“Volunteering is the ultimate exercise in democracy. You vote in elections once a year, but when you volunteer, you vote every day about the kind of community you want to live in.”

—Author Unknown

We will be welcoming nine new Nature Interpreters to our ranks this month. It is always a pleasure to see their interest and enthusiasm, sometimes tempered with a bit of trepidation. “Will I know enough? Will I be able to manage the children, manage the tour time, and be able to convey the excitement I feel in being in this special place?” Time and a commitment to learning, and above all, lots of practice and patience are some keys to success.

Recently, Board of Trustees member and volunteer NI Mary Perera provided trainees and current NI’s with a wonderful session on communication and presentation skills. As a final activity for the day, NI’s had the opportunity to lead six of our new recruits on a Garden walk where the seasoned veterans relayed tidbits of knowledge and things they do to successfully engage their charges. What a wonderful collaborative experience it was! And, I must tell you that a highlight of our walk was the discovery by new NI Joaquina Hernandez, a former Garden intern and current Cal Poly environmental studies major, of a hummingbird’s nest. She had listened to an explanation on how the hummingbird uses the fuzz on the underside of the sycamore leaves to build its nest and then immediately spotted a tiny nest in the tree under which we stood. An exciting discovery for all and a perfect culmination to this year’s training. Congratulations to our NI class!
Greetings volunteers: I am up against a deadline here (well, to be honest, I am past the deadline) and so this article will be brief. However, I do not want to miss the chance to say thank you to all of you who helped so wonderfully with Luminaria Nights. Truly, volunteers make this event possible. I don’t yet have all of the data on attendance, but I know that on the last Saturday night we had more than 600 paying guests which, I believe, is a record. With volunteers, staff and others, certainly we topped 700 that night!

I also want you to know—and share this with others—that the decision to “go” on Luminaria Nights is made with great care. Specifically, this year, I spoke with the local fire department, describing exactly what we do, how the bags are set up, how they are only placed on non-flammable surfaces (asphalt, DG, the snake), how we patrol the paths constantly (we do such a good job of doing that subtly that many guests do not realize that we are ever vigilant). I also told the fire engineer with whom I spoke that we would not be doing fire pits as long as red flag warnings were in effect. Between us, I believe we can do those fire rings very safely (and did you notice that there are fire extinguishers stationed near where each was to be?) but, under this year’s circumstances, it just did not seem at all a good idea. As a Garden neighbor myself, the possibility of the neighbors smelling smoke coming from RSABG is just all wrong when half of Ventura County is on fire. Bottom line: The event will be cancelled in a heartbeat if I assess it to be unsafe. As for this year, nary a bag caught fire despite humidity levels in the single digits.

Grove of Thorns debuted the first night of Luminaria at the Gold/Acorn party in the cultivar garden. The Rulers of the Realm (i.e., those whose contributions helped mightily to make the Thorns possible) were crowned and invited to survey their realm. In short, it was a great deal of campy fun! On subsequent nights, all visitors to Luminaria were able to see the thorns (and the wonderful, colored luminaria bags), and they were a big hit!

Thanks also to those of you who contributed white elephant-style items for the staff solstice party! Much appreciated. Among other things, the set of mugs proved a very popular item, trading hands three times before settling into one person’s possession!

How beautiful the leaves grow old.
How full of light and color are their last days.

—John Burroughs

A quick update on the Forest Pavilion project: We received proposals from 12 architects, essentially all of which were inspiring! We have narrowed the pool from 12 to 5 architects, and will winnow it a bit more before inviting three or four of them to give us presentations. Presentations will happen in January and then we will select our architect partner: Exciting!

I wish everyone wonderfully restful and peaceful holidays. I know I will see some of you stretching your legs and/or sharing the Garden with visiting relatives and friends (bring them to see Game of Thorns/Grove of Thorns!). See you on the Garden paths soon!

