



UCRBG Newsletter

SPRING CELEBRATION & MEMBER APPRECIATION PLANT SALE

Saturday, April 6, 2019, 9 a.m. to 3 p.m.

By Jodie Holt & Janine Almanzor

MEMBERS
ONLY!



Upper nursery

Additionally, as we have devoted more time to our signature fundraiser, *Primavera in the Gardens*, our staff and volunteers are all stretched thin as spring approaches.

In our ongoing effort to serve our members, campus and community constituents while striving for financial sustainability, we will make a significant change this year by offering a "Spring Celebration & Member Appreciation Plant Sale." Mark your calendars for April 6, 2019 for this first time, unique event that will be open only to our members, including those who join at the gate on that day. This event will be held "in place" in our upper nursery where our beautiful plants are propagated and grown. You will have a chance to shop, see where the action takes place in the Gardens, visit special places such as the Greenhouse, Butterfly Garden, Rose Gardens, and Dome in their springtime splendor, and enjoy complimentary refreshments. You will also be able to see firsthand some of the improvements that we have made to our facilities, such as our propagation house and new Conservatory. Many of these initiatives have been enabled by the generosity and support of our members and donors. We hope that you will come with an open mind and embark on this new adventure with us.

If you were here at previous UCRBG Plant Sales, you experienced the early morning rush as members gained admission at 8 am ahead of the public. Not only will this Member Appreciation Plant Sale take place in the upper area of the Gardens, you won't need to rush to get all your plants. We hope you will take your time, visit each area of the sale, and explore parts of the Botanic Gardens that you may not have seen before. We will still have as many plant varieties as usual and the Master Gardeners vegetables, but the vendors will not be present.

As you enter the Gardens you'll see the cash registers on the Meeting Room patio
continued on page 3

Fall in southern California truly is the best time to plant perennials, including much of the beautiful stock we sell from the Gardens. In fact, many people will confess to having purchased plants at a spring UCRBG Plant Sale only to hold them in pots until fall when the weather is better for planting.

Nevertheless, spring is the most popular time to start thinking of our yards and gardens, and many botanic gardens and organizations hold sales, tours, and other garden-related events at this time of year. The UCRBG Spring Plant Sales have been very popular and well attended for decades; however, the simple truth is that each one incurs enormous costs in terms of staff time and effort to transport over 5,000 plants down the hill to Alder Canyon, set up and arrange plants and sale areas, and repair damage to our grounds and lawn.

In This Issue

- P. 4 Spotlight On Deborah McWilliams
- P. 5 Butterfly Corner - Lorquin's Admiral
- P. 6 In the Works
- P. 7 Tips on Propagation
- P. 8 Birds of the Gardens - Costa's Hummingbird
- P. 9 What to See
- P. 10 Wildlife of the Gardens - Gray Fox
- P. 11 In Memoriam

Director's Report - Dr. Jodie Holt



Sometimes the best remedy for what troubles us is...go outside! When I find myself spending too much time indoors, fretting about the news, worrying about problems I can't solve, or stressing over projects and funding, I think of some reason that I need to go out into the Gardens—to check on that new sign Jorge installed, find that special tree Lois raved about that I've never actually seen, retrieve the cards from the suggestion box—or just take a walk with no purpose at all. The latter reason is used all too infrequently in our busy lives, yet going outdoors is often the best medicine for stress or worry. There's a reason “forest bathing” and even “nature prescriptions” are becoming new international trends.

To learn more about this trend there are many websites, books, and articles on the subject. Here is a popular link for more information, which includes a formal training program (for a fee): www.natureandforesttherapy.org/start/reading. Medical scientists have taken notice as well; here is a technical article on the physiological benefits of going outdoors: www.mdpi.com/1660-4601/11/5/5445/htm. Even the US federal government has tapped into the movement with the National Park Service's Healthy Parks Healthy People program: www.nps.gov/public_health/hp/hphp.htm.

Here in the UCRBG, spring itself is enough reason to go outside. Buds are breaking, flowers are opening, newly hatched lizards, turtles, and yes, snakes abound, and the air smells fresh and green, responding to our gift of winter rains this year. Not surprisingly, numbers of visitors and school tours pick up, new volunteer sign ups continue at a brisk pace, and familiar faces from campus and the community appear more often. Even campus and contract work crews answering a call for assistance will often walk slower, linger for a spell, and start a conversation about the pleasure of being in the UCR Botanic Gardens.

To enhance your trip outside to the Botanic Gardens this spring, our staff and volunteers have been clearing and improving trails and gardens, upgrading irrigation systems, reseeding the Alder Canyon lawn, mapping and labeling more plant specimens, installing more signs, and repairing benches, bridges and roadways. Our newly designed Conservatory is well underway and our Native American Plants Garden has moved beyond the planning stages. We are deep into planning for our Spring Celebration & Member Appreciation Plant Sale as well as Primavera in the Gardens. Remember to check our website often for our Calendar of Events and other news.

