

Dedicated to the Memory of
Commissioner Enoch S. "Inky" Moore Jr.



PLAY

Pennsylvania • League • of • Angling • Youth

by Miranda Smith

Pennsylvania's Snakes

Aren't snakes spectacular?

The sight of a snake or even the thought of a snake will bring mixed reactions from people. Some people think they are splendid. Others find them scary. The truth is snakes really are spectacular creatures.

We have 21 species of snakes in Pennsylvania. Only three species are venomous.

Snakes play an important role in our environment. All snakes are predators. Many of the small animals they eat are considered pests. In turn, snakes also serve as food for other animals.

Unfortunately, people often kill snakes. They are afraid or have false beliefs about snakes. If you see a snake, it is best to watch it from a distance.

Many snakes are species protected by regulations. This means it is illegal to kill or take and keep a snake as a pet. For a current list of protected species, visit the Pennsylvania Fish & Boat Commission's website or look in a current *Pennsylvania Fishing Summary* book.

In this issue of *PLAY*, you will learn all about snakes. Perhaps, you will learn that some things you thought were true about snakes are actually false.

A photograph of an Eastern Hognose Snake, characterized by its dark brown and tan mottled pattern and a prominent, upturned snout. The snake is coiled on a bed of dry grass.

IT'S **GREAT**
TO BE A **SNAKE!**

Eastern
Hognose
Snake

All About Snakes

If you were to imagine yourself as a snake, what would you need to change? Use the clues and word bank at the bottom of the page to complete the crossword puzzle.

DOWN

1. As a snake, you have an unblinking stare, because you don't have eyelids. Snakes have a fixed, transparent scale that covers and protects the eyes called an _____.
3. Snakes move by _____. The scutes on your belly are attached to your ribs through muscle.
4. A snake's body temperature will change with the temperature around it. Many people call this _____, but the correct term is ectothermic. "Ecto" means outside. "Thermic" means heat.
5. The tongue of a snake is used mostly for smelling. It picks up tiny particles from the air and places them into two small openings on the roof of the mouth. These openings lead to a chemical receptor called the _____ organ.
7. All snakes have teeth, but they don't use them to chew. As a snake, you swallow your prey _____.
10. A snake's tongue is _____, and it can dart in and out through a notch in the upper jaw, even when its mouth is closed. A snake's tongue is harmless. It cannot sting or wound prey.
11. Your skin no longer grows along with your body as it gets bigger. So, when you outgrow your skin, you must _____ the outer layer.
12. Are you slimy like some frogs or salamanders? No way! Like all reptiles, your skin is _____. This allows you to live in dry habitats.

