# PREDATOR-PREY

Activity 29

AGE LEVEL = 9-11 (7-14)
DURATION = 30-45 min.
LEARNING STATION = Outdoors
RELATED ACTIVITIES = → Hoo Gives a Hoot
← Web of Life

WHEN =

UNDERSTANDING: Principles of predation are examined and the relationship between populations of predators and their prey is explored.

MATERIALS:

- Caramel candies (2 flavors)
- Predator-Prey Tally Sheets

PREPARATION: Pick an area in advance. Ideally, it should be open with a good deal of "edge" habitat available. Hide the caramels just prior to the activity. Do not hide them too well. Put some in the open, some on leaves, others in stump crevices, etc.

LESSON:

Warm-up: Discuss predators and how they obtain food. Ask for examples. Be dramatic and explain that the students are going to become predators by hunting down, skinning and eating a small animal that lives in the area. Describe the animal as thoroughly as possible without using the name. Female - About one inch long. Light brown. Very, very slow moving. Male - About the same size, but dark brown.

Explain that the animal's scientific name is Carmelatus peasii. It likes "edge" habitats (the transition area between two plant communities), prefers sunning on leaves, but will die if left in full sun, and dies immediately when touched.

Activity: On the way to the learning station, briefly visit several possible habitats (parking lot, field, pine woods, edge, etc.). Ask the children how they think Carmelatus peasii would fare in each habitat.

When you arrive, explain that Carmelatus peasii is hiding out there. Explain to them that, as predators, they each have one minute to find a prey. If they do not find at least one in that time, they will die. When they find their prey, they must yell "Male" or "Female" so you can keep a tally on the tally sheet. Continue running one-minute rounds until the last "predator-child" has died.

Wrap-up: Gather in a sharing circle to discuss what occurred. Create a bar chart using the tally sheet. Discuss the graph and reasons for uneven sex ratios, search strategies, food chains and webs, population dynamics (what happens to the predator populations when prey populations disappear?). Ask why some prey was not found (faulty search techniques or camouflage coloration are some possibilities).

OPTIONS AND FURTHER EXPLORATIONS:

1. (For older youths.) Mark some of the prey with masking tape before dispersing them. When the game is over, make a total population estimate with the following equation:

$$\frac{\text{Total “Marked” found}}{\text{Total Found (“Marked” and “Unmarked”)}} = \frac{\text{Total Number “Marked”}}{\text{Total Population (Est.)}}$$

For example: Five out of 10 “Marked” caramels were found and a total of 12 caramels were found, including the Unmarked caramels.

$\frac{5}{12} = \frac{10}{X}$ solving for cross-products, we get an estimated total population of X = 24.

Repeat the activity several times, varying the number of “Marked” caramels until the children understand how ecologists estimate wildlife populations.

2. Have older youths research marking real animal populations. Check with local officials to see what wildlife research is going on in nearby areas.

**Predator-Prey Tally Sheet**

| Time | Male | Female |
|---|---|---|
| 1 min. | _____ | _____ |
| 2 min. | _____ | _____ |
| 3 min. | _____ | _____ |
| 4 min. | _____ | _____ |
| 5 min. | _____ | _____ |
| 6 min. | _____ | _____ |