



PHEASANTS FOREVER & QUAIL FOREVER'S
No Child Left Indoors®

PREDATOR/PREY GAME

This activity is most suited for events where young participants are in small groups or classes. It takes about 10 – 30 participants to have a good interactive game. Size of the “habitat area” can vary with the size of the groups expected to participate.

OBJECTIVES

Participants shall:

- Be able to explain the habitat needs of pheasants and quail.
- Understand that arrangement of cover types can impact the quality of the habitat.
- Be able to explain how the quality of habitat can impact predation and other mortality factors.

MATERIALS NEEDED

- Habitat Area (gymnasium or playing field about 50 feet X 100 feet)
- Pheasant or quail food. Food can be: poker chips, corn kernels, candy (kids can keep the candy) or other items. You will need 2-3 pieces per student per number of days you are simulating. For example, 20 students as pheasants or quail X 2 pieces X 5 days = 200 pieces total. Keep in mind that one day equals a 3 minute round
- 6 – 8 large plastic bowls or dish pans to place the food in
- Orange vests for the “predators” to wear. There should be about one predator per four – six pheasants or quail
- Whistle or other device to start and stop rounds
- PVC squares or Hula hoops to serve as escape cover. One escape cover per 2 – 4 students
- Watch or stop watch
- Signs for marking “shelter area”, “feeding area” and “escape cover”. (This may not be necessary if you use a gymnasium).

GAME SETUP AND GAME DESCRIPTION

See *Game Setup Diagram*

The game is played in an area about the size of a basketball court. This area will serve as the home range of the pheasants and quail during this game. One end of the habitat is the “shelter area”, at the other end is the “feeding area” and the area in between is considered a travel corridor. The pheasant or quail food (poker chips, corn kernels, candy) is placed in the plastic bowls and distributed throughout the feeding area. PVC squares or Hula hoops are randomly scattered throughout the travel corridor and feeding areas. They represent escape cover such as brush piles, grassy strips, cattails marshes, etc.



The pheasants or quail must collect two pieces of food each day in order to survive. Birds can only collect one piece of food per trip to the feeding area and must then return to the shelter area; they must make two trips to the feeding area per day (this simulates different feeding periods throughout the day). Birds can be required to collect a combination of food types (ie. one poker chip and one piece of candy, one piece of candy and one kernel of corn). Birds only get three minutes (which simulates a day) to harvest two pieces of food. The amount of time for each day can be adjusted depending the age and success of the participants. The whistle is used to start and stop each day or round.

Allow the birds to feed one or two days without predators in the habitat. Then allow the predators to enter the habitat. The predators only need to tag the birds to capture one. The birds can avoid predators if they are in the shelter area or escape cover (pvc squares or hula hoops).

PROCEDURE

- Begin the game with a talk about the basic elements of wildlife habitat (food, water, shelter, space and the arrangement of those



“Escape cover” arranged in the “feeding area”

resources) and a general discussion of pheasant or quail habitat.

- Identify students as pheasants or quail (prey) and predators with approximately one predator per five prey. Provide the predators an orange vest to help identify them during the game.
- Explain the set up of the pheasant or quail home range: Shelter Area, Feeding Area and Escape Cover (pvc squares or hula hoops). Explain the three ways that the birds can escape predation by either avoiding predators, staying in the shelter area or placing one foot in escape cover. NOTE: NO MORE THAN THREE PHEASANTS OR QUAIL ARE ALLOWED IN EACH ESCAPE COVER. Predators tag pheasants or quail to capture them. Encourage participants to play this game under control so no one gets hurt.
- Have the pheasants or quail stand in the shelter area. The shelter area is safe. No predators can access it. Explain to the pheasants or quail that they must gather two pieces of food **each** day in order to live. A day will be a 3 minute round during this game. Pheasants or quail begin in the shelter area and must make one trip to the feeding area for each piece of food. Pheasants or quail must be back in the shelter area with their daily allowance of food at the end of **each** day or they did not survive the day.
- When a predator captures one of the pheasants or quail it must walk that prey over to a designated spot outside the habitat area where the prey must remain until the end of that day. Predators can re-enter to capture more prey.
- Pheasants or quail can die each day in three ways:
 1. Being captured by a predator