How beautiful the leaves grow old. How full of light and color are their last days. —John Burroughs

A Very Happy January Birthday to:

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<td>Alina Bacha</td>
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Volunteer Programs
Kathleen Noll, Manager of Volunteer Programs

Happy New Year!
The Garden’s volunteer program is off to a wonderful start in 2018. As the new year begins I’m committed to our program goals of increasing the Garden’s roster of Nature Interpreters and implementing an online volunteer management system that is designed to simplify your volunteer experience by allowing you to independently schedule volunteer service and report service hours.

Volunteer, Julie Scheuermann and I are enthusiastically engaged in a trial of Volgistics volunteer management software to assess the program’s ease in scheduling volunteer service (which provides up-to-the-minute information about regular ongoing activities, as well as special events and online volunteer service records). The process of learning the system will require persistence and good timing on our part, but will be well worth the investment of time to efficiently get the system up and running!

I hope you had a chance to attend Luminaria Nights! It was very special with perfect weather and especially memorable with the vibrantly illuminated Grove of Thorns sculptures surrounded by multi-colored luminaria. Preparations for, installation of, and, finally, event support on Luminaria Nights is a true labor of love, and we thank you all for your effort with this magical winter tradition.

Coming up next:
Grapevine Harvest and Wreath-Making event will take place on Monday, January 15 (Martin Luther King Day). We’ll meet at 8 a.m. in the Horticulture Complex. Bring your own pruners, gloves and a refillable water bottle. Refreshments will be provided. Wreath-making shifts are scheduled by Native Designs. More information to follow.

Meet Hugh Menton,
Volunteer Board Member, Co-chair Horticulture

I grew up in the San Francisco Bay Area in the East Bay in the Concord/Walnut Creek area under the shadow of Mt. Diablo, not so different from under the towering Mount Baldy.

Graduate school was in the Midwest and Pomona Unified School District provided the opportunity for my return to, as I told my Wisconsin-born spouse—“God’s Country” and the “Golden State.” So often has the beauty within the Garden, or the amazing reality of the plants and environment that this “non-scientist” has learned about at the Garden, restored these images.

Living in Claremont for 44 years meant my own children experienced RSABG through their school tours before I ever knew about the Garden. They brought me to the Garden, as I have seen with family after family touched in my 11 years of volunteering. Fraser Pemberton, a past volunteer board president, encouraged me to slow down, as he encouraged the children, and take in the Garden. Now like so many others, I bring my grandchildren to this special place.

We have departed Claremont, but that sense of community that characterizes both Claremont and the Garden is hard to depart. How could I stay connected from Long Beach? There was a request for filling a few vacant Volunteer Board positions. With once-a-month meetings and a few other times of support this has been doable. And, as always, the journey continues as I learn new things through reporting on the Herbarium, Research Library, and Seed Conservation (“Seed House”).
Family Bird Festival: Sunday, February 18, 10 a.m.–3 p.m. Sign-up sheets will be flying onto the volunteer bulletin board this month. Be sure to stop by or send an email if you would like to help.

I look forward to seeing you in the New Year, and thank you for your ongoing support of the Garden.

TOURING PROGRAMS
Judy Hayami, Touring Programs Manager

Whether you are a Nature Interpreter or not, please help us bring volunteers into this vital area of service to the Garden by asking your friends, to tell their friends, to tell THEIR friends. Distribute the attractive new Nature Interpreter Program brochure and ask others to “Read all about it!” Previous experience or expertise in botany is NOT required. Join the next class or be part of the outreach effort that will connect us to those special people with the desire and dedication to take an active role in our educational tours, programs and events. How to begin? Kathleen Noll and I eagerly await your call or email!

New Nature Interpreters completed their last class session on December 16. Congratulations, NI Class of 2017! Veteran Nature Interpreters, please sign up to observe their January practice tours and meet these potential teammates.

Nature Interpreter Touring Preference Questionnaires were broadcast via email in mid-December. If you have not already done so, please complete and return the form to me by January 6, 2018.

