

# Oak Notes

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March 2024

NEWSLETTER OF THE CALIFORNIA BOTANIC GARDEN VOLUNTEERS

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## FROM THE PRESIDENT Betsy MacLaren, Volunteer President

The winter rains are giving my personal yard, as well as the Garden, plenty of opportunity to provide new growth, which in my case results in a yard full of weeds. While not my favorite greenery, I have to admit they do provide an abundance of green color (and in some cases little yellow or purple flowers) that is pleasing to the eye. I know I won't feel quite the same way about them in spring when I have to pull them out, one by one.

I wonder how the animals in the Garden cope with the rain. I have been rereading an old favorite book, *The Wind in the Willows*, by Kenneth Grahame, with its animal characters of Ratty (the river rat), Mole, Mr. Toad, and Badger. At the start of the book, they are dealing with end-of-winter weather in their "neck of the woods." It is fun to read about their adventures, and it makes me feel nostalgic for Disneyland's "Mr. Toad's Wild Ride." It's amusing to read how these animals speak in perfect British English. Our Garden animals may not speak English, but it's always gratifying to catch a glimpse of one of them.

So far, I haven't seen a bobcat, but I often see the ubiquitous California ground squirrels and lots of lizards. Every now and then a rabbit hops across my path, and if I am lucky, I spot one of the red-tailed hawks as it glides overhead. It's hard to spot a great horned owl, but I have heard its hoots during evening events in the Garden.

On January 27 and February 3, new(er) volunteers were given an orientation that was organized by Patty España, our Volunteer Coordinator. I heard so many good comments about the two interesting and informative morning sessions. On the second day, participants had an opportunity to learn about the various volunteer committees, and several people signed up for one, or even two committees. Details about each committee will be highlighted in future Oak Notes issues. We hope you will be inspired to join one as well!

—Betsy

The deadline for articles to be submitted for the OAK NOTES is the **15th** the month **prior** to publication. Thank you for your prompt submission!

**Volgistics reminder:** Please submit your monthly volunteer hours to Volgistics. Every volunteer minute counts.



## FROM THE DIRECTOR

**Lucinda McDade,  
CalBG Executive Director**

### Hello volunteers!

I suspect that many of you appreciate that I am generally a pretty busy person. Among other things, in speaking with the Garden's trustees a week or so ago, I mentioned that the Garden does not have a procurement department. Thus, when we are moving forward on any project—from the Forest Pavilion, to all of the new paving, to new carts, to the nursery work, and everything in between—it is work added to my and Phil Majors' task lists, with help from other Garden staff when relevant (e.g., Billy Sale has been indispensable on all of the nursery projects). AND, as I joke, procurement is the fourth job that both Phil and I hold down here at CalBG!

Well, this spring semester of the academic calendar, my schedule includes a major teaching commitment in our graduate program. I teach a course with

lecture and lab on seed plant families—sort of a large-scale survey of plant diversity. It is a great deal of FUN (our students are *great* and you already know that I love plants in all of their astounding diversity), but it is also a great deal of work. Please excuse me for seeming distracted or having a slower response time than normal...until the semester ends (early May) when, after a bit of a breather, I will be back to normal (so, just four jobs!).

As I write, we are experiencing quite a wet February. NOT as consistently wet nor as cold as last winter but wet nonetheless. I suspect that we are all wondering how our plants will respond to these very wet years and whether we will have another major spring flowering event. Time will tell. In the meantime, at the Garden, our tried-and-true cool season flowerers, the manzanitas, are possibly at their best. Come see!

THANKS for all that you did to help with Bird Fest—a resounding success. It is so very wonderful to see our programming coming back after these challenging years and so wonderful to see all of you volunteers able to be in action again and interfacing directly with our public.

