



ACTIVITY I

Have to Have a Habitat

Summary:

Participants define the terms “habitat” and “ecosystem” and explore examples of each.

Grade Level:

3-6

Time:

30-45 minutes

Learning Objectives:

Participants will be able to:

- ◆ Develop a basic understanding of habitats and how they relate to us.
- ◆ Identify the four major elements of all habitats.
- ◆ Distinguish the difference between the terms “habitat” and “ecosystem.”

Materials Needed:

- ◆ Board or flip chart
- ◆ Chalk or markers
- ◆ Drawings of different ecosystems (supplied below), -OR- Pictures of different animals, plants, and habitats from magazines, old calendars, etc.
- ◆ Examples such as pinecones, rocks, sand, leaves, etc. (optional)

Background:

All life on Earth has a place where it makes its home, called its **habitat**. An organism’s habitat might include an area as small as an earthworm’s pile of dirt, or it might include a vast corridor of plants and insects along the flight path of a migratory bird. Habitat for an animal consists of all the elements the animal needs to survive and raise healthy young. The most basic of these elements include the appropriate type and amount of **food, water, cover, and places to raise young**. This is true for all animals, whether human or coyote, horse or snake, kitten or centipede. Cover may include protection from the elements or from predators, and may often have different qualities that enable their offspring to thrive (places to raise young).

Many animals have very specific requirements for their habitat. These animals are called **specialists**. For example, the monarch butterfly depends primarily on milkweed as a food source for its young, and on other flowering plants as food for its adult stage. Most of these plants grow

only in clearings or on the edge of forests. Other animals, called **generalists**, can survive in a variety of situations. Raccoons are a good example, since they eat everything from nuts and insects to small mammals and human garbage, and will live anywhere with decent cover and an adequate water source.

While the term habitat focuses on a particular organism and its needs, the term **ecosystem** encompasses a whole community of living things, non-living elements, and their inter-relationships. For example, the gopher tortoise finds important elements of its habitat in a longleaf pine woodland ecosystem, found in parts of the far Southeastern United States and characterized by dry, sandy soil. There, it digs long burrows in the sandy soil for shelter from predators and the oppressive heat. It also depends on grasses and leaves of low-growing plants for food. While both sandy soils and low-lying plants may be found in the longleaf pine forest mentioned above, the gopher tortoise may find these elements in Central Florida’s dry scrubland ecosystem, or in areas of thick undergrowth that lie between beaches and dunes, which are called coastal strand. So in other words, the pine forest, scrubland, and coastal strand ecosystems are all three distinct communities containing a wide variety of plants and animals, and may happen to also support





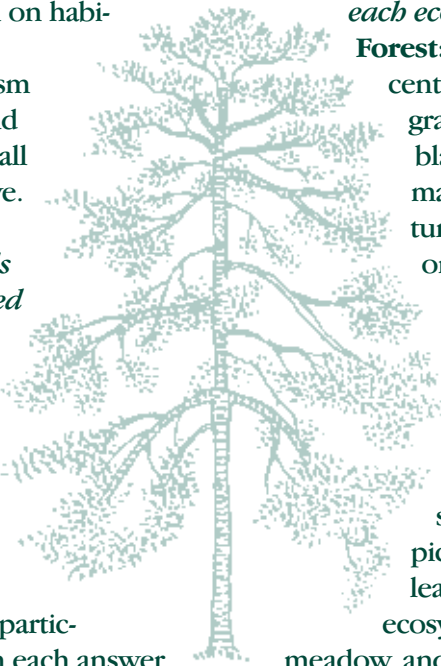
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gopher tortoise habitat. This activity can serve as an excellent lead-in to some of the following outdoor activities, such as “Animal Homes Hike” (p.154) or “Habitat Hunt” (p.166).