We hope the spring season and all the exciting activities in the Gardens described in this issue of our Newsletter will inspire you to step outside and indulge in a little “Botanic Garden bathing” yourself.

As always, we welcome your comments, suggestions, and feedback; please contact me at bgdirector@ucr.edu or 951-784-6962.

Jodie

UCR Botanic Gardens Staff

Jodie Holt, Director
 Janine Almanzor, Curator/Education Coordinator
 Vacant, Manager
 Pam Ferre, Administrative Assistant
 Jorge Fregoso, Nursery Technician
 Pam Roose, Nursery Technician
 Jarred Timme, Nursery Technician
 Lois Whyde, Nursery Technician
 Theresa McLemore, Special Projects
 Carson Brown, Kristine M. Scarano Intern
 Luis De La Cruz, Student Worker
 Ryan Klachko, Student Worker
 Chuk Nnadi, Student Worker
 Abraham Ortiz, Student Worker
 Christian Valdez, Student Worker
 Nathan Weik, Student Worker
 Michelle Yi, Student Worker

College of Natural & Agricultural Sciences

Kathryn Uhrich, Dean
 Tim Paine, Div. Dean for Agriculture & Natural Resources
 Brianna Barrett-Wrightsmann, Dir. of Development
 Emelyn Lutzker, Human Resources
 Deborah McWilliams, Physical Planning Liaison
 Bryan Schneider, Director of Communications

BEES Administrative Unit Support Staff

Deborah Terao, Financial & Administrative Officer
 Abraham Juliot, Receiving/Web Assistant
 Amber Rhemrev, Financial Analyst/UCRBG Head Cashier
 Brittney Kuhn, Contract & Grants Analyst
 Michelle Peterson, Contract & Grants Analyst
 Vacant, Travel & Purchasing Assistant
 RC Sutton, Financial Operations Manager

Editors

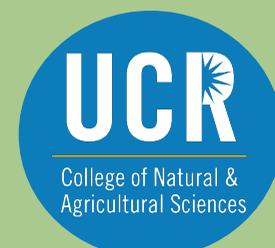
Jodie Holt, Director
 Janine Almanzor, Curator/Education Coordinator
 Pam Ferre, Administrative Assistant

The UCR Botanic Gardens Newsletter is a quarterly magazine published by the UCRBG staff, 900 University Avenue, Riverside, CA 92521.

Contact Information

Mailing Address: UCR Botanic Gardens, 900 University Avenue, Riverside, CA 92521
 Physical Address: Schneider House, 4391 Picacho Drive, Riverside, CA 92507

Phone: 951-784-6962 Email: ucrbg@ucr.edu
 Website: www.gardens.ucr.edu



continued from page 1

as usual, but there will be no plants in the lower portion of the Gardens. You will be directed to a path that leads uphill to the upper nursery area. It will be a bit more walking so make sure you wear comfortable shoes. For those who need assistance, a shuttle will be available to drive up and down the hill. The plants will be in several different areas and a map and directional signs will be provided so you don't miss anything. For the first time you'll be able to go into the lath house for shade and patio plants and into the greenhouse for the more tender patio and indoor plants. Cacti and succulents will be on the benches south of the greenhouse and west of the lath house and smaller cacti and succulents will be inside the lath house. Because of limited space in the lath house and greenhouse, wheel barrows and carts will need to remain outside. The majority of plants will be along the road between the greenhouse and dome.

As before, holding areas will be provided for your shopping convenience. We will also shuttle your plants down to the lower area for check-out if you need assistance. Please remember to bring your own cart if you have one since our wheel barrows are limited.

In the upper Rose Garden we will offer complementary refreshments throughout the day, provided by our CNAS Development team, and have a table with Gardens and member information, staffed by Director Jodie Holt. We hope you will enjoy some refreshments, chat with the Director, explore the upper areas of the Gardens, and celebrate spring as you shop for plants. A plant list will be available on our website one to two weeks prior to the sale.

Several of our favorite plants for sale will be:



Butterfly bush (*Buddleia x weyeriana* 'Sun Gold')

A butterfly favorite with fragrant yellow flowers from summer to fall. It can grow to more than 8 feet tall so give it plenty of space and full sun.

Red wine iochroma (*Ichroma cyaneum* 'Red Wine')

This is a fast growing shrub to 8 – 10 feet tall with large clusters of tubular, dark blue-purple flowers all summer. It can also be espaliered and hummingbirds love it.



Star clusters (*Pentas lanceolata*)



We will have both pink and red for sale. This is a tender, shrubby perennial so give it some protection from direct sun and frost. The compact flower clusters will be a showy display

all summer but ours at the Gardens bloomed through the winter! It also makes a good cut flower.

