SECTION 9: WILD & FERAL PIGS IN CANADA

9.1 WILD & FERAL PIGS IN CANADA



KEY POINT CHECKLIST

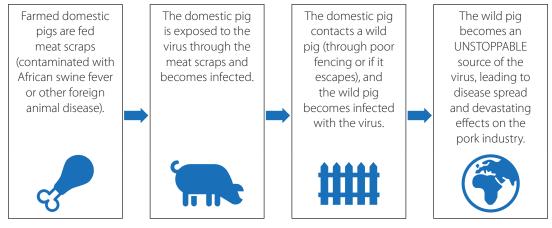
Wild or feral pigs, hogs, swine or boars are terms that can be used interchangeably; in this context, "boar" can refer to a male or female. Technically, "feral" refers to animals that can be traced back to escaped domestic pigs, while the more all-encompassing "wild" refers to any non-domestic animals. For the purpose of this section, the term "wild pigs" will be used throughout.

Wild pigs are the most prolific, highly invasive, large mammal species in Canada with a distribution covering 777,783 km² (2017), with the majority located in Alberta, Saskatchewan and Manitoba, and smaller localized populations in British Columbia, Ontario, and Quebec. The four eastern provinces of Atlantic Canada (Newfoundland and Labrador, New Brunswick, Prince Edward Island, and Nova Scotia) have had no confirmed sightings of wild pigs. Source: 1

If numbers are high, wild pigs can cause serious damage to natural ecosystems and agricultural crops, and pose significant health and safety risks to people, livestock, wildlife, and domestic pets. Wild pigs are of particular concern to Canada's commercial pig farming as a significant threat to pig health and affecting our international trade in pork.

WHAT IS THE RISK?

Example:



It only takes ONE person to make a poor choice, and ONE infected wild pig to cause a potentially unstoppable national crisis. DO NOT FEED MEAT SCRAPS TO YOUR PIGS!!!



WHAT ARE WILD PIGS?

- Wild pigs are native to Eurasia and parts of North Africa and were brought to North America (N.A.) on multiple occasions.
- They were introduced to Canada during federal and provincial agriculture initiatives in the 1980's and 1990's to diversify livestock production and supplement farmer incomes.
- Escapees and intentional releases from domestic wild boar farms have led to wild populations that have become well established in many regions, particularly in Canada's Prairie provinces.
- Wild populations in Canada now consist of Eurasia wild pigs, feral wild pigs originating as domesticated pigs that escaped into the wild, and crosses of Eurasia with feral wild pigs.
- While Eurasia wild pigs have litters that average six (6) piglets, crosses of Eurasia and feral wild pigs are much more prolific and can produce two (2) litters/year of 10 to 12 piglets/litter.
- Recent Canadian studies have revealed that wild pig populations have expanded significantly the past 27 years, largely due to their high prolificacy and hardiness to survive in the wild.
- They vary in weight, colour, and size.
 - They are typically grey, brown, or black and may be striped.
 - Males may weigh 60 to 200 kg and females 35 to 150 kg.
- Wild pigs of the Eurasian type have long dark hair and a woolly underfur that protects them from extreme cold. They build nests where they shelter during cold weather.
- Wild pigs are a MAJOR concern to the health of domestic pigs, particularly those raised outdoors where contact is more likely.

Sources: 1, 2, 3, 4, 5, 6, 7, 8



Large wild pig exiting a tall stand of grass. Photo: Dr. Ryan Brook



Wild pig grazing and eating a cereal crop. Photo: Dr. Ryan Brook



WHY ARE THEY A CONCERN?

- Wild pigs have a "cartilaginous disc" on their snouts, which allows them to dig and root extensively in search of insects and roots. They can use their sharp tusks for rooting, as well as for protection.
- They are very destructive using their noses to dig up roots and soil. They rub against trees and eat anything palatable. They damage ecosystems from the soil up causing direct and indirect damage to wildlife and nature.
- They eat and damage crops; alter vegetation successional stages and nutrient cycles; cause erosion, sedimentation, and contamination to land and water bodies; and destroy fish habitat.
- They compete with native species and wildlife for a wide variety of resources and food. They feed on reptiles, eggs of ground nesting birds, and small mammals.



