

Feral Swine: Problem areas and forest damage



Types of Pigs

- Wild Boar
 - Pure breeding wild boar
- Feral Pigs
 - Pigs living wild with domestic ancestor
- Hybrids
 - Wild boar/feral or domestic pig crossbreeding



Wild Boar



Feral Pigs



Hybrid Pig

Introduction of Wild Boar

- First came to North America by colonizing Spaniards in early 16th century
- Accidental escape of wild boar in Tennessee and North Carolina from hunting enclosure 1912
- Populations started interbreeding with feral pigs

European Wild Boar and Feral Pigs

- European wild boar and feral pigs are similar, but can hybridize.
- Feral pigs resemble their domestic counterparts



Wild Boar



Feral Pig

Feral Pigs

- Domestic pigs originated from wild boar from Europe and Asia 5000-9000 years ago.
- Wild boar introduced into feral pig populations to improve characteristics for hunting
- Limited by snow and winter conditions
- Do not migrate



Feral Pig Biology

General Characteristics

- Latin name: (Sus scrofa,
species)
- Length 5 feet
- Weight 300 pounds
- Mane of hair grey-brown
colour, longitudinal
stripes
- Males large tusks which
protrude from the lower
mouth
- Life Span up to 11 years
- Primarily Nocturnal



Feral Pig Habitat



Habitat Preferences

- Prefer forested areas near bodies of water
- Wallow in mud to cool off and to remove parasites like ticks
- Adapted to live in a variety of weather conditions
- Capable of surviving winter conditions up to 1 foot of snow
- Thrive in areas of human activity
- Prefer deciduous forested landscapes

Feral Pig Diet

- Opportunistic omnivores
- Mostly eat vegetables (86%)
 - Mostly mast, roots, green plant matter and agricultural crops
 - Energy rich plants such as acorns, beechnuts, chestnuts, Pine seeds are needed to survive winter conditions
- Also consume animals such as insects, birds, small mammals, amphibians and reptiles



Feral Pig Diet

- Autumn/winter diet
 - Acorns
 - Hickory Nuts
 - Winter ground vegetation
 - Meat
- Summer diet
 - Grass
 - Mushrooms
 - Roots
 - Eggs
 - Meat



Predation

- Predation – Predation has little impact on most pig populations but predation has been documented by:
 - Coyote and Foxes
 - Alligators
 - Black bears
 - Mountain lions



Feral Pig Reproduction

- Nest is made of sticks, grass and mud
- Young remain in the nest for 1 week approx. Until they are capable of following the mother
- At 45 days the young are capable of living on their own
- Males do not contribute to rearing the young



Feral Pig Population Dynamics

- Reason for feral pig population success
 - High fertility
 - Low predation
 - Very adaptive species (not a specialist)
- Social organization – nucleus of related females and litters

