

The Real Threat to Missouri:



Feral Hogs

ISSUE SUMMARY

Feral hogs have expanded their range in the United States from 17 to 38 states over the past 30 years. Their populations can grow rapidly because feral hogs can breed any time of year and produce two litters of one to seven piglets every 12–15 months.

FERAL HOGS IN MISSOURI

Feral hogs have been roaming some Missouri counties since the days of open range. However, the state legislature passed a closed range law in 1969 and this put an end to landowners allowing their livestock to roam freely. The situation took a wrong turn in the 1990s when hog hunting for recreation began to gain popularity. Groups began raising and promoting European wild boar as a form of alternative agriculture and for hunting on captive facilities. It wasn't long before many of these hogs escaped or were released intentionally on public land for hunting.

FERAL HOGS ARE A PUBLIC NUISANCE

Because feral hogs are highly adaptable animals and prolific breeders, their numbers grow at an alarming rate. One sow can give birth to two litters of about six piglets twice per year, resulting in a population growth rate of about 166% per year. The Conservation Department has received damage complaints from private landowners since the late 1990s. Today, feral hog populations are established in over 30 Missouri counties. Feral hogs spend a lot of time rooting and wallowing which contributes to soil erosion, reduced water quality and damage to agricultural crops and hay fields. The USDA estimates that feral swine cause approximately \$1.5 billion in damages and control costs in the United States each year, with at least \$800 million of this estimate due to direct damage to agriculture. Rooting and wallowing also destroys sensitive natural areas such as glades, fens and springs and complicates efforts to conserve threatened and endangered species. Feral hogs forage heavily on acorns and compete directly with native species, such as deer, turkey, elk and bear, for this important fall food. They also commonly eat the eggs and young of ground-nesting birds. They eat native reptiles, amphibians and small mammals. They will also kill and eat deer fawns.

Feral hogs are not a passive animal, they will attack and can inflict very serious injury to dogs and humans with their tusks.

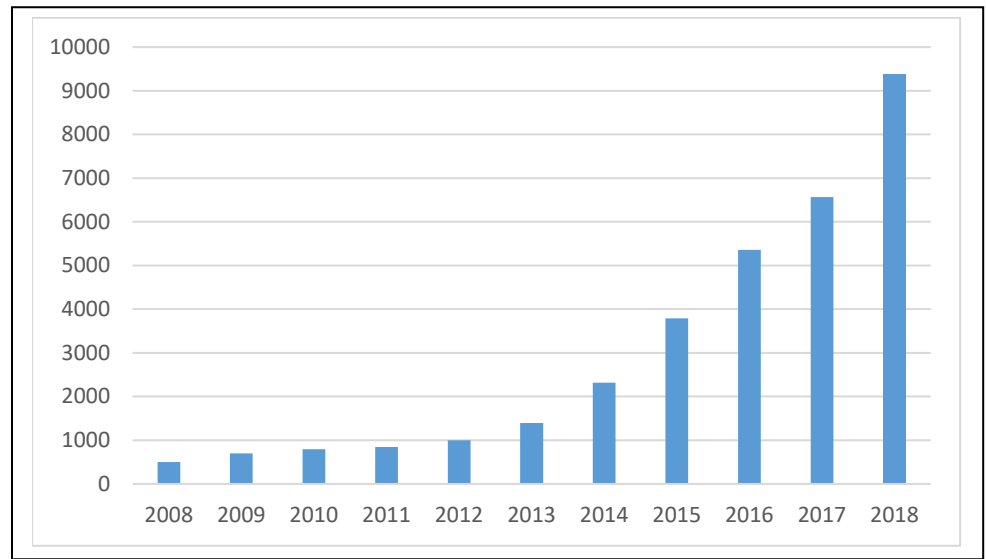
WHAT IS A FERAL HOG?

In Missouri a feral hog is defined as any hog, including Russian and European wild boar, that is not conspicuously identified by ear tags or other identification and is roaming freely on public or private land without the land manager's or landowner's permission. The majority of feral hogs in Missouri are mixed with genetic combinations that include Russian or Eurasian wild boar (razorbacks); an assortment of domestic varieties such as Yorkshire, Hampshire or Duroc; and even pot-bellied pigs. The resulting offspring exhibit a variety of shapes and colors including gray, red, black, blond, spotted and belted.

Feral hogs are a destructive, invasive species in Missouri and the damage they cause remains a serious and growing problem for forest, fish and wildlife resources on public and private lands and for the state’s agricultural industry. Feral hogs are not wildlife in Missouri, so they are not under the direct control of the MDC. The MDC position concerning feral hogs is that they are an exotic, invasive animal that needs to be eradicated. The MDC is responsible for protecting and managing Missouri’s forest, fish and wildlife resources, and therefore is an appropriate agency to address this problem initially on MDC lands and then lands statewide by working with partner agencies, non-governmental organizations, and private landowners to address the hog issue.