Onward into spring! See you at CalBG soon, I hope  
—Lucinda



### A Very Happy March Birthday to:

Pauline Assarian	Gloria Slosberg
Lisa Broderick	Michelle Small
Lisa Donnell	Joan Sweeney
Charles Gale	Sharon Thompson
Mark Kay	Sid Tice
Lynn Miller	Lee Waggener
Arlene Noreen	Jeremy Wertheimer
Kathy Roth	Harmut Wisch

## THE GRAPES OF WREATH

**Patty Nueva Espana, Volunteer  
Program Coordinator**

### The Great Grapevine Harvest, Wreathmaking and Potato Feed, Friday, March 15th at 8:30 a.m.

All of you have chosen a garden as a place to volunteer, so I expect a great many of you are happy to get out and work among plants. I also know quite a few of you are talented and creative: I have seen it. And when it comes to good food, well who doesn't like good food. Here is the perfect opportunity for you to be able to enjoy all three activities, working among plants, exploring your creative side, and enjoying a good meal in good company, all at the same time.

The Great Grapevine Harvest, Wreathmaking, and Potato Feed is an annual event at CalBG that takes advantage of the perfect time to get out and cut back the long stems of the California Wild Grape (*Vitis californica*) that grows vigorously all along the eastern fence of the Garden. Those long shoots then get trimmed up and magically twisted into the wreaths that Native Designs decorates and sells at the Fall Plant Sale. If you are not sure of the best practices for Grapevine trimming, that's okay, the Horticulture staff will be on hand to show you how it is done and the Native Design team will provide wreathmaking guidance. Once you have worked up an appetite, the Hospitality committee will be ready with all the fixins' for a potato feast.

Please join us for this fun event. We will meet in front of the Horticulture Building. Bring clippers if you have a pair, garden gloves (if not they can be provided), a sturdy pair of shoes, a water bottle, and a sun hat/sunscreen (recommended). Sign up for the vine-trimming and wreathmaking assignments on Volgistics.

### **Coming up:**

Wildflower Month: April

Garden of Verses: Saturday, April 6, 2024.

## **FEBRUARY ENRICHMENT PROGRAM: GEOLOGY OF EASTERN SAN GABRIELS & CALBG**

**by Marla White & Ted Reeves**

The February enrichment seminar featured Ted Reeves, retired Chaffey High School geology teacher and current instructor of field studies classes for University of the Pacific.

His talk gave an overview of plate tectonics and how these plates move on top of a silly-putty-like material called the asthenosphere. Plate movement can cause collisions that we recognize as faults and result in earthquakes. Most notable is the San Andreas, the

750-mile-long transform fault that has been relatively silent, but is expected to cause "the big one."

California Botanic Garden is located in the collision zone between the North American and Pacific Plate faults. The Pacific Plate is moving northwest past the North American Plate at about two inches per year, but is partially blocked by a restraining bend in the San Andreas Fault. The San Gabriel Mountains have been shoved up as a result of this collision. At the base of the San Gabriel Mountains, the Ontario Plain hides faults under 300 to 1,000 feet of alluvium from the San Gabriels.



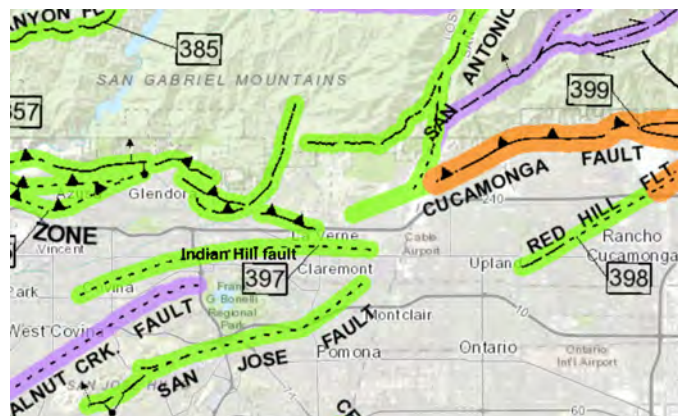
Plate collisions push one block of crust beneath another forming thrust faults. The east-west-trending Indian Hill thrust fault runs just north of and parallel to Foothill Blvd., for about six miles from Indian Hill Mesa. The block of land south of California Botanic Garden is moving under the block to the north, causing the uplift of Indian Hill Mesa. The visible scarp at the south end of the mesa is about 40 feet high.