ALL NIs leading tours are encouraged to attend the 2-hour school program review sessions: Adaptation and Survival, Thursday, January 4 and Web of Life, Thursday, January 12. 9:30 a.m. to Noon. Please meet at the admission kiosk. These review sessions cover information that can be incorporated into any type of tour here.

Please accept my belated, but no less sincere, thanks for the tremendous success of Things That Go Bump in the Night. There is no way to describe the excitement and activity of those two October evenings. You just had to be there to witness families invading the Garden, with smiles beaming as brightly as their flashlights. If you missed it, enter the event dates of October 12 and 13 in your 2018 calendar and plan to join in the fun. Thank you, too, for volunteering to help with November’s Acorn Festival and making families and Tongva friends feel welcome in the Garden. Coming soon: Bird Fest.

Enjoy your holidays!

With gratitude, love and good cheer,

Judy

Volunteer Enrichment: Bonelli Park and its Wildlife
By Laura Burt

On Monday, January 22, Rod and Pat Higbie will be presenting Bonelli Park and its Wildlife. What if you could live inside a park and have all day, every day, to view and film the wildlife that lives alongside you? That is exactly what Rod and Pat have been doing for the last 17 years! They will be showing a video of birds, small mammals and reptiles PLUS recent photos of rare bird species they have observed at Bonelli in recent years. This presentation has been one of our most popular in the last ten years so come early to ensure you have a seat. Presentation begins at

The “Honey Do” crew assembled and applied finish to the picnic tables purchased by RSABG Volunteers. They will be installed in the parking lot picnic area. Left to right: Dean McHenry, Mike Smith, Gordon Olson, Herb Boss.
noon in the East Classroom. Bring a bag lunch if you wish. Coffee, tea and cookies will be provided.

**Great Grapevine Harvest and Wreath-making Event**  
**Linda Prendergast, Native Designs**

Mark your calendar for Monday, January 15! This is Martin Luther King Day AND the day of the “Great Grapevine Harvest and Wreath-making Event.”

For the last ten years, volunteers have assisted the horticulture staff in cutting back the grapevines that grow along the east fence/maintenance road and up on the Mesa. This year (2018), we are going to do a light pruning to let the vines regenerate a bit.

No experience is necessary for the pruning or the wreath-making—and you are invited to participate! We will gather in front of the Horticulture Building at 8 a.m., split into teams under the supervision of staff horticulturists, and prune away. Wear old clothes, bring your own pruners and a bottle of water. This is “stand-up gardening”—no stooping or hands-and-knees work. We usually finish up by 11 or so, then enjoy a “snacky” type lunch in the Hort Classroom. It’s a fun day, and a great opportunity to meet fellow volunteers while doing valuable work for the Garden.

And if you would like to try your hand at making a wreath, sign up for a shift with the Native Designs team. (Again, we will make fewer wreaths than in years past.) The wreaths are made by wrapping the vines on specially built jigs in various sizes. Give it a try! Shifts are 8–10 a.m. and 10 a.m.–noon, with

**Native Designs Wreath-making Class**

It was a talented and festive group that gathered in the RSABG potting shed on December 2. The Garden sponsored a holiday wreath making class, and fifteen guests participated. Each student chose a grapevine wreath to use as a base, and then chose the greenery, freshly cut from the Garden, they wanted to use to adorn their masterpiece. Under the guidance of Linda Prendergast of Native Designs, and helpers Carol Petty, Susan Spradley and Ingrid Spiteri, students fashioned wreaths from juniper, fir, pine, sequoia, white sage, pine cones and toyon berries. Greens and berries were wired to the grapevine frame—and as you can see from the photo, each wreath was creative and different from the next!
Looking Back: The Administration Building Grows
Carol Lerew, Library Volunteer

When the administration building was completed in February 1952 it housed offices, the herbarium, library, and research laboratories. The herbarium was located on the first and second floors, the small library and study areas on the third floor.