Significant rooting damage to a commercial forage stand caused by wild pigs.
Photo: Dr. Ryan Brook

- Wild pigs can cause significant destruction to private property including lawns, golf courses, waterways, and feed storage.
- Wild pigs can harass livestock and consume their feed, and will attack, kill and eat young livestock such as sheep, goats, calves, and horses, as well as pets.
- Their damage can be extensive as they travel very large distances. Summer ranges in Canada can be 300 km².
- They adapt easily to new environments and can survive in various geographic areas with broad ranges of climate, habitat, and resources.
- They have high survival rates, large land base, are highly prolific, and don't have many predators.
- They can harbour many diseases and parasites that affect domestic pigs and can transmit by contact or indirectly through shared feed, human contact, saliva, blood, or feces.
- Wild pigs pose a serious safety threat to humans as well as domesticated livestock and pets.



Wild pig who jumped a fence into a domestic pig pen. Photo: Dr. Ryan Brook



 Once populations are widely and well established, they are next to impossible to eradicate.

Sources: 1, 3, 4, 5, 6, 7, 8

WHERE ARE WILD PIGS?

 Wild pigs exist in all Provinces except Atlantic Canada, with the large majority currently found on the Canadian Prairies. The cumulative range of wild pigs across Canada is 777,783 km².

- In B.C., wild pig populations have been more localized and smaller in nature.
- Wild pigs are adaptable to a wide variety of habitat types but can be limited by deep snow which affects foraging and access to water. They prefer riparian areas with sufficient water.
- Wild pigs prefer habitats that provide forest cover for hiding and resting, as well as access to food. During summer months they can be found close to water sources where they can wallow to stay cool.



Group of wild pigs foraging in a forested area. Photo: Dr. Ryan Brook



Sources: 1, 9

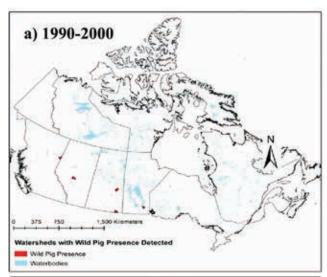
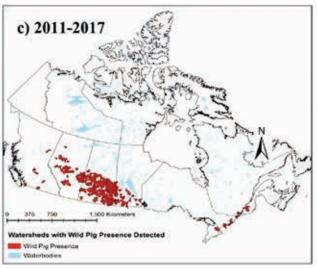


Figure: Spatial expansion of wild pigs in Canada from the period of initial escapes and releases (1990) to present.





Source: Scientific Report – Monitoring Invasive Species Dispersal, $2019^{(1)}$



9.2 WHAT ARE THE DISEASE CONCERNS RELATED TO WILD PIGS?

9.2 WHAT ARE THE DISEASE CONCERNS RELATED TO WILD PIGS?

- Wild pigs can be host to at least 89 bacterial, viral, and parasitic diseases which can be transferred to livestock, wildlife, and humans.
- Diseases of global concern that could potentially be transmitted from wild pigs to livestock are swine brucellosis, bovine tuberculosis (TB), pseudorabies, porcine enteric diarrhea (PED), porcine reproductive and respiratory syndrome (PRRS), influenza, E. coli, salmonellosis, leptospirosis, classical swine fever, and African swine fever (ASF).
- Disease threats are an increasing concern to livestock producers as disease outbreaks are associated with high economic losses.
- It is very difficult to eliminate disease in free-ranging populations.
- In Asia, Europe, and Africa, wild pigs have been identified as carriers of economically devastating diseases like ASF.
- ASF does not affect humans, but if ASF is detected in N.A., it will result in catastrophic health and economic impacts in domestic pig production and international pork exports.
- There have been no documented cases of reportable diseases in wild pigs of key concern for domestic pig producers at this time; however, no wild pigs from B.C. have been tested for disease.

