Feral Swine: An Invasive, Non-native Species

By Tahnee Szymanski

If you look at a recent distribution map of feral swine (Sus scrofa) in the United States, you might wonder why there has been so much discussion regarding this invasive species in Montana.

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A few things driving this conversation include:

- The presence of feral swine populations in Canadian provinces to the north. Populations have been reported in Alberta, Saskatchewan, and Manitoba.
- The popularity of hunting feral swine and the risk of hunters transporting and releasing feral swine in Montana to establish populations for hunting.
- The ability of domestic pigs that escape to revert to a feral state in just a few generations.

Feral swine are an invasive, non-native species to Montana and the U.S. as a whole. Existing populations have been created by either intentional transport and

release or escape of domestic swine species. Species like the Russian or European boar were brought to the U.S. as domestic pigs from Europe and Asia and are considered the traditional species of feral swine, the ones that most people picture when discussing feral swine. However, domestic swine can also revert to a feral state in just a few generations. Because of this, Montana's laws defining feral swine do not include a genotypic definition; they include any hog, boar, or pig that appears to be untamed, undomesticated, or in a wild state, or appears to be contained for commercial hunting or trapping. Common characteristics of feral swine include coarse hair with long bristles, a moderately long tail with sparse hair, and an elongated snout that is flattened on the end. Males may have tusks. Because of potential influence from domestic species of swine, feral swine may exhibit a wide variation of colors and sizes. Though size can vary, females typically range from 77–330 pounds and males from 130-440 pounds.

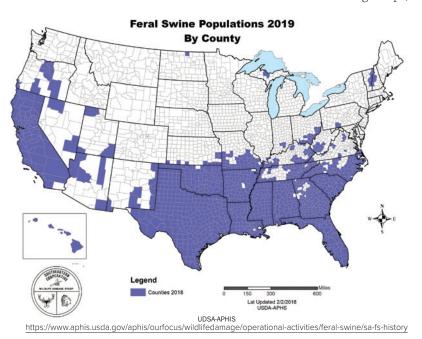
In 2015, the Montana Legislature passed a bill banning feral swine and designating the Montana Department of Livestock (DOL) as the primary agency responsible for responding to reports of feral swine. Prohibitions include importing, transporting, or possessing live feral swine; allowing swine to live in a feral state; hunting, trapping, or killing feral swine; feeding feral swine; expanding the range of feral swine; or assisting with or profiting from any of these activities. In addition to state law, DOL has regulations that prohibit domestic swine from running at large and Fish, Wildlife and Parks (FWP) has designated Russian boars, European boars, and crossbreeds of both as prohibited species within Montana.

The prohibition of hunting feral swine in Montana can be confusing. In a state where we do not want established populations, hunting seems like an effective solution. However, due to reproductive efficiency and movement behavior, feral swine cannot be eradicated by simple hunting practices. Hunting pressure that fails to eliminate all animals in a group (leaving a 'sounder') can



result in further dispersion. Canada has radio collar data of hunting pressure moving collared animals 30 miles in a single day. An attempt to eradicate feral swine on private land in Colorado using hunting spread the animals an additional 100 miles before population control was achieved. Dispersion of feral swine can create multiple, new sounders that are educated to hunting threats and become difficult to manage.

The ban on feral swine in Montana was a proactive approach to a potential introduction, either through expanding range or deliberate introduction. Feral swine damage crops,



pastures, waterways, and carry diseases that can spread to livestock, people, and wildlife. They are predatory in nature and will prey upon ground-nesting birds and small mammals, including fawns, lambs, and even calves. Feral swine damage is not limited to agricultural resources; they can also damage cultural sites and urban properties, including lawns and golf courses. Feral swine damages in the U.S. are estimated to be in excess of \$2.5 billion dollars annually.

Swine brucellosis (*Brucella suis*), pseudorabies, swine influenza virus, African swine fever, tuberculosis, and trichinellosis are just a few examples of 30-plus diseases and parasites that feral swine can carry. With an existing wildlife reservoir of bovine brucellosis (*Brucella abortus*) in the Greater Yellowstone Area, the introduction of swine brucellosis through feral swine populations would complicate disease management in Montana. Currently available blood tests used for routine surveillance are not able to distinguish between the two brucella species. Currently, there are no known populations of feral swine in Montana. DOL works in partnership with FWP and the U.S. Department of Agriculture's Wildlife Services (USDA-WS) on response to reports of feral swine in Montana. Since the prohibition was passed by the 2015 Montana Legislature, DOL has historically received 1–2 reports per year of possible sightings in Montana. These include feral swine imported from Texas for hunting purposes, sightings by hunters along river bottoms, and reports from landowners along Montana's highline. A report of a feral swine population in north central Montana in January 2018 resulted in 13 flight hours looking for evidence of feral swine in the area.

In 2018, the DOL began work with the Montana Invasive Species Council (MISC) to increase awareness of feral swine laws. In 2019, the Squeal on Pigs campaign was launched, including a feral swine summit held in Billings. Representatives from DOL, MISC, and USDA-WS attended meetings to discuss the importance of reporting potential sightings. Montana law requires that feral swine sightings be reported to DOL within 24 hours. The Squeal on Pigs campaign has created a single point of contact to simplify reporting and ensure sightings reach the agency responsible for responding. Since implementing the campaign and with increased awareness across Montana, the number of potential sighting reports has increased. Fortunately, there are still no confirmed detections of feral swine in Montana.

Tahnee Szymanski is an assistant state veterinarian for the State of Montana.