No poet has yet sung the full beauty of our poppy. No painter has successfully portrayed the satiny sheen of its lustrous petals. In its abundance, this colorful plant should not be slighted: cherish it and be ever thankful that so rare a flower is common.” — John Thomas Howell, author of Marin Flora: Manual of the Flowering Plants and Ferns of Marin County, California

The early rain in November should bring our Garden logo flower, the matilija poppy into full bloom this spring. As a Garden Guide, it is always a delight to describe them to school groups as the “fried egg” flowers. At this writing, the COVID-19 virus is resurging for the third time. It appears that it will be a while before things go back to whatever the “new normal” turns out to be. I so miss interacting with the children and my Garden friends.

In spite of the social distancing challenges, volunteers assisted the Advancement Team in the Majestic Oak Society Kickoff for Clayfornia. Thanks to Susan Starr, Paul Donatelli, and Dan White for maintaining the eating areas for the artists and guests who enjoyed good food, wine, rain showers, and a spectacular rainbow. Thanks also to the Native Designers for their beautiful wreaths and centerpieces. Garden Guides met for the first review walk in many months, exploring new sights and art together on their leisurely stroll.

Much appreciation to Yvonne Wilson and John Bradley for their Enrichment Program: Susanna’s Wild Garden: A Living Legacy. If you missed the meeting you can access the talk at the Digital Content area of the CalBG website https://www.calbg.org/visit/blog. Terrific content is available here and watching it counts
as hours when you to log in to Volgistics. Also check out graduate student Maria Jesus’s conversation in Naomi Fraga’s Conservation Stories. Thanks to the Plant Sale workers who helped Bryce and the nursery get the plants out to the customers.

Luminaria is scheduled for December 17–20 but may be cancelled due to COVID-19 restrictive protocols from the state. Volunteers are needed to assist with all aspects of this family event. All volunteers are invited to a virtual business meeting at noon on Wednesday, December 9. To Join Zoom Meeting, please click the link https://us02web.zoom.us/j/84815970453?pwd=Nnc3UFJtODRkJtAvU01WMmE1M0VHZz09 or log into the app using ZOOM Meeting ID: 848 1597 0453, Password: Volunteer

Wishing you and your families a wonderful holiday season with good health and much happiness to come in 2021!

See you soon around the Garden.

—Marla

FROM THE DIRECTOR

Lucinda McDade, CalBG Executive Director

Hello Volunteers:

First, let me ask that all of you join me in doubling down on our personal safety measures under the present crazy circumstances. COVID is again surging. Yes, we are all thoroughly tired of it but it is not at all tired of us. With excellent reports on the performance in trials of more than one vaccine now, prospects are good that at least those with top priority for the vaccine will be baring their arms in early 2021. Visualize your arm — and the rest of you — being healthy and ready when that time comes, and take all prudent measures to ensure that is the case!

Second, I wanted to share with you some happy news on visitation. The accompanying small tables and graph report visitation patterns since we reopened to the public on the 22nd of May. Because that date was a Friday, all of our weeks begin with Friday.

A bit of information for context: As you know, from May through August of 2020, we were open WED–SUN 8–1 and 3–8; in September we were open TU–SUN 8–6; in October we returned to normal hours (i.e., 8–5) but remain closed to the public on Mondays. Last year, we were open seven days a week from 8–5. I believe that we were open one weekday evening until 8 during the summer months but 2019 is so long ago now that I can barely remember! What this means is that we have been open fewer days of the week in 2020 than in 2019 although for slightly more hours on days that we were open, at least in May through September.

First, note data on member visits in the upper right. Compared to last year, member visits are up by nearly 65%. I don’t think we will ever be able to fully tease out the reasons behind this pattern but consider…. Part of this is that we have at least slightly more members this year than last. Anecdotally, members have said things like: ‘I will never take this Garden for granted again!’ and ‘I did not realize how much I missed these trees!’ We have significantly improved interpretation — new things to see! There is just simply less to do this year than last year?

