

The University of California, Riverside Botanic Gardens UCRDBG Newsletter

Volume 35, Number 1, Spring, 2015

42ND ANNUAL U.C. RIVERSIDE BOTANIC GARDENS

SPRING PLANT SALE NEWS

Friends Preview Sale: Saturday, March 28, 8 a.m. to 11 a.m.

Public Sale: Saturday, March 28, 11 a.m. to 4 p.m.

and Sunday, March 29, 9 a.m. to 3 p.m.

It's hard to believe the Botanic Gardens has been staging the spring plant sales for 42 years! A lot has changed in that time, but we continue to offer California native and water wise plants as we did long before they became, justifiably, all the rage. Here we highlight just a few of the plants to be available, emphasizing those that are water wise.

Several California native trees will be available. *Pinus sabiniana*, **foothill pine**, is not commonly offered by nurseries. That's too bad because it is quite adaptable, fast growing and water wise. It is a medium to large tree to 40 or 50 feet tall with a lacy, open crown that casts light shade. It has long, graceful, gray-green needles and big, comparatively light cones containing large, edible seeds.

An even larger California native tree is *Quercus lobata*, **valley oak**. This is a deciduous tree,



Quercus lobata, valley oak

to 70 feet tall, with handsome, deeply lobed leaves. In youth, it is surprisingly fast-growing, once it gets established, and with some supplemental



Prosopis pubescens, screwbean mesquite, photo courtesy of Curtis Clark.

irrigation. In age it is a majestic tree with thick, spreading branches. Much smaller is **screwbean mesquite**, *Prosopis pubescens*. This drought tolerant, desert native can be trained as a multi-trunked small tree or as a large shrub, to 25 feet high. It has small, ferny, blue-green leaves along spiny branches and yellow, bottlebrush flower spikes in spring. The flowers are followed by curious, coiled seed pods.

A number of California native shrubs will be available. *Ceanothus* and some other California natives are often difficult to get established, especially in spring, so in spring, we only sell

plants that are most likely to succeed when planted at that time of year. We don't sell species or varieties that won't tolerate the irrigation that is needed to get them through their first summer. Though there is not enough room to describe them in detail here, there will be four varieties of *Ceanothus*, or **California lilac**, offered, especially selected for spring planting: 'Blue Jeans', 'Concha', 'Joyce Coulter', and 'Yankee Point'. All have fluffy clusters of tiny blue flowers, varying in their height, width,



Prosopis pubescens, screwbean mesquite seed pods, photo courtesy of Pompilid.

leaf shape and size, and the flowers' shade of blue. Two *Ribes* will be offered, as well: **pink sierra currant** (*Ribes nevadensis*) and **fuchsia-flowered gooseberry** (*Ribes speciosum* 'Rana Creek'). Pink Sierra currant is a winter deciduous

shrub with aromatic, maple-like leaves. The small, pink flowers are produced in nodding clusters in late winter, and are loved by hummingbirds. The flowers are followed by edible berries. The pendulous, deep crimson flowers of fuchsia-flowered gooseberry are born in profusion in late winter and early spring and attract hummingbirds, as well. It is drought deciduous and has thorny branches lined with dark green, shiny leaves. Both *Ribes* grow to about six feet tall.

Also growing to about six feet tall is one of California's choicest shrubs, **bush anemone**, *Carpentaria californica*. The Gardens will offer the selection

'**Elizabeth**' at the sale. 'Elizabeth' is an evergreen shrub with handsome, dark green, leathery leaves and especially large clusters of two-inch, glistening white, slightly fragrant flowers with a conspicuous cluster of yellow stamens in the center.



Ribes speciosum, fuchsia-flowered gooseberry, photo courtesy of Stan Shebs.

The flowers are produced in summer and attract butterflies. Attractive to both butterflies and hummingbirds is **California honeysuckle**, *Lonicera hispidula*. It is a vine, or clambering shrub, that can grow to more than 15 feet tall, with support. Its leathery leaves are born in pairs along the wiry stems. Spikes of two-lipped pink flowers precede showy, red berries that are supposedly edible, but bitter, so perhaps are best left for the birds who can better appreciate them. Another native shrub to be offered is **Santa Rosa Island sage**, *Salvia brandegeei*. This is an evergreen shrub growing four to six feet tall with dark green,

aromatic leaves that are handsomely scalloped and textured. The small, pale lavender-blue flowers are produced in long-stemmed, shish-kebob spikes in early summer. Of course they are loved by hummingbirds.



