

# *Yavapai Gardens*

Master Gardener Newsletter

2007



## Events & Activities

MG Association Meeting, Wednesday, 6:30pm, See address page for map. Our speaker will be Pam Caitlin, Gardening as Therapy,

Yavapai Rose Society - April 16, 2pm, Jeff Schalau will speak on IPM. First Christian Church, 1230 Willow Creek Rd. For more information call Bob or Nancy at 771-9300,

Alta Vista Gardening Club, Prescott, fourth Tuesday of the month, 12:30pm. Call 928-443-0464 for location and information.

Prescott Area Gourd Society, third Tuesday of the month, 6:30 pm, at the Smoki Museum.

Pond Club -this is an informal group that meets every couple of months, usually the 3rd week. Email [aquaticgardens@esedona.net](mailto:aquaticgardens@esedona.net) for more information.

Prescott Orchid Society, meets 3rd Sunday of the month, 2pm at the Prescott Library, call Cynthia for information. (928) 717-0623

Prescott Area Iris Society —"Reblooming Iris, Apr. 15, 2pm, Yavapai College, Bldg 4, Rm 116. call 928-445-8132 for information.

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## Plant Science

by Nora Graf



As Master Gardeners we are more interested in growing things than in the science of plants. That may be unfortunate, as some of the science can make us better growers and some of it is just downright cool stuff, and then there is some that is a bit horrifying—but it is always interesting. I come across small

tidbits once in a while that I think are interesting but are not something I turn into a full-blown article, so I've just decided to gather some of the items I've come across to bring you "Plant Science."

What happens when saguaros die? Yeh, they gradually rot away, leaving the woody ribs. Nothing exciting about that until Dr. Laurence Garvie, a mineralogist, took a closer look. He has harvested mineral crystals from the rotting corpses of saguaros. In fact he has found a bunch of crystals that grow in saguaros. Some are rare; some have never been found in the desert before. One, nesquehonite, has only been found in mines and caves and is a weathering product of meteorites found in Antarctica. Others are completely new to science. How weird is that! Garvie had found mineral material around dead sahuaros many years ago, collected some but then a sample sat on his desk for a year until he had time to look at it again. He did a "powder x-ray diffraction" on it and the mineral turned out to be calcium oxalate. Not really surprising, but then he began to look closer at dead saguaros and found a host of different crystals, including the nesquehonite. While his discovery is obscure, it may be useful in understanding some of the problems associated with climate change. Now how cool is that! (from "Saguaros End," Research, pub. by Arizona State University, pg 34, or go to <http://researchmag.asu.edu>)

Did you know the largest flower in the world is a parasite? Did you know that it also stinks of rotting flesh? Now the big question is, "Do you know what plant family it belongs to?" You might know the answer to the first two questions, but it's unlikely you knew the answer to the third because scientists have just finally figured it

out. But first a little information about *Rafflesia*. *Rafflesia* weighs more than a bowling ball and the flower can measure more than three feet in diameter. It is rootless, shootless and leafless having only a sinewy stem that is used to siphon nutrients and water from a host plant. One of the problems in identifying its relatives is that it got rid of the part of the genome that is needed for photosynthesis, the genes that are often used to catalog plants. It doesn't photosynthesize, so somewhere in its evolutionary history it lost those genes. The answer to question number three is (drum roll, please), is Euphorbiaceae. Its closest relatives are poinsettias and rubber trees. Another mystery solved! (Science Friday News)



Sad news. The banana could die out. More and more varieties are disappearing while the Cavendish, the most common variety, is susceptible to epidemic diseases. Forest destruction is killing off wild bananas in India, the world's top producer of bananas, (20 million tons worth). The commercial varieties are highly vulnerable to pests and diseases because they are all clones or near clones of one another. Wild varieties could be used to improve them genetically, but many are being lost. One wild variety that was used to confer resistance to a dangerous fungus is thought to have only one plant left—in a botanical garden. It is gone from the wild. (World Science & UN Food and Agriculture Organization)