Now look at the upper left, which reports revenue from ticket sales. Importantly, this does not include...
visitors who are unable to negotiate the online ticket purchasing system and instead put money into the bollards box (contributions to bollards are up too!). Remarkably, revenue is up 70% compared to 2019. These numbers are not huge but please remember that — as you well know — summer is not our best time / not our high season for visitation.

Finally, look at the graph which reports week by week paid admission numbers. The blue bars (2020) are almost without exception higher than the yellow bars (2019) and sometimes by a long shot. In fact, the exceptions catch one’s eye and inspire curiosity. I think that most such weeks are related to heat: our heat policy calls for us to close at 11 and not reopen until 5 when extreme temperatures are predicted (remember, summer hours in 2020: 8–1 and 3–8) and few people visit when it is extremely hot. I can for sure explain the first two weeks in September. The first — Labor Day — was the hottest weekend of the year — something like 110 degrees both Saturday and Sunday. We did not reopen at all for evening hours for the safety of our staff; no one visits when it is that hot in any case! The following week included the days we were badly impacted by smoke from wildfires. On one day, we closed the garden entirely and, for several days, we pulled kiosk staff indoors for safer work. The Garden remained open albeit with signs pointing to low air quality and strongly suggesting that people visit another day, which certainly, most did. That said, we don’t really have any idea how many people — members or otherwise — visited on those days as no one was counting. Still and remarkably, even then, revenue from ticket sales was slightly higher that week in 2020 compared to 2019.

“I’m not going to buy my kids an encyclopedia. Let them walk to school like I did.”

—Yogi Berra

And now the weather is perfect for visiting the Garden. We have the wonderful Clayfornia exhibit up! We just had terrific publicity in the LA Times for Clayfornia, as well as for Taste Wild 2 and Green Friday (free day albeit with limited tickets). We have all learned that outdoors is the safest place to be. Even as we face this current surge in COVID, exercise is essential for physical and psychic well-being and we have taken extensive measures to keep our staff and guests safe. It is going to be fascinating to follow these visitation patterns!

Garden Guide
Walking Club
Ann Morgan, Co-Chair Visitor Education

A Very Happy December Birthday to:

Yvonne Wilson
Alice Oglesby
Judy Bryson
Grace Clark
Deborah Woo
Rich Griffin
Mary Lee Otto
Barbara Booth
Arlene Medina

Lisa McCarter
Nadja Cole
Linda Battreman Dorosh
Hal Croulet
Susan Lominska
Vaughn Monaghan
Michael Tschudi
Maggie Vinnedge

“I’m not going to buy my kids an encyclopedia. Let them walk to school like I did.”

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On a beautiful sunny Veterans Day, seven Garden Guides met for the first monthly Garden Guide Walk. Initiated by Community Education Coordinator Kristen Barker, the monthly walks are intended to be a fun, informal way for Garden Guides to reconnect with the Garden and with each other. Unlike the NICE walks led by graduate students, these walks are intended to be less structured, with no guide or set topic. Some in our group had not been to the Garden since tours were suspended in March and found many changes—new signs, new plantings, and newly cleared areas. We checked progress on the Forest Pavilion and enjoyed sharing our reactions to the fascinating Clayfornia pieces. The Wednesday 10 a.m. group will meet next on December 9. Group sizes for the Walking Club are limited because of the Covid situation. Guides interested in forming additional groups can contact Kristen (kbarker@calbg.org).

**UPDATE ON THE FOREST PAVILION**

*From Ming Posa & Lucinda McDade*

**Hello volunteers:**
The Forest Pavilion is going UP — literally so as you will see from the accompanying images. With the foundations for the Pavilion poured and set, the posts to support the roof went up during the second week of November. These will eventually be painted to look like giant manzanita branches (for now, they are battleship gray). Just this week (3rd week of November), the main beam was placed on top of them. The second imagine includes 6’2” Peter Evans for scale standing alongside the “uphill” end of the structure. It is going to be magnificent! Progress on the support building is also proceeding apace, with very sturdy foundations poured and utility lines installed. We are very much looking forward to the amenities these spaces will provide in the alluvial gardens.