The MDC has taken responsible and reasonable actions to help limit feral hog numbers and resulting damage on public and private land. These actions include: feral-hog eradication efforts with conservation partners on public and private land (1,400 killed in

2013; 1,502 killed in 2014; 3,649 killed in 2015; 5,360 killed in 2016; 6,567 killed in 2017; and 9,365 killed in 2018); assistance to private landowners with feral hog trapping and eradication; passing a regulation that prohibits the take of feral hogs on MDC owned, leased, and managed lands; enforcement of regulations to discourage transporting, releasing and hunting feral hogs; partnering with United States Department



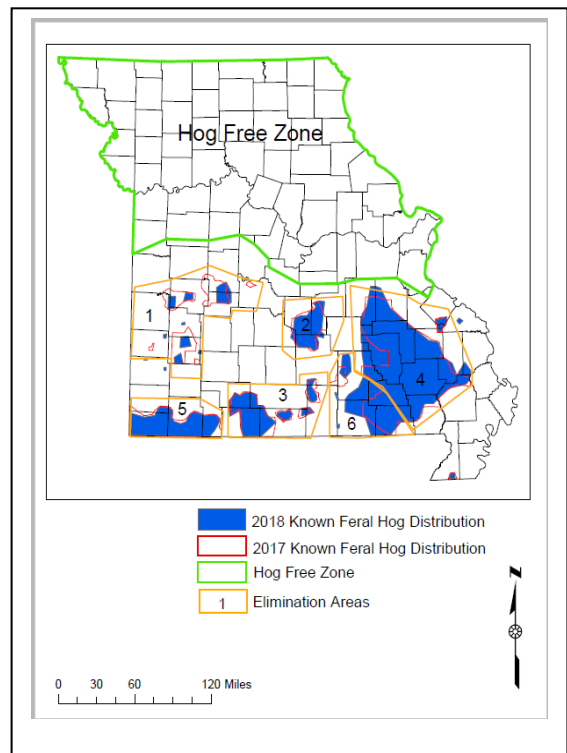
of Agriculture-Wildlife Services (Wildlife Services) by providing funds to hire a State Feral Hog Coordinator; and various and ongoing communication efforts about the serious problems caused by feral hogs.

Adding to the existing problem of feral hogs in Missouri is the increasing popularity of hog hunting as a sport and business opportunity through guiding, especially in Southeast Missouri. While some other states have encouraged this as a form of control and economic activity, hog hunting in Missouri is resulting in the illegal release of feral hogs on public and private land and therefore adding to the problem. Although the MDC and QUWF and other conservation partners have discouraged hunting specifically for feral hogs, in the past hunters had been encouraged to shoot feral hogs on-sight in any number while hunting for other game.

MISSOURI FERAL HOG ERADICATION PLAN

In 2016, the MDC, QUWF and its many partners began developing a statewide strategic plan for feral hog elimination. The plan’s four main objectives include:

1. Inform the public of problems feral hogs cause and the need to eliminate them,



2. Prevent establishment of new populations, control the sources of feral hogs, and remove incentives for releasing hogs,
3. Develop and implement a strategy to eliminate feral hogs from Missouri, and
4. Obtain population metrics and define and develop a method to measure success of elimination efforts.

The MDC intends to continue working with QUWF and all partners to operationalize the plan. The collaborative effort to eliminate feral hogs in Missouri will help protect the state’s natural resources, native fish and wildlife, agriculture, and human health.

TENNESSEE EXAMPLE

The state of Tennessee had 50 years of no hunting of feral hogs (see figure 1). During this time period there were two isolated populations of feral hogs that were associated with escaped hogs surrounding fenced hunting preserves. Through legislative pressure, hog hunting in Tennessee was permitted on a statewide basis on public and private land beginning in 1999. Over the next 10 years, statewide isolated populations of hogs in Tennessee were evident and suspected to be from localized hog releases for sport hunting (see figure 2). **Tennessee has recently banned hog hunting** and Tennessee Wildlife Resources staff are aggressively working

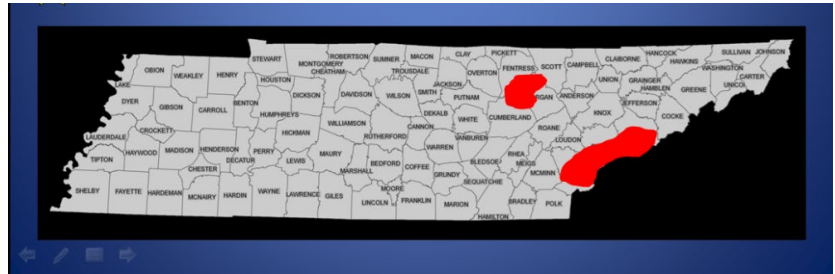


Figure 1.



