



UCRBG Newsletter

ONLINE FALL PLANT SALE

Saturday, Oct. 24 - Sunday, Oct. 25

By Janine Almanzor

DATES
SUBJECT TO
CHANGE. PLEASE
CHECK OUR
WEBSITE.

We are pleased to announce our second **Online Plant Sale** which will take place this fall. For the first time, Members will get a 10% discount on all plant purchases. The date is subject to change so please watch for Botanic Gardens' emails and check our website for updates. Hundreds of different species will be available including house and patio plants, shrubs, herbaceous plants, trees, vines, cacti, succulents, and California native plants.

Now that the weather is cooling down you may want to spruce up your patio to enjoy the cooler weather outdoors this fall. With the exception of the autumn sage, which requires more light, here are some suggestions of plants that will transform any patio or semi-shady location.



Reed-stemmed epidendrum orchid, *Epidendrum* hybrid - These plants will add a tropical feel to your patio and are easy to grow. They have tall, reed-like stems lined with succulent leaves and in warm weather are topped with long-lived clusters of small, orchid flowers with fringed lips. The patio is the perfect place since they need protection from frost.

Fuchsia, *Fuchsia* sp. (Jack's) - We call it Jack's because a long-time volunteer named Jack Goertzen selected many hybrids that tolerate our inland heat. You may remember Jack years ago, selling his Peruvian lilies (*Alstroemeria*) at the Plant Sales. This is one we especially liked so we have kept it going since Jack's passing. Mine

has been hanging in my patio for years. It will wilt when you forget to water it but mine has always revived and it blooms every year. You can cut it back to keep it tidy and full.



Gartenmeister fuchsia, *Fuchsia* 'Gartenmeister Bonstedt' - This is another beautiful fuchsia selected for our inland gardens.

This is an evergreen shrub for a container or for the landscape with shade. It has dark, reddish foliage and spikes of pendant, salmon-red flowers from spring through fall. Both of these fuchsias will attract hummingbirds.



Flowering maple, *Abutilon pictum* 'Aureo-maculatum' - This is an eye-catching, fast growing, evergreen shrub for a container or for the landscape in some shade. Mine is in dappled shade and is doing great. It has maple-like leaves with a patchwork of white, cream, and different shades of green. The flowers add even more interest as they are nodding, bell-shaped, soft-orange flowers with crimson veins from spring through summer.

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Director's Report - Dr. Jodie Holt



As I write my second report during a persistent pandemic, extreme heatwave, and active wildfire season, I am struck by how resilient our Gardens and people are in the face of these challenging events. We have withstood over three months of closure, a month of break-ins and thefts, unrelenting weed growth, absence (thankfully not permanent) of our student workers and volunteers, loss of six months' earned revenue during our busiest season, and escalating costs for maintenance and Covid safety. We are in good company, as these impacts have been felt by all public gardens around the world.

We have worked hard over the past four years to improve operations, upgrade facilities, install new gardens, and launch new programs, and it would be easy to be discouraged by recent setbacks. However, through these last few months I have been extraordinarily gratified by our collective ability to withstand, assess, regroup, and travel the road to recovery while living in a new normal reality. In fact, we are living the phrase "necessity is the mother of invention," as the cessation of most of our normal activities has required us to pursue new and innovative ways of operating and even presented some unexpected opportunities.

For example, although we have reopened with safety restrictions and limited hours, having staff or volunteer stewards at the entrance has enhanced our engagement with visitors, who are pleased to spend a few hours safely outdoors in nature. While all in-person events have been cancelled, we worked with campus partners to launch our first online plant sale, which by all accounts was a big success. With most touch surfaces closed including our donation box, we worked with the UCR Foundation to launch a new online admission donation system, which has begun to supplement lost gate donations. When working remotely precluded answering the phone, we worked with UCR IT to install a new auto-attendant phone system that provides information and the opportunity to leave directed messages for staff. Finally, with UCR and the Gardens closed and projects curtailed, we used the down time to have critical facilities work done including repaving the roadway and removal of unsafe trees and branches.

