

**The Eradication and Prevention of Feral Swine in Pennsylvania**  
Comments and recommendations prepared for the Pennsylvania Game Commission  
by the Western Pennsylvania Conservancy  
January, 2008

**I. Background**

Feral swine (also known as wild hogs, wild boars, feral hogs or feral pigs) is an injurious invasive species that has recently been introduced in Pennsylvania and has serious potential to become permanently established. Although the same species as the domesticated agricultural swine (*Sus scrofa*), the invasive form is often an entirely wild, undomesticated strain imported from Europe or Asia, and which can weigh up to 400 lbs. Hybrids of wild and domesticated swine exist, and thus the focus is on free-roaming uncontrolled swine in general and on wild strains imported for sport shooting at enclosed facilities. Invasive feral swine is a problem in many areas across the nation, and while some 25 states have established populations, Pennsylvania is one of 16 new states where introduction is more recent and may still be countered. Feral swine is recognized as one of the most serious and damaging invasive species by many sources, and it impacts both natural resources and other human interests (World Conservation Union 2007).

**Impacts**

Wildlife and Habitats

Numerous studies (Sweitzer and Van Vuren 2002, Mayer and Brisbin 1991, Lipscomb 1990, Wood and Lynn 1977, Lucas 1977, Springer 1977, Wood and Brenneman 1977) address the impact of feral swine on wild ecosystems. Feral swine are efficient and adaptable, eating almost any plant or animal for food and are able to live in a wild range of habitats, so long as water is available. Their behavior includes rooting and digging through the soil for food. Food items include roots, tubers, stems, leaves, fruit, nuts, bark, bird eggs and small (salamanders, snakes, mice) to medium (fawn deer) animals. In addition to eating some wildlife, feral swine also compete for wildlife foods, for example, mast crops (acorns, etc.). Feral swine wallowing impacts small streams, wetlands and riparian areas, destroying habitat and creating sedimentation. Invasive plants benefit and expand into areas where swine have disturbed habitats. Thirty diseases can be carried by feral swine, some of which are transferable to wildlife. There are no significant feral swine predators.

In addition, feral swine also have a detrimental impact on many native game species, such as ruffed grouse, wild turkey and white-tailed deer. Their presence also adds another threat to the viability of rare and endangered species (Mapston 2004).

Agriculture and Forest Products

Feral swine are of great concern to agricultural industries with damage estimated to be more than \$800 million per year (Pimental et al. 2000). Oregon determined that 35 top agricultural crops could potentially incur damage from feral swine (Rouhe and Sytsma 2007). Agricultural damage includes direct crop loss as well as transmission of diseases. Certain diseases known to be carried by feral swine (e.g. pseudorabies, swine brucellosis, foot and mouth disease) can require the sacrifice of entire domesticated swine herds if an infected animal is detected. Feral boars will also invade domestic herds to breed with sows. Forest regeneration and the establishment of tree plantations may also be potentially impacted by swine by the consumption of seeds and seedlings, and exposure of tree roots during rooting and wallowing.

### Health and Human Safety

Several of the diseases feral swine can carry are transmittable to humans. Feral swine were recently implicated in a 2006 California *Escherichia coli* outbreak resulting in three deaths and 200 people inflicted. Feral swine-related automobile collisions in USA in one year recently totaled 35 million dollars (Mayer 2007). Some states now install feral swine crossing signs on problem roads. As feral swine have increased in some states, homeowners complain about damage to lawns and gardens.

### **Other states**

Pennsylvania is not alone in the recent concern over invasion of feral swine into northern states. Other states include Maryland, Ohio, Michigan, Wisconsin, Nebraska, Kansas, Missouri and Oregon. Examples of some actions underway:

**Michigan** stakeholders are regrouping given their initial reaction was limited and inadequate, and feral swine have quickly spread.

**Wisconsin** will pass 2008 legislation listing feral swine as a prohibited animal.

**Nebraska** has outlawed possessing feral swine and shooting feral swine.

**Kansas** has outlawed possessing feral swine and shooting feral swine.

**Missouri** is assessing options and might follow NE and KS.

**Oregon** has developed an action plan, with the intent of eradication (Rouhe and Sytsma 2007).

In several southern states, feral swine have become established with no hope of eradication, and in some areas great efforts to control damage is undertaken each year. There are 2 million feral swine in Texas covering most of the state (Mapston 2004). In some national parks (Great Smoky Mountains-TN/NC, Congaree-SC) long term programs are underway to reduce impacts.

## **II. Current Situation in PA**

Pennsylvania has experienced some free-roaming swine since at least the mid-1990's, but the records were only occasional until 2002. As of 2007, U.S. Department of Agriculture Animal and Plant Health Inspection Service has gathered evidence that feral swine have established breeding populations in five counties (Bedford, Bradford, Butler, Indiana, Cambria). Breeding populations are also likely in two others (Crawford, Tioga). The status of feral swine in three more counties is unclear (Erie, Somerset, Wyoming) (H. Glass, personal communication, 8 Jan 2008).

Sources of feral swine in Pennsylvania are:

- 1) escapes from shooting preserves
- 2) intentional releases by swine hunters (presently illegal)
- 3) domesticated swine that escape enclosure and mingle with feral swine

### Shooting Preserves

Many of the records of feral swine come from areas near shooting preserves. These facilities buy swine (usually wild boars) for paid hunting. Experts state that fencing will not contain swine and escapes are inevitable (Mayer 2007). APHIS reports at least one preserve operator maintaining escaped swine on adjacent leased land. In some other states, swine are now outlawed for use in these businesses.