A salvia from south of the border is **Cedros Island sage**, *Salvia cedrosensis*. This Baja California native shrub grows to only about two feet tall. Its near-white

stems are lined with small, silvery-gray, felty leaves. The loose spikes of small, two-lipped blue flowers are produced much of the year. Two salvias from South Africa will be offered for the first time: *Salvia*

lanceolata, **rusty sage**, and *Salvia chamelaeagnea*, **rough blue sage**. Rusty sage is a mounding shrub to three feet high with silvery-gray foliage. The dusty rose-colored, two-lipped flowers are produced in compact, lemon-scented spikes and have rose-tinged calyces. This is probably best in milder Inland gardens (Sunset Zone 19) as it may not survive a hard frost. Rough blue sage grows three to six feet tall and is upright rather than mounding. It has medium green, aromatic leaves as a backdrop for the compact spikes of one-inch, blue and white, two-lipped flowers. The flowers have contrasting, purplish calyces and are produced in summer and fall. Another blue- and white-flowered

lanceolata, **rusty sage**, photo courtesy of Walter Siegmund.

salvia is *Salvia flocculosa* '**Curtis Blue**', **blue Ecuadorian sage**. We think of this as a three- to five-foot shrub, but it is reported to get much larger if not pruned periodically. It has aromatic, gray green leaves that are white-woolly below. The flowers are two-lipped and small, but spritely -- a deep purple-blue with two contrasting white marks on the lower lip. They are produced in abundance over a long fall to spring period. As usual, there will be a large choice of *Salvia x jamensis* cultivars, most



Salvia brandegeei, Santa Rosa Island sage, photo courtesy of San Marcos Growers, Santa Barbara, CA.

developed and selected by Director, Giles Waines, all quintessential hummingbird attractors.

There are no hummingbirds native to Australia but hummingbirds still love many Australian flowers. There will be a number of hummingbird-attracting, Australian plants at the sale. Though it has pretty, cerise, bottlebrush flowers that attract hummingbirds, *Callistemon viminalis* 'Red Alert' is grown more for its spectacular, spring and fall flush of vivid red new growth. It is a dwarf form of the normally tree-sized bottlebrush, *Callistemon viminalis*.

Its red new growth, moderate size of six to eight feet, and water efficiency, make it a good substitute for the ubiquitous *Photinia x fraseri*. Another dwarf form of *Callistemon viminalis* is the selection *C. viminalis* 'Macarthur'. 'Macarthur' is a dense, rounded shrub growing to only six or seven feet tall (which is several feet taller than the more common, 'Little John') and requires little or no pruning to keep it compact. It has narrow, blue-green leaves and typical, blood red, bottlebrush-shaped

flower clusters; these are produced fall, winter and spring. Another Australian hummingbird attractor is *Grevillea* 'Peaches and Cream'. 'Peaches and Cream' is an evergreen shrub to six feet tall with deeply divided, lacy leaves. The unusual, spidery flowers are produced in dense, thick spikes, opening yellow and aging to pink and orange -- the affect is quite attractive. 'Peaches and Cream' is being offered for the first time at the sales.



Salvia cedrosensis, Cedros Island sage, photo courtesy of Stickpen.



Salvia lanceolata, rusty sage, photo courtesy of Zoya Akulova.

Also new to the sales is *Hardenbergia violacea* 'Meema', Meema lilac vine. This Australian native is a dwarf, shrubby form of this popular species. Without support, 'Meema' will grow to only about two feet high and six feet wide, making a good ground or slope cover; with support it will climb, but not as tall as the species. It has dark green, undivided, leathery

leaves and spikes of small, rose-purple, sweetpea-shaped flowers, each with a chartreuse dot in the center. We've not been able to offer woollybush, *Adenanthos sericea*, in some time. This Australian protea relative is grown more for its pet-able, silver, silky foliage than for the odd, tubular, red flowers that are occasionally produced. Remember that most Australian plants should not be given phosphorous fertilizer; woollybush and the other Australian plants listed here are no exception.