Close by to the east is the left-lateral San Jose fault that produced the 1988 and 1990 Upland quakes. It is capable of producing a magnitude 6 to 6.5 earthquake and is responsible for cienegas in Claremont at Memorial Park, Pilgrim Place, and the area at First Street and College Avenue.

The Cucamonga–Sierra Madre thrust fault occurs at the southern base of the San Gabriels and is



responsible for most of the uplift of the range. Magnitude 6.7 earthquakes on the Cucamonga fault have had a recurring interval of 625 years for the past 13,000 years.



The red dirt of Indian Hill Mesa was deposited about two million years ago during the Pleistocene Epoch, and then uplifted by thrust motion on the Indian Hill Fault. The Pleistocene climate was cooler and wetter and supported ice-age megafauna, including camels, saber-toothed cats, short-faced bears, and the imperial mammoth. A tooth of the imperial mammoth was found in the same Indian Hill Mesa sediments in San Dimas. When you walk our mesa's upper gardens, you are sharing the same surface as these-ice-age giants.

Websites: <https://maps.conservation.ca.gov/cgs/fam>, <https://scedc.caltech.edu/recent>, University of Pacific Geology Field Trips with Ted Reeves.

## GRAPEVINE HARVEST

by Linda Prendergast

Each year the Volunteers and the Horticulture staff tackle the chore of cutting back the grapevines around the Garden. You might have noticed the vines growing up into the trees and taking over shrubs. While the grapevines are pretty on a pergola, they are invasive in other situations and need to be trimmed. This annual pruning has evolved into “the great grapevine harvest and wreathmaking event.” Add to that “and potato feed” and you have a fun morning of camaraderie with the hort. staff and your fellow volunteers.

The fun begins at 8:15 a.m. on Friday, March 15, in front of the hort. building. We need harvesters, wreath-winders and assistant wreath-winders. And don't worry if you have never pruned grapevines or made a wreath! The hort. staff will do a brief tutorial on pruning, and veteran wreath-winders will be on hand to demonstrate the wreath-making techniques. No experience needed!

Wreath-winders and assistants have two shifts: 8:30 to 10:30 and 10:30 to 12:30 (with a break for potatoes!). There are eight “wreath stations” per shift, so 16 volunteers needed per shift. Harvesters and “wreathers” should sign up on Volgistics.

Please wear old clothes or an apron as you will be covered with grapevine “fuzz.” You are encouraged to bring garden gloves, your own pruners, a bottle of water, sun hat, **and a big appetite!** Because when we have finished our chores, we will enjoy “the great potato feed” in the Lenz classroom with hot baked potatoes and all the fixings (chili, bacon bits, chives, cheese, sour cream, etc.), plus a green salad, beverages, and **dessert!** Yum!

We hope you will join your fellow volunteers and the hort. staff on Friday, March 15, for “The Grapevine Harvest and Wreath-making Event (and Potato Feed)!”

## CALBG WELCOMES NEW DEVELOPMENT OFFICER

Jessica Wetzel, Director of Development, Office of Advancement



Greetings to the vibrant volunteer community of the California Botanic Garden. I am pleased to join CalBG's advancement office as Director of Development. Over the past few weeks, I met volunteers in our advancement office supporting membership, in the Herbarium mounting specimens, and in the Sycamore Room planning and strategizing. It is clear volunteers keep this garden growing and thriving!

I have worked in the nonprofit sector for thirteen years, wearing many hats and becoming a Jill of all trades in the field. After graduating from college in Orange County, I spent many years in the Santa Barbara area. I was fortunate to work with brilliant girls, strong women, and passionate community leaders to develop programs, increase impact, and cultivate strong financial support for the local Girls Inc. affiliate. My most cherished moments are those spent with young women as they explored their interests, harnessed their potential, and found their voices!



After moving back to my hometown of La Verne in 2018 with my family, I worked with a national nonprofit dedicated to equity in education. There, I led the development of new service models and associated fundraising strategies to meet bold expansion and impact goals. I dabbled in consulting work, supporting for-profit and nonprofit organizations in their efforts to create positive social change. In recent years, I fully leaned

into my identity as a nonprofit nerd, earning a Master of Public Administration focused on nonprofit sector management.

