



The Virtual Gardener—Stop, Look & Listen! Are There Rattlesnakes in Your Garden?

In the June issue of this newsletter, I discussed heat stress illnesses, one of the biggest summertime dangers facing gardeners. This month I want to talk about another summertime danger—snake bite.

Gardens can be attractive places for snakes. The lush vegetation and moisture provide a cool, shady environment. The foliage provides protection from the sun and observation. These benefits alone would make the garden an attractive place, but in addition, the garden attracts birds, rodents, and other small reptiles that provide a food supply for snakes.

It's not surprising that people are bitten while working in their yards or gardens. Preoccupied with tending their plants, gardeners are often not alert to possible threats. Lush, dense foliage sometimes obscures the views of the places they reach or step into. The last thing on their mind is the possibility of being bitten by a rattlesnake. Check out

this [video](#) for a graphic example of what happened to an unsuspecting gardener in Tucson.

Fortunately encounters with rattlesnakes are rare, especially in an urban environment, but encounters can happen, and it pays to be cautious. The basic rule for working in a garden where snakes may be present is the same as the rule you learned in grade school for crossing the street—**stop, look, and listen**.

Before you impulsively reach or step into an area where you can't clearly see, stop and look to check it out first. If you must reach into an area that is obscured by vegetation, use a long-handled tool to lift or move the foliage before reaching in. Although you can't rely on a warning rattle from a snake before it strikes, many times there is a warning rattle, so **listen** as well as look.

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And by the way, don't be wandering around the garden or yard after dark without a flashlight.

Snake-proof your garden and yard or at least make it less of a hazard. Experts say that a smooth, four-foot high wall with a four-inch overhanging lip on the outside at the top is enough of a barrier to keep almost every rattlesnake out. Just remember also to block or screen any openings such as under a gate or where the wall is penetrated by drainage holes. Where possible, trim vegetation high enough so there are no hiding places under it. Grow densely foliated and spreading plants like cucurbits on trellises or strings to get them up off the ground. And finally, try to keep the rodent and rabbit population under control. Snakes are unlikely to stick around long if there is nothing for them to eat.

Learn to recognize rattlesnakes and distinguish them from other harmless snakes. Colors and markings are not definitive. Many gopher snakes (*Pituophis catenifer*) have been wrongfully identified as rattlesnakes because their markings are similar. The presence or absence of rattles on the tail is not an infallible identifier either. Sometimes rattles break off, or as in the case of newly born rattlesnakes, are present only as a tiny button. The shape of the head and general shape of the body are the best clues. All rattlesnakes have triangular-shaped heads with a relatively narrow neck. The body itself is fairly broad compared to gopher snakes.

OK, you've escaped injury but have identified a rattlesnake in your yard. Now what? First, give yourself plenty of space. According to experts, rattlesnakes can strike at a range of about two-thirds of their body length. In case you're having difficulty in figuring out how long a coiled snake might be, guesstimate it at six feet. That would take care of 99 percent of the rattlesnakes you'll probably ever see. Stand back that distance, and you should have plenty of buffer space. Rattlesnakes will not attack. If given the option, the snake will retreat.



Most snake bites occur when people attempt to kill, capture, or harass a rattlesnake, so leave the snake alone. The standard advice is to let the snake wander on—it's probably just passing through anyway. But keep an eye on it just in case. The last thing you want is for it to disappear somewhere around your house and not to be able to find it again. If you would prefer to have the snake removed—and that would certainly be my preference—call your local Animal Control or non-emergency police number if you live inside a city or the County Sheriff if you live outside a city.

There is much more to learn about rattlesnakes in Arizona. Click [here](#) to see an appendix to this article containing pictures, bite treatment, and other information and references.

Until next time, happy surfing!

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Cuttings 'N' Clippings

✿ The next CCMGA meeting will be held **Thursday, August 1** at 5:00 p.m. in the Public Meeting Room located in Groth Hall at UASV. The public is invited to a presentation on Monarch Butterflies by Gail Morris, Coordinator of the Southwest Monarch Study, a Monarch Watch Conservation Specialist, and Maricopa County Master Gardener. The monarch is often considered the jewel of the butterfly world. Hear what has been learned about the migration and breeding behavior of the monarch population in our state, the importance of native *Asclepias*, and the many questions still remaining. The monarch population is declining, but you can enjoy their beauty in your yard!