We hope you enjoy reading about everything happening in the Gardens and stay in touch as we continue to pursue new ventures such as virtual tours, stay-at-home fundraisers, and more online plant sales. Our success truly depends on the loyalty, support, and hard work of our staff, volunteers, members, and donors, for whom I am humbly grateful. Please stay informed about the UCR Botanic Gardens through our website, eNews, and social media; volunteer if you are able; become a member if you are not one already; and stay connected. I welcome your ideas and feedback at bgdirector@ucr.edu, or our NEW phone number, 951-827-7090.

Jodie

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College of Natural &
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Pink star clusters, *Pentas lanceolata* (pink) – We have this plant listed as a tender, shrubby perennial for a protected landscape or patio. Don't let the word "tender" deter you. At the Botanic Gardens we have them growing in full sun and they have survived many

winters. It will need some protection from frost. It's very showy with many terminal clusters of starry, pink flowers all summer long. It makes a good cut flower and container plant and will attract butterflies.



Pincushion flower,

Scabiosa columbaria – This is another plant that will attract butterflies and we have two varieties available. It is a clumping herbaceous perennial with dissected leaves and

long-stalked, lavender blue flower heads. 'Butterfly Blue' has deeper colored flowers. It also makes a good cut flower and can be a container plant.

Shrimp plant, *Justicia brandegeana* – This is an interesting shrub native to Mexico for a container or the landscape. It will do best if protected from afternoon sun in the summer and from frost in the winter. It produces red-bracted, shrimp-shaped spikes of white tubular flowers that attract hummingbirds from spring through summer. It can get to four feet tall but can be pruned to promote bushiness. The flowers will be darker with some shade.



Ruttyruspolia,

Ruttyruspolia 'Phyllis van Heerden' – This compact shrub from Africa will grow to about four feet. It has small, medium green leaves above and lighter below and clusters of long lasting, dusty-rose



flowers at the branch tips from spring through fall. The flowers will attract butterflies and make a good cut flower. Give it some afternoon shade or use it as a patio plant in a container.

Autumn sage, *Salvia x jamensis* – Just in time for fall color! We have just about every color of these water-efficient, sun loving shrubs. Most of them have



been developed by our past Director, Dr. Giles Waines. They are small shrubs to about 3 to 4 feet with tiny, aromatic leaves and abundant spikes of two-lipped flowers from spring through fall. The hummingbirds love them!

Member Update

By Jodie Holt

One of the most valuable benefits of membership in the Friends of the UCR Botanic Gardens is participation in the American Horticultural Society's (AHS) Reciprocal Admissions Program (RAP), described here: <https://ahsgardening.org/gardening-programs/rap/>. The UCR Botanic Gardens is an AHS member garden and your current membership card entitles you to special admission privileges and discounts at more than 330 participating gardens throughout North America. Due to Covid-19 many gardens have limited visitation and new policies, so be sure to check the website or call ahead to any garden you plan to visit. Unfortunately, due to financial challenges the AHS must explore opportunities to remain solvent into the future, one of which is to merge with the APGA (American Public Gardens Association). We extend our support to both organizations and hope for a bright future, including continuation of the RAP for many more years!

Shot Hole Borer Damage at the Gardens

By Frank Byrne

The blue palo verde tree, *Parkinsonia florida*, growing near the entrance to the Botanic Gardens, was a recent victim of the Polyphagous Shot Hole Borer (PSHB), a newly invasive species of ambrosia beetle that gets its name from the wide host range of plant species that it can attack. The beetle is the vector of a fungus, *Fusarium* spp., that causes dieback in several species of tree. Although the beetle was first detected in California in 2003, it wasn't until 2012 that scientists associated a dieback disease in backyard avocado trees and ornamentals in Los Angeles area with the same beetle. A closely related invasive species, the Kuroshio Shot Hole Borer (KSHB) was subsequently detected in California.

Life Cycle

In reproductive host species, in which the beetle can complete its life cycle, an adult beetle burrows into a tree and creates a network of galleries that it inoculates with ectosymbiotic fungi. The adult beetles and developing larvae feed on the fungi, and a new generation of beetles is produced. The newly developed beetles may emerge from the tunnels and re-infest other parts of the same tree or move to other hosts nearby.



Fusarium lined tunnels in artificial diet. Adult female far left, various larval instars along the tunnel.

