

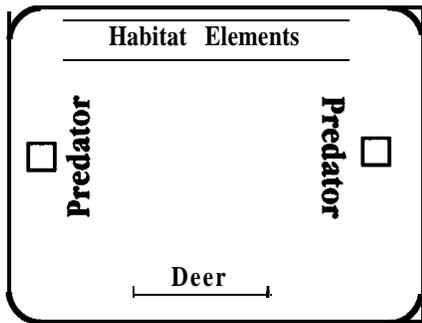


Limiting Factors

Developed by teachers for use with "Oh Deer!" activity.

These extensions, which may have been demonstrated at the workshop you attended, allow the basic Project WILD activity "Oh Deer!" to be adapted to show other factors that have an impact on an animal population or its habitat.

Natural Predators: (Bobcat, Coyote and Mountain Lion) Select a participant to represent one or more of these predators. Position the predators at the ends of the playing field. Each predator must catch a deer before the deer reaches the habitat elements. If two predators try to catch the same deer, the first one is successful and the other predator "dies" and recycles into the habitat. The deer caught by the predator is "eaten" and does not recycle. During the next round the "eaten" deer becomes a predator, demonstrating that the predator's needs were met and it successfully reproduced.



Other Predators: (Pet Dogs) Three or four participants are selected to represent pet dogs that are allowed to run loose. These "dogs" get together, form a pack and choose a deer to chase. The dogs enter from one end or the other (see predator locations in diagram). Making howling and barking noises, they surround the deer and prevent it from reaching the habitat elements. Although the deer may not actually be killed by the dogs, it is badly injured. It eventually dies from its wounds and is recycled into the habitat.

Road Kills: A participant pretending to be a "truck," with arms extended to give it width and establish its large size, enters the playing field from one side (see predator location in diagram), travels between the deer and their habitat on an imaginary road and exits on the other side. The "truck" may accidentally hit a deer that is crossing the road on its way to the habitat elements. Additional vehicles may be added to the traffic and the speed increased from a walk to a run. A small "VW" (with no arm extensions) may follow the truck at a more moderate pace or enter from the opposite side. A fast "sports car" may enter from either side. All vehicles should make engine noises. All "road kill" deer recycle into the habitat. If the "VW" or "sports car" hits a deer, it stops immediately to indicate it has been wrecked. The "truck" may continue on since it probably was not damaged too badly by the encounter. (Do not pick your most aggressive student to be a vehicle. The road kills are accidental not deliberate.)

Pesticides: After habitat elements have chosen their symbols, place a small piece of masking tape in the palm of one or more of the "food" symbols to represent pesticides used improperly on a crop. When the deer returns to the other side with the contaminated food, it "dies" without reproducing. Both the deer and the food element must return to the habitat to recycle.

Pollution: After a few rounds with pesticides contaminating the food elements, the students will probably stop selecting food. Now is the time to place the masking tape in the palm of one or more of the "water" symbols. This indicates that contaminants, such as pesticides, have entered the water systems as a result of runoff from rain and demonstrates cumulative effects of pesticide use. When the deer returns to the other side with the contaminated water, it "dies" without reproducing and both the deer and the water element must return to the habitat to recycle.

Fire/Flood: Without letting the "deer" know, tell all of the habitat elements to make the water symbol demonstrating that food and shelter were either burned away by fire or covered over with flood waters. Only those deer making the water symbol survive.

Civilization: Select some habitat elements during each round (or alternate rounds when habitat numbers are small) to represent encroachment by civilization. These elements become houses, stores, schools, etc. The selected elements either sit down in the line or clasp their hands behind them to indicate that they have no symbol. This will demonstrate how a community grows over time changing the habitat so it is no longer suitable for large wildlife species such as deer.

Hunter- The "deer blind" is located at the side of the activity area, and the hunter must remain in it (see location of predators in diagram). The bullets are soft sponge balls dipped in flour or powder. They leave a white mark on the hit deer. The deer is harvested by the hunter and does not recycle into the habitat. Hunting occurs only when the deer are moving toward the habitat elements. Hunting season does not take place when the young fawns are present.