Figure 2.

with private landowners to remove many of these hog populations from federal, state, and private lands and although they are early in their efforts, they are reporting some success. **This example from Tennessee shows hog hunting as a recreational sport is problematic and is an incentive for hunters to release hogs throughout an area.**

WHY DID MDC PROHIBIT HUNTING OF HOGS ON MDC LANDS?

Examples from other states (Kansas and Tennessee) show that the elimination of any hog killing other than by a State or Federal entity or their contractor has greatly benefitted eradication efforts and decreased the desire for releasing and hunting hogs by the public. Hunting is an effective tool for managing populations of wildlife. However, feral hogs are not wildlife and the **MDC and its partners should not manage them, the goal is to eliminate them.** MDC asks that the public report feral hogs instead of shooting them. When hunters shoot feral hogs, it complicates efforts to remove these destructive pests. Hogs are social animals that travel in groups called sounders. Shooting one or two hogs scatters the sounder and makes trapping efforts aimed at catching the entire group at once more difficult, because hogs become trap-shy and more-wary of baited sites. With their high reproductive rate, removing one or two hogs does not help to reduce populations. Allowing the take of feral hogs on MDC areas encourages interest in hog-hunting, including the illegal release of feral hogs, and interferes with elimination efforts. MDC and USDA continue to report trapping interference on public and private lands.

Figure 1. Feral hog intentionally released on public land by a hog hunter, “hogdogger”, with a dog GPS tracking collar. The collar allows the hunter to train his dogs for hog hunting and to track them right to the traps.



Figure 2. Hog hunter interference at a trapping site on public land closed to hog hunting.

NO HUNTING REGULATION

Absent a decreasing feral swine population, other factors may also be a contributing to the observed Q3 decrease year over year. For example, there is evidence that there is an inverse correlation between trapping success and activity associated with feral swine hunting with dogs, “hogdoggers”. This inverse relationship is supported by the change in the frequency distribution of feral swine eliminated in EZ3 during the Q3 of FY2017 and FY2018. The 455 feral swine trapped in the northern half of EZ4 (i.e., the area north of Wayne County) during Q32017 greatly exceeded the 131 feral swine trapped in the northern half of EZ4 during the current reporting period where the hunting of feral swine with dogs was more frequently observed by Wildlife Specialists than in previous years. Conversely, the trapping take of 823 feral swine in the southern half of EZ4 (i.e., the area south of Iron County) where the hunting of feral swine with dogs was terminated on Lake Wappapello lands and MDC managed or owned lands during the current reporting period represented a 76 percent increase over 466 feral swine trapped in the southern half of EZ4 during Q3FY2017 when hunting feral swine with dogs was allowed on the above referenced lands (Figure 2).

The above evidence suggesting an inverse correlation between trapping success and the frequency of hunting with dogs is supported by comparing trapping data collected on U.S. Corps of Engineers Lake Wappapello project lands during Q3 period of FY2016-FY2018. The feral swine elimination effort on the Lake Wappapello project lands during the 3Q of FY2016 and FY2017, combined, resulted in an average of only 11 hogs being taken by trapping per each years quarter. In contrast, the 72 feral swine taken by trapping during Q3FY2018 after the termination of hunting of feral swine with dogs on Lake Wappapello lands on January 1, 2018 represents a 555 percent increase over the average of 11 feral swine taken the Q3 of FY2016 and FY2017 (Figure 3).

DISEASE CONCERNS

Feral hogs are known to carry diseases such as swine brucellosis, pseudorabies, trichinosis and leptospirosis. These diseases commonly cause abortions, infertility, low milk production, and high mortality in newborn domestic animals. The domestic swine industry is currently free of these diseases, but they are endemic in feral hogs. The reintroduction of these diseases into domestic livestock populations could be devastating to the agriculture industry. USDA APHIS is conducting disease testing of some feral hogs in Missouri. Disease testing results are listed in the tables below.