As a member and long-time visitor of CalBG, I am grateful for this opportunity to contribute to the Garden's continued success and financial stability. I spent countless hours during my formative years romping around local mountains, marveling at the vast California desert, and finding peace and tranquility along our coastline. My love of this land still runs deep. I am thrilled to join CalBG's mission to advance knowledge, conservation, and appreciation

for California's native flora. I look forward to knowing each of you, hearing about the special place this Garden holds in your hearts, and partnering to support CalBG!

## MARCH IN THE GARDEN

by Laura Christianson

The late Robin Williams perhaps summed up the feeling of March in the garden the best by saying, "Spring is nature's way of saying 'Let's Party!'" We finally turn the corner into spring this month and get to revel in the amazing colors, scents, and sounds of all the abundant new growth happening around us.

Ceanothus, Encelias, Salvias, Iris, Verbenas, Dendromencons, and wildflowers create a dazzling array of color this month. As of this writing, the horticulture team has added 1,100 new plants to this display during the 2023–2024 planting season.

## SPRING FLING



## APRIL POTLUCK VOLUNTEER LUNCHEON

Friday April 5, 2024  
Lantz Outdoor Classroom

Please bring an appetizer, main dish, salad, or dessert to share. Drink and utensils provided. Tram starts at 11 am. Come have fun and find out what's happening at the Garden. Don't forget your name badges.



Twenty new taxonomic species have been included in our living collection, and fourteen new species of wildflowers have been dispersed throughout the Mesa and North Garden. With help from the recent rains that arrived, we should be well on our way to an exciting spring.



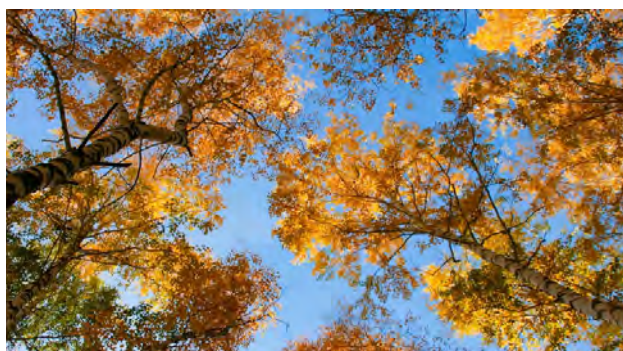
Last year, in March, you may have noticed the large *Quercus agrifolia* (coast live oak), in front of the administrative building was removed. Unfortunately, this

64-year-old tree had significant root and internal rot from a soil-borne fungus known as *Armillaria*, therefore posing a safety risk and needing removal. After extensive work by the horticulture team to remove as many of the roots as possible and bring in new soil and mulch, the area has now been replanted one year later with a valley oak (*Quercus lobata*), white sage (*Salvia apiana*), a variety of grasses, bush poppies (*Dendromecon* spp.), and *Ceanothus jepsonii* (musk brush).

Much of the wildlife in the Garden begins to emerge this month. Various butterflies and native bee species take advantage of the new blooms, and we look forward to our native Western Toad tadpoles once again this month in Emily's Reflecting Pond.

In your own gardens this month, March is a good time to grab cuttings for propagation. Aim for new growth/shoots that have not yet set flower buds. In addition, while mulch can be laid any time of the year, putting down a layer of mulch now helps create a nice contrast for spring's blossoms, and retains moisture in the soil, hopefully extending your bloom times.

## GREAT GRAPEVINE HARVEST



### WREATH MAKING AND POTATO FEED

**Friday, March 15, 2024, 8:30 am**  
**Meet outside Lenz Classroom**

We will be cutting back the grapevines growing along the eastern fence then taking the vines and making them into wreaths that will be decorated and sold at GNN later in the year.

Stay for a terrific potato feed at 11:30 with baked potatoes, chili and all the fixings.

Make sure to bring: sun hat, sunscreen, garden gloves, water.

Please sign up on Volgistics to reserve your space. There will be two shifts, 8:30 and 10:30.