Forest lily (*Veltheimia bracteata*)

The long stemmed, clusters of tubular, pink flowers catch everyone's eye as they pass these in the Gardens. They make a beautiful mass planting and the shiny, wavy foliage adds to the show. This plant is summer dormant making it water efficient. Bloom time is winter and early spring so we're hoping they're still in bloom for the sale.



**NEW FOR
2019**

**Updated Member Levels
&
Enhanced Member Benefits**

**COMING
SOON!**

Check our website for details - www.gardens.ucr.edu

Spotlight On... Deborah McWilliams

By Jodie Holt



The UCR Botanic Gardens are a special place for visiting, researching, learning and enjoying a diversity of plants, gardens, and ecosystems. The Gardens couldn't exist without considerable infrastructure in the form of roads, trails, bridges, electricity, plumbing, buildings, bathrooms, garden structures, irrigation, and much more. As an outdoor nature oasis we face a multitude of safety and security issues, from rough terrain to rattlesnakes to sweeping the Gardens of visitors at closing time, all of which impact our staff, operations, and budget. For these reasons we are pleased to spotlight Dr. Deborah McWilliams, CNAS Physical Planning Liaison, who is a key partner in our program to improve our facilities, safety, and security for our visitors from campus and the community.

From our aging and often crumbling infrastructure, to a major power outage three days before the Fall Garden Market & Plant Sale, to a sewer leak on the patio during said Plant Sale, to replacing the roof on our greenhouse, Deborah has been

instrumental in navigating UCR's many service departments and policies to help us accomplish our goals. She has been a key advocate for the Gardens, interacting with a myriad of UCR leaders and unit managers, Riverside Public Utilities staff, and our own CNAS Dean, who remains immensely supportive of our vision.

Deborah has an interesting and eclectic background. She is well qualified for her current position, having served for over 20 years at UC Irvine and UCLA in positions dealing with planning and resource management, finance, facilities, and operations. It may surprise you to learn that her education and early career focused on humanities and the arts, and she holds Teaching Credentials in English literature, language, and psychology. In addition to her Bachelor and Master of Arts, she holds a Ph.D. from Claremont Graduate University and is a published scholar of Irish literature and poetry. Along the way she has been a volunteer police officer, first responder, and served on various UC leadership committees.

Among the many departments and units at UCR, the Botanic Gardens are unique, with far more land than buildings and few of the amenities and resources found in a typical academic department. As we have navigated a myriad of issues related to facilities maintenance, construction, and safety, Deborah has been our partner, ally, and strongest advocate. Her breadth of knowledge and depth of experience have been essential to our progress. As a bonus it is a real treat to walk with her in the Gardens and enjoy a philosophical discussion. The entire Gardens staff joins me in thanking Deborah for her dedication and support!

Volunteer Workdays!

By Pam Roose

A big thank you from all the UCRBG staff to our group of volunteers who showed up for our first clean-up of the South African area on January 10th. Our aim was to make a start on clearing and weeding some of the overgrown areas so planting of new specimens can be done in the future. Work was also needed on clearing trails and removing dead plant material from the upper slopes of the area. Thanks to Bob Banks and Jean Gress for working on that. Another important project was excavating for plant labels that had become buried in unruly ground cover. Our Curator, Janine, was especially excited by this as quite a few labels resurfaced.

We had a good turnout of volunteers who were willing, and found it fun, to spend many hours on their hands and knees weeding. Certainly the pile of debris at the end of the morning was proof of a lot of hard work. Thank you to the weeders: Patty Bartle, Jane Evans, Kristen Tidwell, Karen Fleisher, Becky Levers, and Deborah Lewis.

We also appreciate the crew of about eight Amazon employees who volunteered one morning in the Botanic Gardens. They were joined by two of our regular volunteers, Julian Sanchez and Nico Alvaro-Glatz, and did a great job clearing trails in the upper area of the Gardens.



Deborah Lewis, Karen Fleisher & Pam Roose

Butterfly Corner

Lorquin's Admiral

Article and Photos by Ann Platzer

The name of the Lorquin's Admiral honors Pierre Lorquin, a French lepidopterist, who visited California during the Gold Rush Days and discovered many species of butterflies. It might



Photo 1: Adult, dorsal view

surprise you to learn that not everyone who ventured west was out for gold!

The Lorquin's Admiral, *Limenitis lorquini*, which belongs to the family, Nymphalidae, has a wingspan of about two to two and five eighths inches. It is

a very showy butterfly. Dorsally, the ground color is velvety black with pure white bands on both the fore and hind wings with striking orange on the fore wing tips. An important diagnostic characteristic is that the orange goes all the way to the tip without a black band (Photo 1: Adult, dorsal view). The underside of the wings has an orange-brown pattern with distinct white bands on fore and hind wings (Photo 2: Same adult, ventral view). Like the other members of this family the front legs are greatly reduced.

