From the President
Marla White, Volunteer President

“In the Trust Indenture of 1934, Susanna Bixby Bryant’s objective was to establish a garden “…for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.”

I wonder how our founder would feel to see her vision become the renowned institution RSABG is today? The Volunteers serve thousands of hours each year and donate considerable dollars to support the current mission and Garden improvements.

Marilee Scaff and Sally Prusia’s family and friends donated about $95,000 to bring the total Volunteer contribution toward the Forest Pavilion project to $166,773.80. (I will be donating at least another twenty cents to get us to an even number). The fundraising has reached about 80% of the 1.6-million-dollar goal from received and pledged gifts.

Our annual Grapevine Harvest and potato-bar lunch was held on Monday, January 20. The Horticulture crew led by Rick Davis pruned many meters of grapevines, including a new area near the old greenhouses and maintenance buildings. The Native Designs team led by Linda Prendergast completed many wreaths, which will be stored and then decorated for sale. Susan Starr and her team of contributors provided a hot-potato bar with all the “fix-ins” one could hope for.

Our organization needs to continue to grow and serve the expanding needs of the Garden. Please consider inviting friends to attend the next Volunteer Information session in the Sycamore East Classroom on February 13 from 5:00–6:30 p.m. I look forward to greeting them, along with our Volunteer Manager Kathleen Noll, and encouraging them to participate.
In just over two weeks, on Sunday, February 16, from 10 a.m. to 3 p.m., the entertaining and educational 2020 Bird Festival will take place. Please consider volunteering for this family friendly event as many are needed to support it.

Finally, a big thank you to your fellow volunteers who not only spend time as Garden Guides; on the Horticulture Crew, Visitor Education Committee, Special Projects and Volunteer Board; and in the Herbarium, Research Library, and Native Designs, but also serve in another leadership capacity for RSABG. The Board of Trustee members include: Steve Bryant, Rick Davis, Kathleen Mulligan, Mary Perera, and Cindy Walkenbach. The Board of Overseers are: John Bradley, Shaunna Gygli, Lynn Miller, Linda Prendergast, Marla White (Ex Officio), and Yvonne Wilson.

Thanks to ALL for all you do! See you around the Garden.

— Marla

FROM THE DIRECTOR
Lucinda McDade, RSABG Executive Director

PSAs, Luminaria (THANKS!), Seed Banking, Rebranding: LOTS going on!
Greetings volunteers and Happy New Year to all of you! Seems like yesterday that it was suddenly 2010 with ten years of the new millennium already passed! 2020 does have something of an auspicious ring to it. I hope that your holiday season was excellent and that you avoided the various illnesses that have been going around – including the multi-phase norovirus assault on our friends at Mt. San Antonio Gardens.

A couple of seasonal public service announcements! Here in Claremont, we got over 9" of rain between the second half of November and the day after Christmas. This has brought our hillsides (and the field station next door to the east) into full lush green vibrancy. It is my duty to remind you that essentially all of that lush greenery is invasive grasses with the occasional coarse, invasive mustard thrown in for bad measure. Unfortunately, the pattern seems to be that these plants germinate early and grow tall quickly, rapidly overtopping natives that are also trying to germinate and get a root hold. This is a very serious problem with no easy solution. Of course, our valiant horticulture staff, with help from many volunteers, will soon be battling weeds on the grounds here!

Also, although it has been about three weeks since we’ve had rain, very few of us need to be thinking about turning our irrigation systems back on. It has been very cool, and the days are still very short, both factors that help to keep the soil from drying out. You might, however, give some attention to plants in pots, to newly planted plants (remember that their roots are growing deep and wide to support the plant through dry seasons ahead), and to seedlings whether wildflowers or vegetables—unless, that is, it rains soon. Some rain is predicted for this evening as I write but—as we say around here—it is not raining until it is raining.

A Very Happy February Birthday to:

Dorcia Bradley
Richard Davis
Sofia Flores
Phoebe Frankeberger
Kathy Hacker
Carol Hopping
Ann LeVangie
Josie Muir

Julie Scheuermann
Barbara Shelley
John Turner III
Tina Van Wett
Amanda Vliestra
Emy Lu Weller
Betsy Zimmerman
Luminaria! Thanks to all of you many, many volunteers who helped with this annual festival of after-dark lights and music at RSABG! As is always the case with our big events here, we could not have done it without you!