Seeds are remarkably resilient carriers of new life. Kew Garden (England) scientists found some seeds that had been brought to England from South Africa by a Dutch Merchant in 1803. In spite of the fact that they were stored under poor conditions, some of them sprouted. They included a legume, *Liparia villosa*, a species of protea and a species of acacia. The seeds had quite a history before they ended at Kew. They were originally taken on board a Prussian ship by Jan Teerlink, a silk and tea merchant. He placed the seeds within the pages of his journal. On the way back to Europe the ship was captured by the British Navy and Teerlink's personal belongings went from his possession to the High Court of Admiralty, to the Tower, eventually making their way to Kew. Scientist's plan to do genetic testing of the plants to compare them to modern plants. (BBC News)

Stopping to "smell the roses" may actually be good for the memory. German researchers found that

odors could be used to reactivate new memories in the brain and volunteers remembered more later. Apparently odors can reinforce brain learning. Participants were given tasks while being able to smell a rose scent. During sleep the scent was wafted in again. Participants that had the rose scent remembered more about the tasks than those that weren't exposed to the scent. So stop and smell the roses!! (Reuters.com)

Alex Shigo was considered by many to be the father of modern arboriculture. His work shattered many of the standards of arboriculture that had existed for hundreds of years. Current pruning & planting standards are based on his recommendations. Some of his revolutionary ideas included stopping flush cuts to remove branches and not covering cuts with a wound dressing. He advocated stopping the practice of topping trees. Methods of planting trees changed also. We now dig plant holes wider than deeper, he destroyed the myth of the gigantic tap root. He advocated refilling the hole with native soil—no amendments, not bracing trees tightly—not fertilizing at planting time and many other new methods for taking care of trees which we pretty much take for granted now. Shigo died Oct 6, 2006.

Orchid flowers are famous for their unusually shaped flowers and pollination strategies. It turns out that about a third of orchid species do not reward pollinators but mislead them to think there is a reward. This is achieved by deception, but scientists wonder if that is the entire story. Research ongoing. (Kew Gardens)



# MEET A MASTER GARDENER - Linda Scheerer

by Jeannette Teets

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Linda Scheerer is one of our few Master Gardener Emeritus - those having been a Certified Master Gardener for more than ten years; she's been a master gardener since 1991.

Linda was born into a military family in Albuquerque, NM, but has lived most of her life in Arizona after her father was stationed at Luke AFB when she was a small child. Her interest in gardening began when visiting her grandmother's "unstructured" garden in Longmont, CO. That garden existed to delight the eye with flowers, and to fill the stomach with vegetables. She overindulged on the vegetables to the point of sickness, since she couldn't wait for them ripen. She was also inspired by visiting large Japanese gardens in the Baseline area in Phoenix with her father. His ability to speak Japanese fluently made these trips even more educational. Her own garden came later.

At age 17 she moved out on her own, renting a room from a friend, and worked at a Del Webb cafeteria until she heard about job openings at the post office from one of the postal employees who frequented the cafeteria. She started work for the main post office in Phoenix in 1978 and is still a postal employee, transferring to the Sedona post office in 1985. She currently resides in the Sedona Meadows area with Annie Oakley, her black lab; Trooper, a teacup Chihuahua; and Callie, her calico cat. She's had an extensive vegetable garden and fruit trees in the past but enjoys changing her focus. Her garden now consists of low-water-use plants, decorative rock, a small grassy area for the dogs, and many perennials.

While her day job (5:00 AM - 1:30 PM) takes up the majority of her time, she still manages to spend many hours volunteering. After moving to Sedona she spent many years volunteering at Slide Rock and Red Rock State Parks, and in 1998 she started as a docent at the Sedona Heritage Museum in Jordan Historical Park on Jordan Road, uptown Sedona. The museum had just

opened, so work inside was rather slow at first and she noticed the grounds needed some attention, with only sidewalks and a small wall remaining at the original site. She asked the living Jordan family daughters what their mother, Ruth Jordan, grew at the pioneer home in the decades from 1930-1970 and then prepared a proposal to



the city outlining how a garden replicating plants appropriate to that time period would enhance the museum home. Her request was granted, and she has been the official volunteer gardener ever since. Taking care of the museum gardens means that every volunteer hour she contributes benefits Yavapai County through the master gardener program; the City of Sedona, which owns the property; and the Sedona Historical Society, operator of the museum. Through the years Linda has looked at gardening as exercise, physical and mental therapy, and trial and error. In the last nine years