We always try to have a good selection of butterfly-attracting plants for the sale. Among these are three selections of butterfly

bush. *Buddleja davidii* 'Evil Ways' is unusual for its foliage which is chartreuse green above and white-felted below. It produces the typical dense, conical spikes of tiny, fragrant flowers that are so loved by butterflies -- these in crimson-purple. *B. davidii* 'Harlequin' has similar flowers but the leaves are dark green with yellow margins, on the upper surface,

and white-felted below. With butter yellow flowers is *B. x weyeriana* 'Sungold'. Its tiny, fragrant flowers are produced in dense, globular clusters. The Gardens' own true lilac introduction, *Syringa x hyacinthiflora* 'Ramona' will be available in good supply. This is a deciduous, semi-dwarf shrub that was specially selected to perform well in mild winter climates like our own. It has heart-shaped leaves and conical clusters of single, deep purple flowers in late winter -- butterflies love them. *Passiflora* 'Blue Horizon' will be



Salvia chamelaeagnea, rough blue sage, photo courtesy of Andrew Massyn.

offered and is a larval host of the Gulf Fritillary butterfly. This fast-growing vine has deep green, five-lobed leaves and the exotic flowers typical of passion vines; these are white with



Hardenbergia violacea 'Meema', Meema lilac vine.

contrasting, deep blue filaments. There will be many perennials at the sale that attract butterflies. New to the sales is *Bidens ferulifolia* 'Marietta Gold Spark', a compact, mounding perennial with lacy, finely divided, bright green leaves. Its one-inch, golden yellow, daisy-like flower heads are produced through much of the year.

A new selection of **woolly yarrow**, *Achillea tomentosa* 'Golden Fleece', will be offered. It forms a low, tight mat of finely-divided, woolly, gray green leaves and flat-topped clusters of tiny, bright yellow flower heads. *Sphaeralcea* 'Newleaze Coral', **Newleaze Coral mallow**, is an upright, somewhat shrubby perennial with many wand-like stems that can reach three or four feet in height. The stems are lined with lobed, gray-green leaves and satiny, coral-orange, hollyhock-like flowers from spring to fall. Besides being an adult butterfly nectar plant, many *Sphaeralcea* provide larval food for several species of butterfly. All three of these perennials are water wise.

Other new perennials include *Euphorbia* 'Dean's Hybrid'. Its narrow, gray-green leaves are arranged fox-tail fashion along the stems and these are clustered to form a dense, rounded mound. The stems are topped in summer by long-lasting clusters of bright yellow flower heads that age to green. **Wood strawberry**, *Fragaria vesca californica* 'Montana de Oro', is a California native groundcover for part sun or light shade. It grows to only a few inches high, but spreads up to four feet, forming a dense carpet of matte green, three-parted leaves with toothed leaflets. Its five-petaled,



Syringa x hyacinthiflora 'Ramona', lilac.



Buddleja davidii 'Harlequin', butterfly bush, photo courtesy of Ptelea.

white flowers are followed by tiny, but tasty, strawberries. New among the grasses to be offered is **ruby muhley**, *Muhlenbergia reverchonii*. This is smaller and earlier to flower than the more common pink muhley, *M. capillaris*. Ruby muhley grows to only two or three feet high in bloom; flowering begins mid-summer and lasts into fall. It is a clumping grass with slender, gray-green blades and forms a cloud-like mass of misty pink flowers above the foliage clump. Striking!

As usual, there will be a great selection of cacti and succulents at the sale in an assortment of sizes, for landscape or container. Watch for *Dudleya hassei*, **Catalina Island live-forever**. For sun or shade, it is a California native that forms many rosettes of chalky, finger-like leaves spreading slowly to form a dense mat several feet across. The white, short-tubular flowers are produced in branching spikes above the foliage from spring into summer. It makes a good, small-scale groundcover. *Aloe* 'Johnson's Hybrid' will be available in good supply. This succulent perennial grows to only a foot or so high and has many slender, bright green, white-spotted leaves that are



Buddleja x weyeriana 'Sungold', butterfly bush, photo courtesy of Ptelea.

About the Plant List

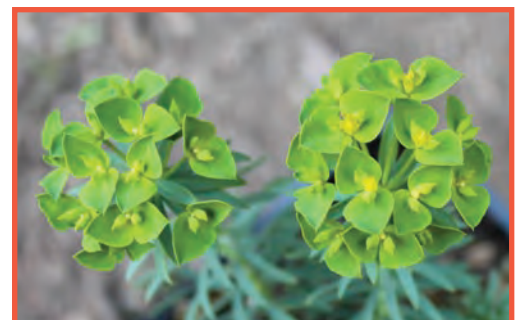
Friends can choose from several ways to obtain a plant list. You can call the office at **951.784.6962** or e-mail us at ucrbg@ucr.edu to request a list be mailed to you. The list may be found online at the Gardens' website, to print or peruse in place. Go to www.gardens.ucr.edu and follow the links to the calendar and plant sale. Copies of the list will also be available at the entrance to the sale.

