



TEACHING 101

Teaching Exercise for Wildlife Conservation

By Patt Dorsey

To teach Wildlife Conservation, first, develop objectives based on what students most need to know. The IHEA is a great place to start. The IHEA website, www.ihea.com, lists the minimum standards or learning objectives for hunter education. Mexico, 50 state and 13 provincial wildlife agencies recognize these standards. To paraphrase the standards, by the end of this lesson students should:

- Learn how and why hunting supports wildlife conservation.
- Understand key wildlife principles that might include the following: wildlife management, conservation, habitat, carrying capacity, limiting factors, biological surplus, renewable resource, succession.

To quote George W. Bush, "Let's Rock." We can do that in 45 minutes using an interactive discussion, question/answer and demonstration approach.

1. Start by asking your students if they can name three things wildlife needs to survive. When they name food, water, and shelter, explain that these three things make up wildlife habitat. Explain how different animals have different needs by asking, "What does a white-tailed deer need for food? A red fox? What does an elk need for shelter? A prairie dog? Etc.

2. Let your students discover limiting factors by giving them this scenario: "I have a farm. I made a pond that is full of plants, snails, and other duck food. I have planted corn all the way around the pond. I have the best duck food in the world, but no ducks nest on my property." Ask, "What could be missing?" Discuss this for a while and if necessary, tell the students that ducks need tall grasses to hide their nests from predators and to shelter the ducklings. Ask the students, "What if I planted more food, would that help?" Explain that the lack of nesting cover is "limiting" the population. Ask, "What do I have to do to get more ducks?" The answer is, "improve the habitat by providing nesting cover."

3. Discuss how arrangement and space are important.

4. Explain that populations add and subtract animals through births and deaths.

5. Demonstrate carrying capacity using a set of at least three bowls (small, medium and large) and more than enough snacks to fill the medium bowl. (I use wrapped, snack-size candy bars.) Explain that the carrying capacity of the habitat is like a bowl. Habitat will only hold a certain number of animals, represented by the candies. (Use the medium bowl filled with candy to demonstrate.) Explain how carrying capacity changes during the year. Move the animals (candies) in the large bowl and explain that in the spring and summer, plants are rich in nutrients, there are more plants, etc.; in other words, the carrying capacity increases. Ask, "What do animals do in the spring and summer?" The answer you are looking for is, "They have young." Add more candies to the large bowl. (Not enough to fill the bowl though, as animals rarely fill the carrying capacity of their summer habitats.)

Represent winter using the small bowl and ask, "What happens when these animals go into winter and the carrying capacity of their habitat decreases?" The answer is, they die.

6. Use a flipchart or chalkboard. Vertically write:

S
H
A
P
E
D

Tell the students that six mortality factors shape wildlife populations. Ask the students if they can think what they might be. (A clue is that the first letter of each factor is a letter in the word "SHAPED.") **S**=Starvation, **H**=Hunting, **A**=Accidents, **P**=Predators, **E**=Exposure to weather or extreme weather, and **D**=Disease. Still using your small bowl, ask, "What if we kill all the predators? Will all the animals survive the winter?" (Will all the candies go in the small bowl?) The answer is no. More animals will starve, die in accidents, etc.

7. You may do this demonstration many ways and I do it at least a few times in each hunter education class. I always use one hunting example, by allowing students (that have taken hunter education, bought a license etc.) to "hunt" animals from the large bowl. I pass the bowl around, giving the students a chance to participate and get a chocolate fix. I have enough animals left so that some will be killed by cars, others by predators; some will starve and some will freeze, as they will not fit in the small bowl. I ask, "Does hunting fit in as a wildlife management tool?" "Is hunting animals bad?"

8. By going through a complete cycle, students learn that wildlife is a renewable resource. Wise use of this resource is conservation.

9. Ask, "How can we get more wildlife?" Improving the quality or increasing the quantity of habitat are the only answers. Using the bowls, you can demonstrate how destroying habitat can rapidly reduce wildlife populations, to the point of endangerment or extinction. Ask while holding up your bowls, "What about regulated hunting, does it make wildlife species endangered or extinct?" The answer is no. Make sure students understand that wildlife habitat is the key to healthy wildlife populations.

10. A little imagination and you can add market hunters, severe winters, drought years, and more. Before ending the lesson, add that hunters buy hunting licenses, pay taxes on hunting equipment, etc. Money from hunters pays for wildlife management and research. Resources are available in "Instructor Resources" at www.ihea.com. Handouts like your state wildlife agency's annual report or the "Hunter's Pocket Fact Card" are excellent pieces of information students can take home.

We hope the tips in this article will give you some ideas that will make teaching wildlife management fun for you and learning wildlife management fun for your students. Please feel free to contact your local wildlife professionals for examples that have additional relevance to you and your students. ✦