The males are said to perch on the tips of a branch, above eye level, with wings half open ready to approach a receptive female. Males are extremely territorial and will attack any intruder in their habitat including large birds, which may lead to their early demise.

The female lays silvery-green, nearly spherical eggs singly on the upper side of leaf tips of host plants. The caterpillars are brown and resemble bird droppings. These partially developed caterpillars overwinter rolled up in a leaf case of the host plant. In the spring the little caterpillars emerge from their leafy tubes to resume eating and continue their development.

Flight time is from April to October in Southern California, with

multiple broods being produced. However, farther northward, the number of broods diminishes to only one in British Columbia.

The favorite host plant of this butterfly is willow, *Salix* sp., but others include wild chokecherry, *Prunus* sp., poplar and cottonwood, *Populus* sp., and also an assortment of orchard trees such as cherry, apple and plum.

Adult food includes nectar from California buckwheat, *Eriogonum fasciculatum*, yerba santa, *Eriodictyon californicum*, and privet, *Ligustrum ovalifolium*, and also bird droppings and dung.

Lorquin's Admiral is found at forest edges, mountain canyons, orchards, parks, stream sides and groves of willow, cottonwood and poplar. We saw a beautiful Lorquin's Admiral visiting Oak Glen in July, 2018. It was flitting in a mountain canyon near a stream. What a view we had as it poised just five feet away. This striking butterfly ranges from southern British Columbia to California and then on south to Baja California,



Photo 2: Adult, ventral view

then east to Montana and Idaho. Fortunately, it is not yet endangered. We highly recommend that you visit Oak Glen and don't forget your close-up binoculars.

At first glance, this butterfly can be confused with the California Sister with which it often occurs. As mentioned above, the orange of the Admiral's wings extend all the way to

the edge whereas the California Sister's large orange spot is nearly surrounded by black. In addition the undersides are different. The Lorquin's Admiral has more orange and large white bandings while the California Sister has blue, green and purple sheens and less pronounced white bands. Both these butterflies fly with a few quick wing beats altered with gliding. Thanks to Ed Platzer for reviewing this article.

Happy Butterfly Gardening! AP

Winter Bird Walk in the Gardens

We were pleased to host another sold out, seasonal Bird Walk and Breakfast on Saturday, February 9. Our intrepid guests joined UCR guides Norm Ellstrand and David Rankin for an early morning walk while the Gardens are still closed and quiet. After a welcome by the Director and a brief overview of birding and bird guides by Norm, the group divided into two and headed out for the walk. The rain started in earnest just as the birders reconvened in the Meeting Room for a continental breakfast and discussion of bird sightings of the day. A total of 27 species were recorded, which was high for a cold, cloudy day when many birds would be in hiding. Particularly awesome sightings were two Greater Roadrunners, no longer common in the Gardens, and a Townsend's Warbler. The signature bird of the day was a Ruby-crowned Kinglet. Often hard to see, with a ruby crown that is rarely erected, both groups got to see and hear many birds and see the bright red crown. Hope to see you April 13th for the next Bird Walk!

In The Works

By Botanic Gardens Staff

We have many exciting projects to report on in this issue and hope you will come visit to see and experience them firsthand.

- ▶ UCR is completing a large project to improve ADA compliance at many locations throughout campus, and one such location is our entrance gatehouse/restroom building. One restroom is being renovated for ADA accessibility and the whole building is receiving a much needed upgrade. We greatly appreciate the support we have received from UCR's Architects & Engineers and our excellent contractor on the job.
- ▶ All of our garden vehicles are old and on their "last legs" so we were surprised and very grateful when UCR's Fleet Services gave us a used gas powered golf cart from their fleet. They also gave us a great price on a used Ford pickup to replace our old one that had to be sent to salvage. We are very appreciative for the support we continue to receive from UCR's Fleet Services.
- ▶ An officer from the UCR Police Crime Prevention Unit met with Director Holt for a second security assessment of the Gardens as a follow-up to our initial assessment in December 2016. Officer Anderson conducted both assessments and was impressed with how many of his initial suggestions had been implemented, and provided additional new ideas to further enhance safety and security in the Gardens.
- ▶ You may have noticed our numbered waypoints posted in the geographic gardens and on the corresponding locations on our LiDAR map. Based on positive feedback from our staff and visitors, Special Projects Volunteer Doug has made permanent numbered posts to replace the temporary posts and these will be installed soon.
- ▶ On the suggestion of Officer Anderson, our student Abraham is using the label maker to engrave tags with phone numbers to call in case of emergency; these will be installed on each numbered post and at other locations throughout the Gardens.
- ▶ Our volunteer GIS team continues to add plant specimens and notes to the GIS app, and in addition, has added our redwood garden signs as a layer in the app to designate where each named garden is located.
- ▶ The GIS team has also mapped our memorial benches and trees into the GIS app, and in a test of this system, Janine used the app to look up and direct a visitor to a memorial previously installed in memory of a family member. Well done, team!
- ▶ And of course our Gardens staff continues to clean up and renovate our gardens, most recently the South African Garden, which benefited from abundant volunteer help, and is now starting on the Sierra Nevada Foothills and the Herb Garden. During this time while we are actively recruiting for a new Gardens Manager, Lois, Jorge, and all the staff have really stepped up to fill the gap left by Theresa in order to not fall behind in maintaining and beautifying the Botanic Gardens.