✿ The Water Wise schedule for **August** includes mini talks at Lowes and ACE Hardware on planting trees and shrubs. Check-out the Water Wise web site at: <http://waterwise.arizona.edu/>

✿ The Water Wise fall Xeriscape tour is scheduled for **Sunday, September 8** in the Sierra Vista area, Maps and more information will be available later in August. For details and map call (520) 458-8278, Ext 2141 or contact Joyce at:

jwilliam@ag.arizona.edu/

✿ The 14th Annual Highlands Garden Conference will be held **Saturday, October 12** in Miami, AZ. To access the registration brochure visit the website at: <http://extension.arizona.edu/events/arizona-highlands-garden-conference>



And it Burns, Burns, Burns, the Ring of Fire . . .

These pages are usually reserved for advice on how to grow plants or deal with plant pests, but we'll take a little detour today, and instead focus on using the produce from your garden to create tasty dishes. More specifically, this article is a recommendation for a cookbook; a cookbook on how to use those beautiful chile peppers that your garden has produced. The book is *Hot Sauce!*, by Jennifer Trainer Thompson. *Hot Sauce!* is a useful and entertaining guide for using your home grown chile peppers. It contains 32 recipes for various hot sauces from around the world and another 60 recipes for using those sauces in your cooking. I don't think chile was what Johnny Cash had in mind when he wrote *Ring of Fire*, but, hey, if the shoe fits...

The book has recipes for everything from beverages and appetizers to side dishes and main courses. One nice feature of the book is that the recipes often suggest a commercial equivalent to the homemade version used in the recipe. So, if you haven't yet made your own version of Louisiana-style hot sauce, you can substitute with store bought. Alas, there are no recipes for desserts, but I can wholeheartedly recommend adding a tablespoon or two of chile powder— ancho, New Mexican (hot or mild), or chipotle are good—to your next batch of brownies or homemade chocolate ice cream. Chile and chocolate re-

ally are a combination made in heaven. Chile powder also adds a welcome kick, not to mention a nice color, to a batch of peanut brittle.

I can do no more justice to the book than to quote from the book itself, page 91, which contains a quote from one, Scott Fisher, on the experience of eating an habanero:

- When you eat an habanero—pulling the stem like the pin on a grenade, tossing the little orange lantern into your mouth, biting down, and chewing—several things happen.
- First, there's the seductive aroma as the chile bursts in your mouth, at once flowery, musky, and subtle. At first, habaneros seem merely warm—the glow builds slowly, like termite, like the rising crescendo at the end of “A Day in the Life.”
- After ten seconds, you think it's not so bad. After thirty seconds, you think, well, this is pretty bad, I really don't think I've ever eaten anything this hot, and it's pretty uncomfortable.
- After a minute, your ears have popped and you can hear your blood rushing. Your forehead is producing sweat like one of those trickle hoses in the garden.
- After two minutes, you realize that whoever said that there are no nerves in the digestive tract (not correct), is because you can feel the pepper in your stomach, the kin-

esthetic equivalent of a barium tracer for X-rays.

- After four minutes, you can still feel the incandescence in your mouth, but now several new sensations have joined in. First is the nausea...then comes fear...if I throw up, this stuff will get wedged inside my nose.
- After six minutes, while your ears are still ringing and your teeth still hurt and your lips, cheeks, uvula, and all oral mucosa are throbbing like a raw wound, the peristaltic lock happens. All the muscle down the 40 or so feet of tube that make up your gut freezes, like the biggest intestinal charley horse you ever hope to live through.
- And then the horror hits you as you realize that in a few hours, this screaming blast of agony, this blazing welder's torch of *Capsicum chinense*, will have to come out. And there's only one way.

That excerpt ought to give you a little bit of the flavor and irreverence in which this book is written. It's fun, funny, and gastronomically enticing (fancy talk for “it made me drool”). If you're a chile head, you owe it to yourself to check this book out and discover a whole lotta ways to spice up your life. As a bonus, it'll inspire you to expand the number of chile varieties you grow.

Enjoy the heat!

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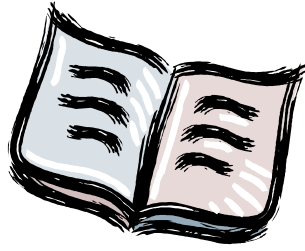
BOOK REVIEW: *The Vertical Farm*

BY: Dr. Dickson Despommier

Reminiscent of descriptions found in *Brave New World*, Dr. Dickson Despommier describes a utopia in which farms assume a modern architecture in his tome, *The Vertical Farm*. Towers fill entire buildings with plants and fruits and vegetables which will provide local food sources without regard to unpredictable weather, the need for pesticides, fertilizers and herbicides or water shortages.

