapees from farms and hunting preserves and illicit releases for hunting purposes. Unconfirmed sightings of feral swine were first reported to the Ohio Department of Natural Resources (ODNR) Division of Wildlife in the 1980s. The first reports came from Vinton County and nearby areas. Early reports were generally anecdotal and were not confirmed or investigated further. Reports of feral swine increased in the 1990s and into the early 2000s. Sightings have increased substantially in recent years.

No estimate of Ohio's feral swine population is available because there is no requirement to report feral swine harvest. Feral swine are also primarily nocturnal, which can lead managers to underestimate local population sizes. However, sightings and damage reports since 2007 have increased dramatically with each subsequent year. The highly prolific nature of these animals and illegal introductions to the existing population are allowing the population to steadily increase, and there is no evidence that the Ohio population is declining. The ranges of some local feral swine populations are expanding due to purposeful and illegal transportation and release of feral swine for hunting purposes.

Ohio's feral swine population is primarily concentrated in unglaciated southern counties, but is not solely confined to this region (Figure 3). A large section starting



Figure 1. Feral swine.  
Photo courtesy of USDA Wildlife Services.

# Feral Swine Populations 2012

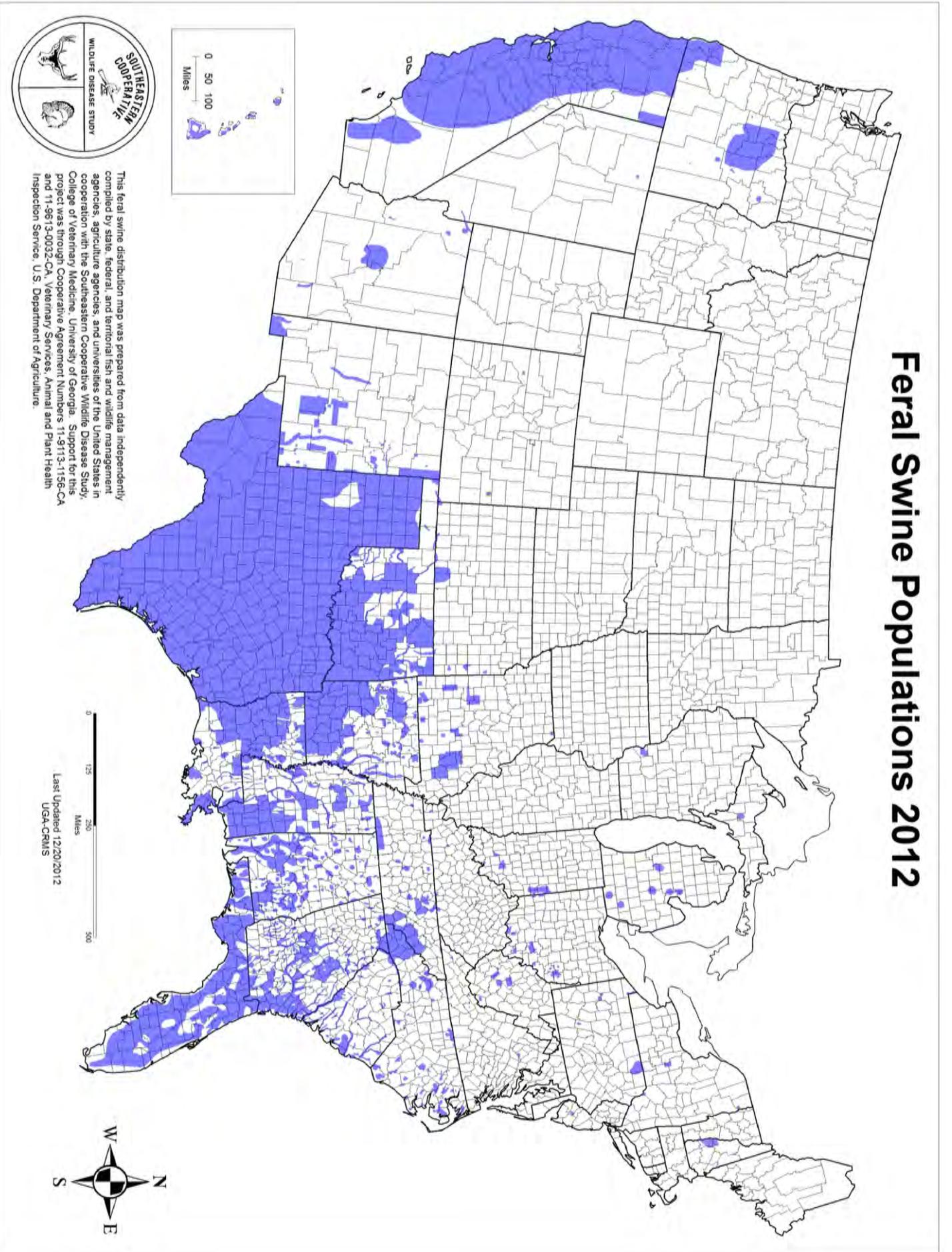


Figure 2. Map of feral swine locations in the United States.

in Adams County in the south and extending east to Belmont County support most of the state’s feral swine. Other areas that have documented feral swine populations include Preble and Butler counties in western Ohio, and Lorain and Ashtabula counties in northeastern Ohio. As of 2013, feral swine currently have established breeding populations in at least 13 Ohio counties. Nine of these counties comprise a contiguous block in southern Ohio: Adams, Athens, Gallia, Hocking, Jackson, Lawrence, Ross, Scioto and Vinton. Feral swine also appear suddenly and sporadically across Ohio mostly as a result of illegal releases.

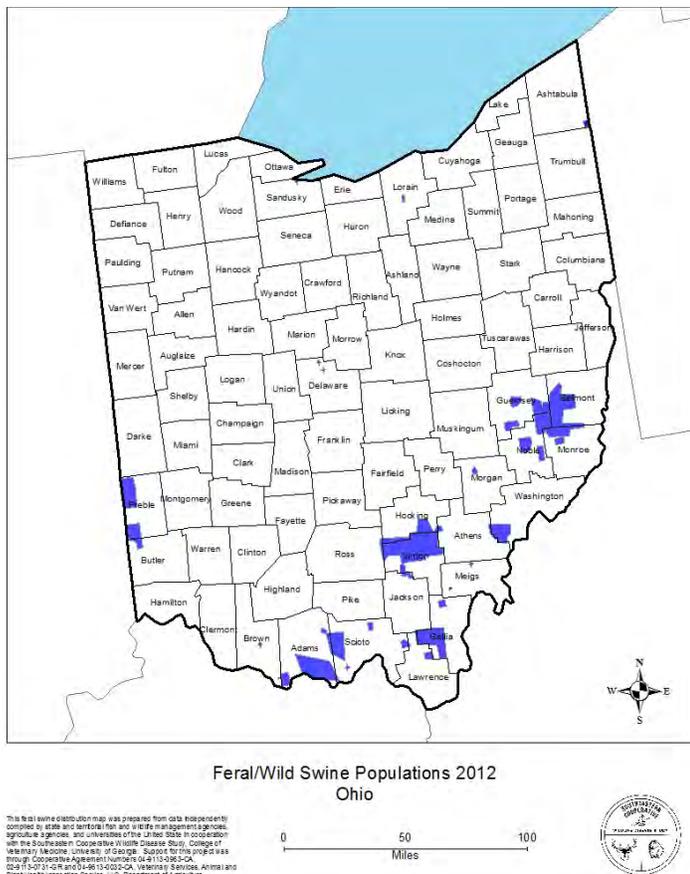




Figure 5. Feral swine are prolific breeders. Sexually mature females can reproduce year round, and under ideal conditions, can have 2 litters per year with an average of 6 piglets per litter. Photo courtesy of Justin Stevenson, USDA Wildlife Services.