By the late 1950s the Garden’s herbarium, library, and graduate program had grown to such an extent that it had become difficult for the administration building to operate efficiently. The greatest need was for an auditorium which had been cut from the original plans due to budget constraints. Lectures were held in the one large laboratory.

The Board of Trustees approved the addition of a wing to the original building in 1958, with the contract awarded to J. Putnam Henck Corp., San Bernardino. On September 29, 1959, the structure was completed. The new wing provided, on the first floor, the long-awaited auditorium (now known as the East Classroom), and on the second floor additional herbarium space. Included in the addition on both floors were small offices for graduate students as well as two larger offices available for visiting scientists. Those first-floor offices today house Dr. Lenz, the Volunteer Manager, Human Resources, Education, and Director of Advancement.

Colonnade Photo By: Paul Kennedy, 445 E. 5th Ave, Pomona, CA

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Needing more space in the mid-1980s, another addition was built enclosing the colonnade patio on the south side of the building, just outside the herbarium, and the breezeway. Those rooms are home to the Advancement office, gallery, and mail room. The enclosed breezeway became the gift shop. One of those columns is still visible in the center of the gift shop.

Shown in one accompanying photograph, looking west, is the colonnade patio and the breezeway prior to 1985. Note the plaque to Susanna Bixby Bryant which now can be viewed above the counter to the left upon entering the gift shop. The other photograph shows construction in progress.

And the Garden prospered until space once again had become scarce.

Sycamores (Platanus occidentalis and Platanus racemosa)
Rudi Volti, Nature Interpreter

The largest native broadleaf tree in the U.S., sycamores are known by a variety of common names. Indigenous to the eastern United States is the American sycamore, *Platanus occidentalis,* also known as the American plane, occidental plane, and buttonwood (the last is the *nom de plume* of the finance columnist of the *Economist,* so named because the first meeting of the New York Stock Exchange took place under an American sycamore). The Western sycamore, *Platanus racemosa,* a.k.a. the California sycamore, is one of the most common indigenous trees in Southern California. A hybrid of the two is recognized as a separate species, *Platanus acerifolia.* It is commonly planted as an attractive source of shade.

The prime habitat of Sycamores is alongside the banks of rivers and streams, but they can flourish anywhere there is sufficient groundwater. Sycamores are easily identified by their dappled trunks, the result of sloughing off bark that cannot accommodate the growth of new wood due to limited elasticity.

Although coarse-grained and difficult to work, the wood from sycamores has been used to make furniture, siding, musical instruments, and butcher’s blocks. More important than their practical uses is the symbolic import of sycamores. One large sycamore in what is now Los Angeles was so highly regarded by Tongva leaders that they reportedly traveled great distances to confer under in the shade it offered. The sycamore also has positive associations in Christianity that derive from a passage Luke 19:4, where Zacchaeus climbs what is mistranslated as a sycamore in order to get a better view of Jesus as he passed by. Correctly identified or not, the sycamore symbolizes the place in a person’s life where he or she gains a clear vision of Jesus. But, sad to say, there also are much darker associations. During and after the Mexican War (1846–1848) some of the trees were used to lynch Californians of Mexican origin. According to one account, a single tree accounted for the hanging of 21 men.

Today, the association of sycamores with death applies to the trees themselves. Along with oaks and several other trees, Claremont’s sycamores have fallen victim to a sesame seed-sized beetle, the polyphagous shothole borer (*Euwallacea fornicata*), which first appeared in the city towards the end of last year. After boring into a tree, the beetle spreads three separate species of fungus, which serve as food for the beetle’s larvae while at the same time damaging the tree’s vascular system, depriving the tree of water and nutrients. This results in the loss of branches and leaves, and sometimes the tree’s death within 2–3 years.