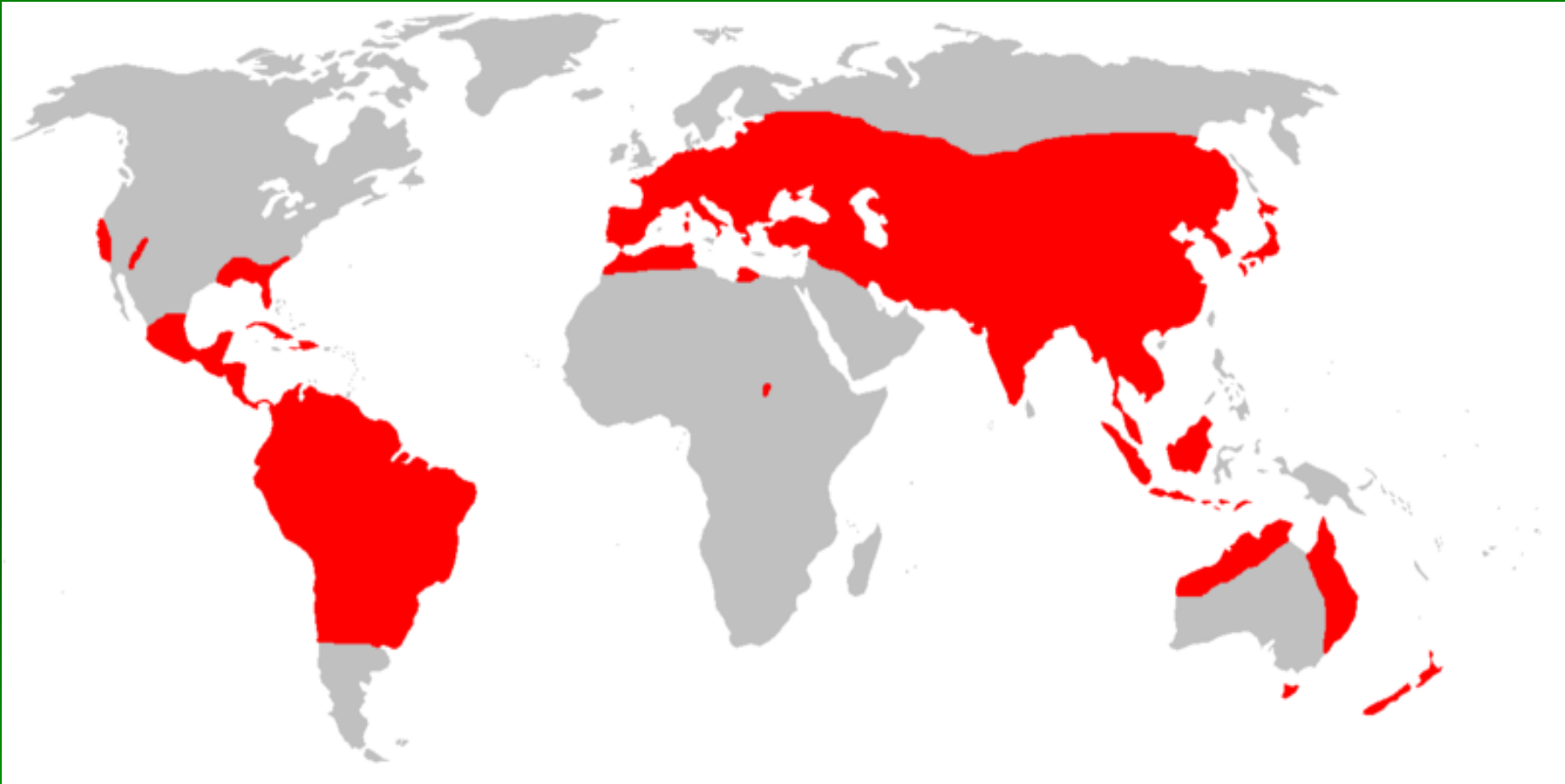


Feral Pig Population Dynamics

- Females reproduce once a year
- Average number of young is 5, however litters can reach as many as 14
- An average 81% of sows reproduce each year
- Depopulation is difficult due to very high reproductive rate

