Garden Gem

By Frederick Boyce

The rough green snake

There is one local snake that is almost always welcomed to the yard or garden—one which does not typically frighten even those who have a phobia of snakes. The slender and elegant rough green snake, *Opheodrys aestivus*, is aptly named, being a solid grassy-green above with a yellowish-white underside. So perfectly does this vine-like serpent blend with green foliage that it becomes almost completely invisible in its habitat and is usually noticed only when it tries to cross a road or other open space.

Green snakes often look like a stalk of tall green grass that has blown into the roadway, which is why I usually stop and take a closer look at every long stalk of grass that I see in the road, especially when there isn't any growing nearby. Unfortunately, these beautiful snakes are often killed while crossing roads, as their primary defensive strategy is to remain very still except for the forward part of the body, which they will stiffen and move slowly back and forth in emulation of a green vine being swayed by a gentle breeze. They also employ this cryptic strategy when stalking their arthropod prey (crickets, grasshoppers, caterpillars, other insects and spiders), a behavior that is fascinating to watch. One of the few snakes that is almost wholly insectivorous, the green snake should be welcomed as a valued foe of garden pests, and it is indeed difficult to imagine how anyone could object to such a lovely and delicate creature.

There are two species of green snake in the U.S.—the rough green snake, which is found in our area and throughout the southeast, and the very similar smooth green snake (*Opheodrys vernalis*), which is found mostly in the northeast, ranging into Canada, and in scattered (disjunct) populations across the Midwest. The main difference between the two species has to do with two types of snake scales—keeled (rough) and smooth. Keeled scales are just that: every individual scale, just like the bottom of a tiny boat, has a raised ridge, or keel, running down the center. Smooth scales lack keels. Rough green snakes also tend to be much more arboreal (better climbers) than smooth green snakes, and have larger round eyes.

Green snakes actively hunt for their prey by sight and have excellent vision, but like all snakes, they rely heavily on a combination of the forked tongue and an accompanying chemo-sensitive organ in the roof of the mouth, the Jacobson's organ. In green snakes, the tongue is red or bright orange. Despite persistent rumors, and a single preserved specimen dating from 1871, smooth green snakes have not been confirmed to occur in North Carolina. Seldom seen because of their excellent camouflage, rough green snakes seem to be somewhat more common along the coast than in the Piedmont where I grew up.

Thanks to a big book on snakes that was given to me at a very young age, green snakes became an early obsession of mine. I had my mother read me the chapter about green snakes over and over until I was old enough to read it over and over for myself. For several more years the wistful phrase "that looks like a good place for green snakes" could be heard emanating from the back seat of our automobile as we passed thickets of lush NC greenery. Throughout my kindergarten years, any foliage we encountered on family outings—vacations, visits to relatives in the country or family reunions—was thoroughly scoured for green snakes, but the coveted creatures remained so elusive that I began to doubt their very existence. At one of my Uncle Ed's large annual chicken stews on his farm near Walkertown, I discovered a hole in a creek bank, and while I was pretty sure that green snakes did not live in holes, I was willing to entertain any possibility at that point. I rolled a small dirt clod down the hole and while no green snakes emerged, a large and angry swarm of yellow jackets did, completely enveloping me and ruining the chicken stew.

By my seventh birthday, I was on the verge of giving up altogether and despaired of ever seeing a live green snake in my lifetime. Several of my second-grade classmates had gathered sympathetically for a birthday party that seemed more like a wake. More out of habit than anything else, I



A rough green snake employs its primary defensive strategy—pretending to be a green vine moving in a slight breeze.—Photo by Frederick Boyce

wished the same old wish I had wished for the past ever-so-many birthdays, and blew out all the candles on my cake. At almost the same instant, I heard the front door of the house open and close and my older brother, who was then curator of the Nature Science Center at Reynolda Gardens, came striding in carrying a mayonnaise jar, which he plopped down on the table in front of me, the smoke from my seven extinguished candles still hanging in the air. The jar held what appeared to be two long strands of grass. "Why would he bring me a jar of grass?" I wondered for about a half a second. Then the realization of what I was looking at hit me. I was actually, finally, gazing upon two real, live green snakes. They existed after all. I kept them in a terrarium in my basement museum and zoo for several years and fed them on moths and other insects that I collected around the porch light at night. I can guarantee that no person who knew the profound and lasting joy that those dainty little creatures brought to a small boy would ever utter, or even countenance again, that ugly old phrase "the only good snake is a dead snake."

Some information about smooth green snakes in North Carolina for this article was gathered from the book Reptiles of North Carolina by Palmer and Braswell, UNC Press. Frederick Boyce is the staff herpetologist at the NC Aquarium at Pine Knoll Shores.