The list includes trees, shrubs, vines, herbaceous plants, most of our landscape-size succulents and cacti, shade plants, house and patio plants, and water plants. To help you prioritize your shopping, the list also includes the number of plants we expect to have available. The list is continuously being updated as the inventory changes, so check in periodically and get an updated list. Note that containerized plants are a perishable commodity and are subject to watering problems and weather issues, so check the updated list close to the sale to make sure your choices are still available. Make use of this informative publication! S.M.

lined with tiny teeth. Its dense spikes of tubular, bright orange flowers can appear at any time of the year. Another great aloe is *Aloe gracilis*, **scrambling aloe**. It forms stands

of semi-erect stems lined with narrow, matte-green leaves that are edged with small, white teeth. The tubular, pendulous, deep orange-red flowers are produced in branching spikes in winter. Hummingbirds are attracted to the flowers of all three of these succulents.

There is only enough space in the



Euphorbia 'Dean's Hybrid'.



Plants described in this article, left to right: *Passiflora* 'Blue Horizon', passionvine; *Sphaeralcea* 'Newleaze Coral', Newleaze Coral mallow; *Muhlenbergia reverchonii*, ruby muhley, photo courtesy of San Marcos Growers, Santa Barbara, CA; and *Aloe gracilis*, scrambling aloe.

newsletter to discuss but a small sampling of the plants that will be available at the sale. Check out the plant list to read more about the many other plants to be offered. See the box on the previous page to learn how to get your detailed plant list. But even

the detailed list can't include everything. There are still many cacti and succulents in smaller sizes, hundreds of herbs, vegetables grown by the UC Master Gardeners, and wildflower seeds that will be available but are not listed. Plan to spend some time perusing the huge selection and visit-

ing the Gardens, as well. Be sure to tell your friends and relatives about the sale. And don't forget -- **the Friends Preview Sale begins at 8 A.M.** Thank you in advance for your support of this great event and for your support of the Gardens. 🌿SM

State of the Gardens

PLANTS TO SEE: the California Desert Garden will come into flower in winter and spring. Various bulbs and shrubs will bloom in Alder Canyon as the season progresses. Already, the western redbud (*Cercis occidentalis*) is flowering by the Grace Bitters' memorial bench at the fork in the main drive. Other species of redbud are blooming in the canyon between the Conference Room and the Lynne Seymour memorial sculpture, a work by Riverside artist Paul-don Evans. Taking the left fork at the Bitters bench, aloes and other South African plants are displayed on the left hand, south-facing slope. On the north side of the road lilacs will bloom from late February to early May. Already, native Nevin's barberry from San Timoteo Canyon, Redlands, has bright yellow clusters of small flowers that will complement lilac blooms. Bright yellow is a color not found in lilac blossoms. Native Otay Mesa

rose, from San Diego County, provides a splash of bright pink near the old rose garden. The Butterfly Garden has several plants in bloom throughout the winter, including winter-flowering *Buddleja asiatica* and *Viburnum tinus* from the Mediterranean region. The Herb Garden always has interesting plants in flower throughout the year, while there are additional lilacs across the stream bed at the south end of that garden complex. Bearded iris will bloom after the plant sale.

Botanic Gardens Financial Affairs Office: On February 12, I received a message from Dean Yates that the Botanic Gardens FAO responsibilities will be moved to the AEE unit, which is an acronym for Air Pollution, Earth Sciences and Environmental Sciences. Since Air Pollution was closed a couple of years ago, the new FAO unit will take care of the Botanic Gardens,

Earth Sciences and Environmental Sciences with a new acronym, BEE. The financial office will be in 2258 Geology Building headed by Janice Border. Deb Terao, the present FAO and I met with Janice recently and I was introduced to RC Sutton, who is the equivalent of Juliet Lin. The change-over will start March 1, but will proceed gradually to the end of the fiscal year. There will be no change for the financial administration of the spring plant sale, which will still be administered from Botany and Plant Sciences office.