Sources: 1, 3, 4, 5, 6

9.3 WHAT IS THE FINANCIAL COST OF WILD PIGS?

- Agriculture losses in the United States from wild pig damage alone has been estimated at \$2.5 billion USD per year. This estimate is based solely on physical crop damage.
- Wild pig-vehicle collisions in the US have cost insurers \$36 million USD per year.
- There are no similar comparative figures for Canada.
- The threat of significant economic losses that could incur to the livestock industry and international trade if reportable diseases are identified in wild pigs is an unknown cost.
- Disease outbreaks in wild pigs would have devastating economic impacts on domestic pig production in Canada. This is already evident in many countries, such as bovine tuberculosis (TB) in wild pigs in Spain, and AFS in wild pigs in Europe and Asia.

Sources: 1, 2



9.3 WHAT IS THE FINANCIAL COST OF WILD PIGS?

WHAT IS BEING DONE TO CONTROL WILD PIGS IN CANADA?

- Provided a wild pig population has not become well established in a region, they can be effectively eradicated; however, it requires a science-based research, monitoring, and control strategy based on early detection, with a rapid and aggressive response.
- No national or international strategy currently exists.
- Some provinces have small trapping or hunting programs.
 - A bounty on wild pigs was in effect in Alberta from 2003 to 2016. The program was initiated with individual counties signing up. Hunters received \$50 for every pair of wild pig ears that were turned into the county, and were required to provide the location and date of the kill.
 - There is no evidence that bounties are effective at reducing populations and instead they most likely cause harm by breaking up and dispersing groups.
 - Hunting can cause further dispersal and actually helps to spread and increase wild pig populations, so other initiatives are being investigated.
- Despite efforts to date to control their spread, there is no indication that the wild pig population in Canada has stopped increasing and expanding in terms of area coverage.
- In British Columbia:
 - Wild (feral) pigs are regulated as a Schedule C species in the Designations and Exemptions Regulation under the B.C. Wildlife Act and defined as pigs that are not in captivity or not otherwise under a person's control.
 - Hunting wild (feral) pigs is legal provided they are not in captivity or under a person's control.
 - Wild (feral) pigs can be hunted anytime and anywhere by a hunter with a valid hunting licence.
 - B.C. does not support nor license commercial wild boar hunt farms.
 - Commercial European wild boar meat production farms are legal.
 - Releasing pigs of any type into the wild is illegal.

Sources: 1, 7

WHERE TO REPORT WILD PIG SIGHTINGS IN B.C.?

Report wild (feral) pigs via B.C.'s **Report Invasive Species phone app**, or via the webform available on B.C. Inter-Ministry Invasive Species Working Group (IMISWG) website. www.gov.bc.ca/invasive-species



SECTION 9 WILD & FERAL PIGS IN CANADA

9.4 WHAT CAN I DO TO PROTECT MY PIGS & THE CANADIAN HERD FROM WILD PIGS?

- Several B.C. ministries and partners provide outreach and education to hunters and the public regarding regulations for wild (feral) pigs and how to report them.
- The B.C. IMISWG produced a factsheet titled Feral Pig. https://www2.gov.bc.ca/assets/gov/environment/plants-animals-and-ecosystems/invasive-species/alerts/feral_pig_alert.pdf
- One of B.C.'s proactive approaches to managing invasive species is the B.C. Invasive Species Early Detection and Rapid Response Program, which focuses on detecting and preventing establishment of new invasive species, including wild (feral) pigs. https:// www2.gov.bc.ca/gov/content/environment/plants-animals-ecosystems/invasive-species/edrr

