

Girl Scout Tour (Juniors)
Animal Habitats Badge
Revised 2017

This tour is designed to help Junior Girl Scouts earn their Animal Habitats badge. Girls will complete steps 1 through 5.

Introduction:

Meet the troop at the Educational Programs gate. Welcome them to the zoo and explain that we have a lot to see and talk about in order for them to complete their badge requirements in the time we have together, so it's very important that everyone follow the rules:

1. Stay together as a group. If we always have to wait for people to catch up, we won't have as much time to spend looking at the animals.
2. If the docent is talking or asking questions, it's important that everyone listen quietly so everyone can hear. If someone asks or answers a question, we should likewise be courteous and listen.
3. Please do not run ahead of the group. Stay next to or behind the docent.
4. Remember, the zoo is home to many animals. Do not yell at them, chase them, or bang on the glass of their exhibits.

Ask the group:

What is a habitat? Habitats are the places where plants and animals live. In order for an animal to survive and be successful, their habitat needs to provide the things they need to live.

What are the needs of living things? Food, Water, Shelter, Space, [Air, Sun]

There are many different kinds of animals, and many different habitats where they are found. **What are some examples of different habitats?** River, forest, rainforest/jungle, desert, ocean, beach, meadow, savannah, plains, etc

We're going to check out some animals that can be found in Michigan. Remember, if you ever see a wild animal, don't approach it and certainly never try to touch it. *(Information that must be included to fulfill the badge requirement is included below for each animal. You may include other information as appropriate. You do not have to visit every animal listed, but make sure you include animals from several habitats)*

River Otters:

Habitat: River Otters live throughout North America near rivers. They spend a lot of time in the water swimming and hunting, but they also spend a lot of time on the land eating and sleeping.

Range: Throughout North America, but not in as many places as they used to be (extirpation).

Adaptations: Otters have layer of fat just under the skin that helps keep them warm. They also have very dense fur that traps air near their skin and acts as an

insulating layer to keep them warm. Their dark color acts as camouflage (counter shading).

Cleaning Behaviors: Otters keep themselves clean by grooming themselves with their tongue. They also have a special oil gland and they spread the oil over their fur to protect it from the damaging effects of being in the water so much.

Locomotion: Otters are great swimmers in the water (up to 7 mph), and are fairly fast on four legs on land (up to 18 mph).

Food: fish, frogs, mice, crayfish

Shelter: Ours sleep in hollowed out logs.

Bald Eagles:

Habitat: Lakes, seacoast, reservoirs, and rivers.

Range: North America

Adaptations: Flight feathers are what allow birds to catch the wind and soar.

Cleaning Behavior: Preening

Locomotion: Fly in the air and hop on land.

Food: Bald Eagles primary food source is also fish, so they also live near water.

Shelter: They tend to build their very large nests out of sticks and branches on high, craggy cliffs and hilltops, tree tops or platforms. Eagle pairs use the same nest year after year, adding to it each season. They only use the nest while there are eggs and chicks in the nest. Once the chicks are old enough to live on their own (12-16 weeks), the nest is abandoned until the following year.

Grey Wolves:

Habitat: forests, taiga, tundra, deserts, plains, and mountains (forests in Michigan)

Range: North America (mostly northern states and Canada)

Adaptations: Thick fur keeps them warm. They can curl up and cover their face with their tail to stay warm.

Cleaning Behavior: they groom themselves by licking. They also might also roll around in snow, or go into a river, lake or pond.

Locomotion: Wolves walk on all fours and travel in packs

Food: Any animals, and occasional berries and grasses. In Michigan, they eat deer, moose, and occasional livestock. They hunt in packs so they are able to take down prey much larger than they are.

Shelter: dens

Red Panda

Habitat: Bamboo and temperate mixed forests of the Himalayas

Range: Nepal to the Sichuan province in China

Adaptations: Thick fur keeps them warm, and they can curl up and wrap their tail around their face to keep warm.

Cleaning Behavior: Clean by licking.

Locomotion: Walk on all fours, very agile climbers.