Julie Slis, a volunteer, generously left the Botanic Gardens a bequest in her will. I consulted with Steve and Theresa as to what we might do in her memory. They suggested that as Julie helped at the plant sales for many years, we could usefully replace the sapwood pallets that serve as nursery benches with metal benches, which will not rot out after

a couple of years supporting plants. This we will do around the lath house and greenhouse. I have ordered additional metal benches for the Nursery in the Grove, where salvias and lilac plants are raised for the sales. These benches will be paid for by a donation from **The Arbor Fund**, a donor advised fund of The Community Foundation serving Riverside and San Bernardino Counties.

Tree Work: Los Gatos arborists will remove two dead trees and prune branches away from the electric power lines in early March. As the Gardens are over 50 years old, tree care is one of the costliest annual maintenance requirements needed for student and visitor safety.

The Geodesic Dome: An iconic structure in the Gardens, it was donated, designed and built in 1986 as a memorial to Francis and Jane Gunther by their sons Robert and Kurt. The wooden dome is beginning to show its age and is in need of repair to the frame base, siding and lath. These repairs will be started this spring.

UCR Herbarium News: Curator Andrew Sanders reported on new plant species found in Southern California at the February meeting of the California Native Plant Society in the Riverside Main Library, downtown.

Donations: I wish to thank the following persons for their generous donations from October 2014 to January, 2015. I especially thank Friends who responded to the annual fund appeal at the end of 2014. If I fail to mention your name, please let me know.

Botanic Gardens General Fund (for maintenance). Jennifer Ander-

son, Virginia Brawner, Hilary Brown, Larry & Linda Burn, Jerry Carlson, Raymond Carroll, Community Foundation Serving Riverside & San Bernardino Counties, Eleanor Courtney, Betty Cullen, Bernice Curtis, Abol H. Danesh, Arturo Dassow, James Dilworth, Ali & Ellen Estilai, Claire & Brian Federici, Amylia Fisk, Dennis & Brenda Focht, Nadine & Gene Fuhlbusch, Raymond Gayk Sr., Kurt Gunther, Jan Haley, Nancy Higbee, Teraneh Jhaveri, Tracey Kahn & Norman Ellstrand, William Keeler Jr., Christine Keller, Lauretta Kyle, Robert & Caroline Larson, Germaine Leichtenberg, Claudio Lopez, Brad Lukes, Beverly Maloof, Victor & Mary Manzone-Solorzano, Marion McCarthy, Tamara McReynolds, Peggy & Nick Milfeld, Sharon Muro, John O'Neill, Susan Paasch-Williams, Margaret Ramsey, Liz Reid, Ann & Robert Servin, Raymond Sharpless, Julie Slis Estate, Dorothy Soules, Mary Ann & Richard Stalder, Clark Taylor, Mary Thrasher, Gary Tranbarger, Joseph Vander Pluym, Ergun Uslu, Heather & Kirk Visscher, J.G. Waines, Jack W. Ward, John & Carmen Wiese, Lesa Williams, Ruth & Daniel Winchester, Eva Yakutis, Mary Zambon-Lee.

Botanic Gardens Endowment. Drs. Anthony & Louise Huang, for the Subtropical Fruit Grove.

Botanic Gardens Wheelchair Pathway Fund. Christopher Nguyen.

Friends Botanic Gardens General Fund. Hilary Brown, Douglas & Amber Claflin, Alejandro Cortez, Daphne Fairburn & Derek Roff, W.C. Fidler, Gary Gehley, Tracy Kahn & Norman Ellstrand, Peter & Rebecca Kallinger, Bill & Linda Sun Kilfeather, Michael & Cleta Kinsman, Mary A. Liette, Robert Mann, Stephen Morgan, Connie & Roger Ransom,

Harold Snyder & William Kleese, Margaret Stockman.

Botanic Gardens Memorial Fund: for Ken Arakawa, Betty Arakawa; for Nancy Beckage, Anil Deolalikar, Jaga Giebultowicz.

Botanic Gardens Children's Fund. Suzanne Langhorne, Dennis & Janice Ponsor.