We will be updating you as the project continues and hope that our Garden community will be able to celebrate together in person shortly after it is completed!

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**Amanda Behnke**

*Director Of Advancement*

Are you in search of the PERFECT gift? Give the gift of CalBG membership! Gift memberships go on sale from 11/27 through 12/31 at $10 off the regular price of membership. You will receive a code by email to receive these savings. Your gift will last throughout the year and includes all the benefits of membership to the Garden, invitations to special events, plus reciprocal admission at more than 300 other botanical gardens. Once you have the code, visit https://www.calbg.org/support/membership to purchase.

A mailing with a request to support the Garden Fund will be arriving soon. Please consider making
a donation this year. While you should consult your tax advisor, even those who do not itemize can deduct a donation of $300 this year. You might as well support CalBG, an organization that you love!

Thank you to all the volunteers who are dedicated to the Garden, even in these chaotic times. As an example, Susan Starr, Paul Donatelli, and Marla and Dan White supported the Majestic Oak Stroll. Paul Donatelli also drove a tram for a very small wedding. In a last-minute pinch, some new and returning volunteers supported the plant sale. Julie Scheuermann, Patricia Brooks, and Sofia Flores are assisting Advancement with a variety of mailings and other tasks. New and returning volunteers are helping the Horticulture Department with tasks on a daily basis. Many from the bench brigade are cleaning their benches.

If you are not currently volunteering, have a desire to do so, and can do it safely, please contact me at abehnke@calbg.org so I can find an opportunity for you. At present, most are in Advancement and Horticulture. There are also openings on the bench brigade as a few people have moved or cannot care for their benches right now. And if now is still not the time for you to volunteer, for whatever the reason, I thank you and will welcome you back when you are ready and able!

Remember to post Volunteer hours. Every hour helps CalBG.

Community Education
Kristen Barker, Coordinator

Hi All!

As we step into winter, I hope you all are staying safe, keeping cozy, and enjoying the crisp weather.

We have been keeping busy here at the Garden! On November 14, we held Taste Wild 2: Savor the Fall. We had 175 participants pick up tasting boxes of savory items made with native plant ingredients including: sage pesto, tepary bean, and oregano bruschetta; mesquite flour baguette; desert-seed crackers; and an Atriplex seasoning to sprinkle on gourmet popcorn. The VIP box also included bay-laurel-infused olive oil and bay laurel leaves to experiment with at home, plus some CalBG swag. Participants then joined us virtually for a webinar hosted by Naomi Fraga as we discussed the culinary uses, cultural legacies, and health benefits of the remarkable plants used in each recipe. Naomi was joined by panelists Abe Sanchez of the Chia Cafe Collective, Phyllis Russell of As You Like It Events and Catering, and Antonio Sanchez of the Santa Monica Mountains National Recreation Area, for a wonderfully informative and deliciously tasty

Native Designs
by Linda Prendergast

Native Designs, Flower Arranging Workshop, December 2020

The Winter Solstice will be here in a few short weeks, and while we may not be able to celebrate with large family gatherings this year, we can bring in the holiday spirit with a festive centerpiece for our dining table. Whether your table is large or small, those gathered ‘round will appreciate fresh pine, fir, and juniper for its fragrance and holiday ambiance.

The Native Designs volunteers will once again host a flower arranging workshop in early December. Designer Linda Prendergast will demonstrate making a Christmas centerpiece using commercial greens as well as foliage cut from the Garden. The last class Linda did in June featured annual and perennial flowers in a vase. This class will teach you the fundamentals of preparing and using floral foam and candles for a long-lasting seasonal display.

Please watch the Garden’s website for date, time, and cost for the workshop. The class will be limited to 60 students and you are encouraged to sign up early. The materials needed to make the arrangement are included in your registration fee.
discussion. We are already discussing a spring *Taste Wild* event, possibly jams, teas and scones! Yum!

