“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

What kind of community do we live in? At the two-day Things That Go Bump in the Night event, we demonstrated a community that values learning about the natural world of plants and animals; that creates memorable experiences and sparks the imaginations of young and old alike; and that supports its families by offering a safe, affordable event. Many thanks to our hard-working staff and to the many volunteers who made craft parts at home, who helped set up and greeted guests, who manned the exhibits and craft tables, who served coffee and cider, and whose enthusiasm and positive attitudes make “Bump” a treasured Claremont tradition!

This past week Kathleen, Dorcia Bradley, and I attended the Baldy View Retired Teachers’ Association meeting on the collective behalf of the Volunteer Organization to recruit Nature Interpreters. According to Judy Hayami, we need 10 to 12 new NI’s to be fully staffed for the coming year. Thanks to a beautiful slide show developed by David Bryant with engaging narrative provided by Kathleen, we had a successful maiden voyage and are now ready for more engagements. Wow! How do our wonderful staffers have time to do all they do? I can assure you that there are no “clock watchers” among them, and I think that is why we volunteers are so willing to give of our time and to respond readily to their requests. Thank you and I appreciate all you do!
From the Director
Lucinda McDade, RSABG Executive Director

All Volunteers wear halos!

First, thanks to all of you who volunteered in so many ways for Things that go Bump in the Night! From managing the incoming crowds, to supervising our craft stations, to conveying the wonders of the natural world, volunteers were everywhere on Friday and Saturday nights. I hope you agree that it was a very successful weekend! It is fun to see kids so excited about being here, engaging with real plants and animals, and having a great deal of fun while learning.

Thanks also to those of you who will be helping at the launch of the Grow Native Nursery sales season on October 21, including all who put in the labor of love on the wreaths and into the baked goods! And then it is on to Acorn Festival and to Luminaria. Rest for the weary? Let’s instead take to heart (so to speak) the benefits of being active and engaged in the world!

Second, what’s this about halos? Can you keep a secret? We can only share this among ourselves until it is announced publicly in earliest November. We just learned that we have won one of six highly coveted Halo Awards for 2017! These awards “celebrate(e) everyday angels” and are made annually by the Carl and Roberta Deutsch Foundation (see: http://www.haloawards.org). Non-profit organizations in Los Angeles County that benefit from the hard work of volunteers are invited to nominate one of their volunteers and to request funds ($20,000) to “build or enhance the organizational capacity around volunteerism.” This year, we nominated your president, Cindy Walkenbach, for the award and requested funds to support recruitment and training of volunteers, as well as the soon-to-be-implemented modern digital management system for volunteer sign-ups and record keeping for volunteer hours.

We won! Emphasis on the “we” there as we will all benefit from improved support for volunteer programs and, of course, anything that benefits RSABG volunteers benefits RSABG as a whole! We will also build organizational capacity as a result of sending representatives to a series of sessions organized by the Foundation and designed to enhance the volunteer experience by building organizational know-how and skills. (We will know more about these sessions and who will be going shortly.)

I want to share with you what the Foundation program officer who phoned me with the good news said about our application. Fundamentally, she said that our application conveyed very well the strengths of our volunteer program but also made clear that the enhanced support for the volunteer program this grant will enable comes at a very opportune time to take our program to the next level. She went on to say that what really made our proposal stand out from among the many they received was that RSABG’s heart and soul shone through. I was very touched by that as I fully agree we are a special community in terms of the commitment we share to what we do here.

Of course, shared credit for this award goes to Cindy Walkenbach, Kathleen Noll and Anne Scott-Putney! You all know Cindy well for her great contributions as a Nature Interpreter and to the volunteer organization, including now serving as your president. You may not know that Cindy has been terrifically effective in linking the non-profits she is devoted to for the greater good of all. For example, her devotion to organizations supporting foster youth led to the junior internship program in our herbarium. You all well know that Kathleen has worked hard to recruit and support volunteers, and she is now readying us to implement the digital management system that this grant will support. And Anne—as our Chief Advancement Officer—has led the charge to secure additional financial resources for the vital volunteer program, as well as for other mission-critical aspects here at RSABG. Thanks and congratulations to all!