Friends Botanic Gardens Projects Fund. Jean Aklufi, Garden Glass Etc., Gardner Creative Metalwork, Lucy Heyming, Peter & Rebecca Kallinger, Jennifer Katz, Lao Evangelical Church of Santa Ana, Catherine Morford, Sharon Muro, Denise Rietz, Concepción Rivera (Primavera sponsor), Sandra Schnack, Jerome Tiezen, Mien Van de Ven.

🌿GW.

Members of the Friends of the UCR Botanic Gardens

Spring Outing,
Thursday, April 16,
4 p.m.

We will tour the
UCR Citrus Variety
Collection



This educational opportunity is a benefit of your membership in the Gardens. RSVP required. For Members only.

Spring Floral Arrangement Class
February 21, 2015

Spring Miniature Floral Arrangement: Seven Design tips and Seven Mechanical tips from the Experts

By *GJ dePillís*

*O*n a foggy morning at the UCR Botanic Gardens, twenty floral enthusiasts flocked to learn from Joyce Dean, judge and winning contestant herself at more floral shows than you can shake a tulip at. Ms. Dean is a member of the Garden and Floral Arrangers Guild in Redlands She came to UCR Botanic Gardens with her assistant, Maryanne, to present the Spring Floral Workshop on February 20, 2015. The workshop was fun and encouraged creativity, which we all loved. It was fascinating to witness that although we had access to the same materials, each

participant came up with a spectacularly different design.

On this day, we were guided through the techniques of making three-inch miniature arrangements, as well as an eight-inch designs. We got tips for creating miniatures and reasons to make them.

Now, why create miniatures nearly small enough to fit into a candle votive? Tiny floral arrangements are perfect "pick me

ups" for those who are convalescing at home or in a hospital. Each year the Garden and Floral Arrangers Guild in Redlands meets to make these special arrangements for veterans recuperating at the Veterans Hospital.

All of us agreed to invite Joyce back to the UCR Botanic Gardens for another workshop!



Keep Our Gardens *Clean & Beautiful* Day

**Saturday April 25, 2014
8:15 - 11:30**

**For more information, contact the
Gardens office at 951.784.6962
or ucrbg@ucr.edu**

We're on Facebook!

We are pleased to introduce the Friends of the UCR Botanic Gardens Facebook page!

Visit it here:

www.facebook.com/UCRBGfriends

- and be sure to hit 'Like' so that we can keep you up-to-date with Botanic Gardens events and photos.



Do I have to have a Facebook account to use the page?

You do not need a Facebook account to view the page, but you will need one to interact with the page in any way. This includes writing comments, liking photos, or receiving notifications about new content.

How do I make sure I receive all the updates?

You have two options:

News Feed To have our updates show up in your news feed, simply

Sign into your Facebook account

Go to our page, either by typing "Friends of the UCR Botanic Gardens" into the Facebook search box, or by entering www.facebook.com/UCRBGfriends into your browser's address bar.

Click on the



next to the page title, and you're done!

Notifications If you would like to receive notifications every time we post, first follow the steps above, and then click on the 'Liked' button again to select "Get Notifications."

I have a photo or other interesting content to share.

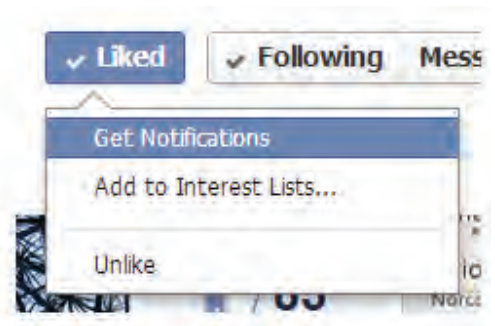
How can I get it onto the page?

We would love to see your submissions! You can either:

Post your photo directly onto the page using the dialog box at the top. It will not be visible immediately, but never fear, it will start showing up once one of our administrators approves it.

Email the submission to Amy Kwiecien (akwie001@ucr.edu) so that she can officially post it.

Please direct your feedback or any further questions to Amy Kwiecien at akwie001@ucr.edu. Thank for your support and we look forward to hearing from you!



Volunteer News

By Karen Fleisher

On Sunday, January 18, over 100 people attended the Gardens' annual rose pruning demonstration. The Gardens is extremely appreciative of



Some of our volunteers at the Rose Pruning Demonstration



the continued support of the UCCE Riverside County Master Gardeners, the Mountain View Rose Society, and other UCRBG Volunteers for helping with set-up, supplying refreshments, demonstrating pruning techniques, and also pruning over 300 rose bushes that day!

