This report is the fulfillment of Minnesota Session Law Section 104 from the 86th Session (2009-2010). Prepared by the Minnesota Departments of Natural Resources, Agriculture, and Board of Animal Health.

In accordance with MS 3.197 the following estimated costs are associated with the development and delivery of this report to the legislature as required by Session Law Section 104 from the 86th Session (2009-2010). Personnel: $1,750, Printing $24.
Purpose

The purpose of this report is to comply with Section 104 of Minnesota Session law from the 86th Legislature, stated below:

Sec. 104. FERAL SWINE REPORT.
The commissioner of natural resources, in coordination with the commissioner of agriculture and the executive director of the Board of Animal Health, must develop a report and recommend any necessary changes to state policies, authorities, and penalties related to feral swine and other nonnative or domestic animals released, that have escaped, or that are otherwise running at large. The agencies must consult with interested stakeholders. No later than January 15, 2010, the commissioner of natural resources must submit the report to the legislative committees with jurisdiction over natural resources or agriculture policy or finance.

Introduction

Since their introduction to North America, wild pigs have become one of the more serious wildlife problems in the United States. Today, wild pigs are both numerous and widespread throughout North America, occurring in at least 39 U.S. states. The current distribution of wild pigs in the Midwest is seen in Figure 1.

Wild pigs are opportunistic omnivores that feed primarily by rooting and grazing, which contributes to their role as a problematic species in North America and elsewhere. Rooting, trampling, and compaction influence plant regeneration, community structure, soil properties, nutrient cycling, and water infiltration. Wild pigs may induce the spread of invasive plant species because invasive species typically favor disturbed areas and colonize more quickly than many native plants.

In addition to ecosystem impacts, wild pigs can damage timber, pastures, and, especially, agricultural crops. A conservative estimate of wild pig damage to agricultural crops and the environment in the United States is $1.5 billion annually.

Wild pigs are capable of carrying numerous parasites and diseases that potentially threaten the health of humans, livestock, and wildlife. Humans can be infected by several of these, including diseases such as brucellosis, leptospirosis, salmonellosis, toxoplasmosis, sarcoptic mange, E. coli, and trichinosis. Diseases of significance to livestock and other animals include pseudorabies, swine brucellosis, tuberculosis, vesicular stomatitis, and classical swine fever.

Terminology (Figure 2) from Wild Pigs in the United States, John J. Mayer and I. Lehr Brisbin, Jr, 1991.

Feral swine (Sus scrofa) are pigs from populations of wild-living Sus scrofa with a domestic ancestry; these include recently escaped or released animals and animals from populations that have been wild for more than one generation.

Wild or wild-living swine (Sus scrofa) are any form of free-ranging pigs and can include Eurasian wild boar, feral hogs, or hybrids between these two.
Domestic swine (*Sus scrofa domesticus*) are pigs from populations of domesticated forms of *Sus scrofa* existing under some form of conscious artificial selection by man other than by hunting and trapping.

Eurasian wild boar (*Sus scrofa ssp.* ) refers to specific breeds of pigs from populations of wild-living *Sus scrofa* native to the Palearctic, Oriental, or Ethiopian realms which have no history of domestication in their ancestry; these include all subspecies of *Sus scrofa* except *Sus scrofa domesticus*.

**Issue**

One case of pigs running at large was reported in Big Stone County Minnesota, where damage to native vegetation was documented. Several of these pigs were killed by deer hunters. These pigs were not Eurasian wild boars or hybrids, rather they were pot-bellied pigs. Damage to vegetation consistent with wild pig behavior has been reported in Goodhue County Minnesota, but no wild pigs were ever identified. Feral pigs populations have been identified in Wisconsin, North Dakota, and Iowa, (Figure 1).

**Review of Existing Laws and Rules**

Eurasian wild boars (*Sus scrofa scrofa*) and their hybrids are listed as prohibited invasive species under the non-native and invasive species statutes (Minnesota statutes, section 84D and Minnesota Rules, section 6216.0250, subpart 5, item B), and are listed as a restricted species, including their hybrids, under agriculture statutes (Minnesota Statutes, section 17.457). Law is clear that a person cannot import, possess, propagate, or transport, Eurasian wild boars and their hybrids, except by permit from the Commissioners of Agriculture and Natural Resources (Minnesota Statutes, section 84D.05). Escaped Eurasian wild boars and their hybrids must be reported to the Board of Animal Health and the Department of Natural Resources. Notwithstanding chapters 17 and 35, the commissioner [of Natural Resources], in consultation with the commissioner of agriculture and the executive director of the Board of Animal Health, may capture or control nonnative or domestic animals that are released, have escaped, or are otherwise running at large and causing damage to natural resources or agricultural lands, or that are posing a threat to wildlife, domestic animals, or human health. The commissioner may work with other agencies to assist in the capture or control and may authorize persons to take such animals. The commissioner [of Agriculture – MS 17.457 Subd. 4] may capture or destroy the escaped animal [restricted species] at the owner's expense.

