

Its Rattle is Worse Than its Bite: Florida's Second Most Odious Reptile Basically Wants to Live in Peace, but When You Hunt One, You May be the Prey.

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ASIDE FROM THE ALLIGATOR, the top contender for most-dreaded reptile status in Florida is undoubtedly the rattlesnake. Few Floridians haven't at least flirted with the fear that someday they'll get fanged, rendered ready for the mortuary in a matter of heartbeats.

The facts, of course, don't really support such fears. But, just about everyone who's lived here a while has his own first-person snake story. Mine came in the late one summer when I was in high school. A friend, walking next to me late at night was about to step over what he thought was a large branch stretched across a moonlit dirt road in Maitland. He didn't appreciate the backward shove I gave him until my prodding the 6-foot "branch" with a long stick caused it to coil, rattle for an instant, and then strike the air in front of us with blinding speed. Later, after we'd killed that snake, the decapitated body coiled and struck my hand, leaving me with the sickening sensation that I'd been bitten.



I watched Steve Mitchell, an Orlando area firefighter, capture this nice little specimen.

A native Floridian to be recognized and respected, the Eastern diamondback rattlesnake is recognized by snake aficionados as the largest, most dangerous serpent in North America. Rivalled in size only by the deadly bushmaster of South America and the king cobra of Asia, the diamondback's maximum official length hovers around the eight foot mark.

The distinctive, yellow diamond pattern against a black or dark olive-green background can almost be lost in the mottled sunlight filtering through the foliage of a diamondbacks' palmetto-scrub or pine-forest habitat. Many a rabbit, squirrel and hunting dog hasn't seen the tightly knit coils until it was too late.

Although endowed with excellent eyesight, the diamondback also has an infrared sensing pit beneath each eye that enables the snake to "see" body heat from an animal even in the dark. Like other such snakes known as pit vipers, diamondbacks can follow their prey in the dark simply by relying on the complex nerve bundles in each pit.

The danger from a diamondback bite comes from the snake's large size and ability to inject huge amounts of venom into its victim.

As if camouflage, size and amount of venom weren't enough protection, the diamondback has also been blessed with a rapid-fire striking mechanism and the ability to strike a distance of two thirds its body length. Mike Fournoy, curator of reptiles at the Silver Springs

Reptile Institute says that studies have shown diamondbacks striking at a speed of about 7 feet per second. What this usually means is that a victim is bitten in less than 1 1/2 seconds after the snake begins its lunge.

IN THE MIDST OF Florida's explosive growth, and even because of it, encounters with diamondbacks are not uncommon. Craig Warren, a reptile handler at Gatorland near Kissimmee tells of periodic calls to come get a rattler from newly built housing areas.

George Van Horn of Reptile World Serpentarium in St. Cloud, FL explains it this way. "As people invade more diamondback country, they are obviously going to run into more diamondbacks. All these areas that are being developed are just confusing the snakes. For instance, a male rattler looking for a mate will go to an area where he found one last year, and instead he finds a gas station and a hotel. That's when we get a call."

In the age-old saga of man versus serpent, snakebite statistics for the United States show that about 7,000 people are bitten by poisonous snakes annually. Of that number, 12 to 15 people actually die. In Florida, that translates to about 200-300 snakebites per year with only one or two fatalities. Diamondback bites, though, are not recorded as often as those of the pigmy rattler and the cottonmouth moccasin.

One reason for the low mortality rate of snakebite incidents, according to the experts, is that in only about 20 percent of the cases has there been enough venom injected for the bite to become life threatening. In about another 20 percent of the cases, no venom was injected at all. Apparently, a poisonous snake has control over whether or not it excretes its venom, and how much.

"Venom is primarily meant to immobilize a food source more than it is meant to protect a snake from surprise attack," says Van Horn.

Another factor in the lower death rates in recent years is the wide spread use of antivenom. Made from the blood serum of a horse injected with increasing dosages of a particular venom, antivenom's active ingredients are actually antibodies that the horse's system has built up to resist the poison. Injected into humans who have been bitten, it fights venom with generally good results if administered, in cases of a severe bite, within four hours of the incident.

The chances of being bitten in rattlesnake country are one in 160,000 and the chances of dying from a rattler bite are only one in 5 million. But people tend to turn those odds against themselves by foolish actions. Most bites, the experts agree, occur when someone is trying to kill, capture or handle a venomous snake. It seems that many a "dead" snake has come back to life, much to the dismay of its executioner. I "killed" that 6-footer in Maitland by firing three bullets through its head, only to have the snake later come alive while sealed in a burlap bag in the back seat of my car. Once a farmer cut off a rattler's head, only to have that same head bite him. Scientific studies have shown that a rattlesnake head, severed from the body, can still open its jaws at the approach of an object, bare its fangs, bite and inject venom 20 minutes to an hour after decapitation.