Feral swine are habitat and diet generalists. Hard mast such as acorns is a common food item. Feral swine also feed on grasses, forbs, shoots, roots, tubers, fruits and seeds, and can change food preference based on availability. Though their diet consists predominantly of vegetation, feral swine will also consume invertebrates, small vertebrates, eggs of ground-nesting birds, reptiles, amphibians, small mammals and occasionally the young of larger mammals such as white-tailed deer and livestock. Although feral swine will opportunistically consume mammals and ground-nesting bird eggs, it is unlikely that feral swine predation has a significant impact on Ohio’s wildlife populations at present levels of swine abundance. In addition to predatory impacts, feral swine compete with native wildlife species for food resources. Acorns that would normally be cached by squirrels and other rodents, or used to build winter fat reserves of white-tailed deer, raccoons and wild turkeys, are quickly consumed by feral swine.

## Damage and Disease

Feral swine cause significant damage to agricultural and natural resources. Ecological and economic losses from feral swine damage in the United States, when combined with control costs, are estimated to be \$1.5 billion annually.

Aggressive rooting in soil often causes substantial property and habitat damage as feral swine search for food (Figures 6a and 6b). Because the feral swine diet consists primarily of vegetation, rooting in the forest floor can increase soil erosion and colonization by invasive species such as garlic mustard and bush honeysuckle. In addition, feral swine can disrupt forest regeneration, as rooting for food can dislodge and damage young



Figure 6a. Rooting damage to lawn. Photo courtesy of USDA Wildlife Services.



Figure 6b. Rooting damage to lawn. Photo courtesy of USDA Wildlife Services.



Figure 7. Feral swine rooting in forests disrupts regeneration (notice the absence of seedlings and herbaceous cover). Photo courtesy of Bryan Kay, ODNR Division of Wildlife.

tree and shrub seedlings (Figure 7). Foraging on crops can be extremely damaging. Feral swine damage to standing corn can resemble the aftermath of an errant steamroller (Figure 8).



Figure 8. Rooting damage to corn field.  
Photo courtesy of USDA Wildlife Services.

Feral swine also cause damage to soils and plant life by wallowing (Figure 9). Feral swine seek out wet areas to roll in the mud, or wallow, as the summer months heat up. Wallows range in size from small mud puddles to churned slurries exceeding 300 square feet. Large wallows severely damage downstream water quality through silt deposition and bacterial contamination. Wallowing can disrupt wetland ecosystems and terrestrial plant communities. Unnoticed holes or ruts created by wallowing, as well as rooting, can damage equipment and pose a safety threat to farm equipment operators.

Feral swine are highly mobile disease reservoirs and can carry at least 30 important viral and bacterial diseases and a minimum of 37 parasites that can affect people, pets, livestock and wildlife (Table 1). Two diseases of great concern in Ohio are swine brucellosis and pseudorabies, which can infect domestic and wild animal species indiscriminately. Disease transmission from feral swine to domestic livestock could severely impact Ohio’s herd health and economy (Figure 10).



Figure 9. Swine wallow.  
Photo courtesy of Tyler Campbell, USDA Wildlife Services.

Table 1. Some harmful diseases and organisms that can be carried by feral swine.	
Pseudorabies	Tularemia
Brucellosis	Trichinellosis
Porcine reproductive and respiratory syndrome	<i>E.coli</i>
Swine influenza	Salmonella
Toxoplasmosis	



Figure 10. There is a risk of disease transmission from feral swine to livestock.  
Photo courtesy of Justin Stevenson, USDA Wildlife Services.