“An early morning walk is a blessing for the whole day.”
–Henry David Thoreau

Thanks and congratulations to all!
Volunteer Programs
Kathleen Noll, Manager of Volunteer Programs

Your place in the Garden:
The Garden is lucky to have a great group of new (and newish) volunteers joining our fun volunteer family. Thanks to everyone for jumping in for Things That Go Bump in the Night and the Fall Planting Festival! Please let me know if you are looking for regular ongoing volunteer opportunities. We especially would like to build up the roster for tram drivers and for Gift Shop assistants. Please check your email for trainings coming up in both of these volunteer areas in the near future.

Save the Date:
Acorn Festival: Sunday, November 19, 11 a.m.–3 p.m., free with admission. Event orientation is scheduled for Friday, November 17 at 1 p.m. at the Tongva Village site.

Volunteer Hours Report
The Volunteer Personnel Committee will notify active volunteers of the summary of volunteer hours submitted through December 2017. This will give volunteers the opportunity to check on the service hours you have generously devoted to the Garden in 2017 and plan ahead for the Garden’s busy spring of activities and events.

Coming up:
Volunteer Quarterly Business Meeting and Potluck Luncheon: Wednesday, December 6, 11:30 a.m–1:30 p.m.
Luminaria Nights: Fridays and Saturdays, December 8, 9, 15 and 16, 6–9 p.m.

Volunteer Enrichment
Sherry Hogue, Enrichment Committee


This volume represents an important selection of 116 photographs from a specific window of time and place as viewed through the camera lens of one of the greatest botanists of all time. Ms. Watts has curated an impressive collection of images that not only serve to document Dr. Liogier’s research, but bring to light the unique way this particular scientist saw the world of plants in their environment.

Brandy Watts works in plant science at the Rancho Santa Ana Botanic Garden Herbarium as well as curates exhibits for the RSABG Library. She holds a Master’s of Fine Art as well as a Master’s of Library and Information Science.

Watts is quite personable and engaging as she relates not only how she came to do this work, but includes some experiences during this time. Please join us on

A Very Happy November Birthday to:
Amy Baumann
Janice Bishop
Fred Brooks
Betty Butler
Alice Calaprice
Donna Chadwick
Barbara Coates
Susan Copeland
Hannah De Keijzer
Patty Nueva Espana
Louise Gish

Virginia Herd
Chris Ilgen
Karen Lent
Joan Presecan
Jean Rosewall
Marilee Scaff
Dean Shimek
Anthony Surtrisno
Elizabeth Tulac
Jenny Uyboco
Tom White
Monday, November 20 at noon in the east classroom for this program. You are welcome to bring your lunch, and the usual coffee, tea, and cookies will be provided.

Choose your side on the botanic battlefield for the opening of the new Game of Thorns exhibition! The opening reception will be on Saturday, November 11 from 5–7 p.m. in the Container Garden. Keep an eye on your email for the members-only reception invitation to come. This much-anticipated opening for the exhibit about the art and armaments of botanical warfare will be quite popular, so make sure to register for the event when the invitation arrives.

A second “opening” of the exhibit will occur on the first night of Luminaria, Friday, December 9, when the Grove of Thorns section of the exhibition will be unveiled and lit for the first time. Thanks to all who supported this aspect of the exhibit on Kickstarter, the sculptural thorns for the grove are now being digitally modeled and cast from 3-D images taken with our new Scanning Electron Microscope.