Jorge Fregoso in the new cart



Beautifying the Herb Garden



Debris pile from the South African Garden

Support the UCR Botanic Gardens

To donate online

Donations may be made with a secure credit card payment process by searching **Botanic Gardens** at <https://myadv.ucr.edu>

Tips on Propagation

By Lois Whyde & Jodie Holt

Plant propagation seems to be a mystery to people who have not tried it. They know that it is the process of growing new plants from a variety of plant parts to produce an exact replica of the parent plant. However, they often don't know where to start. Here we will describe the general methods we use in the Gardens to propagate plants from stem cuttings for our plant sales or to augment our collection.

Many plants, such as tropical species, will root easily in water. The best method is to cut off about 3 inches of the growing tip of a stem, strip off the lower leaves, and place it in a container of water. Place the container in an area that receives strong indirect light but no direct sunlight. Soon tiny roots will emerge and then the cutting can be planted into moist soil.

Not all plants will root this way since many plants cannot tolerate being held in water for long. For general ornamental plants we propagate cuttings in a rooting medium, provide overhead mist to hydrate the leaves and reduce water loss through transpiration, and provide bottom heat between 68-70°F, all of which stimulate root development. If you do not have a bottom-heated mist chamber like ours at home, you can lightly cover a new cutting with a plastic bag to raise humidity around it and keep it from drying out.



Photo 1: (L to R) Cut stem, remove some leaves, and cut remaining leaves in half

To prepare a cutting, snip about 3 inches off the growing tip of a stem and then strip the bottom leaves off so that only two or three leaves remain. If the remaining leaves are large you may want to cut them in half to reduce their area and reduce the amount of transpiration (Photo 1). With no roots to replenish water lost through transpiration, the cutting will wilt if it loses too much water. Once prepared, the cutting may be dipped in a rooting hormone, either liquid or powder. Note that any liquid rooting hormone left over after sticking the cutting into it should not be reused.

The cutting is then gently pushed into a rooting medium such as perlite, vermiculite, or other loose peat-based material

(Photo 2). Make sure that at least one node (location where the leaf was attached) is under the medium since this is where the axillary meristems, or areas of cell division, are found. For most plants, at least one or more nodes should be included on the cutting. However, for some plants the rooting hormone is all that is necessary since adventitious roots can develop directly from a cut stem.

Once sufficient roots have been produced the plant is ready to transplant. Before planting the plant must gradually be hardened off, or transitioned away from the lush conditions required to promote rooting. At this point the mist, heat, and irrigation cycles are reduced and the plant is exposed to higher light levels for short periods. Once the small plant is accustomed to natural conditions it is ready to plant either in a larger container or in the ground.



Photo 2: Cuttings in rooting medium

A similar form of propagation can easily be done with succulent cuttings. These plants store water, so cuttings of succulents need to dry a bit before being planted to prevent the cut end from rotting or attracting disease organisms. How long to let them air dry depends on the plant and weather conditions. The colder and wetter the climate, the longer the cuttings need to dry. Some succulents will begin to produce roots from cut stems even before they are planted (Photo 3). With succulents, a propagation medium is not necessary and they can usually be planted directly into soil. If you are planting in the ground, loosen the soil to allow the roots to penetrate more easily.

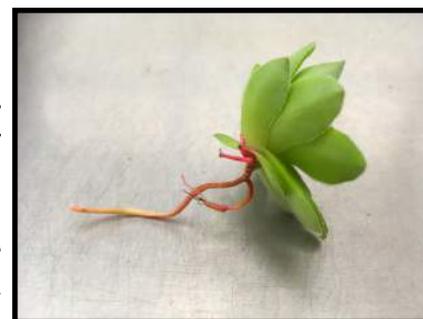


Photo 3: Succulent roots

While propagation is a science, success depends on many factors and can often seem like an art, which improves with experience. Additional information for laypersons can be found at websites of the American Horticultural Society (www.ahsgardening.org), Sunset (www.sunset.com), and of course the University of California, Division of Agriculture & Natural Resources, Master Gardeners (www.mg.ucanr.edu/). To gain practical experience at propagation, consider volunteering at the UCR Botanic Gardens!