### Feral Swine Management in Ohio

Illicit transport and release by humans is one of the greatest challenges to feral swine management and control. Perceived incentives of introducing feral swine include expanded hunting opportunities and monetary gain from hunting leases. These perceived values are exploited by few to the detriment of many and do not outweigh the negative effects of feral swine on human health, livestock, crops, wildlife and native habitat. Intentionally releasing feral swine is illegal in Ohio, and it is contrary to the ethical behavior of true sportspersons. Similarly, selectively harvesting males, or leaving others for seed, are the actions of an irresponsible hunter and should not be condoned.

An integrated approach supported by wildlife managers, agricultural producers and sport hunters can have the most beneficial impact in battling feral swine populations. Although hunting is documented to have little effect on feral swine populations, Ohio’s hunters are encouraged to kill any feral swine they encounter in the wild to limit the spread of this destructive species. These nuisance animals may be legally killed year-round by hunters with a valid Ohio hunting license, or by landowners on their own property. A valid Ohio deer permit

is required during the deer-gun and deer-muzzleloader seasons, and hunters are required to use only the legal firearm for the season. Though hunting feral swine with dogs is growing in popularity, it is an ineffective management tool and disperses feral swine to new areas. Always obtain permission from the landowner before hunting on private property.

Non-lethal techniques of feral swine control include fencing, harassment, vaccination and contraception. Although expensive, the use of wire-mesh and electric fencing can be effective. Recent research shows that livestock panels with at least 4-inch mesh and measuring at least 34 inches above ground are highly effective at excluding feral swine. Panels should be buried in the ground at least 2 feet deep. Harassment can be effective, but only in small areas. Vaccination and contraception are expensive, illegal in Ohio and are not considered responsible methods for managing feral swine. There are no currently registered toxicants for this species in the United States. While non-lethal techniques may provide relief from feral swine damage, the ultimate goal of species eradication cannot be achieved using these techniques.

Wildlife Services, a program of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (USDA APHIS), has partnered with the ODNR Division of Wildlife to eradicate feral swine when feasible. Sharpshooting and trapping are implemented by highly trained agency officials to eradicate newly emergent feral swine populations (Figure 11). Eradication is necessary to protect threatened and endangered species and to protect areas of key habitat where feral swine are established. Wildlife Services works with private and public entities experiencing damage to trap feral swine and collect blood and tissue samples from these animals to test for more than a dozen different diseases. Trapping provides the opportunity for disease surveillance and is, by far, the most effective means of population eradication currently available in Ohio.

Farmers, hunters, outdoor enthusiasts and landowners are strongly encouraged to report all feral swine sightings to the ODNR Division of Wildlife at 1-800-WILDLIFE (1-800-945-3543) or [wildinfo@dnr.state.oh.us](mailto:wildinfo@dnr.state.oh.us).



Figure 11. USDA Wildlife Services and ODNR Division of Wildlife are working together to eradicate feral swine in Ohio. Photo courtesy of USDA, Wildlife Services.

Landowners and land managers are encouraged to contact Wildlife Services at 1-866-4USDAWS (1-866-487-3297) for assistance with managing damage from this invasive species. Please be aware that Wildlife Services is not permitted to share private landowner information with the general public, and the ODNR Division of Wildlife does not maintain a list of landowners with reported feral swine on their property. Additional information on this highly destructive, non-native species can be found at [wildohio.com](http://wildohio.com).

## Additional Resources

*A Landowner's Guide for Wild Pig Management: Practical Methods for Wild Pig Control* ([msucares.com/pubs/publications/p2659.pdf](http://msucares.com/pubs/publications/p2659.pdf))

eXtension Feral Hogs Page ([extension.org/feral\\_hogs](http://extension.org/feral_hogs))

*Managing Wild Pigs: A Technical Guide* ([berrymaninstitute.org/pdf/managing-feral-pigs.pdf](http://berrymaninstitute.org/pdf/managing-feral-pigs.pdf))

USDA APHIS Feral Swine Page ([go.usa.gov/4SwF](http://go.usa.gov/4SwF))

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