We wrapped up Conservation Stories, our virtual fall lecture series with Maria Jesus. She gave a wonderful talk about the Conglomerate Mesa in the Southern Inyo Mountains, with Naomi Fraga as moderator. These talks have been highly attended and very well received, so we hope to offer another series in the spring.

Steven Valdez, Lead Nursery Technician, led a wonderful workshop in October on how to get started planting with natives. He will again lead a virtual class about propagating native plants on December 5. Steven will discuss multiple methods of seed starting, cuttings, and divisions, as well as the tools and materials for starting your own seedlings.

I am very excited to be working with Linda Prendergast from Native Designs to offer a December 12 workshop called Arrange Wild: Holiday Centerpieces. Participants will pick up a kit of holiday greens, along with plant material and other materials needed to make a wonderfully beautiful centerpiece. With the guidance of Linda through a Zoom webinar, they will walk through the steps and strategies for making their centerpiece. Although the holidays may look a little different this year, that’s no reason to not have the amazing fragrance of Douglas fir and bay laurel filling your home and bringing you the comfort of the holiday season. Hope you can join us then!

Take care everyone!

**Butterfly Pavilion Area Update, December 2020**

*Peter Evans, Director of Horticulture*

*Photo by Marla White*

A big change that happened in August was removal of the entire butterfly pavilion structure. Horticulture staff, assisted by those from maintenance and visitor experience, began by cutting the netting with knives and scissors while others on ladders cut the straps that attached it to the metal frame, allowing the netting to be pulled off. Then with wrenches, pliers, and socket ratchets in hand, and half of us standing on ladders, we carefully disconnected the metal tubing framework and handed it down to those on the ground. The removed materials were loaded onto carts and shuttled to the hort gravel parking lot where it was loaded into dumpsters. The new and improved area, now exposed to the sun, will do well as a pollinator garden.

The plants that are there currently are all pollinator plants. Hopefully, some of the more uncommon milkweeds, including the native narrow leaf milkweed, will be added to attract more butterflies.

**GNN Opens Online for the Fall**

*Ming Posa, Executive Assistant*

The Fall Plant Sale, which marks the seasonal opening of the Grow Native Nursery, has always been a highly-anticipated event, especially by Garden members. This year was no different, despite having to switch from in-person shopping to an online-only store because of the ongoing pandemic. We opened first to our Acorn members on October 14-15. This was a relatively small group of
shoppers, but the staff learned first-hand the perils of E-commerce, as a technical glitch had us scrambling behind the scenes to help those who were stuck at payment during checkout. Many of the rarer plants such as the Paper Bag Sage and Cedros Island Liveforever, were quickly snapped up.

A week later, we opened the store to the general membership and had a flood of orders in the 48-hour presale. Thankfully, by the time we opened to the public on November 5, most of the technical hiccups were resolved. We continue to see enthusiastic sales numbers with many of the perennial favorites such as buckwheats, penstemons, monkeyflowers, fuchsias, and sages being popular with buyers. Staff are working hard to fill orders for socially distanced pick-ups and will continue to restock plants throughout the season, so check back in periodically if there was a plant you wanted but could not find.

Amanda Behnke has worked with Bryce Kunzel and Vanessa Ortega to identify ways that volunteers can help, and then recruited for a couple different volunteer roles associated with the GNN. We are very grateful to those who stepped up to help with labels and to serve as “greeters.” When you see these requests for volunteers, please respond only if you feel that it is safe for you to do so. Let’s all stay healthy for the next few weeks and months with vaccines now on the horizon.

Thank you for supporting the GNN and growing native!

**Revised Volunteer Handbook**

*by Cindy Walkenbach, Goals and Evaluations*

The **Volunteer Handbook** was recently revised and will be ready for distribution after membership approval at December’s quarterly meeting. The purpose of the Handbook is “to provide volunteers with specific information about Garden activities, about its history and its scope of work, and the many opportunities available to provide support. It summarizes the commitments, responsibilities, and rewards that go with being a member of the CalBG Volunteer Organization.”