## FAMILY BIRD FESTIVAL THANK YOU!

**by Jennifer Scerra**

We want to start with a **great big thank you** to all the volunteers that came out to help with what turned out to be a **great big Family Bird Festival!** The Garden saw around 1,300 visitors on Sunday, February 18, a huge number that kept us all on our toes. So, whether you prepared crafts, helped with set up, worked an activity station, or clean up materials afterwards, we cannot even express how invaluable you were to making the day such a success!

We were fortunate also to be joined by volunteers from our event partners at the Pomona Valley Audubon Society, as well as a courtyard full of community partners from bird-related organizations around the southland. The weather cleared just enough for us to enjoy blue skies, scattered clouds, and ideal temperatures. And the Great Backyard Bird Count stations identified a number of different

species that will now be reported to The Cornell Lab of Ornithology.



Thoughts, suggestions, observations, and feedback about the event are always welcomed. Please send these to [registrar@calbg.org](mailto:registrar@calbg.org). We hope to see you again next year!

## CALBG HORTICULTURISTS



### A Farewell: Alex Reyes

*A storm approaches near  
Although a distance away  
Drops roll down my face  
They inundate your little spot  
And soak the roots left behind*

*Summer rains bring life  
Still, your precious flowers wilt  
And I weep  
Hello again!*

My name is Alex Reyes and I am the Horticulturist in the northwestern plant communities.

I have worked with and met many of you, and have always been incredibly inspired by your passion, dedication, and kindness. From the volunteer luncheons, to events such as Luminaria, you have made hundreds of people happy.

Remember, not only have the patrons and visitors been affected by your influences! You all have nurtured and maintained a wholesome environment for us as well: among my colleagues, the graduate students, the school children, and among the plants themselves.

March 1st will be my last day at the Garden, and I have reflected upon the time I have been here. Smiles, memories, and laughter have been shared in our small and humble community at CalBG. A humble thousand-thank-you's to everyone for being part of this ineffable experience.

To my fellow horticulturists, take pride in being the trees' and flowers' care keeper. You have an endless struggle with the weeds: don't falter. You've provided good medicine to the spirit of the Garden, to each other, and to myself. You allowed us all to reap the beauty of your work. The beautiful flowers, rockwork, and care you have selflessly given with your sweat, labor, and sometimes tears. Rejoice with the critters, insects, and joy you provide.

I can't wait to revisit and see the incredible work you all do. I deeply appreciate you all! Stay strong and healthy in bod, and spirit.

### Jocelyn Carrasquero



I was first introduced to botanical gardens in the spring of 2021. After spending a year at the Los Angeles Arboretum in Visitor Services, I moved up to Ventura County and got an internship at the Ventura Botanical

Gardens. In my time there, I interned in the horticulture and development department. Eventually, I was awarded a full-time position as Development Assistant.

After a year in Ventura, I made the decision to move back home and pursue an education in Landscape Architecture. While on the search for work that would allow me to work closely with plants, I stumbled upon an internship posting from CalBG. In the summer of 2023, I was notified I had received the position of Horticulture Intern. It's now February 2024, and I'm excited to say that I've been hired full time as Horticulturist I.

When I'm approached by visitors, they often tell me how lucky I am to be working in a place like this. "I feel like I won the lottery," I tell them every time. So far, my experience at CalBG has been invaluable to

my education. One of my first lessons was how to properly deadhead *Salvia* species. Every day, it seems like the horticulture team teaches me something new. They're always there to lend a hand or to answer any questions, which is especially helpful as I navigate my new role in caring for the northern central communities.

The thing about spending hours in a place like this, is that you learn to notice the little things. Whether it be the dormant buds on a *Juglans californica*, or the tiny urn-shaped flowers on an *Arctostaphylos* species, there's always something interesting to observe if you pay close enough attention. The gardens, for me, are a place of discovery, where time slows down and you get to enjoy the serenity of existing with nature, especially out in the communities.

There are many moments when I'm overcome with joy and gratitude to be surrounded by others who share such a passion for nature. I very much look forward to growing and continuing my journey with California natives, here at CalBG.