Damage

The beetle entry holes are tiny, only 0.85 mm wide, and may be difficult to see. However, tree symptoms show signs of beetle activity such as dark staining, gumming, or sugary exudates that leak from the entrance to the tunnels. In landscape trees, the network of tunnels compromises the integrity of branches, posing a hazard to humans when trees become heavily infested. In addition, the growth of the fungi in the vascular tissues of the plant disrupts nutrient and water transport, eventually leading to branch dieback. Unfortunately, shot hole borers have a broad host range that includes landscape trees, many native tree species in urban and wildland environments, and even commercial avocados.

Control Methods

Practical control options for shot hole borers are limited.

Although researchers continue to study different methods for chemical and biological control, early detection is the key to controlling this pest. So far, no effective preventative treatments have



Palo verde tree with dark staining

been reported, so regular monitoring is recommended to ensure infestations are managed early, before they cause dieback or death. Regular monitoring also ensures that trees get treated when they are lightly infested and have the best chance of overcoming the infestation.

Branch pruning and tree removal are recommended for heavily infested trees, combined with chipping and solarization of infested material. The latter is very important if the wood is to be sold for firewood. The beetles can survive in cut wood for several weeks, and evidence suggests that the beetle hitch-hiked a ride into Southern California via wood products and/or shipping material from Southeast Asia. The use of insecticides is challenging given that the beetles spend most of their lives within their hosts. Contact insecticides applied to the bark can be used to target newly-emerging adults when they exit tunnels to establish new colonies. However, in California, where the beetle reproduces year-round, no clear windows of beetle emergence can be accurately predicted, making the timing of contact treatments difficult.

The use of systemic insecticides shows some promise, and combination treatments with systemic insecticides and fungicides have been proposed as a strategy to better target both the insect and its symbiotic fungi within the vascular system. In addition, systemic treatments can lower the environmental impact of a pesticide treatment because they can be injected directly into trees, where they distribute within the vascular system. Currently, there are no biological control agents available for use against the shot hole borers in California. However, scientists at UCR have identified parasitoids in the native range of the shot hole borer that may offer the prospect that a biological control agent could one day be introduced into California for the management of this pest. For more information about the SHB visit <https://anrcatalog.ucanr.edu/pdf/8590.pdf>.

Frank Byrne is an Associate Researcher at UCR in the Department of Entomology and has conducted research on the shot hole borer for five years.

Butterfly Corner

California Sister

By Ann Platzer



Photo 1: Adult, ventral view

While walking through oak woodlands and especially in canyons with streams, such as at Oak Glen, you may encounter a common colorful butterfly of the southwest oak woodlands, the California Sister, *Adelpha californica*. This large butterfly is in the family Nymphalidae and has a wingspan of about three to four inches. During the Covid-19 pandemic, Ed and I spent hours revisiting a number of nearby reserves looking for new butterflies to check off our bucket list. This May, while at Oak Glen, a Sister flew lazily back and forth flapping its wings infrequently and then landed on an oak branch about 8 feet above us to display a great ventral view (Photo 1). It wasn't until two months later near Silverwood Lake, on a narrow four-wheel drive dirt road called Cleghorn, that Ed got excellent photos of the dorsal view of an adult California Sister (Photo 2) puddling at a seepage area along with other butterflies such as the California Tortoiseshell, Red Admiral, Satyr Comma and Northern White Skipper. Needless to say, we frequently visit this spot.

The apex of the forewing, both above and below, has a large rounded orange patch (arrow A) that does not reach the margin but is contained outwardly by a dark border. It has a broken colored white forewing while the solid white band on the hind wing tapers sharply to a point (arrow B) near the tip of the hind tail. (Photo 2).

The female lays green eggs singly on the leaves of its food plant, members of the oak genus, *Quercus*, especially

canyon oak, *Q. chrysolepis*, and coast live oak, *Q. agrifolia*. The adult's flight time is from March to November and there are two to three broods. The caterpillars eat the leaves of oaks. The latter broods overwinter as small caterpillars by curling up inside at the base of an oak leaf then attaching firmly to a twig with silk. In spring, they resume eating and continue their development.

Their range is throughout most of California, but rarely in the deserts, then north to southern Oregon and more northern portions of Nevada.