Visitor Experience + Volunteers collaborated closely on this year’s Luminaria event and made a number of changes. Most notable were the string lights covered with seasonal lanterns, which made set-up of the event remarkably straightforward compared to previous years (they also provided what I think was a perfect level of lighting). Conventional luminaria graced the entry way through Fay’s Meadow, up the ramp and around the front of the building. Also, paths through the Cultivar Garden were lit with lumis, which yielded a beautiful display. The Native Designs group crafted the most amazing wreaths for the music venues! Truly, these were magnificent and provided beautiful seasonal back-drops for our musicians. Other innovations this year included food trucks all nights, cash bar with wine and beer, AND volunteers’ bake sale. You did very well, and I believe that the conclusion is that this is the event for the bake sale. We also offered tram service to the top of mesa running on a frequent circuit which turned a problem (oh no! guest needs a ride up the hill) into an amenity.

Working with Advancement, we ran the members-only event on Thursday night for the first time. If you were able to attend the special party for our higher-level members on that evening, I know you will agree that it was pretty special! The Courtyard was decked out like a big outdoor lounge—fire rings, comfy seating, live music, bar with native plant-infused drinks, cookies, s’mores. It was all really quite special.

Next up will be Family Bird Festival! I was reminded recently that this is Lisa Pritchard’s first Bird Fest owing to the fact that we cancelled it due to rain last year. Lisa will greatly appreciate your help. As always, we will be looking at the event to see what we can do better and/or more efficiently, all the while keeping eyes on the goal which is education that is fun!

I want to let you know of a very exciting development that is affecting our Seed Conservation Program. Last year, through a program entitled the California Biodiversity Initiative, the state of California authorized a total of $3.6 million for seed banking efforts for California native plants. That's right: three point six million dollars. This is to be spent over a three-year period. Because—under our leadership—the California Plant Rescue (CaPR) collaborative was already set up and working well, we are actually in a pretty good place to be able to make a huge amount of progress quite efficiently. In that last clause, “we” are the group of institutions across California that came together beginning about five years ago to form CaPR (https://www.caplantrescue.org/).

I hope that all of you realize that we here at RSABG ARE the California Seed Bank. Our wonderful seed conservation program is responsible for the hard work that has yielded banked seeds for many California plants including many of the rarest. Right there—in the small building between Horticulture and the Nursery—are freezers than hold about 80% of the accessions of California native plant seeds that are held anywhere! Thus, we are ready and able to contribute substantially to this project and we have already been awarded two contracts for seed collecting. A relatively small portion of the funds is to be used for infrastructure and we are hoping to continue the path we are on to improve and secure the seed bank. Many of you will have followed progress on the new generator and I hope that many of you have admired the very tidy interior, complete with power poles that were installed to take away the unsightly and dangerous daisy chains of extension cords and power bars all across the floors. We are hoping to secure additional funds for fireproofing the exterior: stucco, fire retardant roof. Stay tuned for news there!

And on into spring! The quality of our spring in southern California of course depends a great deal on what happens in terms of rainfall. At this point, we have had excellent soaking rains and so long as we get some, at decent intervals, and we avoid long periods of warm, dry weather, we should have a decent spring. Here’s hoping!
Of course, it will also be a very interesting spring because we will be going through rebranding and emerging—publicly—as California Botanic Garden. I am very convinced that this is the right thing to do. I want you to know that I was not a “natural” to the idea. Owing to the fact that I did not grow up in southern California, I knew RSABG from a distance and as a plant scientist. From those perspectives, the name RSABG does not come with the challenges that I now perceive to be very real and to be impacting our Garden’s well-being. It is important for you to know how essentially unanimous the staff is about the change. Staff and volunteers—all of us who give our hearts and souls to this Garden on a daily basis—are behind the change. I am looking forward to a season of events commemorating this momentous new era in the life of our Garden and to celebrating with you.