Many fine authors have contributed to the handbook over the years. While we wanted to keep much of their writing intact (as in Section Two: History), we determined that editing the document to make the language more succinct was necessary to keep it a manageable length as new material is added. Included in the revised version is information on the tenure and accomplishments of our current Executive Director Dr. Lucinda McDade, recent Volunteer Organization initiatives, and Garden enhancements resulting from implementation of the **Interpretive**
**Master Plan.** The Handbook will always be a work in progress, since the Garden is constantly changing in exciting ways. For example, by the end of next year, construction of the Forest Pavilion and Sustainable Gardens should be complete, along with upgrades to the Courtyard.

The Handbook *Appendices* list four items. Currently, only two items are complete and included in the revised addition: the *Volunteer Organization Bylaws* that set forth the structure, procedures, and operational details of the organization, and the *Volunteer Standards of Conduct*. Garden staff are currently working on emergency procedures and updating the organizational chart.

Sincere thanks go to Kathleen Noll, David Bryant, Dr. McDade, Marla White, and Ming Posa for their help in producing the updated Handbook!

**Meet the California Botanic Garden Horticulture Staff: Part 1**

*by Marla White*

*Staff photos by Marla White*

It has been a long hot summer with days of record heat. As I stroll the Garden, I am pleasantly surprised at how great all the areas look. I spoke with Peter Evens, Horticulture Director, who credits its beautiful appearance to the members of the horticulture staff and their dedication and persistence in maintaining their areas. The staff also look out for and support each other on major projects. They appreciate Peter’s willingness to listen to their suggestions about their areas.

I hope you enjoy learning about the backbone of our beautiful Garden. Please join me in recognizing their efforts when you come across them working in their areas.

Ashlee Armstrong, lead Horticulturalist, began her CalBG career as an intern four years ago, working in the nursery and tending the Administration Building and the South Mesa. Her current role is general supervision of the work on the Garden grounds, coordinating pesticide application, and various administrative tasks. Her diverse career path started with working in International Education in Washington D.C. She enjoys working outdoors with native plants and holds a certificate in horticulture from Mt. San Antonio College. Additionally, Ashlee oversees the Chaparral Fern Project and maintains the back 60 feet of the garden for fire hazard mitigation. One of her favorite trees is the *Quercus agrifolia* in the Tongva Village, and along with the rest of the hort crew hates stinging-nettle season.
Damien de Castro joined CalBG in 2017 and maintains the northern half of the Mesa. He began his career at the Garden as an intern and cares for about nine acres, along with each of his hort colleagues. Damien’s favorite shrubs are the manzanitas and dreads the upcoming seasonal battle with weeds. Damien is passionate about caring for the plantings that Garden members and guests greatly appreciate.

This plant, among the many species of manzanita (*Arctostaphylos* spp.) found at Cal BG, is one of Damien’s favorites.

Muriel Fernandez Replogle currently serves as an intern with the Horticulture staff maintaining the Container and Salvia Gardens. She earned a MS in landscape architecture from Cal Poly. Muriel is interested in understanding the maintenance of California plants, as she uses native plants in her own designs. This internship allows her to watch potential landscape design materials grow, fill spaces, and change through the seasons. She enjoys our botanic garden with her family and loves the side benefit of birdwatching here. Muriel’s favorite plantings at CalBG are the redwoods.

Horticultural Tips by Chip Grubbs

Though we are heading into December and planting season has begun, I am here to briefly discuss watering techniques over the past summer at CalBG. The Horticulture Staff has made a concerted effort to maintain and uphold botanic-garden-quality plant specimens that can be enjoyed and appreciated by layperson and plant scientist alike. When and how to water California natives can at times be hotly debated,
but I can tell you as someone who works with these plants as a professional horticulturist, the key is DEEP and INFREQUENT watering.

Assuming due diligence and research is done considering critical factors such as soil type, sun exposure, and correct planting technique—which I have no doubt that those who read Oak Notes take seriously—the real work now begins. A new planting and an established one are two vastly different things. I could very easily tell you a new planting needs water once or twice a week, an established desert plant needs water once a month, and that an established coastal plant needs water twice a month, but these are not hard and fast rules. The truth is that you must become a scientific observer of your plants. Developing patterns, seeing the signs of positive plant health, and acting on your experience to help your plants thrive is the ultimate goal. I have no doubt this can be achieved with practice and analysis.