The Spring Plant Sale is right around the corner and we are looking for volunteers to help with plant sale set-up on Thursday, March 26, 2015, when we will be moving plants to the sales area. We usually start at about 9 a.m. If you have a few free hours that day, we would appreciate your help. We provide snacks and drinks, as well as lunch for our volunteers. It is always a fun day with like-minded friends who love supporting the Gardens! Please contact Karen Fleisher at 951-452-8501 for more information on how you can help.

We continue to hold our Volunteer Orientations on the second Tuesday of the month at 9 a.m., meeting at the entrance to the Gardens. For more information on volunteer opportunities in the Gardens, please contact Karen Fleisher at 951-452-8501 or volunteerucrbg@gmail.com. 🌿KF

Note from the President

While those who live to the east of us are suffering from cold winter weather, we are enjoying spring like conditions. If you have not been to the Gardens in the past few weeks take the opportunity soon to see the wonderful transition from winter to spring in the Gardens. It is a special time of year.

As spring approaches we have lots of events on the calendar. Our **Spring Plant Sale** is set for March 28 and 29. As a benefit of membership, Friends will be able to begin their shopping at 8:00 pm on Saturday, March 28th. Make sure you renew your membership so you can take advantage of the early shopping.

The month of April will bring a **Medicinal Plant Walking Tour** on April 12. On April 16 we will have our Spring Outing. Our Spring Outing will be a visit to the **UCR Citrus Variety Collection**. If you have never been to the Collection, this is an event which you will not want to miss. As an additional benefit of membership there is no charge for the Spring Outing, but there

is a limit on attendees. On April 25 we will hold our Spring **Keep Our Gardens Clean and Beautiful**. This is a great day to volunteer a few hours to help in the upkeep. Check out our web site for more information on these events.

Our major annual Fundraiser, **Primavera in the Gardens**, is scheduled for May 17. This event helps to raise funds for the maintenance of the Gardens. The Friends of the UCR Botanic Gardens provide a substantial amount of the funds to maintain the Gardens. Think about becoming a sponsor this year for our Primavera in the Gardens event. There are various levels of sponsorship with differing benefits at each level. For more information contact the Gardens at 951-784-6962 or ucrbg@ucr.edu.

Thank you to all of our volunteers and supporters, who make the Gardens such a special place.

See you in the Gardens!
Dennis

Butterfly Corner

Introducing the Queen

Article and Photos by Ann Platzer

The Queen, *Danaus gilippus*, is a “brush-footed” butterfly in the Family Nymphalidae. This medium to large sized butterfly (average wingspan 3 ¼ inches) resembles and is easily mistaken for a Monarch unless one observes the fine details. Both butterflies have wings of an orange-brown color, edged in black with two lines of white spots, but the Monarch is usually larger with a brighter orange color. However, a Monarch larva that consumed less food would produce a smaller adult and an older, weather-beaten Monarch would be drabber looking, thus size and color are not always reliable. So how do we differentiate between them? Seen dorsally, the Queen lacks the prominent black wing venation of the Monarch on both the fore and hind wings, (Photos 1 and 2: Dorsal view of female and male Queen, respectively). But, **caution**, when the wings are closed and viewed ventrally, the Queen lacks black venation only on the fore wings (arrow), not on the hind wings (Photo 3: Ventral view of male Queen).

The female oviposits single pale green or white, football-shaped eggs, resembling those of the



Photo 2. Queen, male dorsal

Monarch, on leaves, stems and flower buds of milkweeds and other related plants such as climbing milkweed, *Funastrum (Sarcostemma) cynanchoides*. The first instar (**larva**) hatches in

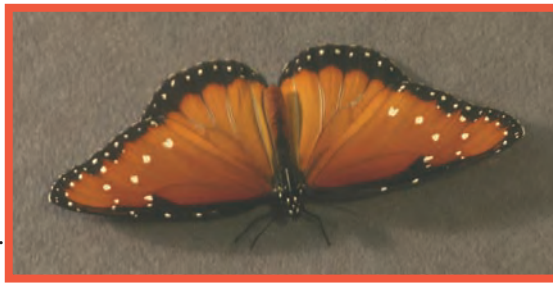


Photo 1. Queen, female dorsal

about four days, and like many butterfly larvae, eats its shell before munching on the plant. Although the larvae of the Queen and Monarch somewhat resemble one another in banding and coloration, the Queen larva has three (not two) pairs of long black filaments positioned dorsally at the front, middle and posterior end (Photo 4: Queen larva). Even the first instar has three pairs of tiny bumps, the precursors of the filaments. The **pupa**, like that of the Monarch, is a jade green color and takes about two weeks to develop. Even after a day, a newly emerged Queen (one of three I was rearing) was content to sit on my granddaughter's, Maia's, finger while we took numerous photos before it flew off to nectar on a winter blooming butterfly bush, *Buddleia* ‘Orange Sceptre’.

