

# Encounter/Outreach- Meet Your Neighbor

**Objectives:** Students will be able to list the components of a habitat and describe three different habitats found in Michigan, identify 2 turtles, 1 snake, and 1 mammal native to Michigan. They will also be able to describe some adaptations or behaviors that native animals use to survive a four season climate.

**Key Terms:** adaptation, endangered, habitat, hibernation, migration, niche, special concern and threatened.

**Getting started:** Introduce yourself and go over your rules.

Michigan and North America are extremely rich in wildlife. Today you are going to introduce them to a variety of animals native to Michigan or have relatives living in Michigan. What do all living things need in order to survive? Food, water, shelter, and space. You have just described the components of a habitat. But, habitats vary depending on what? Soil, climate, precipitation, sunlight, wind, etc. these factors determine which plants can survive which, in turn, determines the animals they can support. Michigan's primary habitat is deciduous forest. But, many "microhabitats" have also defined our landscape. For instance, there are sand dunes on the western shore of the Lower Peninsula, grasslands in the lower central region, swift moving streams, deep lakes, bogs, and exposed rocky cliffs. And, as you travel northward toward the Upper Peninsula, you will notice a transition from the oak-maple forest of our deciduous Lower Peninsula to the evergreen forests of the tundra-like Upper Peninsula. Each of these habitats attracts various species of plants and animals. And, these have a vast variety of adaptations to cope not only with habitat, but also with our climate.

Following is a list of outreach animals, artifacts, and bio-facts along with some suggestions which point out a few of the many ways in which you can use them to highlight and illustrate the concepts and terms listed above. Be sure to consult the animal data sheets for more detailed information on their various adaptations.

**Eastern Box Turtle-** found in the deciduous forests of Michigan; must be near shallow water; can your audience tell that this is a land turtle? How does this animal cope with winter? The box turtle is a special concern species in Michigan.

**Eastern Fox Snake-** found in the sand dune area of the eastern Lower Peninsula; how did this snake get its name? It too, is a special concern species for Michigan; why might people indiscriminately kill this snake? What other snake does it resemble? Habitat of "faking" a rattle snake threat, tail rattle, by vibrating tail amongst dry leaves; why might this be a good adaptation? How does this cold-blooded animal cope with winter?

**Blue-tongued Skink-** an Australian and New Guinea native, belongs to the same family of lizards that the Michigan Five-lined skink belongs to, Scincidae; same family, different sub-families; unlike this desert skink, the 5-lined skink inhabits woodland areas with edges and openings with stumps, logs or other objects for cover and basking; 5-lined skinks like dry and wet habitats; primarily eat spiders and insects, but in Michigan some have been observed eating berries; 5-lined skinks are found in the Lower Peninsula and the central part of the Upper Peninsula.

**Ring-necked Dove-** an African native; belongs to the same family as the Mourning Dove, a Michigan native; ever notice how doves hurry about on the ground gorging themselves on seeds then fly up into the trees or on telephone wires? Why have eyes on the side? Where do these birds go in the winter? Where do other plant eating birds go in the winter? What are the advantages of migrating?

**European Ferret-** close relative to North American Black-footed Ferret; adapted for a burrowing lifestyle in the grasslands; nearly wiped out with poisoning of prairie dogs; nocturnal hunter; preyed upon by many Michigan natives- coyotes, birds of prey, other members of same family.

### **Suggested Artifacts:**

Painted turtle shell	Venomous and non-venomous snake heads
Snapping turtle skull	Michigan habitat posters
Hatched turtle eggs	Posters of the frogs, snakes, turtles of Michigan
Porcupine quills	Coyote skull
Canada goose feathers	Deer antler
Bird nest	Box turtle shell
Turkey feathers	
Mink skin	
Wolf skull	

### **Activities:**

Eastern box turtle	
Lizard	Ferret
Dove	Fox snake

**Activity 1-**compare the painted turtle shell to the box turtle shell (swimming vs. land). How are they shaped differently? Do they vary in weight? Which does your audience think is better for swimming? Why? The painted turtle is the “state turtle.” Share the jar of turtle eggs with the audience. These were found near a nest site. Turtle eggs are leathery and not brittle like a bird’s egg. One of two things happened to this egg: 1.) The babies hatched, or 2.) A predator dug up the nest and ate the contents of the eggs.

**Activity 2-** Using the venomous and Non-venomous snake heads you’re your audience to compare and contrast the two types. Using their criteria, can they distinguish between the Masasauga rattlesnake and the other snakes found in Michigan?

**Activity 3-** Compare and contrast the wolf skull with the coyote skull. Do you believe that wolves are accidentally shot because they are mistaken for coyotes? Why do you suppose the coyote is flourishing while the wolf is endangered? Coyotes adapt better to human civilizations. Wolves are secretive and fearful of humans. They have also been hunted for hundreds of years because humans view them as competitors for large game like deer and elk. Coyotes eat smaller prey like rabbits and are just thought of as nuisances.

**Activity 4-** Using the deer antler, ask your audience if deer are armed against their predators. Not only do the antlers help, but sharp hooves and speed make them anything but easy to capture.

**Activity 5-** Michigan is a very diverse state with lots of lush forests and wetlands. Ask your audience to find those animals which they have seen.

**Activity 6-** Fur, depending on its use by the wearer, varies. Compare and contrast the porcupine quills with the mink fur. How does each Michigan mammal use their fur?

**Activity 7-** Can your audience guess which feathers belong to which Michigan bird? Did we have to hurt the birds to get their feathers? Talk about “molting.” Tell the story of the turkey. (Hint: The last wild turkey was shot in van Buren County in 1894. They were re-introduced in 1954.)