Source: 7

9.4 WHAT CAN I DO TO PROTECT MY PIGS & THE CANADIAN HERD FROM WILD PIGS?

- Report sightings of wild pigs at www.gov.bc.ca/invasive-species.
- Control all feed sources:
 - Fence off feed-bins, use lids on feed-bins, and sweep up any spilled feed to prevent attracting wild pigs to your property.
 - Ensure any deadstock are removed from your farm immediately so wild pigs do not have access to any carcasses.
 - Do NOT feed meat scraps or food waste to your pigs.
- Control domestic pigs:
 - All pigs with access to the outdoors should have strong double fencing to prevent pigs from escaping and to prevent nose-to-nose contact with wild pigs. (Section 4.1)
 - Perimeter fencing should be constructed to be a minimum 1.5 metres (or 5 feet) in height above the ground surface or above any other surface including snow drifts. It's also advisable that perimeter fencing be buried underground to a minimum 45 centimetres (or 1.5 feet). These minimum standards are necessary given the ability of wild pigs to jump high and dig effectively under fences. Combining the above with strands of high voltage electric fencing provides an effective deterrent of perimeter breaches by wild pigs.
 - Anyone contemplating starting a commercial wild boar operation for meat production or is farming domestic swine species outdoors in close proximity to reported sightings of wild pigs in B.C. would be well advised to review 2015 Alberta government legislation for fencing specifications to prevent breaches of perimeter fencing by wild pigs. Fence construction details titled 'Minimum Containment Standards for Alberta Wild Boar Farms' can be found at: https://open.alberta.ca/ dataset/wild-boar-at-large-an-invasive-pest-in-alberta#summary



9.4 WHAT CAN I DO TO PROTECT MY PIGS & THE CANADIAN HERD FROM WILD PIGS?

Highlights of Alberta's wild boar containment fencing specifications are as follows:

- Two acceptable minimum fence containment Standards are provided.
 - Standard 1 based on single fences constructed above and below ground.
 - Standard 2 includes two above ground fences whereby the distance between fences is a minimum 1.2 metres (or 4 feet) to a maximum 5 metres (or 16 feet).
- Fence material must be 12.5-gauge hinge lock mesh fencing or heavier high tensile wire with spacing adequate to prevent fence-line breaches by wild pigs.
- Both Standards require that a separate electric fence be strung and that a minimum 4,000 volts pass through all points along the entire perimeter of the electric fence.
- Electric wire must be made of minimum 14-gauge high tensile or stranded wire and it must be 10 to 30 centimetres (or 4 to 12 inches) in distance from the fence and 10 to 30 centimetres (or 4 to 12 inches) above the ground.
- Where two electric wires are used, it is suggested that the wires be placed at 20 centimetres (or 8 inches) and 40 centimetres (or 16 inches) above the surface and separate fence chargers be used for each wire.
- Maximum spacing between fence posts is 3 metres (or 10 feet).

Sources: 7, 8, 9

Further, more detailed information on wild pigs can be found in a newly published book titled 'Invasive Wild Pigs in North America: Ecology, Impacts, and Management', 2020¹⁰ https://www.amazon.ca/Invasive-Wild-Pigs-North-America/dp/0367861739/ref=sr_1_1?keywords=vercauteren&qid=1579729748&sr=8-1



SECTION 9 REFERENCE LIST

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- 1. Aschim and Brook. Evaluating Cost-Effective Methods for Rapid and Repeatable National Scale Detection and Mapping of Invasive Species Spread (2019)
- 2. Personal Communications. Dr. Ryan Brook, Associate Professor, University of Saskatchewan (2020)
- 3. Brook and Beest. Feral Wild Boar Distribution and Perceptions of Risk on the Central Canadian Prairies (2014)
- 4. Koen et al. Reproductive Ecology of Recently Established Wild Pigs in Canada (2018)
- 5. Michel et al. Spatiotemporal Trends in Canadian Domestic Wild Boar Production and Habitat Predict Wild Pig Distribution (2017)
- 6. Wild Boar Populations in Europe. A Scientific Review of Population Trends and Implications for Management. European Landowners Organization (2018)
- 7. B.C. Inter-Ministry Invasive Species Working Group, Invasive Mammals (2020)
- 8. Wild Boar at Large: An Invasive Pest in Alberta. Fact Sheet. Alberta Government (2017)
- 9. Minimum Containment Standards for Alberta Wild Boar Farms. Alberta Government (2015)
- Invasive Wild Pigs in North America: Ecology, Impacts, and Management (2020).
 Kurt C. VerCauteren, James C. Beasley, Stephen S. Ditchkoff, John J. Mayer,
 Gary J. Roloff, Bronson K. Strickland. CRC Press.