2016 Target: 95 Feral Swine				
Disease	# Sampled	# Pending	# Positive	County
CSF (Classical Swine Fever)	106	0	0	n/a
PRV (Pseudorabies Virus)	111	0	7	2 Barry, 5 Callaway
SB (Swine Brucellosis)	108	0	6	2 Callaway, 1 Dade, 1 Madison, 1 McDonald, 1 Pulaski
IAVS (Influenza A Virus)	42	0	2	1 Barry, 1 Wayne
Leptospirosis	30	0	20	3 Barry, 1 Barton, 2 Butler, 2 Callaway, 1 Cedar, 2 Dade, 5 Madison, 1 Reynolds, 1 Saline, 2 Wayne
Toxoplasmosis	7	0	3	3 Wayne County
Trichinellosis	42	0	12	1 Barry, 1 Callaway, 1 Christian, 3 Madison, 2 McDonald, 1 Reynolds, 1 St Clair, 2 Wayne
2017 Target: 100 Feral Swine				
Disease	# Sampled	# Pending	# Positive	County
CSF (Classical Swine Fever)	112	23	0	n/a
PRV (Pseudorabies Virus)	109	20	1	1 McDonald County
SB (Swine Brucellosis)	105	17	0	n/a
IAVS (Influenza A Virus)	81	0	1	1 Stoddard County
Leptospirosis	25	0	14	1 Reynolds, 1 Pulaski, 1 Barry, 11 Stoddard
Toxoplasmosis	0	0	0	n/a
Trichinellosis	0	0	0	n/a
2018 (thus far) Target: 100 Feral Swine				
Disease	# Sampled	# Pending	# Positive	County
CSF (Classical Swine Fever)	32	18	0	n/a
PRV (Pseudorabies Virus)	32	18	2	1 Barry, 1 Dunklin
SB (Swine Brucellosis)	32	18	0	n/a
IAVS (Influenza A Virus)	0	0	0	n/a
Leptospirosis	0	0	0	n/a
Toxoplasmosis	0	0	0	n/a
Trichinellosis	0	0	0	n/a

FY	# Feral Swine Sampled	CSF	PRV	SB	Lepto	PRRS	IAVS	TOXO	TRICH	PED	SVA	TB
		Classical Swine Fever	Pseudorabies Virus	Swine Brucellosis	Leptospirosis	Porcine Reproductive & Respiratory Syndrome	Influenza A Virus	Toxoplasmosis	Trichinosis	Porcine Epidemic Diarrhea	Senecavirus A	Tuberculosis
FY14	93	0	5	0	21	0	3	1	5	2	1	0
FY15	105	0	1	0	23	0	6	6	12	1	1	n/a
FY16	102	0	5	6	17	n/a	1	3	13	n/a	n/a	n/a
FY17	128	0	3	0	17	n/a	2	n/a	n/a	n/a	n/a	n/a
FY18	104	0	7	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Totals	532	0	21	6	78	0	12	10	30	3	2	0
		0%	3.90%	1.10%	14.60%	0%	2.20%	1.80%	5.60%	0.50%	0.37%	0%

WHY DOESN'T THE MDC PUT A BOUNTY ON FERAL HOGS?

The MDC does not support a bounty on feral hogs because bounties are ineffective in eliminating populations. Bounties have been used across the United States for decades on a variety of species, including rattlesnakes, groundhogs, foxes, beavers, bears, coyotes and others and have never been shown to eliminate a species. The Department's goal is to eliminate feral hogs in Missouri, and a bounty will not help achieve this goal.

QUWF as a partner with the MDC and a national conservation organization supports the ban on hunting feral hogs on private and public lands and encourages the U.S. Forest Service to remove feral hog hunting on its lands in MO.

WHAT HAPPENS TO THE MEAT OF FERAL HOGS AFTER TRAPPING?

If the hogs are trapped on private land, consumption decisions are made by the landowner. If trapped on public land, the Department disposes of the carcasses on site. The Department does not donate feral hogs to food banks or food pantries as state and federal regulations of processing centers do not allow feral hogs to be accepted for donation due to the potential for disease transmission to consumers. The MDC also does not actively distribute feral hog carcasses because this has the potential to interfere logistically with trapping efforts and reduce trapping effectiveness. It would also require considerable time and effort for staff to coordinate distribution which would detract from their regular duties, including hog trapping. Timing and location of elimination efforts are not advertised because this could interfere with trapping efforts and reduce effectiveness and increase interference.

MDC 2018 FERAL HOG REPORT

Hogs killed by method in Calendar Year 2018

Trapping = 8,577

Aerial gunning = 302

Shooting = 486 Total = 9,365

MDC dollars spent on feral hogs in FY18

Hourly staff = \$69,811

Salaried staff = \$294,613

Total Labor = \$364,424

Equipment and Expense = \$2,131,491

MDC Total feral hog expenditure for FY18 = \$2,495,915

Sources: USDA Hog Eradication Program

USDA APHIS-Disease Testing

U.S. Corp of Engineers

Tennessee Wildlife Resources Staff

MDC Staff

QUWF Data Research, Direct Landowner Contacts. Feral Hog Update March 2019 - QUWF