Adults seldom visit flowers but rather puddle as we noted this spring, and feed on bruised fruit, flowing sap, excrement and road kill. The oak leaves that the larvae of the California Sister munch on are very distasteful, so when flying or resting the adult California Sister proudly displays its bright coloration as a signal that it is unpalatable to would-be predators. Despite the complexity of the wing pattern, the California Sister is one of the least variable butterflies in California; the Monarch and the Pipevine Swallowtails are two other examples. It is assumed any variant in color pattern would not be recognized as distasteful to would-be predators and thus be eaten and selected against. The Lorquin's Admiral is another colorful butterfly also found at Oak Glen that



Photo 2: Adult, dorsal view

closely resembles the California Sister in coloration and flight pattern. However, the Lorquin's Admiral (see: Butterfly Corner, UCRBG Newsletter, vol. 39, # 1, Spring 2019) is palatable since its food plants are nontoxic. Thus the Lorquin's Admiral is a mimic that gains protection because predators mistake it for the model, the California Sister, and avoid it.

Happy Butterfly Gardening!

AP

Thanks to Edward Platzer for reviewing this article and for photo 2.

State of the Gardens

By Jodie Holt

The UCR Botanic Gardens were thriving from July 2019 through mid-March 2020, when the Coronavirus pandemic caused the closure of UCR and other schools. Along with other activities, our June Friends Annual Meeting and State of the Gardens Address were cancelled. This article reviews our year and summarizes our budget, accomplishments, and goals for the year ahead.

Vision and Mission

The UCR Botanic Gardens is UCR's living museum, public garden, and nature oasis in a busy urban environment. Our activities advance our mission of serving as a focal point for campus and community engagement in the science of nature, gardens, and conservation. We strive to create a sense of place where our visitors experience nature and are inspired to protect our natural world.

2019-2020 Accomplishments

Administration and Management

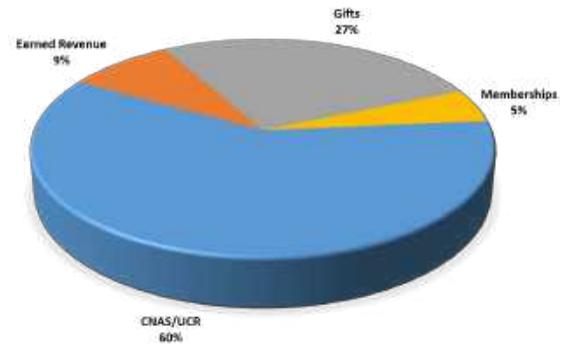
Our staff is small but dedicated; in addition to the part-time Director we have five full-time, one part-time, and eight student workers. In 2019 we recruited a new Manager, Miguel Estrada, who replaced Theresa McLemore who retired in 2018. Theresa was recalled for Special Projects through February 2021, after which she will begin her retirement in earnest. We receive administrative support from UCR including the BEES Administrative team and CNAS Assistant Dean for Development, Human Resources staff, and Director of Communications; all are listed inside the front cover of each Newsletter.

We could not operate without the hard work of dozens of volunteers who give thousands of hours to the Gardens. Our Friends members, UCR's oldest support group, provide revenue through annual dues. Since their founding in 1980 many Friends have also been active volunteers, and we gratefully acknowledge all those who contribute their time, talent, and financial support for the betterment of the UCR Botanic Gardens.

Budget overview

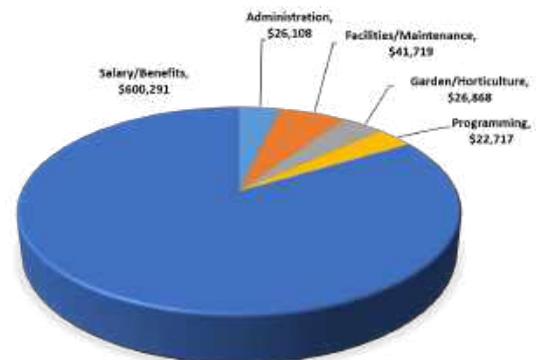
The UCRBG income is comprised of CNAS funds (salaries and benefits), earned revenue (plant sales, Primavera, conference room rentals, and events), gifts and endowment payouts, and memberships; total income was \$549,374 for 2019-20. Our Endowments have increased since last year, totaling over \$3 million in June. Since 2016 we have maintained a corpus of non-recurring, non-interest-earning gift funds that are used to augment staffing and initiate new projects. Each year this carry-forward decreases as we invest donor funds in the

UCRBG Income 2019-20



Gardens. Our guiding philosophy is the philanthropic best practice of meeting donor intent within a reasonable time frame and demonstrating how gifts are used, and by so doing inspiring greater giving. Expenses include salaries/benefits (84%), facilities/maintenance (6%), gardens/horticulture (4%), programming (3%), and administration (4%). Our expenses for 2019-20 totaled ~\$717,703, a deficit of \$168,329 made up by gift funds carried forward.