Food: Mostly bamboo, some berries, mushrooms, grasses and bark. Will also eat birds, eggs, insects and small rodents.

Shelter: Tend to sleep in trees with their legs straddling branches.

Bongos:

Habitat: ground-level shrublands in rainforests; forests and bamboo zones in mountains

Range: Central Congo, Africa

Adaptations: Fur coloring is great camouflage. Their fur also is said to drip red when wet, which native villagers believed was a sign of magic.

Cleaning Behavior: Will lick themselves, may also roll in dirt to remove parasites, or go in the water.

Locomotion: Run on all fours and are quite swift, prefers to go under or around obstacles rather than over them.

Food: Browser, eating tips, shoots, and tender bushes

Biggest Threat: habitat destruction and poaching

Amur Tigers:

Habitat: mountainous forests

Range: Primarily the Amur-Ussuri region of Siberia along the west coast of Russia.

Adaptations: Thick fur keeps them warm, orange and black stripes are excellent camouflage.

Cleaning Behavior: They stay clean by licking themselves, much like a house cat would. They are also good swimmers and enjoy taking a bath in ponds or rivers.

Locomotion: Tigers walk on all fours, are good climbers, and can cover large distances in just a few bounds.

Food: Mainly deer, elk, and wild boar

Shelter: Tigers don't really build homes. Instead, they have a home range that can be up to 400 square miles.

Biggest Threat: habitat destruction and poaching

Mandrills:

Habitat: Dense primary rainforest floor, sometimes coastal forest.

Range: Cameroon, Congo, Equatorial Guinea, and Gabon (Africa)

Adaptations: Their grey fur acts as camouflage, and the brightly colored patches are used in communication

Cleaning Behavior: Mutual grooming to remove parasites.

Locomotion: Walk on all fours, climbing, swinging, and jumping.

Food: Foragers- fruit, leaves, seeds, nuts, shoots, arthropods, crabs, fish, small vertebrates, and cultivated crops.

Shelter: Mandrills live together in troops of about 20, with one dominant male, many females, and offspring. Once male offspring get close to maturity, they leave the troop and form their own by raiding existing troops for females.

Proceed to the Bird/Reptile House. Discuss the following before going in.

There are some habitats across the globe which are endangered. [What does endangered mean?](#) (Something is happening to them to cause them to be destroyed) One of the habitats that conservationists and scientists are concerned about is the Amazon Rainforest. The Amazon is home to many, many different forms of life- plants, animals, birds, reptiles, insects, even people. The rainforest is threatened because people are cutting down the trees for lumber and to clear the way for farms and grazing animals like cattle. When the trees are cut down, that can take away the food, water, and shelter that the animals that live there need to survive. The animals then have to move to a new area and compete with the animals that are already there for food, water, shelter, and space. If there are enough resources, the animals can adapt and survive. If not, not all of the animals may make it. The animals also face another threat. They are illegally collected for the pet trade and sold.

Conservationists are trying to help. One way is to teach the people who live in the Amazon rain forest how to farm more sustainably and effectively, so they don't have to cut down more trees for their farms. They are also finding ways to harvest trees for lumber that remove only some of the trees from an area so that part of the forest isn't completely destroyed. Organizations are also working with the native people to create a demand for their crafts so they can sell them for money instead of collecting animals for the pet trade. Conservationists are also working to replant the rain forest wherever possible. [What would you do to help protect the rainforest?](#)

[Assignment: Send the group into the Bird/Reptile House and have them look for species that are native to the Amazon rainforest. Have them identify which species are common, threatened, and endangered.](#)

Penguins:

Habitat: Sandy beach to wooded slopes, usually within 1/3 mile of the sea

Range: Southern coasts of South America and Falkland Islands

Adaptations: Countershading coloration, torpedoed shaped body and flippers (modified wings) for swimming

Cleaning Behavior: Preening to clean and spread oil from a gland near their tail (waterproofing).

Locomotion: Waddle on land, excellent swimmers.

Food: Fish, krill, sometimes squid.