We already know that the **host plant**, the milkweed, contains a poisonous cardiac glycoside that is stored in the bodies of larvae, pupae, and adults making them distasteful and emetic to birds and other vertebrate predators, thus the Queen is another butterfly that

boldly displays bright warning colors.

The Queen, which has multiple broods a year, is chiefly a tropical species usually confined to the southern United States and south



Photo 3. Queen, ventral view

through tropical lowlands of the West Indies, Central America to Argentina. It inhabits open sunny areas wherever the milkweed plant is found including deserts, meadows, fields, edges of forests, pastures, dunes, waterways, and roadsides. Since the Queen cannot withstand prolonged freezing temperatures, it migrates south to overwinter as an adult.

Courtship: Studies have shown that **pheromone** odors play an important role in courtship success in different species of butterflies. A pheromone is a chemical that attracts, seduces or repels a mate. The male Queen must fly to certain plants, such as alkali heliotrope, *Heliotropum curassavica*, to suck up the necessary precursor chemicals and convert them into pheromones. These pheromones are made and stored in scent glands (androconial sex scales) present on the dorsal hind wings of the male, (Photo 2: Arrows point to scent glands).

Queen, continued

During courtship, the brush-like structures of the male, called hair-pencils, pick up the pheromone and gently waft the scent towards the female making her receptive to mating.

Naturally, I had to grow alkali heliotrope in the garden for the male Queen. Never again!! This plant

spreads like wildfire. In addition, I planted climbing milkweed that grows on the Box Spring Mountains, another favorite host plant of the Queen. Unfortunately, it is an aggressive twiner, to put it mildly, and also spreads everywhere. Second mistake.

The next time you see a Monarch, refer to Table 1, because it may be a Queen.



Photo 4. Queen larva

Butterfly	Dark Wing Venation, Dorsal View	Dark Wing Venation, Ventral View	Filaments on Larva
Queen	Absent	Only hindwings	Three pairs
Monarch	Present	Fore and hindwings	Two pairs

Table 1. Three visual differences between Queen and Monarch Butterflies

I suggest you plant the butterfly bush, Buddleia ‘Orange Sceptre’ as a winter bloomer in your butterfly garden since it withstood six nights of freezing, December 2014, unlike our lantanas and pentas.

Happy Butterfly Gardening! 🌱AP



Food! Wine! Music! Fun!

Come and Enjoy Riverside Premier Food and Wine Tasting Event

Primavera in the Gardens is the major fundraiser for our Botanic Gardens. Proceeds from the event are used to further our children’s education program. Please bring your friends for a lovely afternoon of music, delicious food from Riverside’s best restaurants paired with wines from Temecula Valley, Cucamonga Valley, Central Coast and Northern California, as well as regional craft beers. Great fun for a worthy cause!

U C Riverside Botanic Gardens

The UCR Botanic Gardens Newsletter is a quarterly journal published by the Friends of the UCR Botanic Gardens, UC Riverside Foundation, 900 University Ave., Riverside, CA 92521, and is one of the benefits of membership. Articles on various aspects of horticulture and its practice, history, or related subjects, especially as they apply to inland Southern California are welcomed. The selection of copy to print is at the discretion of the editors. Send copy to Steve Morgan, Botanic Gardens, University of California, Riverside, CA 92521-0124, call 951.784.6962, e-mail Stephen.morgan@ucr.edu or visit our website at www.gardens.ucr.edu for information.

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UPCOMING EVENTS

March 28 & 29, Saturday & Sunday Spring Plant Sale

April 12, Sunday, Medicinal Plant Walking Tour

**April 16, Thursday Spring Outing
to the UCR Citrus Variety Collection**

April 25, Saturday, Keep Our Garden Clean & Beautiful

May 17, Sunday Primavera in the Gardens