

# Pennsylvania Reptiles



## Summary:

In this lesson students learn to distinguish various species of reptiles that reside in Pennsylvania. Students will learn the differences between terrestrial and aquatic environments. Students will be able to recognize venomous species of snakes in Pennsylvania.

**Grade:** 2+

**Est. Time:** 30-45 minutes

## Objectives:

- 1) Students will distinguish between terrestrial and aquatic ecosystems in Pennsylvania.
- 2) Students will be able to define: aquatic, endangered, extinct, threatened, terrestrial, and venomous.
- 3) Students will be able to recite physical characteristics of reptiles.
- 4) Students will be able to identify various species of snakes and turtles found in Pennsylvania.

## Key Terms

Aquatic: relating to water

Endangered: a species in serious risk of becoming extinct

Extinct: when there are no longer any living members of a species

Threatened: are species that are vulnerable to becoming endangered

Terrestrial: relating to land

Venomous: species that are capable of injecting venom via bite or sting.

## Equipment Needed:

PA reptiles PowerPoint, snakes, turtles, turtle shell

## Guidelines for Teaching

- 1) Introduction

Hi everyone, my name is \_\_\_\_\_ and I am the/a \_\_\_\_\_ here at the Elk Country Visitor Center. Today I am going to talk to you about reptiles.

2) What is a reptile?

Before we talk about different types of reptiles, what is a reptile? What are common characteristics of reptiles (i.e. cold-blooded, scales, back bone, lay eggs).

3) What do we do if we see a turtle on the road (Pick it up and move it off the road, in the direction it was going)?

4) What are characteristics of turtles? They have a shell. The top part of the shell is called a carapace; the bottom part is called the plastron.

5) Terrestrial vs aquatic: Aquatic are water loving turtles while terrestrial turtles are land loving turtles. Aquatic turtles tend to have more of a flat or streamline appearance. This helps them move more easily in water by reducing friction.

6) So let's talk about some different species of turtles.

- a. Common Snapping Turtle: The common snapping turtle is the largest freshwater species of turtle in PA. As adults on average these turtles can weigh anywhere from 10-40 lbs. Common snapping turtles are characterized by having a long tail, sharp claws on their feet, and powerful snapping jaws. You definitely don't want to put your hands anywhere close to this guy's mouth! So we just talked about moving turtles off the road, how do you safely move a snapping turtle (One way in which people often move this guy is by their tail, but we don't want to do that. The backbone of all turtles is attached directly to their shell. So if you pick them up by their tail you are essentially breaking their back)? So the best way to move a snapping turtle is by the back part of their carapace.
- b. The Stink pot turtle is the only musk turtle in Pennsylvania. What is musk (musk is essentially smelly stuff, like skunks)? The stinkpot turtle is very small only reaching about 4-5" in length when fully grown. Stinkpot turtles are also good climbers because of their small plastron.
- c. The red bellied turtle is known for its bright red plastron. This species is considered to be threatened in PA. What does threatened mean (at risk of becoming endangered)? The red bellied turtle is threatened for two reasons one is because of the introduction of an invasive species and because PA is on the upper edge of his range.
- d. The Bog turtle is an endangered species. This turtle is very small only reaching about 4" in length when fully grown. You can distinguish this turtle from others because of its overall black coloration and orange ears. Bog turtles are endangered due to loss of habitat. These turtles like wet meadows with slow moving spring water.
- e. The Red eared slider is an invasive species of turtle in PA. They are original to the South East United States. What is invasive (invasive is when an organism is not native to an area and also causes damage to native species)? Red eared sliders out compete our native PA turtles for food and habitat. Red

eared sliders became established in PA by the pet trade. So basically a lot of people buy turtles as pets but don't realize they are life-long pets (they can live 30 + years). Eventually people get tired of taking care of their turtle and decide to release it outside.

- f. Eastern Box Turtles are terrestrial turtles. What does terrestrial mean again? We have two eastern box turtles here at the center. Bob is a male eastern box turtle. He is about twice the size of Rosie (our female). Males have red eyes and are more colorful. Rosie is our female she is a lot smaller than Bob. This is all the larger she will get. As you can see Rosie is less colorful and has yellow/orange eyes. I am going to walk around with Rosie, you can touch her but don't touch her near her head.
- 7) Snakes (get snake out when you start talking about snakes).
- a. The first thing that we should talk about is venomous versus poisonous. In Pennsylvania we have no poisonous snakes, we do have three venomous snakes though. Poisonous animals are animals that are toxic to the touch or if eaten. Venomous animals inject toxin via fangs or stinger. There are three ways to tell a venomous snake from a nonvenomous one. The first is the shape of the head. Venomous snakes have a more pronounced and triangular shaped head. Venomous snakes also have vertical or cat-like pupils. The last way to identify a venomous snake is by its tail, if a snake is venomous it will only have one row of scales on the underside of its tail, while nonvenomous snakes have 2.
  - b. The venomous snakes that we have in PA include the timber rattlesnake, the northern copperhead, and the eastern massasauga rattlesnake. Two out of the three venomous snakes in PA are rattlesnakes so that helps with identification a bit. The top two are both timber rattlesnakes, they have two different phases black and yellow. Timber rattlesnakes also have chevron (or v shaped) bands that run down their body. Timber rattlesnakes prefer rocky outcrops on wooded hillsides. These are actual very docile snakes. The first mode of defense by a rattlesnake is usually to run away from you or to camouflage themselves. The majority of people who get bit by rattlesnakes were trying to handle them or mess with them in some way. So if you see a rattlesnake the best thing to do is leave it alone and don't get too close.

The next snake is the northern copperhead. Northern copperheads are distinguished by having hour glass bands (wide at bottom, skinny at top) down their body and a copper or rusty red head. When copperheads are juvenile they will sport a sulfur or bright yellow tipped tail. This tail is used as a ploy to get prey to come near it.

The last venomous snake that PA has is the Eastern Massasauga Rattlesnake. This snakes are an endangered species, what does that mean again? This

snakes are characterized by having little bowties or butterfly shapes down their backs. They also tend to be smaller snakes with a light gray background. Unless you are specifically looking for this snake you don't have to worry about running into it. These snakes prefer prairie habitats.

- c. This is the northern hognose. This is a really cool snake. He does a couple of special things that helps him to survive. The first is he can flatten his head out to look like a venomous snake. The second thing that he does is to play dead. So when you find this snake, they will roll over on their backs and show you their stomach, they will stick their tongue out of their mouths, and lay still. Unfortunately, this snake is often killed because people think he is venomous even though he is harmless.
- d. The milk snake is a fairly common snake in PA. These guys love open fields and are often found in people's back yards. These guys can be distinguished by having square-ish red blocks on their body with black outlining.
- e. The shorthead garter snake is a smaller snake that is commonly found in open woodlands or meadows.
- f. The last snake I want to talk about is the Black Rat Snake. Both Coca and Java are black rat snakes. Farmers often allow these snakes to live in their barns because they eat rodents. Black rat snakes are the largest native snake to PA often reaching 6-7 ft in length when fully grown. Black rat snakes are camouflaged when juvenile but as they mature they are black with a light checkered belly. (Walk around let students touch snakes, but not near their head. Ensure they wash their hands when they are done).

### **PA State Education Standards**

4.1.2.D, 4.1.1.D, 4.2.K.B, 3.1.3.A1, 3.1.3.C2