Shelter: Penguins live together in large colonies. During nesting season, they build shallow nests out of smooth pebbles and rocks.

After the Bird/Reptile House, head to the Backyard Gardens.

You can help local wildlife by creating a backyard habitat. [What are the four things animals need in their habitat?](#) (Food, Water, Shelter, Space)

Even a small backyard can become a great habitat for birds and butterflies. This area has a lot of space. [What kinds of food and shelter do they need?](#) Let's explore the garden and look for ways birds and butterflies would find food, water, and shelter.

Gather the group and ask them what they found.

Food: bird feeders, plants (seeds, nectar), insects

Water: river, bird baths, puddler (dew collects on rocks and butterflies drink it)

Shelter: trees, shrubs, birdhouses, nesting material, standing dead trees

Do you think you could try some of this at your house or school? Let them know that they will be making a bird feeder when you return to the Discovery Center.

Review (on your way back to the Discovery Center):

What are the needs of living things?

What is a habitat?

What are some different kinds of habitats?

What happens to the animals if their habitat is lost?

What can you do to help?

Hands-on Activities: (*These will take place in one of the classrooms in the Discovery Center*)

Pine-Cone Bird Feeder: Refer back to your tour. Ask them if they can think of a way they can help provide habitat for animals. Let them brainstorm ideas. One of the things that needs to be present in a habitat is food, and that is where the birdfeeder comes in. To reinforce the needs of living things, **ask the girls what else needs to be in their backyard.** (water (birdbath), shelter (escape cover/shrubs), space (make sure they don't hang the birdfeeder too close to a building))

1. Have the girls label a zip-top bag with permanent marker.
2. Have the girls tie a piece of yarn to the top of the pine-cone.
3. Have the girls carefully spread lard or Crisco over the pinecone, being sure to fill the nooks and crannies. Explain that the lard or Crisco is fat, and that is a very good energy source for birds, especially when other food isn't plentiful.
4. Once the lard or Crisco is applied, have them carefully roll their pinecone in a plateful of seeds. They can press with their hands to make sure they get good adhesion.
5. Once complete have them put their birdfeeders in their plastic bag.
6. Instruct them to wipe their hands first at the trash can with a paper towel to get the seeds off their hands, then head to the restroom to wash their hands, being very careful not to touch anything along the way with their messy hands (sometimes dish soap will clean the lard off their hands better than the bathroom soap).

Insulation Activity: One of the challenges animals in cooler/colder climates face is how to keep their "house" warm. **What kinds of "houses" do animals live in?** (nests,

burrow, dens) **What are some ways that they can try to keep warm?** (body heat, insulation) Insulation works to trap body heat, and it can be a lot of different things (straw, grass, bits of string, mud, shed fur or feathers, what else?) You are going to try your hand at insulating a “nest”.

1. Hand out bags of ice (a couple of girls can share). Have them put the bag of ice on one of their hands and ask them to raise their other hand when they feel the cold.
2. Ask them to set the bags of ice aside. Have them use the materials provided to create a nest that they think will keep an animal warm. Give them a few minutes to try different ideas. Ask them why they think some material might work better than others.
3. When they are finished with the nest, have them put their nest on their hand. Then have them take turns putting the bag of ice on the nest.
Does it take longer to feel the cold?
4. Another way animals stay warm is through body fat (blubber). You can try the same experiment, but instead of using a nest, use a zip-top bag of lard or Crisco. The fat acts as an insulator. **What animals have blubber?** (river otters, penguins, whales)
5. Have the girls gather up their nest material and put it back in the box. Dump ice in the sink, and set bags to dry (we can reuse them).

Ask if there are any questions. Congratulate the group for completing their Animal Habitats badge. (If asked, remind the leader that they will need to purchase the actual badges from the council office) Pass out patches to the girls. Have a few extra on hand in case an adult wants to purchase one (\$3, exact change only). Thank them for coming and let them know that they are welcome to stay and visit some of the animals we didn't get to see on the tour (unless the zoo is already closed). If they have to leave, escort them up to the front gate and bid them farewell from there.