at the museum garden she's done plenty of experimenting. In the last two years she and fellow master gardener, Dr. Paul Schnur, have done a controlled study on how to prevent plant destruction by deer and javelinas. She thought you'd be interested in the results of their study, since so many gardeners in this area are plagued with the same thing! They have a control area where nothing has been applied to either plants or soil; one area where they've used Repellex, a systemic root-applied tablet; another area where they've sprayed Bobbex on leaves, stems and flowers; another area where they've sprayed Liquid Fence; and, lastly, a repellent product called Plantskydd sprayed on foliage in another area. While they're not endorsing one product over another, they've had the best luck with Repellex and Bobbex. You might want to conduct experiments in your own garden.

Volunteering is all about giving back to our communities, and Linda is certainly doing that. Linda will occasionally ask for assistance with a project at the museum. When she does, please give her a hand. You'll have a fun time, learn lots, and make a new friend.

# Ladybug, Ladybug, Fly Away

by Nora Graf



Have you bought a bag of ladybugs to set loose in your garden at one time? It was probably a waste of your money. Ladybugs are often collected from winter aggregation sites.

When you release them they are in the mood for travel and will be gone from your yard long before they lay their eggs. They might benefit your neighbor more than you. The thought comes to mind that perhaps in the dead of night you should release them in your neighbors yard in hopes of ....., well, maybe not.

Anyway, I should be reprimanding you for using the term ladybug (although I will not be giving it up!) The truth is that a better name would be lady beetle, because they are beetles. Sometimes they are even called Ladybird beetles, but that brings up memories of Lady-Bird Johnson, who was one of the first advocates of using native plants in the landscape, long before any of you thought about it. Certainly her legacy of the Lady Bird Johnson Wildflower Center is better than her husband's. (Sorry for those of you that are too young to remember the Vietnam War.)

That diversion has really got us off track so back to Lady beetles. Lady beetles are a good beast in the garden. Their larvae are voracious predators of some of our least favorite "bugs", including aphids. But before I get into that, a little history and nomenclature.

I don't think kids are taught nursery rhymes anymore, but some of you might remember,

Lady-bug, Lady-bug, fly away home.  
Lady-bug, Lady-bug, your house is on fire.  
Lady-bug, Lady-bug, your children will burn.

(The lyrics could be the reason we don't teach it to children today.) Medieval farmers may have chanted this while they cleared their fields with fire, acknowledging the benefit of the beetles but understanding they were burning the eggs. Ladybugs are thought of worldwide as omens of good luck. In Sweden it was believed that if one landed on a young lady's hand, she would soon mar-

ry. In Delaware, Massachusetts, New Hampshire, Ohio and Tennessee they are officially the state insect. (For your information, the Arizona State insect is the Two-tailed Swallowtail Butterfly, *Papilio multicaudatus*.)

As mentioned, ladybugs are really beetles, members of that family, Coccinellidae. During the Middle Ages, farmers faced with the prospect of widespread insect infestations, prayed to the Virgin Mary for help. To the rescue came the Lady Beetle. It was then farmers began calling them Ladybugs, "The Beetles of Our Lady." But, before you get too excited about their potential to fend off evil forces, keep in mind there is always an exception to the rule. Of 4000 species (450 in America,) two are evildoers. The Mexican Bean Beetle (*Epilachna varivestis*) and the Squash beetle (*Epilachna borealis*) both eat plants. Don't you remember your English teacher telling you there is always an exception!

