

Season of the SNAKE

Fall Encounters with Maryland's Reclusive Reptiles

By Scott A. Smith

Fall is my favorite season. Colder nights, comfortably warm-to-cooler days, leaves changing color and flocks of migrant birds passing through, all signal to me that summer is over and the earth, or at least our piece of it, is slowly heading for nap time. I guess the declining daylight must release certain endorphins in our brains, a link to our primeval past, and I get a feeling of anticipation as if I am faced with boundless opportunities. And I am. Everything seems better at this time of year: hunting, fishing, hiking, bird watching, working outside without sweating gallons... and snake hunting.

Yes, snake hunting — and I don't mean hunting to kill but rather to observe. In late summer, snake eggs hatch or *gravid* females (those carrying developing young or eggs) give birth. Sixteen Maryland species lay eggs; 11 live-bear their young. This seasonal

increase in snake populations, coupled with localized concentrations as they gather at den sites in early fall, makes this a great time to launch a snake expedition, second only to observing spring emergence.



What's that you say? Crazy? Who would want to look for snakes when most people try to avoid them?

Misssssstaken Identity

There has been much debate over the years as to whether many people's fear of snakes is instinctive or learned. I personally believe that feelings towards snakes have much to do with attitudes and behaviors that are often passed down in families from one generation

to the next. In places where many snakes were venomous — for example Asia and parts of Africa — deaths from snake bite were not uncommon, and parents taught children to fear all snakes and avoid or kill them. Snakes

were viewed as potential threats and this has been encoded in societal myths, starting with the biblical story of a serpent beguiling Adam and Eve to eat the forbidden fruit.

Another theory, expressed so eloquently by an *ophidiophobe* (literally "snake fearer") friend is, "it's that limbless thing and the way they move that creeps me out!" Many of today's snake lovers — myself included — had to overcome the fear generated by the myths of our culture and/or instinctive discrimination. Whether you like them or fear them, most people are curious about these misunderstood and persecuted members of our natural communities.



Maryland is home to 27 species and sub-species of snakes, from the common and widespread eastern garter snake to the beautiful and extremely rare rainbow snake.

Opposite: A rough green snake blends into surrounding foliage. Left: A rare rainbow snake found only in Southern Maryland. Below: A startled, non-venomous black snake assumes a defensive posture. Bottom: The brightly colored Coastal Plain milk snake inhabits coastal areas from southern New Jersey to northeastern North Carolina

Maryland is home to 27 species and sub-species of snakes, from the common and widespread eastern garter snake to the beautiful and extremely rare rainbow snake, a resident of more southerly coastal swamps and marshes found only in southern Maryland. Our only venomous snakes are two pit-vipers, the northern copperhead and timber rattlesnake.

Contrary to the hundreds of erroneous reports Department of Natural Resources (DNR) receives each year, the venomous water moccasin (a.k.a. cottonmouth) does not occur in Maryland. Our common, widespread and non-venomous northern water snake is often reported as a moccasin due to its close association with all wetland habitats and its cantankerous and aggressive



reputation, much of the latter is actually defensive behavior. The nearest water moccasin population

is in the Appomattox River in Virginia.

Myth Busters

Many of the snake inquiries received by the DNR wind up on my desk. These can be categorized as the frightened/concerned: "There's a 3-inch snake in my basement and we are scared to go down there

and you must come and take it away NOW!"; the curious: "I found a 12-inch patterned snake under a log in my woods

eating salamanders and I'm wondering if you can help me identify it?"; and the helpful: "I want to report a queen snake in my stream, if you guys at DNR are keeping records." With today's prevalence of digital cameras many of these requests come with a photo, making my job a lot easier. But I still hear a lot of inaccurate statements concerning snakes. So let's see if we can clarify some of these myths.

Myth #1: The "original" myth - Adam, Eve and the serpent.

This myth started our culture down the road to snake persecution. If we view the biblical story in the context

of the ancient Middle East in the time period it was written – probably from an even earlier oral history – and the fact that death from snake bite was common, this was an object lesson to teach children and thus reduce parent's fear of the potential loss of a child. Or, for Harry Potter fans, perhaps early humans understood parcel-tongue.

Myth #2: *Milk snakes suck milk from cow's udders.*

This story, to which this species can attribute its name, originated from the prevalence of mice in barns, thus attracting snakes. At some point a snake must have been observed while trying to avoid getting trampled by a cow's hoof, to wrap around its leg, thus the belief that it was trying to get at the milk. Lo and behold, a myth was born... Unfortunately, this has led to the death of many a beneficial mouser.

Myth #3: *Black snakes breed with rattlesnakes.*

This story probably derived from dual observations of dark color phase rattlesnakes, rather than the more common yellow color phase, and



also black rat snakes and/or black racers in the same area. Although these species may den together for the winter, they do not interbreed. This has led to the deaths of both black rat snakes and black racers, erroneously thought to be venomous.

