

Feral Hogs in Virginia: Biology, Ecology & Effects on Native Wildlife and Habitats

Thanks to Katie Martin, District Wildlife Biologist
for use of her presentation



What is a Feral Hog?

- Feral: something domesticated returning to an untamed state
- DGIF Hunting/Trapping Regulation Booklet 2013
 - “Any free-ranging pig that is surviving on it’s own in the wild without human ownership”
- *Sus scrofa*: domestic swine, feral pig and Eurasian wild boar → All same species



What is a Feral Hog cont.

- Domestication occurred over 9,000 years ago
 - Imported by Spanish explorers
- Coat color is not a determining factor
- Very intelligent, secretive and adaptable
- Occupy a wide range of habitats
 - Preference for riparian/wetland areas
- Lifespan: 4-8 year average
- Females often in groups known as sounders



Photo of sounder group in Culpeper County, VA (2013)



30.40 inHg ↑

62°F



05/19/09 08:01 PM

Courtesy of Jon Simmons, VDGIF



30.8 inHg ↓

🌡️ 63°F



05/16/09 07:09 AM

Courtesy of Jon Simmons, VDGIF

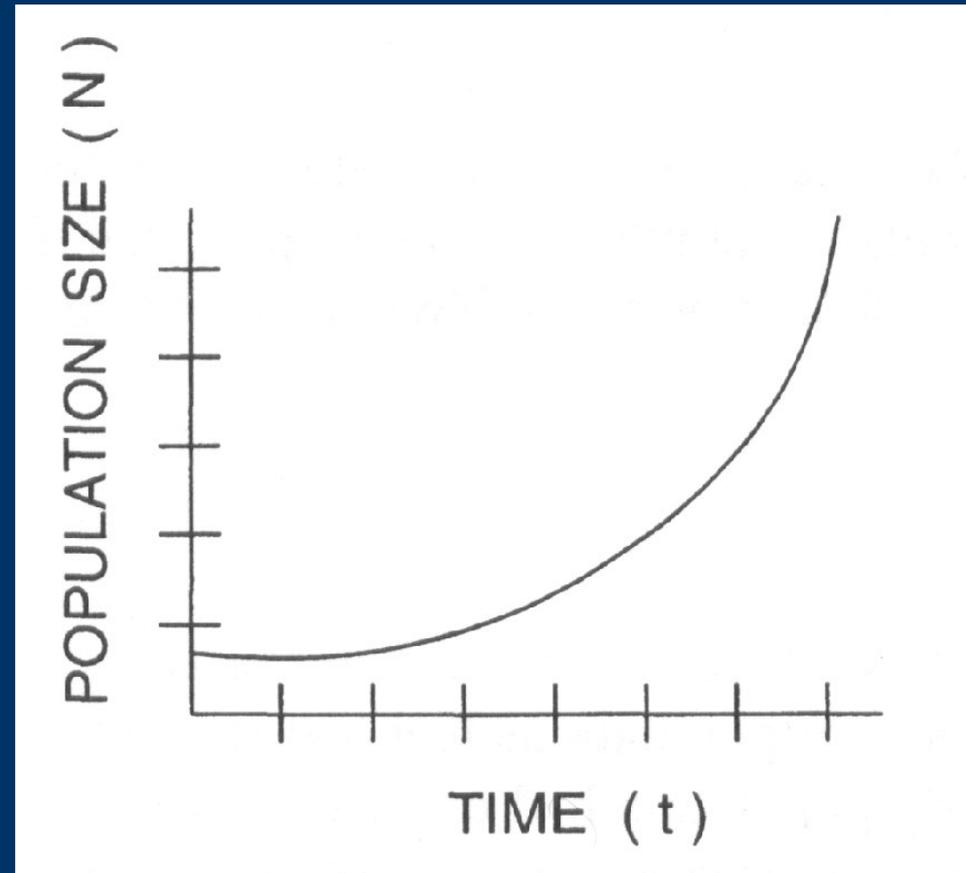


Reproduction

- Can be sexually mature as early as 6 months of age
- Sows (females) can produce 3 litters in 14 months
- 4-8 piglets per litter
 - Depending on resources can have up to 10+ piglets/litter
- No defined breeding season like in our native wildlife
- Back Bay NWR / False Cape SP study
 - Frequently encountered pregnant sows with a litter of piglets
- What does a species do if reproduction is high and mortality is low?