Thank you as always for all that you do. Individually and as a group, you are a very major asset for this garden and you make it a better place for staff to work!

Volunteer Enrichment
Margaret Vinci

The 7.1 magnitude Ridgecrest earthquake in July of last year was a wake-up call for southern Californians. Are you prepared for the next big earthquake? Join us on Monday, February 17 and meet Margaret Vinci, Manager of the Office of Earthquake Programs at Caltech. Margret will cover Earthquake 101 (what are they and why we have them), the earthquake threat, what people need to be prepared for, how they can prepare themselves, and information on the ShakeAlert Earthquake Early Warning app.

Margaret has been a member of the Caltech seismological laboratory staff since 1993 and the Manager of the Office of Earthquake Programs since 2002. She serves as the liaison between academia and critical users of earthquake information. Her principal responsibility is the management of the Caltech Earthquake Research Affiliates Program. This program is a partnership between seismologists, geophysicists, and earthquake engineers and includes community leaders in business, government and emergency response. Its purpose is to assess potential risks to life and property due to earthquakes, the development of earthquake tools to reduce losses, and media interaction.

Margaret also serves as the SoCal Regional Coordinator for the ShakeAlert Earthquake Early Warning System. This program is committed to the communication, education, and outreach of earthquake science and mitigation for lifelines, businesses, schools, and the public. She works with and trains the media to utilize earthquake tools and to properly communicate earthquake science information to the public. She provides tours of the Seismological Laboratory for schools and critical users of earthquake information.

As a member of the committee that created the Great California ShakeOut in 2008, Margaret has been providing emergency preparedness workshops, trainings, and presentations to empower residents, employees, and businesses to be self-sufficient when disaster strikes.

She is also one of the SoCal Regional Coordinating Chairs for the Earthquake Country Alliance to promote community resiliency and coordinate the Great ShakeOut each year. She also helped found the Pasadena Fire Department Disaster Advisory Council and is the Map Your Neighborhood Coordinator. She previously served on the board of BICEPP (Business and Industry Council for Emergency Planning and Preparedness) and COPE (Community Outreach for Preparedness in Emergencies) for several years.

Please mark your calendars for Monday, 17 February at 12:00 p.m., and join your fellow volunteers in the East classroom for a very informative Enrichment program. Feel free to bring a lunch; drinks and snacks will be served.
Volunteer Spotlight: Marion Swick
Curated by Marla White, Volunteer President

Marion was a member of the class of 2009, taking Nature Interpreter (now Garden Guide) courses and RSABG 101. She was inspired to become a volunteer after attending field trips to the Garden with her children. She is a very active volunteer, participating most often in the cutting garden, Native Designs, and in special events, where Bump in the Night is a favorite. Past experiences also include GNN, Butterfly Pavilion, and the Herbarium. Besides her boots-on-the-ground service to the Garden, Marion served as Volunteer Board Secretary for two years and currently is a member of the Volunteer Personnel Committee.

Any insights into yourself, Marion?
“I grew up in Ontario, California, and have lived in Claremont for 33 years. I felt fortunate to be a stay-at-home Mother, helping raise our four children with my husband Jess. Until the birth of my youngest daughter, I worked as an Administrative secretary for Pomona Valley Hospital. A long time ago, before children, I worked as a flight attendant for Flying Tigers.

“I love coming to the Garden and working with the plants and watching them change throughout the year. I always leave having learned something new. RSABG staff and fellow volunteers are always welcoming, and passionate about what they are doing.”

A Garden experience highlight for Marion.
“I enjoyed volunteering at the Butterfly Pavilion this summer. Marion, the only other Marion that I have met, and Stephen were very knowledgeable and so passionate about their duty to raise butterflies.”

Outside the Garden, Marion also volunteers with Ruby, a Labrador Retriever, who is a certified Therapy Dog with Love on a Leash.
work on the Interpretive Master Plan thus far has yielded some great insights about who our audience is, their interests, and readiness for messages we want to express and connect with them about California native plants. Experiments will allow us to test ideas for enhancing our interpretation with our audiences through signage, installations, activity stations, and other ideas we’re working on.