UCRBG Expenses 2019-20



Since 2016 our goal has been to revamp activities to reduce expenses and increase income to achieve financial sustainability without relying on gift funds carried forward. Due to the pandemic the Gardens closed on March 16 and all events were cancelled for the foreseeable future. Most of our revenue is raised in spring by Spring Plant Sale, Primavera in the Gardens, and other events, and \$76,302 potential income was lost from March through August. Added to these losses were \$6,472 in added expenses for security following a series of break-ins in April.

A survey by the American Public Gardens Association (APGA) showed that closure, partial reopening, and revenue impacts are consistent with other gardens in North America, only 17% of which are now fully open. Over 90% of gardens experienced a drop in earned revenue, and over half reported revenue decreases over 50%. The UCRBG is fortunate in not having to impose layoffs; however, we are working with our BEES team to address budget shortfalls through operational changes, including

instituting admission for non-member adults.

Development and fundraising

We continue to work with the CNAS development team and the UCR Foundation to steward our donors, engage our members, and raise funds for new initiatives. In November 2019 we held our first VIP event for members and donors at the Patron level and above. Organized by our development team, a special catered dinner was held in the Schneider House library and diners were given a first look at plans for new projects and gardens.

Plans were well underway for our second annual Member Appreciation Spring Plant Sale in April and 22nd annual Primavera in the Gardens in May when the Gardens closed in March. We have been working with our development team to plan virtual fundraisers and member appreciation activities for 2020-21. We are also working on targeted campaigns, such as the “Save the Geodesic Dome in the UCR Botanic Gardens Fund,” found on our giving page at <http://gardens.ucr.edu/donate>.

Collection and conservation

Under Curator Janine’s direction, our staff and volunteers have updated our collection database, plant labels, and bed information. The Rose Garden maps were updated, revealing over 600 roses in our three gardens. Janine’s team has added more plants to our interactive GIS app and launched two Story Maps of the Gardens that can be viewed on our website or on a smart phone.

We made significant progress on new projects this year. The Native American Plants Garden was installed around beautiful paving stones and decomposed granite pathways. Work continues with Native American Student Programs to develop labels, interpretive signage, and an interactive Story Map. Progress is underway on our new Conservatory including a display and accompanying Story Map focused on plant evolution.

Horticulture and facilities

Under Manager Miguel’s direction, renovation and trail improvement continues in Australia, Baja California, the Herb Garden, and others. Pruning and cleanup continues in the Subtropical Fruit Orchard and drainage and erosion remediation were done after winter rains. A major project this year is installation of timed drip or sprinkler irrigation to reduce labor and water use from manual irrigation. During two months of closure when only critical staff could work, weeds grew largely unchecked. With campus approval we brought back trusted volunteers to tackle weeds and safety; the team did an amazing job cleaning up the Gardens in time for reopening on June 29.

A major facilities project completed was repaving our roadway. A portion of the project was funded by UCR,



Volunteer Jenna James working on cleanup

which enabled us to continue new pavement from the gate to the upper restrooms. We had to have the newly renovated gatehouse and restrooms tented for termites and damaged wood replaced. We also installed a new security gate on the roadway to the Subtropical Fruit Orchard and added new lighting and security cameras at strategic locations.

Education and research

In a typical year, docents lead guided tours for dozens of school and adult groups reaching thousands of visitors. School tours deliver environmental education consistent with statewide curricular requirements. This program was curtailed in March and has not resumed, so we plan to make videos of docent tours to make available to schools. The Gardens hosted classes and labs from UCR and RCC until closure. To support teaching while UCR remains closed and classes are online, we will continue to post Story Maps on our website. We also assisted in filming a docent giving her annual UCR botany tour for an online class. UCR student and faculty researchers continue to use the Gardens for their projects.