What to Do:

1. Ask participants, *Do you know what a habitat is? What does it mean?* Write down answers participants give. Using these answers, lead a discussion on habitat as the place where an organism normally lives and where it obtains all it needs to survive. Ask participants, *What do animals in particular need in their habitats in order to survive* (food, water, cover, and places to raise young)? During the discussion, write down, or have a participant write down each answer on a flip chart or chalkboard. Ask the group to discuss the definition of each basic need, and write or have a participant write the definitions. Use pictures or examples to highlight the discussion. For example, an adult monarch butterfly gets its food from the nectar of different flowers, may drink water from dew



on leaves, seeks shelter from hard wind in grasses or branches of a tree, and lays eggs on milkweed plants. They and their young are generally safe from predators because the milkweed they eat as caterpillars makes them toxic to most animals.

2. Ask participants, *What is an ecosystem?* Give some simple examples, such as a forest, a field, or a pond. Ask, *What animals live in each ecosystem?* (Examples: **Forest:** woodpecker, squirrel, centipede, field mouse, grasshopper, red-winged blackbird; **Stream:** mayflies, trout, painted turtle, frog, swamp dragonfly, salamander, alligator.) *What are some elements of habitat for those animals? Do some animals live in more than one ecosystem?* Show the supplied drawings or pictures/posters of at least three different ecosystems (e.g., a forest, a meadow, and a pond). Include at least two ecosystems that might exist next to each other to show that some animals find parts of their habitat in different ecosystems. If possible, have props that go along with the pictures to help illustrate each ecosystem.

For example, if showing a picture of a forest, pass around some

pinecones, nuts, leaves, etc. Have the group list different animals that live within each ecosystem, and how each object serves as a part of animal habitat (e.g., a twig might become part of a bird’s nest, a nut might be food for a squirrel, etc.).

3. Discuss the needs of at least three animals. Ask, *How are these needs different? How are they alike?* Ask participants why it is important that an ecosystem have many different elements of habitat for different animals (e.g., so different animals have a place to live, so animals won't become extinct, for beauty, for recreation, etc.).

For Younger Participants (Grades K-2):

Make sure to use many pictures from magazines and have a collection of objects found in the different ecosystems so that participants can explore with their hands. If possible, visit a local natural history museum and explore different ecosystems, examples of wildlife that live in each, and elements of habitat that these animals need to survive.

For Older Participants (Grade 7 and Up):

1. Have participants discuss ways that the different ecosystems might





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be connected. Ask, *What animals might live in more than one type of ecosystem?* Ask for other ways animals might rely on more than one type of ecosystem.

2. If possible, have participants take a walk outside and have them guess what animal habitats surround the facility where they meet. Have them show evidence (i.e., the types of plants, the amount of water nearby, etc.). The participants can get as general or specific as they wish, depending on their knowledge base, so answers might be as general as “deer habitat” or as specific as “northern flying squirrel habitat.”

3. Have participants count the number of different ecosystems in the area and guess what type of animals might live in each one. Then ask again how the different ecosystems might be connected.

Questions:

- What is a habitat?
- What do all animals need their habitat

to provide for them to survive?

- Why is it important to have different types of habitat in an area?
- What is the difference between a habitat and an ecosystem?

Adaptations:

Please refer to general adaptations on pages 11-16.

Hearing Disabilities:

- Use a variety of habitat and animal pictures and hands-on examples. Use items such as sand and seashells, jars of pond water with magnifying glasses, acorns, and bird’s nests to help illustrate each of the different habitats. Have examples that can be smelled, such as pine needles or flowers. Allow participants time to explore the examples.

Learning/Cognitive Disabilities:

- Use a variety of habitat and animal pictures and hands-on examples. Use items such as sand and seashells, jars of pond water with magnifying glasses, acorns, and bird’s nests to help illustrate each

of the different habitats. Have examples that can be smelled, such as pine needles or flowers. Allow participants time to explore the examples.