In terms of getting water into the ground, I prefer hand watering and adjustable rotor sprinklers over drip and “hard-wired” irrigation systems. Hand watering new plantings is preferred because it gives me the opportunity to look at how the plants are doing. I often find that people want to “plant and forget.” This is not the way. You must become acquainted with your plants. Roots inform shoots, and shoots inform roots. If your plant is healthy above the surface, I can guarantee it is healthy below as well.

Last and most important, use CalBG and its staff as a resource along with California native plant literature. After all, it is YOUR garden. Thank you!

Chip Grubbs has been a CalBG staff horticulturist since October 2018, overseeing and maintaining the Southern California Communities, Grafton Garden, and the Tongva Village areas. Chip is a Cal Poly Pomona graduate, grew up around green thumbs in St, Louis, Missouri, and loves working with California native plants. His favorite specimen is Baja California Birdbush (*Ornithostaphylos oppositifolia*), a cousin to the manzanita. This chapparal shrub has beautiful, mottled bark with narrow evergreen leaves.

© 2010 Calscape. Photo taken at Rancho Santa Ana Botanical Garden

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### Book of the Month

**By Barbara Nakaoka, Volunteer Library Committee**

This is an extraordinary book on “birdness.” Jennifer Ackerman explores what scientists have recently discovered about bird behavior. They have “upended traditional views of how birds conduct their lives, how they communicate, forage, court, breed, and survive.” They have looked at birds that do things in contradiction to what other birds do. Some birds create works of art and others destroy the beauty of these works. Then there are the behaviors we share with birds. These are acts of helping, cooperating, collaborating, and acting selflessly. There is no single way to being a bird.

Ackerman explores five areas of daily activity: talk, work, play, love, and parenting. She focuses on extreme behaviors. Why? Extreme behaviors teach us more about adaptations birds have made in the things they do and how this changes our thinking about birds.

Each chapter is a wonderful picture of the daily activity of birds from around the world. Either Ackerman or the researcher describes each discovery as if it was happening in front of you. Their language is clear and understandable, their observations engaging, stories plentiful, and insights compelling.

Chapter 7, Birds of Play, is the first chapter to catch our eye. Mathias Osvath, a cognitive zoologist at Lund University, Sweden, studied the playfulness of ravens. In her engaging language, Ackerman says, “The first raven I ever saw seemed so somber and aloof I would no more have expected him to burst into play than a member of the Supreme Court to jump from her chair and break-dance on the chamber floor.” Playing occupies much of a raven’s time. Ackerman goes to Osvath’s research farm and aviary in Sweden to learn why ravens play. Osvath reasoned, “Because it is fun.” According to cognitive scientists and corvid (crow) experts Nathan Emery and Nicola Clayton, “Dopamine appears to play an essential role in reward in birds and is found in analogous brain regions, suggesting that it also controls the search for reward-inducing stimuli in birds.” Play is fun.

For Ackerman, writing this book changed the way she thinks about birds. It persuades us to watch birds more carefully and learn from them.

**Children’s Book of the Month**

**Amy Baumann**  
Volunteer Library Committee

*Can You Hear the Trees Talking?* is the children-accessible version of the *New York Times* bestseller *The Hidden Life of Trees*. The book is an outstanding introduction to the world of trees. The readability level is for the 8- to 10-year-old child. However, younger children will enjoy learning about the wonders of trees when read aloud to by a parent, grandparent or teacher. Chapters include enticing topics such as how trees breathe, how trees drink, what makes trees sick, and why trees are important in the city. Each section includes a “Try This” activity for children to engage in as they explore the trees of the forest or those in their own neighborhood. Children who are curious about nature will love *Can You Hear the Trees Talking?* It would make an excellent holiday gift for the young naturalist in your life.
AROUND THE GARDEN Photos by Marla White