Engagement

Under Program Coordinator Pam’s direction, our two Twilight Tours, winter Bird Walk and Breakfast, and new Succulent Driftwood Class sold out quickly. The Fall Garden Market and Plant Sale brought in over 3,000 customers, with members enjoying early shopping, and the 8th Art in the Gardens had over 850 visitors. In January, the free Rose Pruning Workshop, now in its 42nd year, brought in over 120 people who learned pruning from Master Gardeners and other experts. We have continued to promote the Gardens with our revamped website, social media pages, Newsletter, eNews, membership drive, and other activities. With campus support we launched online systems for volunteers to report hours and visitors to pay admission donations. Several months of planning resulted in our first Online Plant Sale in August 2020.

We currently have 350 onboarded volunteers who

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Wildlife of the Gardens

Audubon Cottontail Rabbit

By Michele Felix-Derbarmdiker

A flash of fur or a flutter of crunchy leaves and it is gone! This is often the scenario when you encounter one of the Gardens' most common residents, the Audubon cottontail (*Sylvilagus audubonii*), also known as the desert cottontail. This rabbit is a member of the Leporidae family and can share its habitat with the brush rabbit (*Sylvilagus bachmani*) and the black-tailed jackrabbit (*Lepus californicus*).

Habitat/Feeding

Home sweet home for this species is lower elevation shrub covered habitats of most of California except the northern third of the state. Their range also extends to the Great Basin, east to the Rocky Mountains and down into Baja and central Mexico. These shrubby habitats provide cover and food for this veggie lover. They can be found munching on forbs, grasses, fallen fruits and the tender portions of shrubs, including young plants around your property. They may love their greens but unfortunately, these rabbits are the beloved meal of many a predator species. They will often find refuge from predators or the daytime heat in an abandoned burrow or a shady shallow scrape. This species is secretly a fluffy acrobat and has been observed climbing shrubs and small trees to drink dew, especially in dry spells. Otherwise, this species receives adequate water from the vegetation they consume. Like other Leporidae members, they will also consume their own scat, yummy! This may invoke a gag reflex but it is actually vital to obtain essential nutrients.

Breeding

Breeding normally takes place between December and June but can occur year-round with adequate food. Mated pairs can have several litters a year, averaging four kits a litter. The kits are born in the fur lined nest of a burrow or under thick brush. Most of the young will not reach adulthood, as they often fall prey to snakes. Kits are born furless, deaf and blind and adults have few defense tactics. Those that survive mature quickly and are fully grown after 12 weeks.



Photo by Anna Pohl

Identification

Rabbits can be difficult to distinguish in the wild, especially when ranges overlap, but habitat differences can be helpful. This particular species can be identified by its grayish brown fur, white belly and dark tipped erect ears. Fully grown adults weigh 1.5. to 2.5 pounds. And we cannot forget their cutest feature, the fluffy round white edged tail. Their common neighbor, the black-tailed jackrabbit can be easily distinguished by its larger overall size and long ears.

Threats

The Audubon cottontail is considered to have a stable population and is not listed at the federal or state level. The biggest threat they face is their location in the food chain. Coyotes, bobcats, wolves, mountain lions, snakes, weasels, birds of prey, cats, dogs and even squirrels will make a tasty meal of a cottontail. They are also on human radar, as they are a common game animal and hunted for their meat, hides and fur. Populations have declined in areas where heavy cattle grazing, land clearing and fires have occurred. Fortunately, this species is fairly tolerant of humans and will hopefully continue to thrive as we encroach ever closer into wild lands.

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

JOIN
OR
RENEW
NOW!

Become a Friend

Join or renew your Friends membership before the Fall Online Plant Sale at <https://gardens.ucr.edu/friends>

What to See in the Gardens

By Miguel Estada

As we transition from summer to fall there are two trees on my recommendation list, *Aesculus californica* (California buckeye) and *Koelreuteria bipinnata* (golden rain tree). California buckeye is adapted to Mediterranean climates and is summer deciduous. In the past several



Photo 1: *Aesculus californica*, California buckeye

weeks this California native took on a dramatic look as the trees quickly shut down with higher temperatures and reduced moisture to exhibit crowns of desiccated leaves. This adaptation reduces transpiration (water that evaporates through aerial parts including leaves, stems, and flowers) and need for water. The leaves remain on the tree longer than on other deciduous trees, which gives the appearance that the trees have suddenly died (Photo 1). This growth habit also creates a beautiful display of reddish-brown leaves that really stand out in the green landscape. There are several specimens growing throughout the Gardens, including two particularly large trees in the bed between the switchbacks leading to the Rose Gardens.