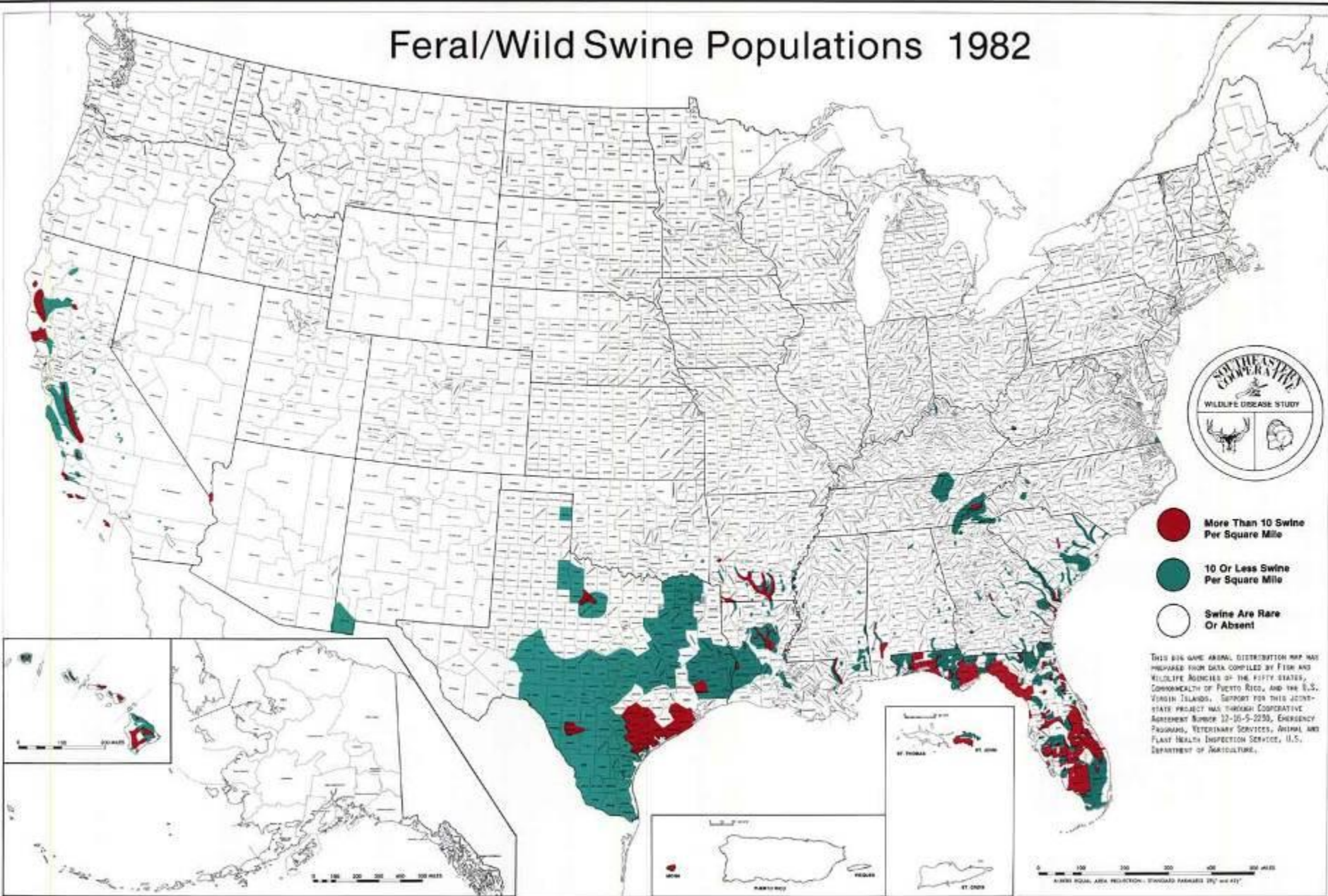


World Feral Pig Populations Distribution



Feral Pig Populations In the US

Feral/Wild Swine Populations 1982

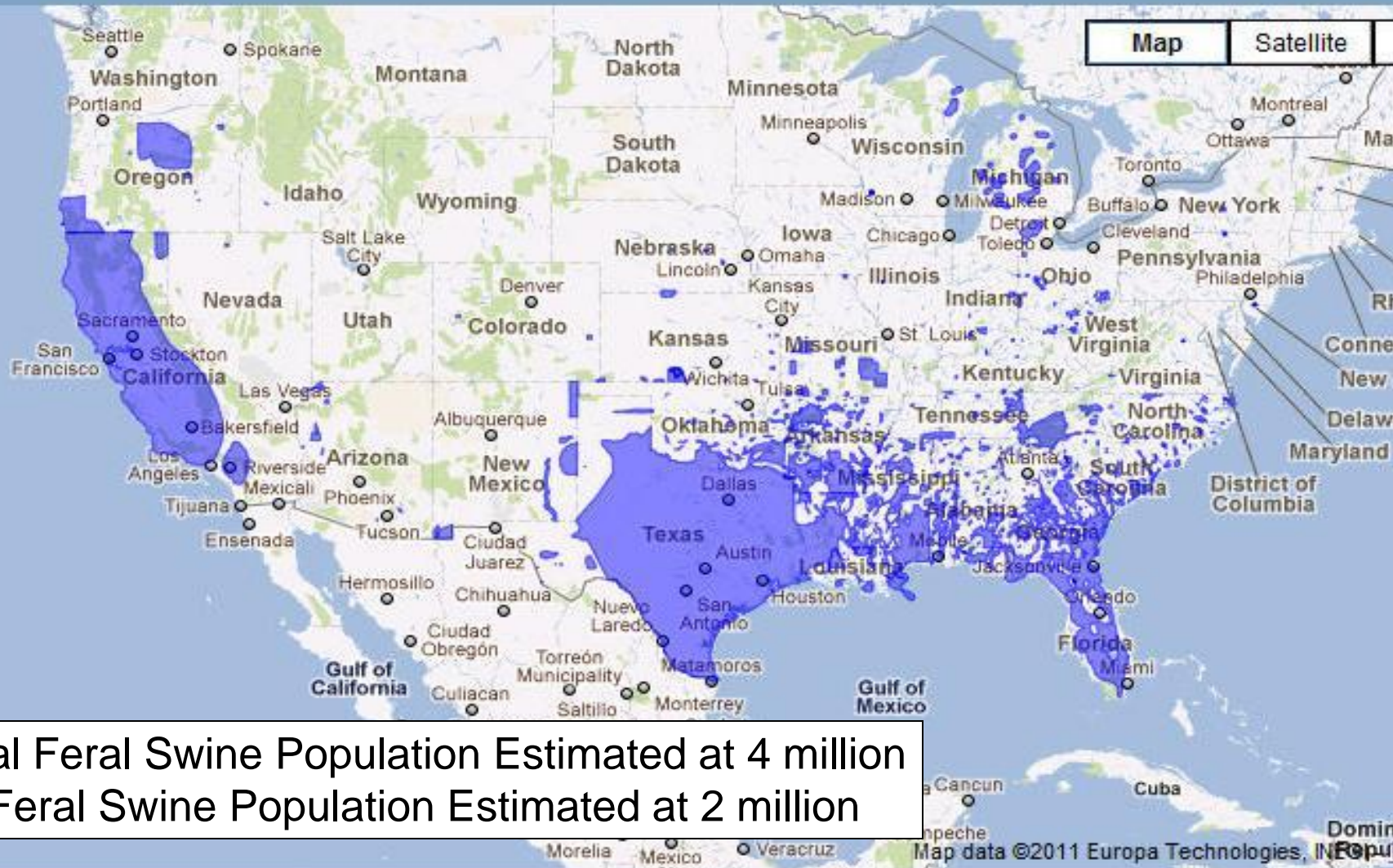


Feral Pig Populations In the US



National Feral Swine Mapping System

United States Feral Swine Distribution: Map Last Updated on 2011-08-05



Effects of Feral Pig Populations

- Agriculture
- Ecological Damage
- Water Quality
- Disease
- Invasive species propagation
- Soil Erosion
- Modification of nutrient cycle
- Other Management Issues
 - Personal Safety
 - Private Property Damage



Agriculture Damage: Crops

- Crops consumed include corn, wheat, potatoes, oats, rye and beans (almost every crop).
- Corn is the preferred crop
- Damage is caused by tramping and uprooting



Agricultural Damage: Other

- Damage Fencing used to contain livestock
- Exposed soil caused by uprooting and wallowing
- Disease Transfer



Forest Damage

- Herbs, Ferns and Sedges are mostly effected
- Reduction of herbaceous plant cover
- Hard mast is reduced further reducing forest regeneration capabilities
- Macro invertebrates decreased 80% in high density feral pig areas
- Accelerates decomposition of leaf litter, resulting in loss of nutrients between forest floor and upper soil horizons
- Forest seedlings are very susceptible through consumption, rooting and trampling