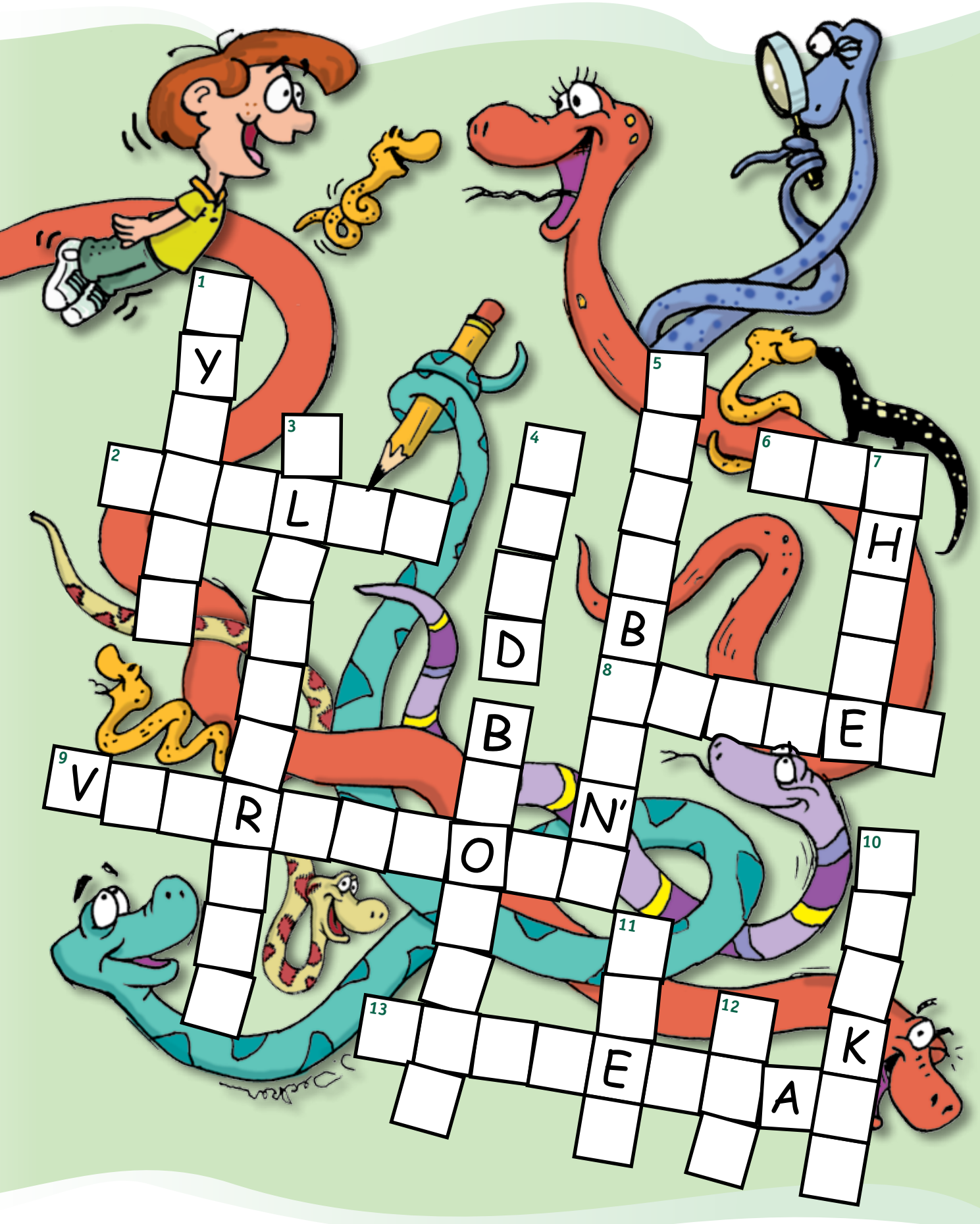
ACROSS

2. Instead of hair, your skin is covered with _____.
6. Your lower _____ is loosely connected to your skull with a ligament that acts like a rubber band. This allows your mouth to open very wide.
8. The scales on a snake's belly are called _____.
9. As a snake, you hear by feeling _____. Snakes have inner ear parts that are next to their jawbone. Sound travels through the ground or a tree that the snake is lying on and jiggles the snake's jawbone, which in turn shakes their inner ear.
13. Add more bones to your backbone. Snakes can have 100 to 600 _____. Most snakes have over 200 of these. Humans have just 33 of these. Each one, except those in the neck and tail, is attached to a pair of ribs.

WORD BANK

COLD BLOODED • DRY • EYECAP
FORKED • JACOBSON'S • JAW
SCALES • SCUTES • SHED
SLITHERING • VERTEBRAE
VIBRATIONS • WHOLE





1 Y

2

3 L

4 D

5 B

6 H

7 E

8

9 V R O N'

10

11

12 E A K

13

Common Snakes in Pennsylvania

Eastern Rat Snake

Often referred to as a “black rat snake,” this snake is the largest species of snake found in Pennsylvania. Adults can be 3½ feet to over 8 feet long.

Adult eastern rat snakes are black or dull brown with dark blotches. The skin between its scales may be bluish white, yellow or orange. They have a white chin and throat. Their belly is white or yellow with some mottling with black or gray. Their scales are smooth.

Young eastern rat snakes have dark blotches on a light-colored back. This dark pattern becomes faded or is often completely lost as the snake approaches 3 feet in length (about two-years-old).

These snakes live in a variety of habitats. They are superb climbers and are often seen in trees or barn rafters.



Eastern Rat Snake



Eastern Garter Snake

Eastern Garter Snake

If you like to spend time outside, chances are you will encounter an eastern garter snake. It is common throughout Pennsylvania in almost any habitat.

The eastern garter snake usually has three light-colored stripes on a dark-colored back. One narrow stripe usually runs down the center of the back. One broad stripe is on each side. A double row of dark spots often appears between the stripes. The garter snake has keeled scales.

Eastern Milk Snake

The eastern milk snake's favorite food is mice. This makes it one of Pennsylvania's most beneficial snakes. Unfortunately, it is often killed, because it is mistaken for a copperhead. Although both snakes have markings on their back, only the eastern milk snake has markings on its head.

The eastern milk snake has a light-colored back with brown

blotches outlined in black. Its belly is white with dark splotches that resemble a checkerboard. It has smooth scales.

Eastern milk snakes can be found in most any habitat in almost any part of Pennsylvania.



