



Northern Copperhead

Taking a Closer Look at Northern Copperhead!

By Merrill Tawse

Ohio is home to three different venomous snakes, the Northern Copperhead, the Eastern Massasauga Rattlesnake and the Timber Rattlesnake. The last two are listed as endangered in Ohio. All three are in the Pit Viper family of snakes. The Vipers have heat sensitive pit on each side of their heads between their eyes and nostrils. These glands assist the snake in detecting their warm-blooded prey even in the dark. For some Pit Vipers the difference in temperature between the prey and its surroundings only need to be a few degrees for identification.

The colorful Copperhead is named for the coppery-red color on the top of its head. The rest of the markings help to conceal it in the leaf litter of the forest. In Ohio Copperheads are mainly restricted to the unglaciated parts. We are located on the edge of where the glacier extended (terminal moraine). Mohican is the closest area where Copperheads can be found. In checking with the park manager and his naturalist staff, there have not been any verifiable reports of this snake since the early 1980's. Even that was an isolated occurrence. As you go south and east in Ohio, you are more likely to encounter this snake. Although it is the most common of the three poisonous snakes, it is still rarely encountered even there.

In spring and fall, Copperheads are active during the day. They are found sunning themselves on an exposed rock outcropping or hillsides with a southern exposure. These wooded areas are usually close to their wintering dens (hibernaculas). By summer they are active at night and seem to move a couple of miles away from the wintering spots, often to areas around swamps or open meadows. As they travel, they seek their prey, which can include snakes, large insects, salamander, and an assortment of small mammals. By far mammals make up the bulk of their diet.

Food is located and followed using both the olfactory senses with their Jacobson's Organ and with their heat sensing pit glands. As they close in on a prey, rather than physically holding onto the biting and scratching prey, like our black rat snake does, they

just strike and inject their venom. This is accomplished by using the two hollow, retractable fangs on their upper jaw to inject it into the prey. Backing away to a safe distance, the snake allows the venom to work. The Pit Viper's venom is called a hemotoxin. It attacks the blood and interferes with its ability to carry the oxygen and nutrients.

It has been estimated that a typical Copperhead (30 to 40 inches) eats about eight meals a year in the wild. Ours eats more often than that, but ours is also kept at warm temperatures for the full twelve months of the year instead of the seven to eight months that the wild ones are. Younger Copperheads will eat more often, that is, once they have depleted their internal yolk sac. (Copperheads do not lay external eggs but rather the female keeps them inside until depositing the sac at birth).

Occasionally you may observe ours "yawning" and showing its fangs and the muscles that control them.

It is bites from Copperheads that account for most of the poisonous snakebites occurring each year to people in the United States. They are extremely painful but rarely fatal. Today most of the poisonous snakebites happen in our big cities. It is not in "the wilds" of America as in the past but rather where our highest concentrations of people are. It is people that are being bit by the snakes they are "keeping as pets" (mostly illegally).

If you look at both of our Pit Vipers, you will see that their eyes have the characteristic vertical pupil. Our Copperhead has only one eye though. This Copperhead came from downtown Columbus. There it had been used in a prank where a five-gallon bucket with two snakes in it was placed on the front door step of people's home and their doorbell rung. We were informed that this prank happened repeatedly until someone contacted the police quickly enough and they were able to confiscate them before they were retrieved. The one we were given was missing an eye, probably an injury sustained during its captivity.