

Copperhead

Agkistrodon contortrix



General characteristics

One of only three venomous snakes common to Pennsylvania, the Copperhead is a close cousin of the Cottonmouth or Water Moccasin found in more southerly aquatic environments. Reflecting its preferred habitat, the Copperhead sometimes is referred to as the “upland” or “highland” moccasin. However, the Cottonmouth is not indigenous to Pennsylvania.

The Copperhead is a quiet creature—some would say almost lethargic—and usually does its best to avoid trouble, quietly stealing to a safe retreat whenever it can. If threatened, and it feels the need to protect itself, the Copperhead is capable of striking out most vigorously. If the strike hits its intended victim, venom may be injected through two hollow fangs connected to glands located on each side and toward the rear of the head. The venom-injecting apparatus is similar to that found in the rattlesnake, although the Copperhead’s fangs tend to be a bit shorter. The venom is a hemotoxin, but with a trace of neurotoxin and as such primarily affects the bloodstream. The bite and resultant injection of venom is painful. But with prompt medical attention, it seldom poses any serious threat to life.

Identification

The Copperhead, reaching an average adult size of 24 to 36 inches, is a stout-bodied snake, perhaps heavier than most harmless snakes of a similar length. The body color is copper or hazel-brown, sometimes accented with a tinge of pink or orange. Bold chestnut or reddish-brown crossbands are narrowest across the midline of the back and wider at the sides. They present the appearance of a dark hourglass if one imagines them stretched out flat. There may be small, dark spots between these bands. The crossband patterns on the Copperhead are dark, but on the Eastern Milksnake, a snake often confused with the Copperhead, the hourglass-shaped crossbands are a lighter color. Thus, the dark pattern on the

Eastern Milksnake is at its widest across the midline of the back, compared to the narrower dark band on the midline of the Copperhead.

The belly of the Copperhead is a mottled pattern of white to gray. This feature can also be used as an aid in separating the Copperhead from the Eastern Milksnake, which has a black and white belly pattern roughly resembling a checkerboard. The unmarked head, somewhat triangular, is covered with large copper-colored scales.

The pupil of the eye is vertically elliptical (similar to a cat’s pupil). It is a feature that can be used to distinguish all three of Pennsylvania’s venomous from the 18 nonvenomous snakes common to Pennsylvania. The Copperhead also has the facial pit located between the eye and nostril, common to Pennsylvania’s venomous snakes. This heat-sensitive organ is missing from the nonvenomous species in Pennsylvania.

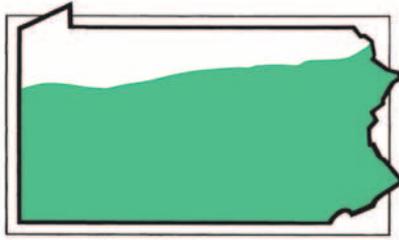
The scales on the Copperhead are only weakly keeled. The Copperhead does not have a rattle at the end of its tail. However, like the two other venomous rattlesnakes in Pennsylvania, the anal plate is single, and the scales on the underside of the tail are in single rows for most of its length, not divided into two rows as they are on the nonpoisonous snakes in Pennsylvania, which exhibit a double row or “zipper” like appearance.

Range

The Copperhead inhabits the lower two-thirds of Pennsylvania. Its range generally follows the southern limits of huge glaciers that eons ago scraped and ground their way into the northern hemisphere. Its range extends somewhat southwesterly through the Carolinas into Georgia, Tennessee, Kentucky and southern Illinois.

Habitat

The Copperhead likes wooded hillsides, especially those that feature rocky outcrops standing guard above a stream



photos-PFBC archives

The body of the Copperhead is copper or hazel-brown. Bold chestnut or reddish-brown crossbands are narrowest across the midline of the back and wider at the sides.

or swampy area. The Copperhead is attracted to stone walls, piles of rock and other similar debris and is a frequent visitor around farms and abandoned lumber operations. It is fond of curling up in sawdust or rotting logs, and it likes the protection offered by large, flat stones, especially those located near water.