The one we are concerned about is the most common, *Hippodamia convergens*. They are small, less than a quarter of an inch, round to oval and dome shaped. Generally they are red, orange or yellow with black spots, although some are solid black. The bright colors are useful in warning off hungry birds. Apparently, for those that haven't tried them, they are quite nasty tasting. Ladybugs have six legs, a three part body and two wings which are covered with modified wings called elytra. These are the parts with the spots. Their wings can beat



85 times per second. They go from egg to larva to pupa to adult. Normally there seems to be just one generation per year, which includes a time of hibernation in the winter. They won't fly if it's under 55°F. If you have ever come across

a vast colony of them somewhere, it is because they gather together in covered places for the winter. Once spring has arrived they fly out to find mates. The females lay a cluster of golden eggs on the undersides of leaves, with the preferred location near aphid colonies. She can lay a 1000 eggs in a lifetime. Once the larva hatch, looking something like bumpy alligators, they go on the 4

prowl for food, preferably aphids. During their larval state they can eat up to 350 aphids. As a larvae grows, it sheds its skin several times. When it reaches its full growth, the skin splits, revealing the pupa. This stage lasts 3 to 12 days, depending on species and temperature. The adults emerge hungry and ready to mate. The spots themselves don't show up for 24 hours. An adult female ladybug can eat up to 75 aphids per day, while a male will eat 40. The beetles also need pollen and nectar, but aphids are necessary for the development of eggs.



Now back to that migration problem. Rather than buy aphids, attract them to your garden by planting plants that attract aphids. I know it seems counter-intuitive, but soon you will have all stages of the ladybugs in your garden.

A choice plant would be fennel. It seems ladybugs are especially fond of aphids that have grown up on the licorice-flavored plant. Fennel can also attract birds that eat aphids. Dill is another good plant to grow, along with yarrow. Oh, and by the way, roses attract aphids, in case you weren't aware of that fact. Placing a shallow bowl of water with flat rocks in it will also aid ladybugs.

Did you know that at one time doctors would mash ladybugs and put them in cavities to cure a toothache. EEEeeeeghhhhh!!

The convergent ladybug has 6 black spots on each wing. It is the most common in Arizona. They move northward in the summer to find food. They gather together in huge groups, literally turning rocks, trees and shrubs red. In midsummer, populations can reach 120 million ladybugs PER ACRE! But scientist don't really understand the migration, as the Arizona mountains don't have much of an aphid population. Once on the mountains, they eat pollen which stimulates sleep-inducing hormones, so they begin a dormant period, waking occasionally in rain or unusual temperature changes. In November, they huddle up to one another, tuck their heads under each other and begin to hibernate. Once the first thaw comes, they wake up, mate and fly South back to their place of birth, lay their eggs and die.

## Chilled Banana Almond Soup



With bananas on the mind here is a dessert soup or something like a milk shake.

2 cups plain yogurt  
 2 Tblsps. thawed frozen orange juice concentrate  
 1/2 t. vanilla extract  
 3 bananas, peeled, frozen, cut into chunks  
 1 Tblsps. almonds or cashews  
 Sugar or honey to taste (optional)  
 Coarsely crumbled crisp banana chips for garnish (optional)

In a food processor place all the ingredients except the almonds, honey (if using) and banana chips. Pulse to get the banana chopped, then blend until smooth, adding honey if desired and nuts while the machine is running. (The honey won't blend properly unless the machine is running when it's added.) The texture should be icy smooth, except for a few pieces of almond here and there.

Serve the soup in chilled tea cups with the banana chips atop each cup for garnish. Cinnamon croutons also make a nice garnish.

from "Dairy Hollow House, Soup & Bread, A Country Inn Cookbook", by Crescent Dragonwagon

(The best bananas I've ever had were some tiny ones called Apple bananas (I think) when I was in Hawaii. They were wonderful. Wish we could get them here!)

# MG Association News

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## EXCITING NEW EVENT!!

The Program Committee has been doing some brain storming and has decided to initiate a new event we are calling the First Annual Master Gardener Garden Tour. The date we have set is Saturday, July 28. We are looking for eager master gardeners who would like to show their garden/yard at this event. This year the Garden Tour will take place in the Tri-City's area. If it goes well, we will do it again in two years in the Verde Valley area. We would like to do it on the off years of the Alta Vista and Sedona Garden Tours. This will not be a community-wide event like the Alta Vista and Sedona Garden tours. This event will just be for master gardeners and their family and friends.