Under existing Minnesota Law pigs (*Sus scrofa domesticus*) are considered livestock, even when running at large. They are not covered under law as restricted or invasive species. However, under Minnesota Statutes, section Chapter 346.16, *the herding of any animal of the species of cattle, horse, ass, mule, sheep, swine, or goat upon any land over the protest and against the will of the owner shall be deemed a running at large. It shall be unlawful for any owner or any person having the control of any such animal to permit the same to run at large in the state. Any person who shall knowingly permit the running at large of any such domestic animal shall be liable to the person aggrieved for treble damages sustained by the aggrieved person, to be recovered in a civil action brought for that purpose.*

Importation of feral swine is regulated in Minnesota Rules 1700.2590-1700.2850. In general all swine, including feral swine, cannot be imported into Minnesota without a certificate of veterinary inspection that declares the animals free of pseudorabies and swine brucellosis. Board of Animal Health policy currently prohibits the importation of feral swine.

If established and breeding in the wild, domestic pigs become feral, and ownership becomes a question, as the pigs are no longer in “control” of an owner. Under new authority established in 2009, The Commissioner of Natural
Resources has the authority, after consulting with the Commissioner of Agriculture and the executive director of the Board of Animal Health, to capture and control such animals (97A.045 subdivision 1(b)).

**Recommendations:**

Authorities now exist that allow the Commissioner of Natural Resources to capture and control domestic animals, including feral swine, running at large. It is the DNR’s policy to investigate reports of feral swine, and work with USDA’s Wildlife Services and other partners to capture and control these animals when possible. The Board of Animal Health has authority to regulate and/or ban the importation and movement of feral swine. No further recommend changes to policies and authorities are suggested at this time. BAH is currently revising rules that will prohibit the importation of feral swine.

Regarding recommended changes to penalties, which are required in this report, the Legislature should consider establishing a criminal penalty for the intentional release of domestic animals, including domestic pigs, into the wild. Such penalty provisions currently exist for restricted species (Minnesota Statutes, section 17.457 subd. 6), and non-native wild animals and invasive species (Minnesota Statutes, section 84D.13).

Figure 1. Southeast Cooperative Wildlife Disease Study, and Midwest Association of Fish and Wildlife Agencies.
Figure 2. Phylogeny of pigs.

Superfamily

Family

Subfamily

Genus

Species

Subspecies

- Sus scrofa
- Sus solvanus (pygmy hog)
- Sus celebensis (celebes pig)
- Sus barbatus (bearded pig)
- Sus verusosis (Javan warty pig)

- Sus scrofa scrofa (European)
- Sus scrofa algira (North African)
- Sus scrofa attica (Middle East)
- Sus scrofa baeticus (Andalusian)
- Sus scrofa castilanus (Castilian)
- Sus scrofa chirodontus (Souther Chinese)
- Sus scrofa coreanus (Korean)
- Sus scrofa cristatus (Indian)
- Sus scrofa faikeini (Baltic)
- Sus scrofa jubatus (Southeast Asia)
- Sus scrofa leucomystax (Japanese)
- Sus scrofa lybicus (Turkish)
- Sus scrofa majori (Italian)
- Sus scrofa macedonialis (Mediterranean)
- Sus scrofa moupinensis (Northern Chinese)
- Sus scrofa nigripes (Central Asian)
- Sus scrofa rukhanas (Ryukyu)
- Sus scrofa sennaariensis (Nile River)
- Sus scrofa sibiricus (Mongolian)
- Sus scrofa taivanus (Taiwanese)
- Sus scrofaussuricus (Siberian)
- Sus scrofa vittatus (Banded or Indonesian)

Sus scrofa domesticus (domestic swine)

feral swine

hybrids

wild pigs

Eurasian wild boar