To combat the infestation, the city of Claremont has been injecting the trunks of sycamores and other affected trees with insecticides and fungicides. You may have noticed the colors surrounding the boreholes: blue dots for trees that have received a lower-level treatment, yellow for trees with higher-dose treatments, and red marks on trees that are highly infected and cannot be saved. Combating the beetle will be an expensive affair; the treatment of all of Claremont’s 1,850 sycamores is expected to cost $234,000. This is an essential expenditure. As a plant pathologist at the University of California, Riverside has warned: “Here’s the sad news about sycamores. If we cannot control the shot hole borer, it will kill all the sycamores in California. And when they’re done with sycamores, they’ll move to other trees.”
BATS
Far from being “flying mice,” bats are more closely related to us. They have fascinating anatomy and physiology and are fun to watch. Many species eat insects that attack crops (reducing the need for pesticides) or people (an excellent feature!). Over 700 species of plants are pollinated by nectar-eating bats, and fruit-eating bats help to disperse seeds. Composted guano is an excellent fertilizer (but don’t do this yourself as the raw stuff can harbor a fungus that can cause histoplasmosis, a lung disease). Rabies is very rare in bats, but if you see one on the ground, leave it alone and call animal control. Bat numbers are dropping because of habitat loss and a serious disease called “white-nose syndrome.” You can help by providing bat houses. More information can be found at www.batconservation.org.

Book of the Month
Barbara Nakaoka, Volunteer Library Committee


The importance of this book is providing a reinforcement and acknowledgement that all here at RSABG are doing highly commendable work in their daily commitment to perpetuate the principles of our native garden and motivational information for those new to native gardens and all of its roles and advantages. It is a good jumping off point for the beginning native gardener.

There are three threads of interest to “The Gottlieb Native Garden”:
The first thread is the journey of Susan Lenman Gottlieb, who started and has grown the garden which embodies and perpetuates basic principles. As a passionate conservationist, she has realized that gardens play a role in the ecosystem. This has led her to four reasons to create native gardens: help wildlife, preserve biodiversity, provide psychological and physical benefits for human beings, and conserve resources, especially water.

The second thread is the side notes. There are several explanations of organizations, terms, reminders, and opportunities. One term is Reconciliation Ecology, which encourages the reintroduction of biological diversity in human-dominated ecosystems. Other terms are explained, such as, drought and invasive species. Organizations such as the Xerces Society for Invertebrate Conservation, the Theodore Payne Foundation for Wild Flowers and Native Plants, the National Wildlife Federation, and the California Native Plant Society are defined. There are reminders of “Reasons to Go Native: The Short List.” Finally, there are opportunities given to us, such as, Bird LA Day or the G2 Green Earth Film Festival.

The third thread is the leadership principles which the Gottliebs have utilized. One is: start small and have high expectations. They have established partnerships and have provided a model for others which use the garden as a platform to unify stakeholders. Their “environmental salons” and tours support this effort. The proceeds of their G2 Gallery for nature and wildlife photography are donated to environmental charities.

RSABG honored Susan Gottlieb with the California Glory Award in 2017, honoring innovations in the advancement of California native plants.
Oak Galls
Fred Brooks, Nature Interpreter

Each oak tree is a dynamic community populated by birds, squirrels, insects, and other organisms. Within this community, plant-parasitic gall wasps (family Cynipidae) create a unique habitat. They produce galls in the fast-growing meristematic tissues of leaves, stems (Figure 1), and flowers that vary in size, shape, and color. Some wasps form their galls on a single oak species while others parasitize several species.

The female wasp injects her eggs into plants with a tissue-piercing ovipositor. When the eggs hatch, the legless larvae begin to feed. Their feeding creates a larval chamber, or chambers, with a nutritive lining. The larvae also secrete chemicals that stimulate the oak to produce hormones. This leads to formation of the complex, spongy or woody tissue of the gall that surrounds the larval chamber. The surface of the gall may be smooth, sticky, or covered with hairs (Figure 2). The female determines how many eggs will be laid and where, but larval feeding determines the characteristics of the gall.