Eastern Milk Snake

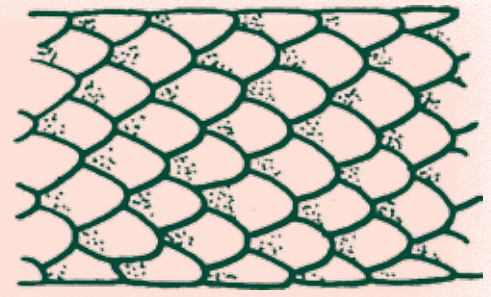


Copperhead



Keeled Scales

Snakes have either keeled scales or smooth scales. Keeled scales have a ridge down the middle. Snakes with keeled scales appear to have rough looking skin.

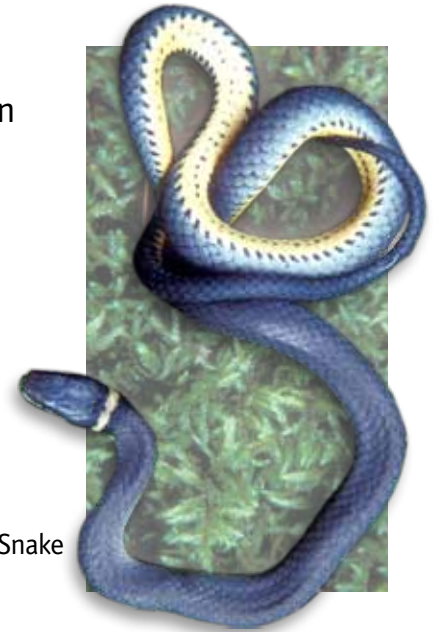


Smooth Scales

Northern Ringneck Snake

Northern ringneck snakes have a bright yellow to orange band around their neck. They are dark or bluish gray, black or olive brown on top with a bright orange or yellow underside. This snake has smooth scales. The northern ringneck snake is a slender snake that is usually less than 20 inches long. This snake is common in Pennsylvania. However, it is not often seen because it is active at night and rarely basks in the open. The northern ringneck snake prefers moist forest habitats where it can hide beneath rocks and logs. It primarily eats salamanders and earthworms. People sometimes find northern ringneck snakes, especially newly born snakes, in their basements. They rarely bite but may emit a foul-smelling odor when they are handled.

Northern Ringneck Snake



Northern Water Snake

Northern Water Snake

The northern water snake is often killed out of fear. People sometimes fear that it is a water moccasin, also called a cottonmouth. The cottonmouth is a venomous species not found in Pennsylvania. Others may mistake it for a copperhead.

The coloration of a northern water snake varies greatly. In general, it has brown or reddish-brown blotches on its back. In between these blotches, along the sides, are smaller rectangular blotches. The dark blotches on the water snake are wider than the spaces between them. As the water snake ages, it gets darker and will become all brown or dark gray. This snake has keeled scales.

Northern water snakes are not venomous, but they have a tendency to defend themselves viciously when threatened. It has strong jaws and can inflict a severe bite. If unable to flee or if cornered, it will strike repeatedly.

ANSWERS TO THE CROSSWORD PUZZLE

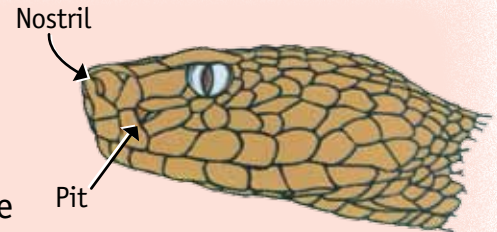
1. EYECAP; 2. SCALES; 3. SLITHERING; 4. COLD BLOODED; 5. JACOBSON'S; 6. JAW;
7. WHOLE; 8. SCUTES; 9. VIBRATIONS; 10. FORKED; 11. SHED; 12. DRY; 13. VERTEBRAE.



Venomous Snakes in Pennsylvania

The first question most people ask when they see a snake is “Is that snake poisonous?” Technically, no snake is poisonous. A plant or animal that is poisonous is toxic when eaten or absorbed through the skin. A snake’s venom is injected, so snakes are classified as venomous or nonvenomous.

In Pennsylvania, we have only three species of venomous snakes. They all belong to the pit viper family. A snake that is a pit viper has a deep pit on each side of its head that it uses to detect the warmth of nearby prey. This helps the snake locate food, especially when hunting in the darkness of night. These pits can be seen between the eyes and nostrils.