Our interpretive experiments will appear at several locations in the Garden and will begin engaging visitors this March. To test the efficacy and reception of these experiments, I’m reaching out to all volunteers!

**We need your help to interview visitors about their experiences with these interpretive experiments.** Interviews (and in some cases, observations) will help us evaluate our experiments and see how to ultimately pursue interpretation in the scope of our Garden. Survey shifts will start in early March and proceed through early May. Shifts can range between 2–3 hours every Friday, Saturday, and Sunday and we will provide you with specialized training. We ask that trained volunteers commit to at least five shifts over the two-month period (or more as you see how it goes). Trainings will take place on Thursday and Friday, March 5 and 6 at 1:00 p.m. You are welcome to attend either training. Interviewing guests is fun, illuminating, and extremely helpful as input to our Interpretive Master Plan.

If you are interested in interviewing visitors during these experiments, please sign up on Volgistics!

Thanks for all you do on behalf of the Garden.

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**Volunteer Programs**

*Kathleen Noll, Manager of Volunteer Programs*

**Winter beauty abounds!**

Winter-interest shrubs and plants are a short walk from the Garden administration building and beyond on the Garden pathways. Manzanita and silk tassel feature elegant, delicate, and interesting blooms in winter. It is a spectacular time to volunteer on the Garden grounds! Volunteers assist the Horticulture staff in the monumental task of maintaining the grounds of the Garden. Weekday gardening workdays take place EVERY Wednesday throughout the year,
and on the SECOND and FOURTH Saturdays of the month. Sessions take place in the morning from 8:10 a.m.–11:00 a.m., and volunteers are welcome to join in and help for as long as you can—one hour, two hours, or the entire three-hour session.

Most workdays are spent weeding beds in the Alluvial Garden, Communities, and Indian Hill Mesa. All work is under the guidance of Director of Horticulture, Peter Evans, and Grounds Manager, Ashlee Armstrong, plus other knowledgeable horticulture staff who appreciate your assistance in helping keep the Garden looking great. There are also opportunities for special projects and other gardening activities, whatever your interests. No experience necessary!

**Upcoming Volunteer Opportunities:**

- **Family Bird Festival** on Sunday, February 16, 10 a.m. to 3 p.m. Sign-up for your shift at: Family Bird Festival Volunteer Sign-up.
- **Interpretive Master Plan Interviews**, March–May 2020: IMP Volunteer Survey Sign-up.

**Herbarium**

*Mare Nazaire*

The RSA Herbarium had a productive year in 2019! Staff, students, and volunteers together mounted 11,366 specimens, bar-coded 34,901 specimens, data-based 17,602 specimens, and imaged 49,263 specimens.

Currently, more than 500,000 records are being served on the Consortium of California Herbaria Portal, of which 39,334 specimens have images. To date, the RSA Herbarium has over 1.25 million specimens!

**Library Offerings**

*Amy Baumann*

**Planning to Volunteer at Family Bird Festival?**

Are you interested in learning more about birds in preparation for the Family Bird Festival on February 16? The Volunteer Library offers many books to help refresh your birding skills. The book collection includes numerous field guides to assist with bird identification. If you are looking for some fun facts to share with guests at the Garden, you might want to check out *Wesley the Owl* by Stacey O’Brien or *The Genius of Birds* by Jennifer Ackerman. Books in the children’s section of the library give ideas about sharing bird information with young birders. *An Egg is Quiet* by Sylvia Long and *Birds of the Night* by Jean de Sart include beautiful illustrations. Red dots on the spines of books related to birds make it easier to
find these books on the shelves. Family Bird Festival is always a special day at the Garden. Hope to see you there.