Speaking of December, the end of the year is around the corner, and for many of our volunteers and supporters, that is the time for charitable giving to the organizations and causes that are dear to your heart. For your consideration, if you are older than 70 1/2 and have a regular IRA distribution, please know that an IRA distribution can be a good option

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NOTES FROM ADVANCEMENT
Anne Scott-Putney, Director of Advancement

Volunteer Biography
Meet Betty Butler, Hospitality Committee Chair

I was born in St. Louis, Missouri but grew up in Arlington, Virginia, where my father worked for the U.S. State Department until his retirement. Although I visited botanical gardens growing up, I never had many hands-on experiences with plants, nor did I participate in a lot of outdoor activities. When I got married and moved to New Jersey, my husband Jim and I enjoyed tent camping, but it wasn’t until we moved to California 35 years ago that I really started to experience a love of the outdoors.

Shaunna Gygli, a good friend of mine, and several other teacher friends and I spent a week on Catalina each summer for 17 years, where we hiked and explored that beautiful island. I was always so impressed with my friends’ knowledge of the local flora and fauna. I became a volunteer at the Garden last year, largely through Shaunna’s influence. She invited me to go on several of the great RSABG volunteer field trips, organized by Krista Von Stetten, where I saw firsthand what a wonderful group of people were associated with the Garden.

Since becoming a volunteer, I have gone through the Nature Interpreter training and was amazed when five experienced Nature Interpreters showed up on a rainy January morning to observe me on my trial tour. Such dedication showed me again what a great group of people volunteer here! Besides being on the Tuesday morning Tour Team, I am now the chairperson of the Hospitality Committee.

Along with volunteering at the Garden, I enjoy music and traveling to visit my two grown children. I sing in my church choir and for five years sang with the Mountainside Master Chorale. Recently I have started taking piano lessons again, after a hiatus of over 50 years. Many are the joys of retirement!
for charitable giving. Did you know that instead of taking the IRA distribution yourself, it can be made directly to the Garden (or other charitable cause) as a tax free contribution? For more information, contact your tax advisor, or email me at ascottputney@rsabg.org, and I will send you more information about IRA rollovers.

Thank you to all Volunteers who helped with the Fall Bake Sale 2017

This year RSABG’s Fall Plant Sale on October 21, 2017 was a great success. The plants were beautiful, and it is always great to see so many people enjoying the Garden. The Plant Sale is a wonderful opportunity for the Garden’s Volunteers to have their yearly Bake Sale. There was an abundance of tasty homemade goodies, thanks to all the bakers. Our grand total for the Bake Sale will be reported in the December Oak Notes. The money raised will enable the Volunteer Organization to support special Garden programs.


(If we missed your name here we will thank you in the December Oak Notes.)

We also had an enthusiastic group of volunteers helping to price and stage the assorted fresh and fun handcrafted treats the day before. Thanks also to the volunteers who worked during the Fall Plant Sale selling the goodies: Betty Butler, Sherry Hogue, Enid Eckert, Kathleen Noll, Mike Smith, Melissa Smith and Louise Gish.

LOOKING BACK LAND AND WATER
Carol Lerew, Library Volunteer

This is the second article in the series on a history of Rancho Santa Ana Botanic Garden at Claremont.

During the nearly sixty-five years since the move from its original location in Santa Ana Canyon much has changed and some things have stayed the same. The move to Claremont was largely an experiment. There have been many challenges, failures, and successes along the way.

The Claremont land is made up of much better soil composition than the heavy clay soil found in Santa Ana Canyon so that establishing a variety of representative California native plant communities appeared possible to those planning the move. To better understand the origin of the land around Indian Hill Mesa we briefly have to look at the geology of the area.

Dr. Lee Lenz, Executive Director Emeritus, observed in his 2008 report on the RSABG irrigation system entitled “Water,” that “The Indian Hill Mesa is a remnant of ancient land surface dating from the Pleistocene (1.8 million years ago to 2,000 years ago) and is composed of weathered reddish, fine-grained alluvium called the San Dimas Formation. The lower east part of the Garden is located on an alluvial fan extending from the mouth of San Antonio Canyon and consists of rapidly draining sand, gravel and cobbles.”