Population Dynamics

- High reproductive output
- Low natural mortality
- Population can triple in a little over 1 year
- **To stabilize you must remove 70% each year!**
- **Nearly impossible once established!**



Behaviors: Rooting

- “Dig” up food
- Crop fields, base of trees (acorns, mast), wetlands
- Very destructive
- Increases erosion and sedimentation





Behaviors: Wallowing

- Used to lower body temperature/protect from insects
- Contaminates water sources, increases erosion, destroys aquatic habitats



Behaviors: Feeding

- Opportunistic omnivores
- Diet changes based on availability/season
 - Highly adaptable
- Majority of diet is plant based
 - All parts of plant: seeds, roots, leaves, stems, shoots, bulbs, bark, tubers and fruit
 - Mostly native plants
- Highly prefer mast producing species
- Consume all types of agricultural crops

Feral Hog Ecological Impacts

- Threats to wildlife
- Habitat destruction
- Ecological damage
- Crop damage



Threats to Wildlife Resources

- Direct competition for food
- Poor mast years → Increased competition
- Will aggressively exclude deer from feeding sites
- Depredate quail and turkey nests
 - Texas study: 20% of quail nests on 2 study sites
 - Can prey on young turkey, quail and grouse chicks/poults



Threats to Wildlife Resources

- Predation of small animals
 - Salamanders, frogs, snakes, and even white-tailed deer fawns



Threats: Wildlife Resources

■ Stream Sedimentation

- Aquatic invertebrates' lifecycle disruption
- Decrease spawning habitat for certain species
- Significant impacts on mussel production
- Huge negative impact in Chesapeake Bay watershed

■ Wallowing Areas:

- High bacteria loads
- Algae blooms
- Eutrophication
- ↓ Dissolved oxygen = Fish Kills

Ecological Damage

- Rooting increases soil erosion
- Damage to sensitive plant communities
 - Especially problematic in riparian communities
- Water contamination
- Disturbance may increase spread of invasive plants
- Interrupts natural nutrient cycling

Forest Ecosystem Damage

- Heavy mast consumers
- Rooting and mast consumption can hinder forest regeneration
 - Especially for oaks/hickories (large seeded trees)
- Tree roots damaged by rooting behavior
- Rub and feed on tree bark-lead to tree mortality



Crop Damage

- Pigs cause millions of dollars in lost revenue to farmers annually
- Estimated at \$1.5 billion annually nationwide
(Pimentel et al. 2002, Pimentel 2007)
- Vegetables, corn, soybeans, fruit trees, small grain, planted pine seedlings
- Damage to infrastructure
 - Pond levees, fences, irrigation equipment, etc
- Rooted fields can cause injury to livestock and damage to farm equipment
- Is happening right now in Virginia



05/10/2012 19:22

Gene Sullivan



05/26/2012 19:42

Gene Sullivan



Conclusions

- Feral hogs are an ecological disaster
- Destroy habitat for native wildlife, native plants, streams and other sensitive ecological areas
- Agricultural damage happens quickly and can cause large financial impacts
- High reproductive capacity and low mortality = A fast moving problem
- And this is only the beginning of the story.....

What can you do to help?

- Report feral swine when you see them.
- Do not import feral swine or release captive pigs.
- Don't glamorize feral swine!
- Share with others the issues surrounding feral swine.
- Feral swine are just one invasive species in Virginia, learn about others and what actions you can take to prevent the spread of invasive species.

Thank you to the Feral Swine Curriculum Writing Team

■ Teachers

- Ruthanne Cole, M.S. - Bland County Schools
- Robert Cox - Orange County Schools
- Maurice Cullen - VA Beach City Schools
- Tanya Taylor - Chesapeake City Schools
- Adrienne Sawyer - Chesapeake City Schools
- Barbara Young – VDOE/retired

■ VDGIF Staff

- Peter Ackers, Biologist
- Glen Askins, Biologist
- Suzie Gilley, Educator
- Aaron Proctor, Biologist