Myth #4: *Black rat snakes, formerly known as the pilot rat snakes, "pilot" the way out of the den for rattlesnakes.*

The myth makers must have thought that rattlesnakes have a bad sense of direction. This was derived from the observation that rat snakes were the first species to emerge from communal dens in the spring. Rattlesnakes can find their own way out; however they emerge later based on different temperature and photoperiod cues than rat snakes. A corollary myth: If you kill the rat snakes, the rattlesnakes won't find their way out and they'll die too. Both of these species are great rodent hunters, and important to forest ecosystems.

Myth #5: *Any snake with a triangular head is venomous.*

This misconception has also led to a lot of dead snakes. A common defensive posture, many species – including non-venomous – flatten out their heads which makes them look triangular, to look threatening and scare



Above and below left: Maryland's most common water snake, the northern water snake, is not poisonous but is well known for its nasty disposition.

off a potential threat.

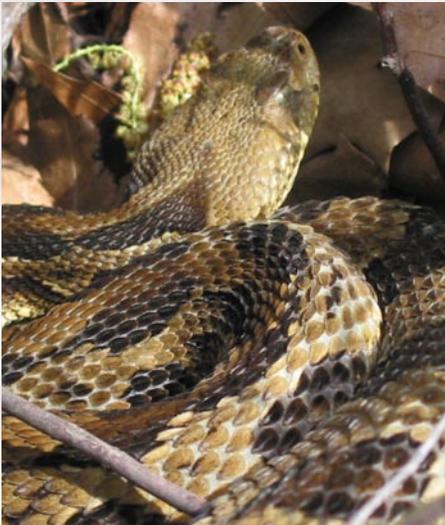
Myth #6: *Baby rattlesnakes and copperheads are not venomous.*

Very, very wrong!! Drop for drop their venom is actually more potent than adults; however their venom glands are smaller, thus less transmitted per bite. It is also believed that the young have less control of muscles and tend to drain most of their venom per bite as compared with the adults. This myth can kill! A few years ago a young suitor was attempting to impress his date with an allegedly non-venomous baby rattlesnake when it bit him and sent



The northern copperhead, found statewide, p

him to the hospital. Fortunately there are relatively few (two to six) reported venomous snake bites in Maryland each year, and fatalities are extremely rare.



Maryland's western and Piedmont regions are home to the timber rattlesnake.

Myth #7: *All snakes with patterned backs are venomous.*

Aside from the copperhead, about one-third of all Maryland snakes have patterned backs at some point in their lifecycle. Species most commonly



prefers remote rocky and wooded areas.



Small but mighty, the garter snake is found throughout Maryland.

mistaken for venomous are the juvenile black rat snake and eastern hog-nosed snake. The first is primarily a rodent eater; the latter dines exclusively on toads. This group also includes juvenile water snakes, juvenile racers, northern pine snakes (an extirpated species), corn snakes, mole king snakes, eastern king snakes, and eastern milk snakes.

Myth #8: *Coral snakes occur in Maryland.*

Wrong! The nearest populations are found in southeastern North Carolina. However, the state is home to two non-venomous coral snake mimics; that is, they have black, red and white or yellow banding similar to coral snakes, which fools potential predators into leaving them alone. These are the coastal plain milk snake, a lizard-eater, and the northern scarlet snake, an eater of snake and lizard eggs. An old ditty helps differentiate them from the venomous coral snake: "Red on black, friend of jack; red on yellow, kill a fellow".

Snakes and the Law

In 1993 DNR developed regulations designed to protect reptiles and amphibians while still maintaining the educational and economic benefits derived from them. It is currently

legal to possess or collect without a permit up to four snakes from the wild as pets for all species except timber rattlesnake, rainbow snake, scarlet snake and mountain earth snake, which may not be possessed. Those wishing to collect more than four snakes from the wild or attempting to breed or sell snakes in Maryland need a permit. No snakes taken from the wild are allowed to be sold. The Department promotes a trade in captive-born animals only, to preserve wild populations of our native snakes. Additionally, based on these regulations, it is illegal to kill snakes, including rattlesnakes and copperheads, without a permit issued by DNR. Also it is illegal to collect animals on public lands without the written permission of the land manager for that unit.

So if you decide to embark on that snake expedition (and I hope you do), please observe the law. Snakes are extraordinarily interesting animals, beautiful, and very important members of our natural heritage. And please keep sending those photos! ♦

Scott Smith is the Eastern Region Heritage Ecologist with DNR's Wildlife & Heritage Service. Scott has worked for DNR since 1989. Scott also took the amazing photos used in this story.