Dr. Despommier, a now retired professor of microbiology and public health at Columbia University, relates a compelling story of how farming has changed over time; how food production has been influenced by human need, greed and thoughtlessness, and how this has impacted our environment and society. He places farming into the larger context of biology, ecological science, engineering, history and politics. Although not science fiction, the concept is definitely radical.

The vertical farm of the future will consist of a complex of buildings constructed in close proximity to one another. It will include a building for growing foods; offices for management; a separate control center; a nursery for selecting and germinating seeds; a quality control lab for food safety; an ecoeducation tourist center; a green market and a restaurant. It would employ large-scale hydroponics and aeroponics as a potential solution for two problems: 1. production of good crops to feed a growing urban population without further damaging the environment; and



2. freeing up farmland and allowing it to return to its ecological setting.

The *Library Journal* named it the best book of 2010. The Sierra Vista Public Library has a copy for your perusal.

Jennifer "Ginger" Ryan, MBA/Ph.D.
Associate Master Gardener

August Reminders

- ◆ Keep pulling the weeds
- ◆ Prolong annuals
- ◆ Plan your spring wildflower garden
- ◆ Watch for nutrient deficiencies, sunburn, salt burn, overwatering, & insects
- ◆ Fertilize

Ask a Master Gardener

Cochise County Master Gardeners are available to answer your gardening questions either by telephone call to the Cooperative Extension Office or on-line on our web site at:

www.ag.arizona.edu/cochise/mg

Agent's Note: The answer to last month's question about tomato blossom end rot should have read: Blossom end rot is caused by a lack of calcium in the developing fruit. Irregular soil moisture that leads to a lack of uptake of calcium from the soil is usually the culprit, rather than a lack of calcium in the soil. For more information on blossom end rot please visit our FAQ's at:

<http://cals.arizona.edu/cochise/mg/faq.htm#Vegetables> or
<http://goo.gl/pRxZ6>

Question: How can I get ants out of my garden without using conventional pesticides? I have earthworms in my garden, so I do not want to harm them. Some of the things that attract ants can also sustain earthworms.

Answer: First ask yourself if the ants are really being that much of a nuisance. If not, then the best option is to do nothing. Ants in small numbers actually benefit us by preying on flea and fly larvae, recycling organic matter, and the aerating soil. Since ants feed on "honeydew," a sweet substance produced by aphids and other insects that feed on plant sap, make sure you do not have any aphids. If you do, controlling these insects may help control your ant problem.

Some "organic" remedies to try for controlling ants include: strong spices, such as black pepper, cinnamon, or chili powder as repellents or corn meal or solid Cream of Wheat—reportedly lethal to ants if ingested—as insecticides. Some have also had good luck sprinkling food-grade diatomaceous earth (DE) around ant hills. DE kills ants by mechanical injury. You could also try to destroy ant hills with hot water, soapy water, or vinegar, but these have not been effective in my experience. Do not use Boric acid compounds as they may harm earthworms.

In a Desert Garden

Woodhouse Toad – *Bufo woodhousei*

My husband and I moved to Sierra Vista in the late nineties. As we were new to the community we were looking for volunteer work to get involved with, meet people, and make new friends. We joined the work force of the Nature Conservancy Ramsey Canyon. One early summer day, I joined naturalist Mark Pretti and a bunch of kids at the San Pedro River for a photo op. It was a beautiful day and the kids had a lot of fun wading in the water while I went exploring. I saw crawfish and bullfrogs; it made me sad to see these alien species here. Unfortunately, the bullfrogs have eliminated most of the native fish and frogs of the river. They are predators with a voracious appetite and there are no leopard frogs in the San Pedro River any more.

One amphibian has prevailed and I came upon it that day for the first time—the woodhouse toad. I love wildlife and was excited to walk up to this fairly large toad, about 4 inches across, and took several photos. Little did I know that I would get a closer look at these toads in my own backyard. I wouldn't have to spend countless hours searching for it to study its ways. One night in April the toads arrived into my life.

I have a pond in my backyard that is home to a small colony of Ramsey Canyon leopard frogs. Frogs and toads are quite different from each other but have similar

At a Glance Box

It's a Bloomin' Cochise County Native Plant of the Month

Plant: "Shrubby Senna" *Senna wislizeni*

Description: Cochise County native deciduous shrub generally 5 feet tall and wide. Has small leaflets and bright 1-inch yellow flowers with big petals. Thornless. Is often seen growing on limestone roadsides.