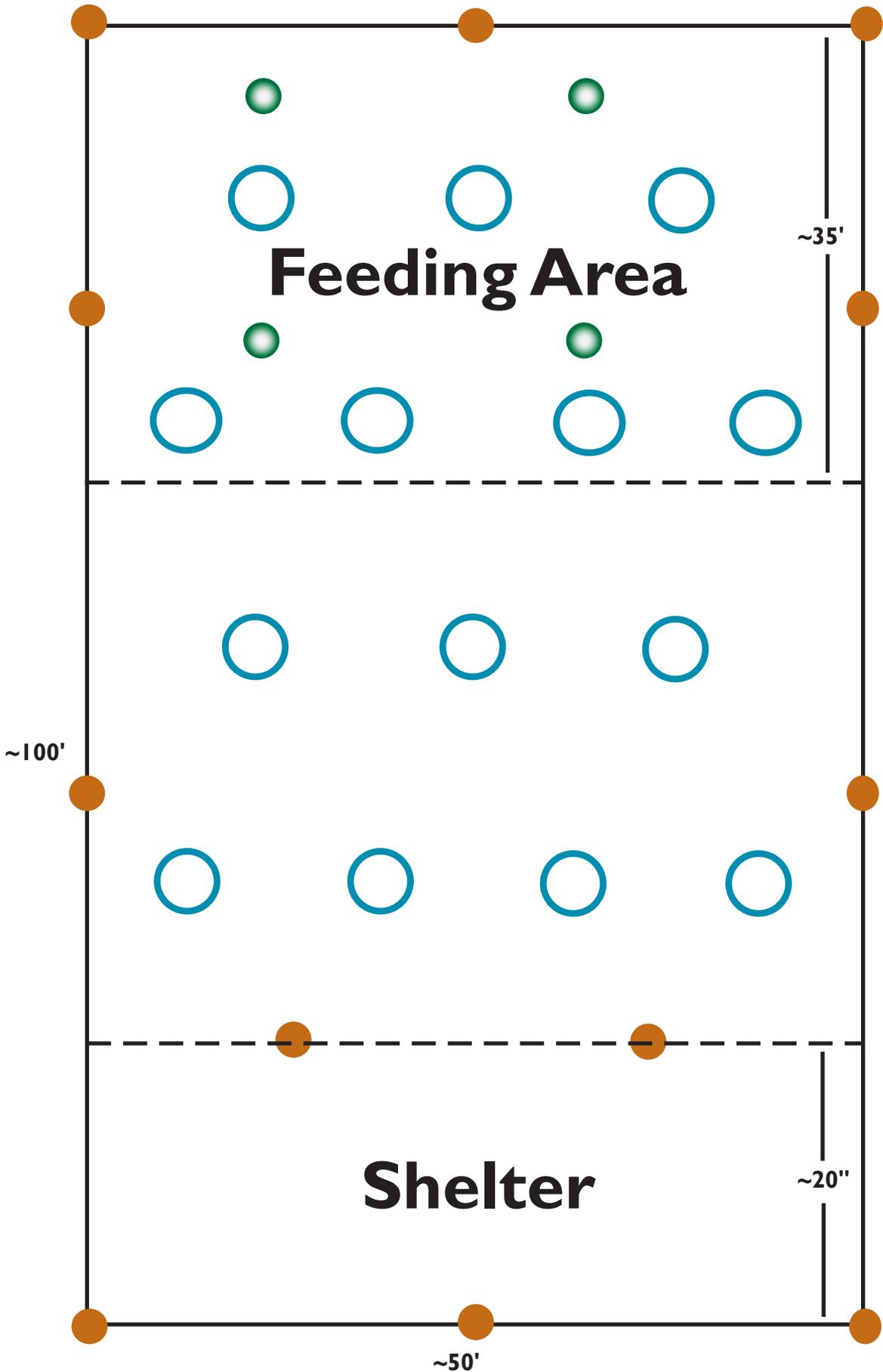
2. Not having three pieces of food at the end of the day
3. Not returning to the shelter area by the end of each day

- Using the whistle, signal the start and end of the first day (without predators in the habitat). Have pheasants or quail feed a second day if time is available so they get the hang of the game. Ask the students if any of the pheasants or quail had trouble collecting their daily requirement of food. Adjust time of day if necessary.
- Before beginning the next day, have the predators enter the habitat area. The only areas they can not enter is the shelter area and escape cover. Predators should start each day at the far end of the feeding area and must keep searching throughout the day. They should not be allowed to sit in one place and wait on prey or guard escape cover.
- Conduct another day or two. Pheasants and quail may find it harder to get their food because they are spending time avoiding predators. Predators may be becoming frustrated at their inability to capture prey despite an abundance of pheasants or quail because of an abundance of escape cover and shelter. Monitor activities closely.
- Before beginning the next day, introduce a change in the habitat. The landowner may want to change the habitat by reducing the escape cover to raise more crops or it may be winter and some escape cover may have been lost. Remove some of the pvc squares or hula hoops.
- Conduct another day. Suddenly the scales tip in favor of the predators and pheasant and quail numbers start to decline. The more escape cover or shelter is reduced, the more vulnerable the pheasants and quail become.
- Discuss what happened after each day and compare survival. Ask students if escape cover helped their survival. Discuss how the habitat could be managed better for pheasants or quail by changing the arrangement of the habitat.

NOTE: Prior to playing the game it would be beneficial to have a brief discussion about wildlife habitat. This activity greatly simplifies many variables. The activity may be as elaborate and realistic as your imagination will permit by varying seasonal conditions, limiting food to limit carrying capacity, changing arrangement of the habitat (moving or eliminating hula hoops) each day.

ACTIVITY VARIATIONS

- Allow predators to rearrange the escape cover and feeding areas to maximize their success; then allow pheasants or quail to do the same the next day.
- Limit the amount of food available at the start of each day. This can limit carrying capacity of the habitat.
- Position escape cover in different patterns. See if arrangement of habitat can influence survival or the quality of the habitat.
- Use different ratios of pheasants or quail to predators
- Place feed closer to shelter so pheasants or quail don't have to travel so far.
- Simulate seasonal changes to habitat.



Key:

-  Post with "Habitat Management Area" signs
-  Post with "Feeding Area" signs
-  PVC Square or Hula Hoop "Escape Cover"