Historically, plant life on the Mesa consisted of some scrub chaparral and a few trees. A cluster of centuries-old live oaks, now known as The Trustees Oak Grove, stood sentinel on the north-east corner of the Mesa with a dense ground cover of poison oak. Below the east side of the Mesa stands of sycamores nestled sharing space with oaks, abounding poison
oak and other understory species enjoying the rich moist earth of a former stream bed.


Thank you to Peter Evans, Director of Horticulture, for providing Dr. Lenz’s report, and Helen Smisko, Plant Records Manager, for providing the irrigation grid schematic.

Thank you to Irene Holiman, Library Specialist, for her guidance on the research for this article.

EUCALYPTUS
Rudi Volti, Nature Interpreter

As I was walking around the garden one day, a visitor asked me where she might find the eucalyptus trees. With feigned shock and horror I explained to her that these Australian transplants had no place in a garden devoted to native California vegetation.

Most of the garden’s volunteers and staff would probably have responded in similar fashion. Of all the introduced plants that have been excoriated for their malign qualities, none have raised as much ire as eucalyptus. Initially propagated in California in the mid-1870s, eucalypts, primarily Tasmanian blue gums (Eucalyptus globulus), were at first warmly embraced as the answer to the shortcomings of the indigenous environment. Many parts of California were not well-supplied with trees. Some parts of the state had abundant stands of oaks and redwoods, but they were not easily accessible prior to the building of a railroad network. Significant deposits of coal were also lacking. To address shortages of lumber and fuel, settlers planted eucalypts in great profusion. Within a decade disillusionment set in. The trees, capable of growing 10 feet a year when young, crowded out other vegetation and sucked up water. Although the trees were suitable as ornamentals and windbreaks, eucalyptus wood was prone to checking and warping, leaving firewood as its best use. Its deficiencies were forgotten during the early 20th century when fears of an impending crisis in the supply of lumber stimulated a massive get-rich-quick scheme based on eucalyptus cultivation. In fact, a “timber famine” had no basis in reality, as wood was giving way to steel and concrete as preferred construction materials. Once again, Californians realized that eucalyptus trees were best suited to serve as sources of firewood.

The incendiary qualities of eucalyptus had an evil side. The trees’ constant dispersal of dry leaves, bark, and seed pods generates an abundance of kindling, and their oily wood earned them the moniker of “gasoline tree.” In October 1991 a grass fire led to the ignition of the large stands of eucalyptus that

Our Wonderful California! Explore!
There is no end to the fascinating features of our great state. Here is something which will help guide us in our explorations: California’s Gold Guide Map from the Auto Club.

In this special edition California map is information highlighting places visited by traveler Huell Howser as seen on his TV programs. 100 points of interest are highlighted on the map. On the other side are brief descriptions of all those places. If you are a member of the Automobile Club of Southern California, there is no charge.

Do you have a favorite California feature to share here? Please send your suggestion to Oak Notes at dandlgish@gmail.com, or leave in the Oak Notes box in the Volunteer Library.
covered 20 percent of the Berkeley Hills in Northern California. The consequences were catastrophic. In a single day the conflagration consumed 1,520 acres and destroyed 2,843 single family dwellings and 433 apartment units. 25 people lost their lives and 150 were injured. Monetary losses came to $1,537,000,000. All in all, it was one of the most destructive fires in American history.

Another example of a catastrophic fire fueled by eucalyptus comes from Portugal, where much of the country’s forested areas have been given over to plantations of eucalypts grown for pulpwood. On June 17, 2017, a fire fueled by these trees erupted, ultimately killing 64 people, many of them incinerated in their cars as they tried to escape.

Fire is not the only threat posed by eucalypts. Some readers may recall the tragic deaths of two Pomona College students who were killed when a eucalyptus branch fell on their car in 1998. Eucalypts are not unique in their tendency to drop limbs, but many in our region are approaching the ends of their lives when this is more likely to happen.