Blooms: late June—September

Use: Tuck this beauty among other plants to hide it during the winter, but give it room to show off when in full bloom.

Culture: Can be planted in various soils, but grows better in alkaline soils. Full sun preferable, but will tolerate partial shade. Do not put on irrigation but will benefit from passive rainwater collection. Cold hardy to at least 10F.

References: Cochise County Herbarium

www.cochisecountyherbarium.org;

Mielke, Judy. *Native Plants for Southwest Landscapes*. University of Texas Press, Austin. 1993.

For an in-depth article on *S. wislizeni*, see Page 6 of this newsletter.

Cado Daily

Water Resources Coordinator, Water Wise Program

University of Arizona Cochise County Cooperative Extension

requirements. Frogs cannot go for long without water because their skin is thin and dries out quickly. The thick skin of a toad and the mucus glands are an advantage and because of it, toads can spend longer time without water. The woodhouse toad can travel to water before the rainy season. Frogs stay close to a body of water and only travel in our region in the rainy season.

One evening, I was out in the backyard monitoring the leopard frogs, counting them, and observing their habits, when I heard a strange noise. At first I thought it was a child in distress, but then it sounded more like the bleat of a sheep. It was loud, then another one joined in and another one—what a concert! I grabbed my

flashlight and followed the sound, and then I saw them, toads—woodhouse toads. They had found me. It was amazing, I only have a small lot in a housing development, but there is a lot going on. I always say, "Build it and they will come."

On the end of my street is a wash and many critters travel at night towards water, essential in the desert, but here they were in my pond, sitting in the water like old wrinkled men in a Jacuzzi. I could not mistake them for anything else with their grayish-green color and the prominent white stripe along their backs that only woodland toads have.

Continued next month . . .

Angel Rutherford. Master Gardener

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Senna wislizeni

The sweep of the summer rains are like a magic wand that with a poof! turn dull, pre-monsoon landscapes into a rainbow of colors. One plant that could fill the entire yellow spectrum of the rainbow is the shrubby senna, *Senna wislizeni*. Almost overnight after the monsoon rains start, the senna brilliantly appears in full bloom on roadsides and in the scrub grasslands.

Part of the legume (*Fabaceae*) family, the senna is native to southeast Arizona, southwest New Mexico and Texas, and deserves a spot in any landscape. Not only are the flowers showy, but the plant is a two-fer-one. If you are lucky enough to have a Cloudless Sulphur butterfly lay eggs on the plant, after the caterpillar discretely munches some of the host plant, soon beautiful, lemon-yellow butterflies will grace your garden.

In the wild, look for the senna on limestone soils. One favorite growing spot is on the sides of Hwy 92 in Bisbee south of the traffic circle and down into the San Pedro valley. Anecdotally and visually, the plant seems to prefer limestone. A green-thumb homeowner in the Huachuca Mountains planted one in the acidic mountain soil and it struggled. Trying to figure out the problem, he studied where the senna naturally grew and saw quite a bit of it in limestone areas. He then buried chunks of limestone around the plant. It perked up and flowered leading him to conclude that the limestone addition did the trick.

The senna is also a hardy and drought tolerant plant. Specimens can be seen in the Plant Sciences Center at the University of Arizona Sierra Vista. Several years ago, the shrubby senna was planted as part of a Master Gardener water-needs experiment. After the experiment was over and the plants were cut to their bases, the plots



Senna wislizeni

were abandoned. Lo and behold, several years later (including the big freeze in 2011) with no supplemental irrigation, the sennas (along with several other bushes) grew to an impressive size and are thriving.

In the winter, after the senna has dropped its leaves, although the birds like its twiggy scaffold, the shrub really isn't much to look at. When planting it in a landscape, plant it among evergreen shrubs or in a location you don't pay much attention to in the winter. If you hide it well, you may even forget about it until it rains and then...poof!

For more information on Cochise County plants, visit the Cochise County Herbarium at:

www.cochisecountyherbarium.org located at UA Sierra Vista campus. If you would like to volunteer at the Herbarium, contact the Cochise County Cooperative Extension office at 458-8278 x 2141 or email Cado at

cdaily@email.arizona.edu.

Ms. Cado Daily, M.A.

Water Resources Coordinator

*How lovely
The
Silence of
Growing
things!*