What, then, is the first aid for a poisonous snakebite if someone should happen be so unlucky? Dr. Benjamin Newman, medical director of Seminole County's Emergency Medical Services, summed up the views of several professional snake handlers with this advice: "Kill the

snake, if it can be done safely, for identification purposes. Keep the person as calm as possible and get him to a hospital quickly. A constrictor band, and not a tourniquet, should be used above the bite only if transportation takes longer than 15 or 20 minutes. Cutting the bite should only be done if you are stranded in the woods, with no hope of getting out for hours."

While most people would be horror-struck at the thought of constant exposure to diamondbacks, reptile handlers like John Van Horn of Reptile World Serpentarium and Mike Fournoy at the Silver Springs Reptile Institute do so on a daily basis. Van Horn regularly "milks" the poison from his snakes while Fournoy routinely walks into a pit of buzzing diamondbacks before an audience of awed spectators. Both men have been bitten by snakes a number of times and have fingers shortened by particularly nasty bites.

"I never really think about the danger," Van Horn says. "This is not a dare-devil operation. We exist to extract venom from poisonous snakes for scientific purposes. We supply venom and venom components to research clinics, universities and pharmaceutical companies. Our diamondback venom, for instance, is used to make antivenin, to study blood chemistry and is even being used in research on nerve-tissue regeneration. In order to get the venoms safely and efficiently, we have refined our procedures to where the danger is minimal. We have more than 1,100 snakes here on the venom line and over the years, we have had some 300,000 handlings with only five work-related bites."

"Most of the time," says Mike Fournoy, "when I walk into that snake pit with a dozen or more Diamondbacks, well . . . to me they are just like a bunch of grass snakes lying there. I don't have the slightest fear. As a matter of fact, that's my biggest fault and why I keep getting bit. But then again, its the 'jazz' of the whole thing. I love to give people a good show. It's really the excitement of it."

Steve Mitchell is also a snake fancier, but part time. An Orlando area firefighter, he occasionally hunts the diamondback on his days off and sells them to George Van Horn's Serpentarium. Coordinating his hunts with the forestry service and local landowners, Mitchell searches over burned-over areas the day after a planned and controlled brush fire. With such places swept clean of foliage, he often finds diamondbacks in or near their borrowed gopher-turtle burrows.

I tagged along with Mitchell one time as he hunted the area just west of South Orange Blossom Trail near Gatorland. When the hunt began, acre upon acre of blackened pine flats still smoldered from the recent fire.

When the sun finally broke through the clouds, Mitchell unveiled what he calls his "secret weapon." Out came two small mirrors, one to attach to the end of his snake stick and one to hold in his hand. With that simple combination, he showed me how easy it was to reflect sunlight into gopher-turtle holes and even to see around the first corner of the tunnels.

"If I can see a snake in there," Mitchell chuckled, "he's mine. Even though these tunnels can go 15 feet out and 7 feet deep, I'll dig him out with my shovel."

He did just that. After spotting and digging out a red rat snake, he easily lifted a pygmy rattler from a hole dug just a few feet behind the entrance to a gopher-turtle burrow. "What a lot of people don't realize," Mitchell explained, "is that to hunt and sell poisonous snakes, you need to have two different licenses from the Florida Game and Fresh Water Fish Commission. Not

only that, but it is just flat dangerous unless you really know what you are doing. Even with my years of experience, I almost got bitten once when a diamondback I was holding sank his fang through his own jaw and left it resting across my finger."

At the next burrow, we hit the jackpot. "Yup, there he is," Mitchell mused as his mirror flashed into the dark opening " Mr. Buzztail." But, the diamondback wanted no part of us and retreated into his small, dark cave. Methodically, Mitchell inspected the angle of the tunnel direction and then began digging what became a series of three holes. Each shaft cut neatly into the hole until at a depth of about 3 feet, the mirror attached to the snake hook revealed movement and brilliantly contrasting skin patterns. Coal black eyes stared back at us and the split tongue waved in the direction of the mirror, testing its smell.

"Uh oh," Mitchell warned, "he's trying to . . ." Without finishing his sentence, he pulled the mirror from his snake stick and plunged the hook back into the hole. With a sudden jerk of the handle and a downward thrust of the other hand, Mitchell caught the rattler by the tail. After a brief tug of war, the diamondback gave up and was pulled free of the hole to dangle in the air.



Steve Mitchell helps his diamondback friend take a bow for the camera.

Very carefully and very gently, Mitchell laid his 4-foot catch on the ground, the yellow chain of diamonds contrasting sharply with the blackened ground.

No rattling, coiling or striking occurred. "See how aggressive they are?" Mitchell asked jokingly. Only when prodded did the snake assume its defensive posture and begin to vibrate the eight segments of its rattle. Even then, it took waving a duffle bag in front of the snake to force it to strike.

As are other species of animals in our state, the diamondback is losing ground to pavement and buildings. Its size and numbers are decreasing. But even in the shadow of our huge hotels and within sight of our tourist attractions, the diamondback refuses to give up. Tenaciously, it holds onto territory its ancestors knew long before human beings decided to populate this peninsula.

The next time you travel Florida's highways, remember our neighbor the diamondback. He's still out there under the palmettos, attempting to stay out of the way and trying to hang on, just like the rest of us.