The mature larvae form pupae within the gall, and then emerge as winged adults. There are two forms of reproduction in this wasp family, sexual and asexual. The sexual generation between a male and female usually occurs first (winter), followed by an asexual generation (spring and summer) where the eggs develop in the female without fertilization (parthenogenesis). Each generation produces a unique gall.

The oak gall is also a site of conflict. Inquilines are non-gall-forming wasps that lay their eggs in the galls of other wasps. Their larvae compete with the gall wasp larvae for space and nutrients. Plant-parasitic gall wasps in turn are parasitized by similar-looking wasps called parasitoids (parasites of parasites). Hyperparasitoids are a third group of wasps and they attack both inquiline and parasitoid wasps; they are parasites of parasite parasites.

Logoshirtus Veridis Becoming Extinct

The fashionable and exclusive volunteer polo shirt (Logoshirtus veridis) is about to become extinct. There are only five of these distinctive, apple green garments left. If you were in the recent volunteer training class, or if you are about to become a new Nature Interpreter, you will want a volunteer logo shirt! Sizes remaining in inventory are: men’s medium, men’s extra-large, women’s large and women’s extra-large. If you would like one of the shirts, please email Linda at PrendergastL@verizon.net. The cost is $22.00, and checks should be made out to RSABG Volunteer Organization. Don’t let your volunteer wardrobe go another day without a stylish apple green logo shirt!
Events
January 15: Grape Vine Harvest, Wreath-making Event, Martin Luther King Jr. Day: Monday, 8 a.m.–2 p.m., meet at front of Horticulture Building

Classes, Meetings & Workshops
January 4: Volunteer Organization Board Meeting, Thursday, Noon–1:30 p.m., East Classroom

January 6: Garden Walking Club, Saturday, 8 a.m., Admission Kiosk

January 6: All About Seeds—Seed Collecting, Storage and Propagation Workshop, Saturday, 10 a.m.–Noon, Free, Grow Native Nursery

January 7: Pomona Valley Audubon Society Beginner’s Bird Walk, Sunday, 8–9:30 a.m., Admission Kiosk, Free

January 8: Volunteer Library Committee Meeting, Monday, 10:15–11:45 a.m., Volunteer Library

January 8: Volunteer Enrichment Committee Meeting, Monday, 10:30–11:45 a.m., East Classroom

January 10: Education Materials Work Party, Wednesday, 9–11 a.m., Lenz Horticulture Classroom

January 13: Garden Walking Club, Saturday, 8 a.m. Admission Kiosk

January 15: Martin Luther King Jr. Day Free Admission Day

January 17: Volunteer Personnel Committee Meeting, Wednesday, 9:30–11 a.m., Volunteer Library

January 20: Garden Walking Club, Saturday, 8 a.m., Admission Kiosk

January 20: Family Bird Walk—Wild Birds Unlimited, Saturday, 8 a.m., Admission Kiosk, Free

January 20: Creating Seed Bombs—Workshop, Saturday, 10 a.m.–Noon, Free, Grow Native Nursery

January 21: Medicinal Plants of California Herb Walk, Sunday, 10 a.m.–1 p.m., $20 members/volunteers (pre-registration required)

January 22: Education Materials Work Party, Monday, 9–11 a.m., Lenz Horticulture Classroom

January 22: Volunteer Enrichment, Monday, Noon–1 p.m., East Classroom

January 22: Visitor Education Committee Meeting, Monday, 1–2:15 p.m., Volunteer Library

January 27: Garden Walking Club, Saturday, 8 a.m. Admission Kiosk

January 27: Kumeyaay Ethnobotany—Author Talk by Michael Wilkin-Robertson, Saturday, 3–5 p.m., $5.00/person (pre-registration is required)

January 31: Volunteer Time Cards Due, Wednesday, 8 a.m.–5 p.m.