Birds of the Gardens

Costa's Hummingbird

By Chris Swarth

The Costa's Hummingbird is tiny even for a hummer. At only 3 grams, it weighs less than a nickel! The male sports a brilliant purple crown and flared purple gorget with long points. Females lack bright ornamentation, but sometimes have a few purple metallic throat feathers. The best views of these speedy, pugnacious birds can be had through binoculars when one hovers at a feeder outside your window.



Photo by Ninad Thakoor

Costa's are found throughout the Sonoran Desert and in coastal chaparral between Santa Barbara and San Diego. They've been described as the "dry desert hummingbird par excellence." Nectar-producing plants they favor are chuparosa (*Justicia californica*), white sage (*Salvia apiana*), purple sage (*S. leucophylla*), woolly bluecurls (*Trichostema lanatum*), vinegarweed (*T. lanceolatum*), scarlet larkspur (*Delphinium cardinale*), various penstemons (*Penstemon sp.*), monkeyflower (*Mimulus sp.*), ocotillo (*Fouquieria splendens*), and tree tobacco (*Nicotiana glauca*). Many of these plants are found in the Botanic Gardens.

In late winter and spring, hummingbird courtship displays are an exciting sight in the Gardens. Males perform fast, looping

aerobatics – sometimes high overhead - which impress a potential mate and repel other males. Courtship involves a high-pitched song and U-shaped shuttle display, followed by an aerial dive. A shrill whistle can be heard as the bird performs circular loops.

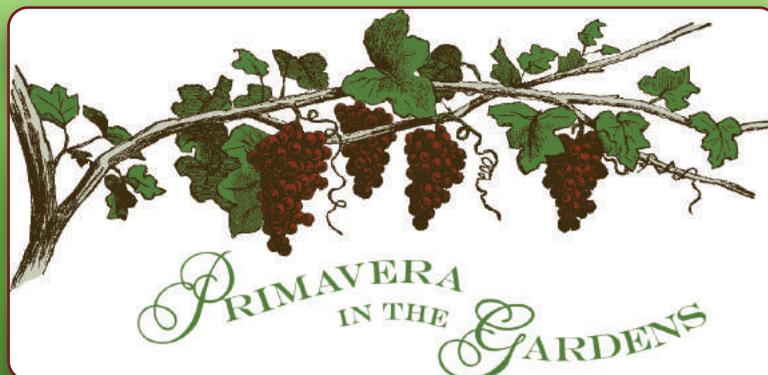
Hummingbird nesting has begun and the recent rains should lead to a successful breeding season. If you visit the Gardens you may see Dave Rankin observing hummingbirds. Dave is a research scientist in Chris Clark's lab and frequent leader of bird walks in Gardens. And he's very good at spotting hummingbird nests. He's discovered 34 Costa's nests in the Gardens! Most of these nests were in the Desert Section or near the parking lot. He's found nests in deodar cedars (*Cedrus deodara*), brittlebush (*Encelia farinosa*), cacti, palo verde (*Parkinsonia sp.*), and black sage (*Salvia mellifera*). Nests were about 10 to 12 ft. high and were built mostly between January and April. Males play no role in building the nest or caring for the young.

PhD student Katie Johnson, in Chris Clark's lab, investigates song acquisition and learning by male Costa's. Their song has been described as "a sound like the highest and sharpest note that can be made on a violin." Katie studies hummingbirds that she cares for in aviaries. During their formative months of growth, she plays songs to some of the captive young males, while others are deprived of this stimulus. She's found that young males must learn their song from singing adults even though they never see a male while they're in the nest. Birds that grow up hearing the songs of other males develop a song that is distinctly "Costa's", whereas birds not exposed to adult songs develop an entirely different song. Song in many birds is "hard-wired" or inherited; not so in Costa's. Katie has concluded that Costa's are "vocal learners", results that have implications for learning in other animals.

Hummingbirds are remarkable. As you watch one feeding at a bright inflorescence take time to appreciate the many unique behavioral and morphological adaptations they possess for their high-speed life.

Chris Swarth currently assists California Audubon and the Western Riverside County Biological Monitoring Program with studies of the endangered Tricolored Blackbird.

SAVE THE
DATE!



Sunday
May 19, 2019
2 - 5 pm

What to See in the Gardens

By Lois Whyde

At any time of year, there are numerous plants, animals, butterflies, hummingbirds and even lizards, to see in the Gardens. But during late winter, early spring, the Botanic Gardens starts to come alive. And there is more to the Gardens than just plants and animals.

Smells

Just inside the front entrance, as you stroll down the driveway, in between the Cactus Section and Alder Canyon, you will be graced with the sweet perfumed smell of the Narcissus. I open the Gardens every morning and I just love being hit in the face with the strong but sweet smell. It wakes me up and makes my day. Come visit quick before they finish blooming.