Photo 2: *Koelreuteria bipinnata*, golden rain tree

The second species to see now is native to southwest China and is sometimes referred to as the Chinese flame tree. We have two large golden rain trees, one on each side of the trail that leads to Alder Canyon (Photo 2). These trees have a decurrent growth and have spread out to cast wide shade. In the upcoming weeks, a profusion of tiny yellow flowers set on panicles will envelop the crowns. Following this display, the tree will be adorned with pink papery seed capsules, which is an equally impressive sight (Photo 3). As a last show of splendor, all the leaves will turn yellow before dropping to the ground in this winter deciduous species. This tree is truly wonderful to see but you will have to come more than once to see the colorful progression as we get into cooler weather.



Photo 3: Papery fruit of *Koelreuteria bipinnata*, golden rain tree

State of the Gardens *continued from page 7*

reported thousands of hours worked until March closure. Unfortunately, our annual volunteer appreciation luncheon was cancelled, so we are planning alternate ways to show our great appreciation for our wonderful volunteers.

Challenges, Opportunities and the Future

As a nonacademic UCR unit with a primarily outreach mission, the UCRBG faces unique and challenging issues. We receive some salaries but no operating support from UCR, so we must continue to reduce expenses, find new revenue opportunities, and fund-raise. We also must address unfunded challenges including insufficient parking and maintenance of aging infrastructure. This unprecedented year of closure, loss of revenue and additional expenses has exacerbated these issues.

Our entrance counter logged ~8,000 visitors each month before closure, strong evidence that the UCRBG is a significant destination for UCR and the region. As we begin recovery from the pandemic my primary focus is achieving financial sustainability so the Gardens can remain viable long into the future.

In The Works

By Botanic Gardens Staff

In spite of summer heat our dedicated team of staff and volunteers have accomplished a lot in the last three months, in many cases with critical support by campus partners.

On-site:

- ▶ Following preparation of a rigorous safety plan, the Gardens reopened on June 29! Currently our hours are limited and safety restrictions are in place, including permanent staffing of the entrance gate by UCRBG staff or volunteer Stewards.
- ▶ Our horticulture team has continued their work to remove weeds, prune plant growth, clear trails, and improve safety in the Gardens.
- ▶ Lois and a volunteer crew worked diligently to re-pot, trim and weed potted plants that had to be held over when our spring plant sale was cancelled.
- ▶ An expanded shade area was set up outside the Garage Office for staff and volunteers to take breaks and lunch while maintaining physical distancing.
- ▶ With partial funding by UCR and support by TAPS, the Botanic Gardens roadway was repaved from the entrance gate to the upper restroom.
- ▶ In response to several branches falling in high traffic areas Miguel conducted a tree assessment and contracted with an arborist to prune or remove unsafe trees.
- ▶ For our first online plant sale a crew of staff and volunteers assembled orders for in-person pickups while wearing masks and maintaining physical distancing. Pickup days went very smoothly and a great time was had by all!

Remote work:

- ▶ We worked with UCR IT to have a new auto-attendant phone system installed that provides Gardens information and accepts messages for staff; calls to our old phone number will be forwarded to the new number until further notice.
- ▶ Working with Kim Steiner, Teaching Lab Coordinator for the Botany & Plant Sciences Department, Janine completed our new Plant Ecology Story Map, which is posted on our new website under Virtual Tours. Also in the works is a Story Map on the uses of Native American plants in the Gardens and a Story Map of the Conservatory Plant Evolution display, which is not yet open to the public.
- ▶ Volunteers added more plants and notes to the GIS app.
- ▶ Working with CNAS Communications and BEES staff, we have greatly expanded our social media presence; check us out on Facebook and Instagram!
- ▶ Our creative student worker Michelle is working on a new Volunteer Brochure, and a new Welcome Brochure will be produced by UCR Communications soon.
- ▶ After considerable work with the BEES finance team, UCR Foundation, and campus programmers, we launched our first ever online plant sale with in-person pickups, which was a big success!