Eucalypts occupy an ambiguous space in California’s natural and cultural environment. For many of us, they are the trees that we love to hate. For others, however, they are an integral part of the imagined California landscape, every bit as emblematic as missions, palm trees, and orange groves.

**Symbiosis in the Garden: Mistletoe**

**Fred Brooks, Nature Interpreter**

The mistletoes are a diverse group of parasitic plants that grow on many woody trees. The large-leaved genus *Phoradendron* is common in California (Figure 1). These plants are considered obligate hemiparasites as they are without roots and must absorb water and nutrients from their hosts. They are considered partly parasitic, however, because they can produce simple sugars through photosynthesis.

Birds like the phainopepla are attracted to mistletoe berries and spread the enclosed seeds in their feces. This bird-mistletoe relationship is a form of mutualism (see below). Seeds that germinate on tree branches (Figure 2) penetrate the bark surface and form absorptive structures that connect with the host’s xylem and phloem. Heavy infestations of mistletoe reduce plant vigor and growth, cause branches to break and, under stressful conditions, lead to plant death.

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**Figure 1.** A large cluster of *Phoradendron* sp. (arrow) on a sycamore in the East Alluvial Gardens.

**Figure 2.** *Phoradendron* seedlings on a branch of Spanish oak (*Quercus x hispanica*). Courtesy of Paul A. Mistretta, USDA Forest Service, Bugwood.org

Symbiotic (Greek: living together) relationships among organisms can be categorized as parasitism, commensalism, and mutualism. Parasitism favors one organism and harms the other. Commensalism favors one organism but does not appreciably benefit or harm the other. Mutualism favors both organisms. The following are examples of symbiosis from previous Oak Notes (2017) articles.

Armillaria root rot (March), fungal branch dieback (May), and the polyphagous shot hole borer (June) are opportunistich parasites that usually attack plants...
Weakened by the environment or other diseases. They benefit while their host plants are damaged and often killed. Interestingly, the relationship between the shot hole borer beetle and the fungus it carries is an example of mutualism; the beetle needs the fungus for food and the fungus needs the beetle to carry it to other plant hosts. Rust (September) and tar spot fungi (October) are obligate parasites that need living plants to survive. They slowly absorb nutrients from their hosts, weakening but seldom killing them.

Update: The desert thorn (*Lycium brevipes*) damaged by a rust fungus (September 2017) is growing new leaves.

**Native American Medicinal Plants: An Ethnobotanical Dictionary**

*AN ETHNOBOTANICAL DICTIONARY*

The medicinal uses of more than 3000 plants by 218 Native American tribes

*Daniel E. Moerman*


This hefty volume of 799 pages is not the kind of book one reads from cover to cover. Published in 2009, the book is abridged from an even larger tome published in 1998. The author, a former longtime professor of anthropology at the University of Michigan, is a renowned expert in the field of ethnobotany. Though the book is not newly published, we felt that the increasing interest in medicinal uses of plants and in Native American culture warranted a review.

After briefly describing how 218 Native American tribes used more than 2,700 medicinal plants, and explaining the book’s organization, the author catalogs the plants in alphabetical order by their scientific names. He also gives the common names (cross-referenced in an index later in the book), and tells us which tribes made use of the plants, and how. Toward the back of the book we find an Index of Tribes, with descriptions of the plants they used and for what purpose. Most interesting is the Index of Plant Usages that follows, containing 82 categories, covering, among many other topics, analgesics, contraceptives, emetics, toothaches, sedatives, and orthopedic aids. We learn that Native Americans dealt with many of the same medical issues we still experience today.

The book is an easy-to-use reference tool for those wishing to explore alternative ways of healing, though finding the necessary plants may not be equally easy!

It is available for checkout in the Volunteer Library.