Forest Damage - Rooting

- Feral pigs spend considerable amount of energy rooting beneath soil surface.
- Rooting typically occurs uppermost 25cm of soil
- Rooting mixes soils horizons and significantly reduces leaf litter layer, increasing nutrient cycling and acidity in turn decreasing total available nutrients.
- Disrupts and loosens soil, contributing to erosion, compaction and siltation in waterways.
- Negatively affects herpetofauna and invertebrate communities, essentially removing their habitat
- Compromises understory complexity and presents barrier to regeneration



Pig Rooting Sign in Mecosta Co.



Forest Damage – Rooting Cont.

- Densities were ≥ 2 pigs/km² resulted in significant declines in above ground productivity.
- Great Smokey Mountains National Park – feral pigs and wild boars reduced understory by 87%
- Rooting has been shown to significantly reduce regeneration of oaks and longleaf pine in the southern US
- Affects plant species composition, favoring perennials and invasives, further reducing species diversity



Resource Competition

- Competition with native wildlife for food resources, especially mast, is of great concern
- Average mast consumption from feral pigs and wild boars: 1300lbs mast/year per adult
- Direct competition for mast with deer, turkey, black bear and squirrels
- Level of competition dependent on quality and quantity mast crop, being most intense when mast crop is poor

Predation

- Known to predate
 - Groundnesting birds
 - Reptiles and eggs
 - Amphibians
 - Small mammals (voles & shrews)
 - Hares & rabbit
 - Deer fawns
 - Pheasants



Recognizing Feral Pig Sign











Scat

Feral Pig



White-tailed Deer



Feral Pig



Tracks



White-tailed Deer



- Can be difficult to distinguish between Feral Swine and Deer tracks
- Feral Swine tracks are generally more rounded at the tips and display more widely spread dew claws
- Deer tracks heart or spaded shaped, feral pig blunt or round

Wallows in summer often associated with creek beds, sloughs, low, cooler areas; fecal matter and increased turbidity in streams





Sassafras

A photograph of a Sassafras tree trunk in a forest. The trunk is covered in a thick layer of brown, dried leaves. There is a prominent, vertical, light-colored strip of bark that has been stripped away from the trunk, revealing the underlying wood. The surrounding forest floor is covered in fallen leaves and twigs.



Bark stripping on cedar

A photograph of a cedar tree trunk in a forest. The trunk is covered in a thick layer of brown, dried leaves. There is a prominent, vertical, light-colored strip of bark that has been stripped away from the trunk, revealing the underlying wood. The surrounding forest floor is covered in fallen leaves and twigs.



Tusk marking on cedar

A photograph of a cedar tree trunk in a forest. The trunk is covered in a thick layer of brown, dried leaves. There is a prominent, vertical, light-colored strip of bark that has been stripped away from the trunk, revealing the underlying wood. The surrounding forest floor is covered in fallen leaves and twigs.



Spring and Summer Pasture and Hay field Grubbing





Extensive hay and pasture field damage, disrupted soil wads prevent mechanical haying; losses high on alfalfa and clover fields.

Interior corn field damage often not noticed until harvest, just a few pigs can wallow down 1-2 acre areas in a short time. Especially high damage loss on popcorn & sweet corn.





Feral Pigs in Michigan

- In 2007 Michigan Natural Resources Commission and Commission on Agriculture passed joint resolution to pursue the eradication of wild, feral swine in Michigan
- On October 8, 2011 the Department of Natural Resources director listed sporting swine as an invasive species, making it illegal to possess animals in Michigan
- It is legal to hunt feral pigs in Michigan during any open hunting season (There is a open hunting season for some species 365 days a year)

Feral Pig Population Control

- Lethal Control
 - Trapping
 - Shooting and Hunting
 - Judas Pig
 - Dogs



- Non-lethal Control
 - Fencing
 - Harassment
 - Contraception

Thank You



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