Contact Missy Sandeen, [rmsandeen@bulleretworks.com](mailto:rmsandeen@bulleretworks.com), 771-9856

**APPLICATION FOR MASTER GARDENERS FOR GARDEN TOUR— please mail or email the following information and answer all of the questions.**

NAME  
ADDRESS  
PHONE  
EMAIL ADDRESS



1. Describe your yard/garden:
2. What special characteristics does your yard/garden have?\*(see below)
3. Why do you think your yard/garden should be chosen for the garden tour?

\*Special characteristics worth mentioning: xeriscape, water features and water harvesting features, formal garden, English garden, vegetable garden, herb garden, cactus/succulent garden, rock garden, perennials, garden art, fruit trees, grasses, greenhouse—these are just a few, feel free to mention other things

## Volunteer Opportunities

### Highlands Center Plant Sale

The Highlands Center Native Plant Sale will be held on April 28th. The Highlands Center is in Prescott. Volunteers are needed to receive and price plants a day or 2 before then, and to help with the sale on April 28th – sale is from 7:30am to 2:00pm. Contact Lynn Hazlewood, [klwoodz@cableone.net](mailto:klwoodz@cableone.net), 776-1018.

### Highlands Garden Conference

Yavapai County Master Gardeners are responsible to the goody bags at the October Highlands Garden Conference. Collecting the items needs to begin soon. Two to three MGs are needed. If you can help, please contact Beverly Emerson, [bjemerson11@juno.com](mailto:bjemerson11@juno.com), 646-0379.

### Prescott Farmers Market

Still need a chair and a co-chair for the Farmers Mkt. The market is held from May to Aug – we staff a table every other week. I'm sure we will have lots of volunteers, as the MG class is in Prescott this year, but someone needs to coordinate. Contact Mary Barnes, [mcbarn1@cableone.net](mailto:mcbarn1@cableone.net), 583-0889

## Continuing Education

### Arizona Federation of Garden ClubsThe public is invited to the 73rd Annual Convention.

Quality Inn & Suites, 4499 Highway 69, Prescott  
April 13th 12pm – 1:30pm, “Climate Change” (Dr Mark Sinclair)

April 13th 6:15pm – 8:15pm, “Portrayal of John Muir” (Doug Hulmes)

April 14th 10:45am – 11:45am, Panel Discussion: “Water Challenges & Issues” (Dan Campbell), “Endangered Plants & Animals Species” (Karen Schedler), “Energy Conservation & Green Architecture (Patricia Olson) Call Aldee Campbell for more information, 928-757-4277

## 2007 CALENDAR OF EVENTS

April 13-15, Home and Garden Show, Tim's Toyota Center, Prescott Valley, No entrance charge

April 18, 6:30 (Prescott) MGA meeting, Gardening as Therapy--Pam Caitlin, Horticultural Therapist at the Margaret T. Morris Center

April 28, Grow Native! Plant Sale and Educational Festival, 10:00 am General Public Sale, \$5 admission

May 16, 6:30 (Prescott) MGA meeting, Social/Information evening with 2007 MG class

June 16, Annual Arboretum Field Trip, Sign up by contacting Patti Conrad (in the evening) at 778-4810

June 20, 6:30 (Cottonwood) MGA meeting, Cacti and Other Succulents for the Arizona Central Highlands—Gene Twaronite, Defensible Space Education Specialist for the Cooperative Extension

July 28, MGA Field Trip, Sculpture Garden at Yavapai College plus a Master Gardener Garden Tour (for information email Missy Sandeen at rmsandeen@bullerinetnetworks.com)

August 15, 6:30 (Cottonwood) MGA meeting, Horticultural Techniques for Plants in Higher Elevations -- Steve Yoder, Executive Director, The Arboretum at Flagstaff

August 25, V Bar V Ranch Field Day, Call Cottonwood office for more information

September \_\_, (Prescott) Recognition Awards & Picnic

**FROM THE EDITOR:** Please send or email articles and announcements to the address below. All articles must be in my hands by the 10th of the month. Short announcements (no more than 2 or 3 lines) will be accepted until the 25th.

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MGNEWSLETTER



**Next MGA Meeting: April 18, 6:30,  
Prescott**

**Gardening as Therapy--Pam Caitlin,  
Horticultural Therapist at the Mar-  
garet T. Morris Center**