**Book of the Month**

**Barbara Nakaoka,**
Volunteer Library Committee

In her book Scott uses practical information and light humor to bring the point across that “the more of us who create and maintain hummingbird gardens, the more stepping stones of habitat across the Southwest there will be.” This user-friendly book has 120 plant profiles with USDA zone, water usage, size, bloom and usefulness to hummingbirds. By following these suggestions, you will enhance the hummingbird habitat and encourage the use of native plants. First become familiar with your property, its habitat niches, temperatures and soil types so you can successfully select the right plant for the right habitat. Scott also discusses the need for appropriate water requirements to be successful and guides us to botanical gardens and native plant societies to find the right plants and planting techniques. Scott has included the profiles of fourteen hummingbird species. “Each profile details where the species can be found, at what time of year, what special habitat needs it may have, its most important nectar plants and its current conservation status.” Anna’s hummingbird is the most common in California. They “rule the chaparral and coast sage scrub. Southern California females prefer coast live oaks for their nests along with the California Sycamore.” They rely on chaparral currant with fuchsia-flowered gooseberry. They need the fuel from high-sucrose nectar and protein from small insects. We must champion both the hummingbird and the plants for both to survive. Thus, in creating a hummingbird habitat, we will be combatting drought and the wildfires.

On Sunday, February 9 at 1 p.m. in the Sycamore Room (formerly the East Classroom) we will be hosting Norm Ellstrand, a former Research Assistant at RSABG and now Professor of Genetics at UC Riverside. He is author of the new book, *Sex on the Kitchen Table, the romance of plants and your food.* Lucinda McDade will join him as he explains what this book has to do with native plants. Afterwards, his book will be in the bookstore for purchase and book signing.

Lisa Pritchard, Community Education Coordinator
When the Garden is at its least colorful, the bluish green leaves and bright lemon-yellow flowers of *Dendromecon* still please tour groups. The Channel Island tree poppy, *D. harfordii* (syn. *D. rigida* subsp. *harfordii*) is endemic to our offshore islands and the bush poppy (*D. rigida*) is native to dry foothill slopes from Sonoma County to northern Baja. It is an early successional species in recently burned chaparral communities.

There is a symbiotic relationship between some ant species and plants called myrmecochory (Gr.=circular dance). In this mutualistic association, bush poppies growing in southern California are aided in their seed dispersal by the harvester ant, *Pogonomyrmex subnitidus*. When the long thin seed capsule of the bush poppy springs open, the seeds are forcefully ejected. These seeds have an appendage at one end called an elaiosome that attracts foraging harvester ants. Its small mass contains starch and fatty oils that make up about 15 percent of the seed calories. Harvester ants pick up the seeds by these elaiosmes and can carry them some distance to their nest. Seeds not eaten by the ants are sheltered and free to germinate.

Over the past century the invasive Argentine ant, *Linepithema humile*, has spread worldwide. Does its presence in California and on some of the Channel Islands threaten survival of the harvester ant, and in turn bush and tree poppies? Research suggests it may. Though the Argentine ant prefers a starchy diet, usually in liquid form, it also eats seeds, insects, etc. Because of its smaller size, however, the ant cannot carry the poppy seeds to its nest, leaving them in the open for seed predators like the California quail (*Callipepla californica*) and towhee (*Pipilo crissalis*).

If ballistic seed dispersal by *Dendromecon* spp. is sufficient to maintain their populations, then displacement of the harvester ant by the Argentine ant may have no effect. If the harvester ant is an important dispersal factor, however, then its displacement could reduce the presence of *Dendromecon* spp. in California.

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**Luminaria Bake Sale was Phenomenal!**

Special thanks to Melissa Smith, Julie Scheuermann, and Marla White, who not only assisted with the baking, but also helped with pricing, merchandising, and sales on event evenings over two weekends.

A big thank you to all of the bakers and donors for enabling the Volunteers to earn $1,253 from the sale of those tasty treats: Lee Boss, Linda Clement, Patricia Brooks, Shaunna Gygli, Susan Starr, Bev Jack, Cindy Walkenbach, Amy Baumann, Paul Donatelli, Hannah de Keijer, Carol Petty, Katina Vlastos, Ann Morgan, Betsy MacLaren, Ingrid Spiteri, Pat Hope, Wanda Ewing, and Lauren Ewing.
GOINGS ON IN THE GARDEN

Top left, Garden Guides
Top right, Luminaria Bake Sale
Middle left and bottom, Volunteers in the Herbarium