Plants

The daisy vine (*Montanoa schottii*), located just south west of the Ficus Grove, stands out like a beacon of light. The large shrub, which stands over 10 feet tall and wide, is classified as a vine due to its branches drooping to the ground. This specimen plant is literally covered in thousands of white, daisy like flowers and can be seen from long distances away.



Montanoa schottii, daisy vine

This plant was planted in 1993 and over the years has been pruned back so many times that it is a larger, sturdy shrub.



Pyrostegia venusta, Brazilian flame vine

The Brazilian flame vine (*Pyrostegia venusta*) is alive with color right now. The vibrant orange tubular flowers draw visitors to it like a magnet. Located outside of the garage office, it is a favorite spot for people to take pictures.

Places

The pièce de résistance of the Gardens, to me, is the Australian section. Located near the very top of the 40 acres, this section which represents “the land down under” has the best view in all of Riverside. On a clear winter day, when the surrounding mountains are snow covered and the Box Springs Mountains are green after the rains, there is no better place to be! It is absolutely my most favorite place in the Gardens. Come check it out!

Rose Pruning Demonstration

By Janine Almanzor

Sandwiched between two winter storms, the Rose Pruning Demonstration on January 13th turned out to be a perfect day to be out in the Gardens. Since 1979 the Botanic Gardens has held these demonstrations to educate the public on rose culture and pruning. This year was our largest with about 140 in attendance. The Raincross Rose Society was present with an information table that had a crowd around it the entire time. Master Gardeners, UCRBG volunteers and local rosarians all helped with demonstrating how to prune roses and answering a multitude of questions. Everyone enjoyed this event because there was something to learn, something to eat and for almost everyone, something to take home. Our generous door prize donors this year included Cherry Valley Nursery, Corona Clipper Inc., Gail Watson, Karen Fleisher, Louie’s Nursery, Paradise Garden Center, Parkview Nurseries on Chicago and Jackson, Sunshine Growers and the UCRBG.



Master Gardener - Lee Bayer



Master Gardener - Cindy Peterson

Wildlife of the Gardens

The Gray Fox

By Michele Felix-Derbarmdiker

A creature of the twilight, the Gray Fox, (*Urocyon cinereoargenteus*), is a widespread species of canid. It can be found throughout North America and down into Central America. Once the dominant fox species across the U.S., it has been dethroned by the Red Fox (*Vulpes vulpes*) in the eastern United States. It is still the dominate fox species in the western U.S. Locally we have the California Gray Fox (*Urocyon cinereoargenteus californicus*); one of the over a dozen subspecies of the Gray Fox. Explore the remaining wild places and wildlife havens within the cities to try and spot this gray ghost.

Habitat/Feeding

The Gray fox can be found in a wide range of habitat types but locally it is often at home in the chaparral plant community. The continued destruction of this plant community has pushed them closer to cities. Not as easily adaptable to city life, like the Red Fox, the Gray Fox is more likely to be found in our remaining wild places. It prefers brushy, wooded and rock-strewn habitats. Usually active at twilight, foxes are spotted during daytime in habitats that provide good cover for hunting. Gray Foxes are not the picky child at the dinner table.



Photo by Lee Reeder at the UCRBG

As we all saw in every cartoon featuring a fox, the cute little bunny is the main course. Locally, foxes hunt cottontails, jackrabbits, birds and rodents. Side dishes of berries, insects and lizards are common. Their keen senses aid in hunting but they have a unique capability. They are capable of climbing trees, a rare talent in the canid world. They have been spotted in trees as tall as 60 feet, which is a handy skill whether you're the hunter or the hunted.



Photo by Lee Reeder at the UCRBG

Breeding

Gray Foxes form monogamous pairs for breeding but are otherwise solitary. Breeding season varies slightly depending on geographic location but tends to be in early spring. The pair will raise a litter of 1-7 young, also known as kits, in a well-hidden den. After about 3 months the kits will begin to hunt with their parents. The family unit will live together for about 10 months, which is when both genders become sexually mature.

Identification

The Gray Fox is smaller than the Red Fox and has several other distinguishing characteristics. From nose to tail it averages 3-4 feet. Cinereoargenteus means ashen silver and refers to the gray colors found on the face, head, sides and tail. The main distinguisher between the Gray Fox and the Red Fox is the black line along the middle of the tail and back. The Gray Fox also lacks the "black sock" coloring found on the Red Fox. Unlike other fox species, they have round pupils instead of slit pupils.

Threats

The Gray Fox is not currently listed as a species of special concern, threatened or endangered. Populations appear stable but it does face several threats:

- ▶ Development/loss of habitat
- ▶ Fur trade/hunting
- ▶ Illegal pet trade
- ▶ Poisoning from rodenticide
- ▶ Predation by bobcats, coyotes, dogs, large birds and mountain lions

Michele is a UCR graduate who worked as a field biologist for 6 years throughout Riverside County and is currently a naturalist for Riverside-Corona Resource Conservation District.

