

Animal Habitats: There's No Place Like Home

Activities for children and adults that build upon Play Trail experiences outdoors

Getting children comfortable in the outdoors may be one of the greatest gifts we can offer the next generation. Given what we know about the physical and psychological consequences of a sedentary, electronic media-dominated lifestyle, it also might be one of greatest health tips we can offer. A childhood rich in outdoor experiences provides an inexpensive antidote for a number of medical problems, including depression, attention deficit disorder, and obesity.

But there is more. Letting young children freely explore their world outdoors can instill a lifelong connection to the environment. It can also help cultivate an ethic of caring for the environment.

The role of adults in this process focuses less on teaching and more on coaching. While most children want to explore their world, some may be hesitant or even fearful. Parents and other caregivers need to be there to offer encouragement and guidance without stifling the important work called play.

Tips for adults

We offer the following tips to help make the most of your Play Trail explorations.

- Find activities in these booklets that are appropriate for your child's age and interests, as well as environments that are readily accessible to you.
- 2. Share the booklet with your child in advance.
- Let your child initiate the exploration, but be ready to offer suggestions in the event encouragement is needed.
 Consider the booklet's investigations to be jumping-off points that pique curiosity.
- 4. Avoid the tendency to teach. Share the information you glean from these booklets as "incidental" points of interest.
- 5. Model positive behaviors and respectful attitudes toward nature.
- 6. Respect your child's fears. Never force a child to touch something they do not want to touch. Courage and interest come about through positive, graduated experiences.
- 7. Foster play and accept the fact that dirty hands, mud-caked shoes, and wet clothes often come with it.
- 8. Avoid the tendency to "helicopter." Too often we overprotect and stifle explorations inadvertently.

No place like a habitat

A habitat is that place that offers everything a living thing needs to survive—food, water, shelter, and adequate space. Some habitats, like a log full of mushrooms and a pond full of frogs or fish, are small. Other habitats, like a forest, are huge. It all depends on each species' particular needs.

Humans are animals too and we share the same basic needs!

How is a house a habitat?

Ask your child what animals need to survive. Then ask what we need to survive. Are the basic needs that different? Our shelters take the form of houses made of wood, stone, sod, ice, metal, concrete, and other materials. We all value personal space and we all need food and water. We store food and water in our houses, or retrieve it from nearby sources.

Go on a habitat tour of your home. Challenge your child to identify the rooms where basic needs are met. How is your home like the forest habitat of a bear? How is it different?

Backyard habitat safari

Go on a tour of your backyard or a local park and search for signs of wildlife, like ants, butterflies, birds, and lizards. Help your child draw a map of the entire space. Make sure both natural features and built features (like a garden shed or hose) are included.

Select an animal that likely visits or lives in the area you visited and design its route of travel. For example, you could focus on a lizard that spends time on a rock pile or a stack of firewood where it suns itself and hunts for insects. It might leave the rocks or firewood for a shady rest area out of direct sunlight, a drop of water

from a garden hose, or hiding under a log to escape danger. If all of the lizard's needs are met in this area, it could be called its habitat.

Habitats great and small

Habitats come in a variety of sizes, depending upon each species' needs. The smallest of habitats are called microhabitats. A milkweed plant could serve as the microhabitat for a monarch caterpillar, provided it supplies enough leaves to satisfy its large appetite. Sometimes even a windowsill in a house serves as a microhabitat for the occasional spider, provided it attracts enough insects.

While the habitat of Pacific grey whales includes specific regions of the Pacific Ocean, there are certain reaches that yield the seasonal food they need. In the summer, the whales' feeding grounds in the Bering Sea are brimming with protein-rich animals called krill. By autumn, weather conditions and food availability change. The whales leave their Alaskan habitat and travel south, feeding on tiny animals that burrow in ocean mud. In the warm waters of Mexico, the females give birth to their calves.

While the habitat of the whale might be a shallow lagoon in Mexico or a deepwater basin in the Bering Sea, its home range is much larger. To survive and thrive, the Pacific grey whale meets its needs in an area that extends 6,000 miles!