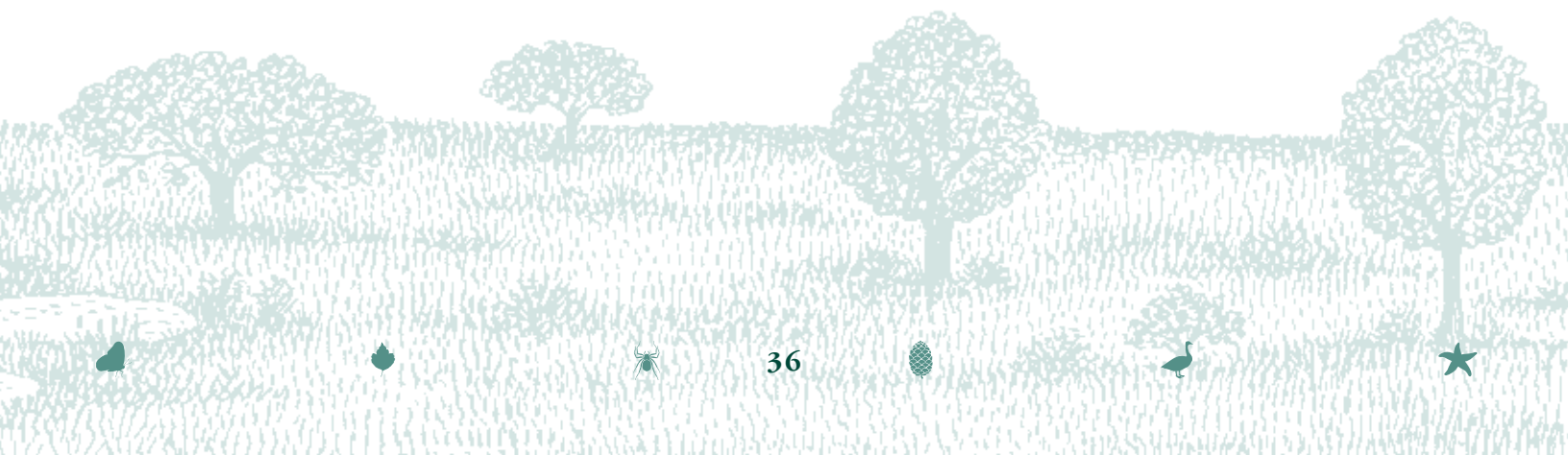
- Use sound effects when possible (e.g., bird calls, nature sound tapes, etc.).

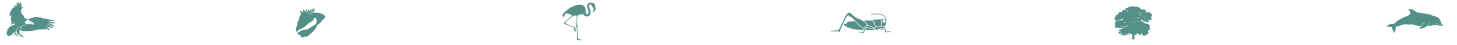
Motor Disabilities:

- No additional adaptations necessary.

Visual Disabilities:

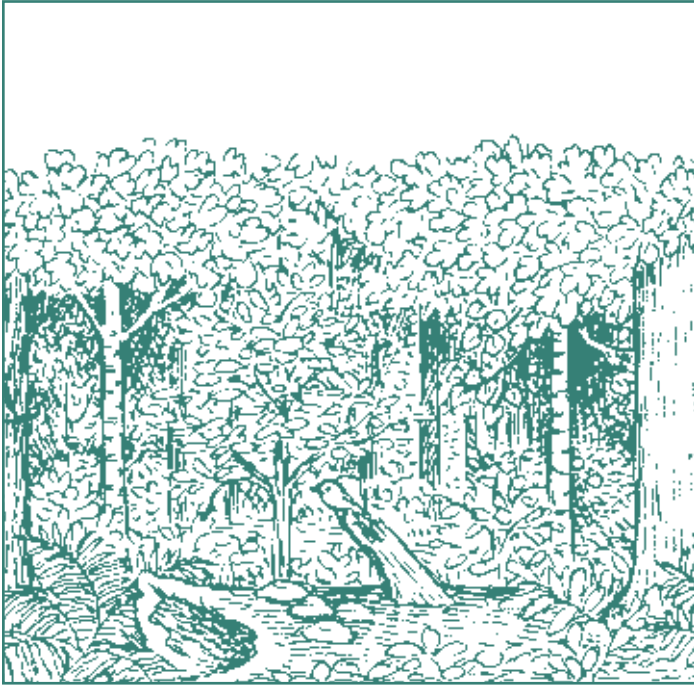
- Use tangible items participants can touch to illustrate your points when possible (e.g., leaves, pine cones, rocks, soil samples, etc.). Have examples that can be smelled, such as pine needles or flowers. Allow participants time to explore.
- Use sound effects when possible (e.g., bird calls, nature sound tapes, etc.).





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WORKSHEET



Forest



Meadow



Pond



Swamp