In Memoriam

Brenda Bowers

by Amber Jones



Brenda Bowers was an active volunteer and good friend to many at the UCR Botanic Gardens for over twenty years. We are very saddened to have lost her on January 26, 2019.

You may recognize Brenda's face from many UCRBG Plant Sales. She was often found directing traffic at the check-out lines and helping with other plant sale activities. As she helped at the check-out lines she often gave planting, growing, and gardening advice, which she loved to share. She, along with her husband Bob, were regular volunteers at the sales.

Brenda also served the Gardens in many other ways that were "behind the scenes." Most Thursday mornings Brenda was at the Gardens working in the lath house propagating plants and, according to the BG staff, she was one of the best propagators they worked with. You may very well have purchased a plant that she started as a mere seedling! Brenda also packaged, labeled and set up the seed tables for the Plant Sales. There are many tedious steps involved in this process, and she was a master at getting the job done.

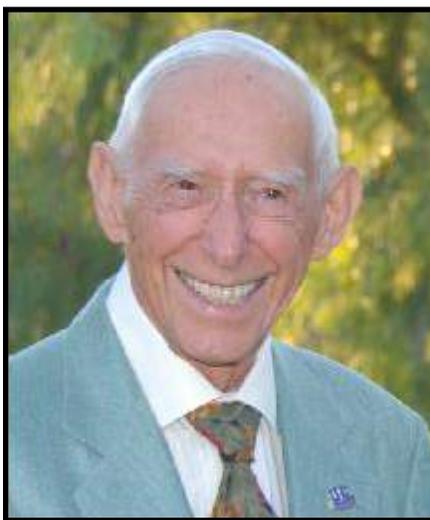
Brenda also served many terms as a past board member for the Friends of the Botanic Gardens. In this capacity she attended monthly meetings, acted as Recording Secretary for one term, and also helped plan many special events. She was always ready to help before, during, and after the member events, Rose Pruning Workshops, and Primavera in the Gardens. Brenda touched the Gardens in so many ways and the Gardens truly benefited from her time, efforts, love and friendship. She was my very good friend and I will miss her, and I know the Gardens and garden community will miss her as well.



Amber Jones & Brenda at Primavera

Dericksen Brinkerhoff

by Giles Waines



I am saddened to report the death of Professor of Art History Dericksen Brinkerhoff, who died in August 2018 aged 96. Along with his wife Mary, Dericksen was a founding member of the Friends of UCR Botanic Gardens in 1980. Perhaps more than any other couple, Mary and Dericksen were active members of most campus and town clubs during their many years in Riverside. The Friends of UCRBG was started by Botanic Gardens Director Louis Erickson at the instigation of John Babbage, estate attorney and member of the UCR Foundation board. Dericksen and Mary were members of several wine clubs and they provided wine for Friends gatherings in the Botanic Gardens Conference Room. When the Friends started their Primavera fundraiser in 1998, Dericksen and Mary supplied wines from Temecula Valley and especially featured wines of Joseph Hart, one of the original vintners on Rancho California Road. Dericksen and Mary had an attractive drought tolerant garden of mature cacti and succulents at their adobe home in Riverside. There they entertained many local and international students and hosted wine club gatherings. Because of his strong interest in wine, Dericksen became a member of the Friends Primavera organizing committee and later a member of the Friends Board of Directors. He

would arrive for lunch-time meetings on his bicycle into his 90s. Perhaps because of all the exercise he obtained from cycling around Riverside, Dericksen had a very hearty appetite for food at Friends of UCRBG gatherings. However, with presumed hollow legs, he never appeared to gain weight. Dericksen and Mary traveled in their motor home to sample wines in most states in the USA, and they introduced attendees at Primavera to wines from Missouri, and New York Finger Lakes region, as well as from Washington, Oregon and California. They especially liked wines from the California Central Coast.

University of California, Riverside
Botanic Gardens
900 University Ave.
Riverside, CA 92521

Non-Profit ORG
U.S. Postage
PAID
UCR

UCRBG Calendar of Events

- 
- March 12 **Volunteer Orientation**, Meeting Room, 9:00 am
- April 6 **Spring Celebration & Member Appreciation Plant Sale**
9:00 am - 3:00 pm Members Only
- April 9 **Volunteer Orientation**, Meeting Room, 9:00 am
- April 13 **Bird Walk & Breakfast**, 6:30 - 10:00 am
- May 14 **Volunteer Orientation**, Meeting Room, 9:00 am
- May 19 **Primavera in the Gardens**, 2:00 - 5:00 pm
- June 11 **Volunteer Orientation**, Meeting Room, 9:00 am
- June 27 **Friends Annual Meeting**, Meeting Room, 6:00 - 8:00 pm
- Please note: The UCRBG will have late openings (1:00 pm) on the 1st and 3rd Friday of each month.