

Garter snake

Photo courtesy: Tom Barnes

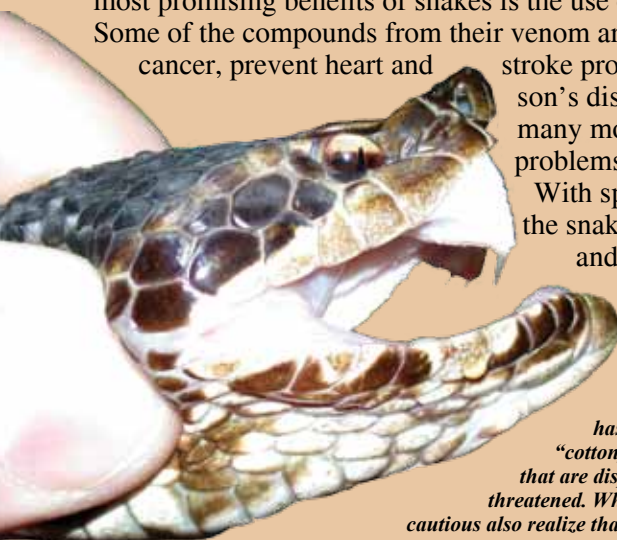
Kentucky Snakes

by Tom Barnes

Few animals elicit the irrational fear response in humans as do snakes. Typical responses include: “I hate snakes,” “I am scared of snakes,” or the best one, “The only good snake is a dead one.” These highly beneficial animals have gotten a bad rap in popular media, which perpetuates the stereotypes about this misunderstood group of animals. Snakes provide both direct and indirect benefits to woodland owners by being part of the balance of nature and serve as both predator and prey. Some common snakes such as the rat snake, corn snake, milk snake, or garter snake eat destructive insect and rodent pests. King snakes eat other snakes including venomous ones; queen snakes eat crayfish; and hognose snakes eat toads. Some of the smaller snakes such as the red-bellied, ring-neck, worm, and brown snakes eat earthworms and soft-bodied insects such as grubs in the soil. One of the most promising benefits of snakes is the use of their venom. Some of the compounds from their venom are used to treat cancer, prevent heart and

stroke problems, Parkinson’s disease, and many more health problems.

With spring upon us, the snakes will be out and about, and woodland owners will likely see



The cottonmouth has a distinctive white “cottony” mouth and fangs that are displayed when it feels threatened. While you should be cautious also realize that people are rarely bitten by venomous snakes in the U.S.

Photo courtesy: John Willson, University of Arkansas

them if they spend time in the forest and fields or even around their barns or outbuildings. While snakes are highly persecuted, they should in general be left alone. However, you can reduce their abundance by picking up metal, boards, tires, and other debris lying on the ground. One of the absolute best places to find snakes is under roofing tin that has been lying on the ground for years. If you clean up around your property you are most likely going to see a reduction in snake numbers. The other thing to reduce snake numbers around out buildings, barns, and other structures, is to reduce the rodent population. This can be accomplished in a variety of ways, but most rural folks use baits or glue traps. The keys to using these products is to make sure you follow the label and do not put out more than is directed by the label and make doubly sure that any domestic animals, including pets, cannot access the baits because there have been numerous instances of dogs dying as a result of eating baits or rodents that have died from poison baits.

One of the great concerns of many woodland owners is the prospect of having a venomous snake on their property. Yes venomous, not poisonous. Poisons are either ingested or absorbed and venom is injected. In fact, there is evidence that if you have no open sores or other open wounds in your mouth and or digestive tract that you can actually swallow snake venom and it will do no harm, while if you ingest a poison it will affect you and make you sick or kill you.

So what venomous snakes do we have in Kentucky?

We have four venomous snakes and the copperhead is by far the most common of all the species found in the woods pretty much all across Kentucky with the exception of the inner Bluegrass. Timber rattlesnakes

are becoming rarer and can be found across much of the state except Central Kentucky. The pygmy rattlesnake is considered a state threatened species and can only be found in the Land between the Lakes Area of far Western Kentucky. That leaves one other venomous snake, the cottonmouth or water moccasin. This species occurs in wetlands and swamps and is only found in the western third of Kentucky.

How concerned should you be that you will be bitten by a venomous snake? The chances are almost zero. There are 7,000-8,000 venomous snake bites annually in the United States and only 1 in 50 million people will die from snake bite. You are more likely to die from a spider or other insect bite, dog bite, or lightning strike than from a venomous snake.

How can you tell what a venomous snake looks like in Kentucky?

There are some easy ways to tell, and body color is not one of them. Nor is head shape. All snakes can vary in coloration, copperheads can be almost completely black and are light with little typical banding. Because all of Kentucky venomous snakes are “pit vipers” they have a distinctive nostril-shaped opening located directly between the eye and the nostril on the side of the head. This is used to detect warm-blooded prey and it allows the snake to strike with deadly accuracy, even in total darkness. The second, and very reliable, and perhaps easiest feature is the shape of the eye. Pit vipers have cat-shaped or elliptical pupils and non-venomous snakes have round eye pupils. Finally, venomous snakes have a single scale in rows on the underside of the tail that proceeds from the anal plate to the tip of the tail. Non-venomous snakes have two or more scales in a row preceding the entire length of the tail. This feature is even distinguishable on a shed skin.

In addition to these anatomical characteristics, habitat differences can also be used for cottonmouths, which live near or are associated with wetlands and water and are only found in the western part of the state. The common northern water snake is often mistaken for cottonmouths in the rest of the state because they superficially look similar, live in a similar habitat, and are aggressive. Generally speaking, rattlesnakes are most often associated with rough, rocky terrain and the most commonly encountered venomous snake is the copperhead and copperhead bites are rarely fatal.

For those interested in learning about which snakes live in Kentucky and identifying the various species, check out the Kentucky Snake Identification page at www.kentuckysnakes.org.

About the Author:

Thomas Barnes, Ph.D., is an Extension Professor and Extension Specialist with the University of Kentucky Department of Forestry. His specialties are wildlife ecology, biodiversity, wildlife management, and ecosystems management.

Cooperative Extension Service, Department of Forestry, University of Kentucky, 206 T.P. Cooper Bldg., Lexington, KY 40546-0073; E-mail: tbarnes@uky.edu; Phone: 859.257.8633; Fax: 859.323.1031

Characteristics of venomous snakes in Kentucky:

Pupil shape: The black part in the center of the eye (pupil) of harmless snakes is round. Poisonous snakes have egg-shaped or cat-like (elliptical) pupils.

Pit: Poisonous snakes in Kentucky also have a very conspicuous sensory area or pit on each side of the head.

www.kentuckysnakes.org



Timber rattlesnake

Photo above and below courtesy: Tom Barnes



Copperhead



Pygmy rattlesnake

Photo above and below courtesy: John Willson, University of Arkansas



Cottonmouth