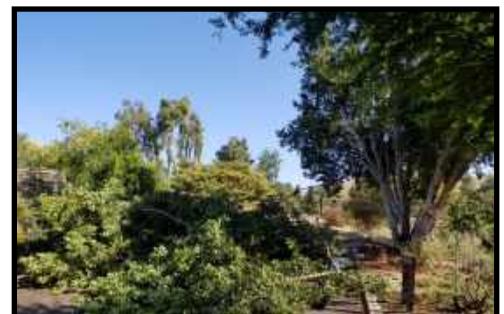
George Spiliotis at the entrance gate



Jorge Fregoso hauling debris



The newly repaved main road



Fallen portion of the multi-trunked sweet bay tree, *Laurus nobilis*, in the Herb Garden

Gardens Reopening Update

By Jodie Holt

The UCR Botanic Gardens reopened on June 29 following approval of a rigorous reopening plan that follows CDC guidelines and recommendations by APGA (American Public Gardens Association), our professional organization. This plan is guided by science and prioritizes the safety, security, and health of our staff, volunteers, and visitors.

Due to the need to permanently staff the entrance gate we are open for limited hours, Monday through Friday, 9 a.m. until 12 noon. When we are able to increase staffing and/or volunteer Stewards we will expand our hours; however, with the current heat wave most visitors appreciate our morning hours!

The following restrictions remain in effect to prevent the spread of Covid-19:

- ▶ Staff gate attendants to insure adherence to all policies
- ▶ Facial masks or coverings required for entry
- ▶ Physical distancing of at least 6 feet required from others not in your party
- ▶ Group size limited to 10 persons
- ▶ Designated restrooms open with hand sanitizer available
- ▶ Drinking fountains closed but bottle hydration station open
- ▶ New touchless online functions including payment of admission donation

The UCR campus remains closed with only critical operations, including remote instruction, continuing; faculty research curtailed; nonessential staff working remotely; and events suspended. Campus status and updates are posted here: <https://campusstatus.ucr.edu/>.

We are fortunate to be able to welcome visitors to our beautiful Botanic Gardens and provide a safe space for enjoying our gardens, wildlife, and a chance to get some exercise. Please visit our website for updates on our status, hours, and upcoming events.

Forging New Territory with Online Plant Sales

Change is a word the Botanic Gardens' staff and volunteers have grown accustomed to. So when the Gardens were closed and all events were cancelled, we decided to come up with a plan for holding our first Online Plant Sale. The challenge was approached by everyone with a "we can do this" attitude. The plan was to have the sale take place well before the heat of summer, but with UCR closed we had to wait to hold pickups, and our campus finance team had to start from scratch to adapt their online sale platform to add hundreds of plant species.



During the wait we were busy taking care of thousands of plants and working on getting the inventory list and photos to the UCR CashNet team who made the online sale possible. The sale took place over two weekends, with the members ordering plants on August 1 - 2 and the public ordering on August 8 - 9. The plant orders were picked up over two days of each week following purchase. As expected, the public sale had more orders but the members bought more plants. By the second sale we had a system down and everything flowed smoothly. Volunteers were very helpful with assembling and distributing the orders and of course, with propagating the plants that were eventually sold. The Fall Plant Sale will need to be online as well and we also hope to have various smaller sales in the future, so please check our website for updates. The Botanic Gardens' staff would like to thank everyone who participated in this group effort and especially Edward Medina, UCR CashNet Business Analyst, for the hours spent on compiling and managing the order form before and during the sale.



Volunteers from L to R: George Spiliotis, Claudia Clark, Rosemary Neal, Chuck Farrar & Hilary Brown

UCRBG Virtual Opportunities

Oct. 24-25 **Online Fall Plant Sale** (dates subject to change)

Dec. 5 **Online Living Succulent Wreath Class**, 10:00 am- 12:00 pm

GIS Map App

<https://ucr.maps.arcgis.com/apps/webappviewer/index.html?id=36bf2fdff28f4339988321700f82>

A Story Map of Plant Ecology in the UCR Botanic Gardens

<https://storymaps.arcgis.com/stories/5bf2fafff85d4ae3beeda2e2e3ba18d5>

Deserts of the Southwest Story Map

<https://arcg.is/1n9WGa>

Please note: The UCRBG hours are Monday - Friday 9:00 am - 12:00 pm
until further notice.