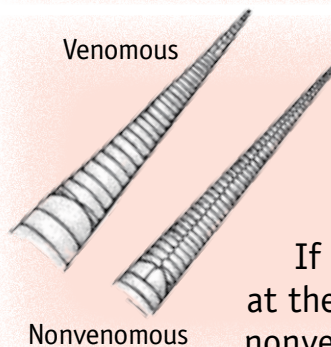
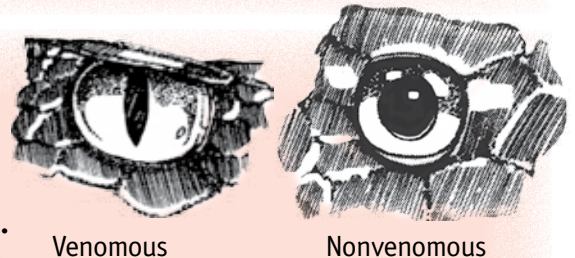


Pennsylvania Snakes Checklist

A complete list of Pennsylvania’s **21 species** of snakes.

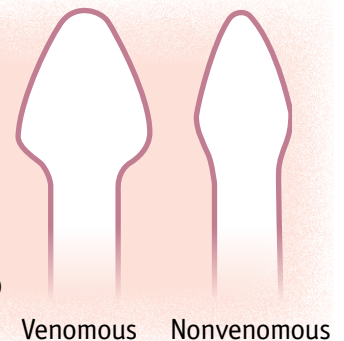
- Copperhead (*venomous*)
- Eastern Garter Snake
- Eastern Hognose Snake
- Eastern Massasauga (*venomous*)
- Eastern Milk Snake
- Eastern Rat Snake
- Eastern Ribbon Snake
- Eastern Smooth Earth Snake
- Eastern Worm Snake
- Kirtland’s Snake
- Mountain Earth Snake
- Northern Black Racer
- Northern Brown Snake
- Northern Redbelly Snake
- Northern Ringneck Snake
- Northern Water Snake
- Queen Snake
- Rough Green Snake
- Shorthead Garter Snake
- Smooth Green Snake
- Timber Rattlesnake (*venomous*)

In Pennsylvania, all of our venomous snakes have slit-like pupils that are similar to a cat’s eye. Nonvenomous snakes have round pupils, like a human eye.



If you find a shedded snake skin, look at the scales on the underside. If they are in a single row all the way to the tip of its tail, it came from a venomous snake. If the scales split into a double row at the tail, the shedded skin is from a nonvenomous snake.

Venomous snakes store their venom in a sac on each side of their head. This gives their head a triangular shape. However, some nonvenomous snakes can also flatten their heads, so using head shape alone is not the best way to identify a venomous snake.



The three species of venomous snakes in Pennsylvania are the timber rattlesnake, eastern massasauga and copperhead. Reports of venomous snakebites are rare in Pennsylvania. All three species are usually not aggressive and like to avoid humans by moving away or keeping still until the person is gone. **Never try to catch or handle a venomous snake.**

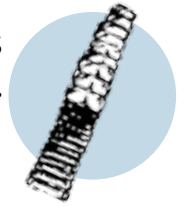
Timber Rattlesnake



Timber Rattlesnake

The timber rattlesnake has two different color phases: black and yellow. Both color phases have dark bands on their backs, a head with no markings and a dark tail. Their scales are deeply keeled.

Rattlesnakes add a new “rattle” to their tail each time they shed their skin. These rattles are loosely attached and can break off. The timber rattlesnake does not always rattle its tail before striking, especially when striking out of fear or defense.



Timber rattlesnakes like wooded hillsides with rocky outcrops. Timber rattlesnakes are a candidate species in Pennsylvania. This means that they are in danger of becoming a threatened species. Threatened species are in danger of becoming endangered. Endangered species are in danger of becoming extinct.

Eastern Massasauga

The eastern massasauga is a Pennsylvania endangered species and is the smallest of the Commonwealth's venomous snakes, averaging less than two feet in length. It is found in only a handful of locations within the western portion of the state. This snake lives only in wetland areas with dry fields or meadows next to it.

The eastern massasauga has a row of dark blotches running down the middle of its back with rows of smaller blotches along each side. Their scales are deeply keeled and the rattle is somewhat small.



Eastern Massasauga



Copperhead

Copperhead

The copperhead is the most common venomous snake in Pennsylvania.

It is tan or light brown, often with a tinge of pink. It has dark or reddish brown blotches on its back that are more narrow in the middle—like an hourglass. There are often small, dark spots in between the blotches. Its head is a copper color with no markings.

The scales are weakly keeled.

The copperhead is found in a variety of habitats.

PLAY

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For more information on snakes or snake publications, visit our website at www.fishandboat.com.