The Copperhead, like so many other reptiles and amphibians, enjoys a day in the sun and often basks on a favorite rock, especially on a warm day in the spring or fall. During the hotter days of summer, the Copperhead seeks relief from the piercing rays of the sun and becomes more nocturnal in its activity patterns.

Reproduction

Recent studies indicate that the mating period for the Copperhead can be anytime from spring to autumn, with the peak time probably mid-summer. One to 14 live young are live-born in August to early October. Seven to 10 inches long at birth, the young Copperhead matures in two to three years. The young snakes learn early in life to fend for themselves by using the tip of their tail as a built-in lure. Usually bright yellow, the tail tip is held upright. Wriggled enticingly, it attracts curious prey to a hungry youngster. By the time it is one hour old, the juvenile Copperhead has venom strong enough to paralyze a mouse.

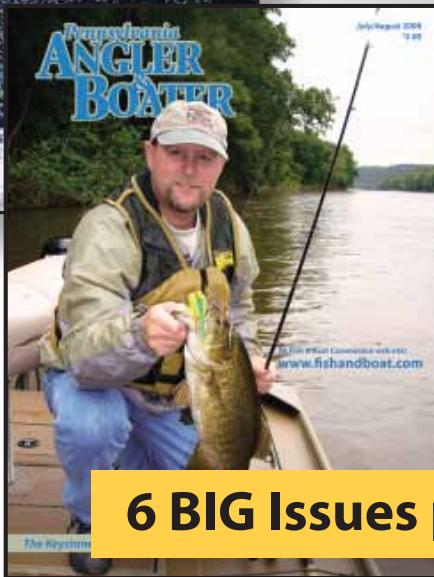
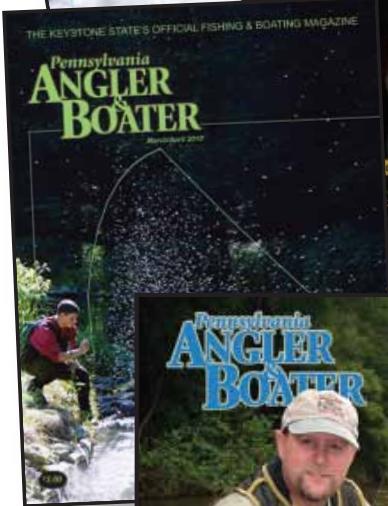
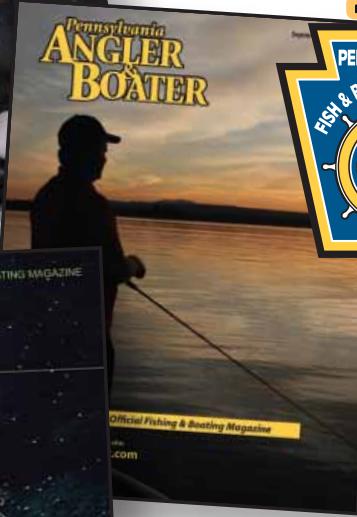
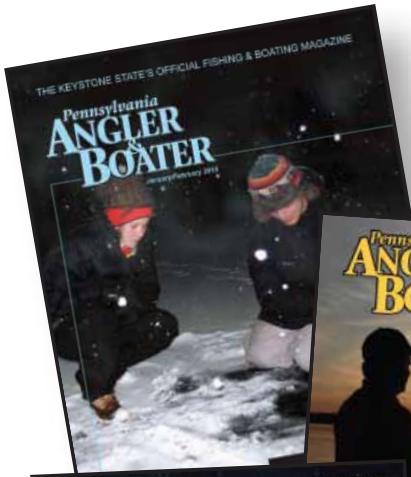
Food

A young Copperhead's first food is normally insects, but it soon seeks rodents, like white-footed and deer mice, the main staple of its diet. Birds, cicadas (when available), large caterpillars and an occasional frog or lizard diversify the menu. ☐



photo-PFBC archives

The pupil of the Copperhead's eye is vertically elliptical (similar to a cat's pupil). It is a feature that can be used to distinguish all three of Pennsylvania's venomous snakes.



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