### Swine Hunting Culture

In some southern states, hunting feral swine is considered a cultural heritage right. If this attitude develops in Pennsylvania, the eradication and prevention of feral swine will become extremely

challenging if not impossible. Although the release of swine is now illegal, policing is very difficult. Reports of intentional feral swine releases exist, for example in Bedford County.

### Management

Until December 2007, Pennsylvania Department of Agriculture (PDA) was the only agency with any apparent jurisdiction. Because of potential disease transfer to farm hogs, in 2005 PDA established a program with USDA-Animal and Plant Health Inspection Service's Wildlife Services division to trap and test feral swine for disease. Pennsylvania's pork producers provided some of the funding for this effort. The program ran from 2005 to 2007, but presently has no funding. This was a testing program only; not an attempt to eradicate. One case of diseased swine was found at a hunting preserve in Lancaster County.

PDA created a Feral Swine Task Force in 2005. Members included several agricultural, conservation and wildlife stakeholders. The Feral Swine Task Force has now been incorporated to some extent within the Governor's Invasive Species Council and has been asked to produce a rapid response plan. Although the Pa. Game Commission had no authority to regulate this animal at that time, PGC played a key role as a member of the task force. A February 2006 report lists the Pa. Game Commission as one of the contributors.

The lack of a coordinated effort until very recently has contributed to the gains that feral hogs have been able to make in Pennsylvania. A comprehensive eradication effort has not been undertaken nor funded adequately. Also, until now, the bulk of funding has been for only testing or study rather than eradication.

### Legal Status

#### *Statutes and Regulations*

Importing or relocating feral hogs that have not been tested for infectious diseases is a violation of state and federal laws. Regulations on importation could be strengthened and enforcement is an ongoing challenge. In June 2007, PGC updated its regulation on release of animals into the wild to include any member of the pig family.

#### *Supreme Court decision*

In the decision of *Johnna Seeton vs. Commonwealth (2007)*, the Pennsylvania Supreme Court vested responsibility for feral swine with the Pennsylvania Game Commission. However, the court rightly did not specify the manner in which feral swine should be managed, instead leaving it up to the processes and expertise of the PGC.

The Supreme Court clearly stated in the majority opinion that "the parties agree that the wild boar here in question are neither furbearers nor game animals." This distinction indicates that even though the responsibility for the animal is being assigned to the Game Commission, it is not required to treat it as a game animal.

The court also noted that the animals should be referred to as "wild boar." This was due in part to much of the case resting on the definitions of "wild mammal" and "wild animal" when deciding whether or not the PGC was the agency with proper legal jurisdiction.

#### *PGC Rulemaking*

As of January 2008, Pa. Game Commission has begun to gather public input in advance of creating draft regulations for management of feral swine.

### III. WPC Conclusions

It is the conclusion of the Western Pennsylvania Conservancy that:

- Feral swine pose a significant and imminent threat to the native wildlife and habitats of Pennsylvania, including the more than 200,000 acres of land protected by WPC over the past 75 years.
- Feral swine are a detriment to numerous common game species, such as wild turkey, ruffed grouse, and white-tailed deer.
- Existing populations and individuals should be identified and eradicated from Pennsylvania as quickly as possible.
- Legal measures should be put into place and enforced to prevent new individuals from entering the Commonwealth.
- It will be more cost-effective to invest in eradication and prevention than the combined costs of swine-caused damage and population control in the future should the feral swine become established.
- Productive actions should be undertaken as soon as possible while the problem is still manageable.
- Shooting feral swine does not eradicate or prevent populations from establishing and only serves to disperse the hogs and assign legitimacy as a game animal.
- Since definitive means to prevent and monitor escapes from shooting preserves cannot be established, shooting preserves will continue to be a source of feral hog dispersement, despite best efforts to contain swine.
- The development of a feral swine hunting culture in Pennsylvania will be counterproductive to successful eradication and prevention.
- Opportunities to address the problem through regulation or rulemaking should take care to meet the objectives of eradication and prevention while avoiding unintended consequences that might worsen the problem.
- Given the size, scale and scope of the imminent feral hog threat, a successful eradication and prevention effort will depend on the close and quick coordination of government agencies, non-profit organizations, industry associations and other stakeholders.
- As a member of the Invasive Species Council and the Feral Swine Task Force, Western Pennsylvania Conservancy is committed to the eradication of this animal and will support the allocation of public and private resources to combat this problem.

#### Recommendations for Game Commission draft regulations

In fulfilling their court-directed responsibility, PGC should craft their draft recommendations for wild boar management rules with the twin goals of eradication and prevention in mind, specifically noting that shooting or otherwise allowing civilian hunting (in whole or in part) of feral swine has not been demonstrated as a sufficient method of control. In fact, the risk of dispersing populations and inadvertently making the problem worse by pressuring swine into areas of the Commonwealth not previously inhabited should be considered when developing control practices. Furthermore, the PGC should not seek to assign legitimacy to the animal as a quarry rather than treating it as an invasive pest or threat, and should create its regulations carefully in order to avoid this unintended consequence. Feral swine can seriously harm both native game animals and native game habitat through predation and destruction of habitat. PGC should also take into account and strengthen regulations dealing with sources or potential sources of feral swine.

In developing their draft recommendations, PGC should incorporate the advice and input from a variety of stakeholders. PGC should seek to design their regulations to make use of partners, contractors and other parties which can contribute resources to the implementation of the regulations.

Finally, on the point of terminology and messaging, the Supreme Court decision notwithstanding, the problem animals should be referred to as feral swine rather than wild boar in order to convey the appropriate message that these are not now and should never be “game animals” in the public imagination.

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