



Let's Talk Turkey

Lesson activity – Wild Turkey Management

Content area: Animal characteristics and behavior; populations; habitat management; conservation; disease

Audience: High School – Biology, AP Environmental Science, FFA

Setting: Classroom

Duration: Class period

Objectives: Students will:

1. Propose a solution to a wild turkey management problem using information provided about turkey habits, habitat requirements and other wildlife management information.

Key terms: density dependent; habitat management, disease

Classroom materials:

- Turkey parts-foot, wing, beard, skull – see loaner materials contact at end of lesson plan
- [NC Regulations Digest](#) – turkey hunting
- Picture of Wild turkey and Domestic turkey
- Scenario copies – included with this lesson
- [Eastern Wild Turkey](#) species webpage

Lesson Overview:

A landowner in North Carolina is interested in managing her property of the Eastern Wild Turkey, *Meleagris gallopavo*. Students are given one of several wild turkey management scenarios and reference documents. Using this information students propose a management strategy for the landowner.

Background: See [Eastern Wild Turkey](#) at [ncwildlife.org](#)

Introducing Lesson:

1. Show turkey parts: foot w/spur, wing beard. Explain difference between male/female. A Beard (male) used to attract females
Spur on leg (male) – fighting other males during breeding season
1. Show picture of wild turkey and domestic turkey
What's the difference between two pictures?
How often do you eat turkey?
What are some favorite turkey recipes or food?
2. Discuss impact conservation has had on turkey numbers in NC (see Background – Eastern Wild Turkey species webpage). Change in turkey population numbers over last 80 years.
3. Hunting season? Have students look up in NC Regulations Digest
Why is season in April? Why not fall?

Turkey Management Problem/solution activity:

1. Divide students into groups
2. Each group given 'Turkey' scenario – included below and as separate links.

Scenario: Geraldine Gallopavo has a 640 acre farm located near Mt Airy, North Carolina. In the past she has allowed turkey hunters to use her land. The hunters must report to her and to WRC the number and gender of the turkey(s) shot. She is very strict about making sure they follow the turkey limit regulations. Over the past two years she has noticed fewer and fewer young turkeys even though she sees several egg-filled turkey nests in her fields every year. She has talked with the WRC biologist and they assure her that if the hunters are following the take limit requirements her population of turkey should not be affected. And yet there must be something wrong on the farm ...

Scenario Solution #1: In an effort to help the wild turkeys, Geraldine begins to put out bags of corn in her yard for the turkeys to feed on. However, instead of helping the turkeys, it appears the population is declining even further! Why did her supplemental feeding seem to have a detrimental effect on the turkey population?

Answer: By supplementing the diet of turkeys with delicious corn, she allowed a much higher concentration of turkeys to gather in her yard than what would happen in the wild. Disease and parasitism are density-dependent factors, and concentrations of wild turkeys on a small area increase the probability of occurrence and spread of diseases and parasites. Concentrations can also increase the probability of predation



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and poaching. This can be avoided by not using feeders or spreading corn as bait. Aflatoxin contamination is also possible from moldy corn.

Scenario Solution #2: In an effort to help the wild turkeys, Geraldine calls on local hunters and trappers to come to her land and remove turkey predators such as skunk, raccoon, opossum and coyotes. However, this doesn't seem to help her turkey population and the predator numbers do not appear to be decreasing much, despite many successful predator removals by local hunters and trappers. Why did the predator removal not work?

Answer: Some predators, like coyotes, will actually increase their population size if the alpha female is removed because then the subordinate females are all allowed a breeding opportunity. Also, if predators are removed from a tract of land, often other predators from the surrounding area will simply increase their territory or move into the vacated territories of the animals removed. And finally, if the habitat isn't good for turkeys, regardless of how many predators are removed, the turkeys will not be able to thrive. So proper land management is key.

Scenario Solution #3: In an effort to help wild turkeys, Geraldine realizes that she needs to do some land management on her property by creating some openings in her forest. As a sensible farmer, she must consider costs, time, and labor to create and maintain openings in the forest for the turkeys for years to come. How should she create and maintain the openings?

Answer: This is more open-ended ... so maybe we might consider another problem for the students ... but it would lead to some interesting discussions

Scenario Solution #4: In an effort to help wild turkeys, Geraldine considers the different forest types on her property. She has pine, mature hardwoods, and bottomland hardwoods. She often sees turkeys in her pine trees in the evenings and figures that must be where they live, so she decides to get rid of all of her hardwood areas and maintain only a pine forest. The turkeys disappear from her property. Why?

Answer: Hardwood forests provide dozens of important food items for turkeys, including hard mast (such as acorns) and soft mast (such as dogwood berries and other fruit producing trees) that are critically important food sources in the fall, winter, and spring.

Depending on what the students answer they are given a different reference document to read:

Predator/prey

Managing for early successional communities

Disease?

After reading the article students make a recommendation about what Geraldine should do.

Need animal parts for this lesson? Email ncwildlifeeducation@ncwildlife.org