Design a habitat

Materials: White paper, pencil, crayons or colored pencils, scissors, a magazine with pictures of nature that can be cut out, glue or glue stick.

Procedures: Have your child design a habitat for an animal of their choice or an animal whose image appears in the magazine. (If the image comes from the magazine, have them cut it out and set it aside.) Encourage them to think about the concept of habitat and the resources their animal needs to survive and thrive. Once they sketch the habitat on the sheet of paper, have them search for other images in the magazine, like water, rocks, and plant material. Cut the images out and glue them on the sheet. Have them color their habitat with crayons or pencils.

Cut and fold a tab of paper. Glue one of the folded halves to the back of the animal image. Your child now has a tab to hold as they move their animal from one area on their habitat sheet to another.

Create a microhabitat

Materials: Large, clear plastic container or cage, gravel, trowel, soil and soil animal like a pill bug, worm, or sow bug, clean spray bottle

Procedures: Place a layer of gravel at the bottom of the container or cage. Take the container outdoors to an area in your garden where the soil is damp and rich. Place several inches of the soil in the container. Let your child search for a soil animal to place in the container. Suitable animals include pill bugs, sowbugs, and earthworms. You often can find them under piles of leaves or large rocks. Encourage your child to collect other resources, like small plants, moss, and rocks for their microhabitat. Make sure the animal is fed appropriate foods and released back "into the wild" after a couple of weeks.

Field notes:

Pill bug: feeds on dead or decaying plants and animals; requires a moist habitat since they breathe with gill-like organs. A slice of cantaloupe makes for a nice meal.





Sow bug: feeds on dead or decaying plants and animals; requires a moist habitat since they breathe with gill-like organs. Unlike pill bugs, sow bugs cannot roll into a ball. A slice of cantaloupe makes for a nice meal.

Earthworm: On the soil surface, feeds on dead or decaying plants that supply it with algae, fungi, and bacteria that it needs. Deeper down, it consumes dirt that also supplies it with algae, fungi, and bacteria. Leftovers of raw vegetables and fruit, vegetable peels, and grains make for a nice meal.

Habitats in the wild

A natural area, such as a forest, stream, or field might contain the habitats of several different animals that all live in the same area. Each animal has a specific role, or niche that defines where and how it gathers food, its periods of activity, and its "value" to the community. Many different animals can live in the same community—their niches define the extent to which they compete or cooperate with each other. For example, two different squirrels might occupy the same forest habitat, but forage for food at different levels in the trees.

Habitat safari II

Having already gone on a backyard habitat safari, take your child to a natural area, such as a woodland, forest, or meadow. Look for wildlife or signs of wildlife. When you see an animal, try to figure out its habitat. Do you think it lives there all of the time or is just passing through? Does the area provide all of the resources the animal needs to survive?

Keep mental notes of the wildlife you see. With your child, do some research on each animal's habitat needs when you return home.

Citizen Science

Biologists conduct large research studies to catalog how many different kinds of plants or animals exist in certain habitats. Often they ask for help because the scope of their research is so large. "Citizen science" invites individuals to record their observations about a certain kind of organism or habitat on a website. By doing this, ordinary people contribute important information to a central database that is analyzed by trained biologists.

Your family can become involved in a habitat- and wildlife-focused "citizen science" project. For example, NOAH, Networked Organisms and Habitats, is a mobile phone application that transmits data and a photograph of an organism to the NOAH site where it is logged for use in other citizen science projects. In turn, NOAH data can be accessed from the field, allowing you to see a list of recent sightings in that location. The best way to find out about active projects in your area is to look them up on the Internet or check them out at www.thedailygreen.com.

Conservation message: Loss of habitat is the number one reason plants and animals are threatened with extinction. Setting aside and protecting wild lands will help bring their populations back from the brink.

More titles in the Play Trails series:

Ants: cooperative colonies

Bees: fantastic farmers

Birds: engineers by instinct

Butterflies: the magic of metamorphosis

Forest filtration: nature's air filter

Leaves: hidden colors

Pond Life: a busy ecosystem

Spiders: silk spinners

The Forest Floor: a living layer