**HELP WANTED**

- **Gift Shop Assistant:** Volunteers are needed to greet guests, perform telephone reception duties, cashier duties, interact with visitors to the administration building – be the “Face of the Garden”. Available shifts include Tuesday and Wednesday mornings, 9 a.m.–1 p.m., as well as Monday, Wednesday, Thursday and Friday afternoons, 1 p.m.–5 p.m.

- **Grow Native Nursery (GNN) Assistant:** Volunteers are needed for weekly shifts. Duties include watering, plant grooming, assisting customers, maintaining neatness in the nursery. GNN opens on October 21! Reserve your desired shift Thursday–Sunday mornings 9 a.m.–12:30 p.m. or afternoons 12:30–4 p.m.

Email knoll@rsabg.org or call 909-625-8767, Ext. 256
November Calendar

Events

November 19: Acorn Harvest Festival. Sunday, 11 a.m.–3 p.m., Tongva Village site.

November 24: Green Friday–Free Admission Day!

Classes, Meetings & Workshops

November 2: Volunteer Organization Board Meeting. Thursday, Noon–1:30 p.m., East Classroom

November 4: Garden Walking Club. Saturday, 8 a.m., Admission Kiosk,

November 4: GNN Workshop–How to Plant and Water Your Native Plants. Saturday, 10 a.m.–noon. FREE, pre-registration is required.

November 4: Class—Learn Your Oaks. Learn from the expert! Fred Roberts, author of The Illustrated Guide to the Oaks of the Southern Californian Floristic Province, will help you to unravel our sometimes-confusing oaks. Saturday, 8:30 a.m.–4:30 p.m., East Classroom, pre-registration is required, $100 members.

November 4: Medicinal Plants of California Herb Walk. Saturday, 10 a.m.–1 p.m., pre-registration required; $20 members.

November 5: Pomona Valley Audubon Society Beginner’s Bird Walk. Sunday, 8–9:30 a.m., Admission Kiosk, FREE!

November 6: Volunteer Library Committee Meeting. Monday, 10:15–11:45 a.m., Volunteer Library

November 8: Nature Interpreter Training—Session II. Wednesday, 8:30 a.m. -12:30 p.m., East Classroom.

November 8: Education Materials Work Party. Wednesday, 9–11 a.m., Lenz Horticulture Classroom; Everyone is welcome!

November 11: Saturday, Veteran’s Day

November 11: Garden Walking Club. Saturday, 8 a.m., Admission Kiosk,

November 15: Nature Interpreter Training—Session III. Wednesday, 8:30 a.m.–12:30 p.m., East Classroom.

November 15: Volunteer Personnel Committee Meeting. Wednesday, 9:30–11 a.m., Volunteer Library.

November 17: Acorn Festival Event Orientation Friday, 1 p.m., Tongva Village site.

November 18: Family Bird Walk—Wild Birds Unlimited. Saturday, 8 a.m., Admission Kiosk, FREE!

November 18: Garden Walking Club. Saturday, 8 a.m., Admission Kiosk,

November 18: GNN Workshop—Planting Habitats in Small Places. Saturday, 10 a.m.–Noon, pre-registration is required. FREE!

November 19: Acorn Harvest Festival. Sunday, 11 a.m.–3 p.m., FREE with admission.

November 20: Education Materials Work Party. Monday, 9–11 a.m., Lenz Hort Classroom, everyone is welcome!

November 20: Volunteer Enrichment. Monday, Noon–1 p.m., East Classroom.

November 20: Visitor Education Committee Meeting. Monday, 1–2:15 p.m., Volunteer Library.

November 23: Thanksgiving Day–Garden closed.

November 24: Green Friday–GNN 9 a.m.–4:30 p.m. + FREE Admission Day!

November 25: Garden Walking Club. Saturday, 8 a.m., Admission Kiosk,

November 29: Nature Interpreter Training—Session IV. Wednesday, 8:30 a.m. -12:30 p.m., East Classroom.

November 30: Volunteer Time Cards Due. Thursday, 8 a.m.–5 p.m.