## MY FAVORITE COASTAL SAGE SCRUB ANNUALS

by Steve Bryant



*Antirrhinum kelloggii* (Kellogg's Snapdragon, above left) is a vine that twines on shrubs and has small, beautifully shaded blue flowers with lighter centers. *Claytonia perfoliata* (Miner's Lettuce, above right) prefers shady, dampish places (Brea Canyon, for instance). It has straight juvenile leaves and round, fleshy, mature leaves. Flowers 10–15 cm high

perforate the center of the leaf and seed freely; some use it as an edible green. *Lupinus truncatus* is a small (usually <50 cm), annual lupine with purple flowers, and leaves that look cut off on the ends. Found in shady places, it grows in shade or full sun in my yard and seeds freely (See Nov. 2021 article for more *Lupinus*). *Layia platyglossa* (Tidy-Tips) grows ~30 cm tall and blooms in spring; it provides a nice display of blue and gold when planted with small lupines.



*Lasthenia* (Goldfields, left) has several species of very-low-growing (~10 cm) plants that need some water. In a good year, *Lasthenia*

covers many acres with a yellow carpet: full sun, needs moisture. *Phacelia* has a number of species, but *P. minor* (California Bluebell) is a local one, growing to ~50 cm, with purple flowers and bristly stems and leaves. It occasionally self-sows; sun or part shade. *Clarkia purpurea* (Farewell-to-Spring, Wine-cup) grows to 1 m, with wine-purple flowers in late spring/early summer and some volunteering: part shade to sun. *Gilia capitata* (Bluehead Gilia) grows to 1 m, with blue flowers in a ball in spring: some volunteering. *Abronia villosa* (Sand Verbena) tends to grow in sandy places, forming a 10 cm high mat of fleshy leaves, and covered with clusters of magenta flowers from spring through summer; can volunteer and may break if stepped on. *Salvia columbariae* (Chia) is a small (to ~30 cm), prickly annual sage with bright blue flowers. It grows in dry places in full sun, but will take milder conditions: seeds eaten by many animals. *Camissonia bistorta* (Suncups) is a low-growing, vibrant-yellow flowered plant found in low places (e.g., Santa Fe Dam area) and a host plant for *Hyles lineata* (White-lined Sphinx moth). *C. micrantha* is a smaller version of *C. bistorta*.



## VOLUNTEER LEADERSHIP

by Betsy MacLaren

In the February edition of *Oak Notes* there were photos on the final page of volunteers who are members of the Volunteer Board. The Board is composed of the officers (elected for two one-year terms) of President, Vice-president, Treasurer, and Secretary, and of the chairpersons of the various volunteer committees. The Board meets in the Sycamore Room in the Administration Building once a month from September to June. This important group of dedicated people guides the implementation of our mission statement:

*The Volunteer Organization supports the mission of the California Botanic Garden to promote botany, conservation, and horticulture to inspire, inform and educate the public and the scientific community about California's native flora.*

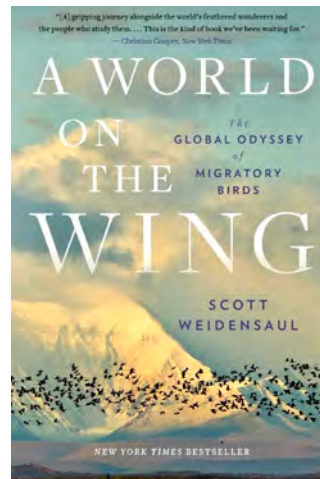


To this end, the Board members meet and plan how to achieve our mission each year, and how to implement the plan. The committee chair people play an important role as they guide the work their committees will do to further the plan. The committees are: Hospitality (co-chaired by Susan Starr and Anne Odgers), Native Designs (Linda Prendergast), Volunteer Education (Marla White and Virginia Herd), Volunteer Library (Amy Baumann and Joan Sweeney), Horticulture (Tom White), *Oak Notes* (Patricia Brooks), Goals and Evaluation (Lynn Miller), Enrichment (Shaunna Gygli and Betsy MacLaren), Personnel (Judy Moffet) and Community Outreach (Lisa Hahn).

Future issues of *Oak Notes* will provide descriptions of the positions of President, Vice-president, Treasurer, Secretary and of each committee. Please consider volunteering for a position on the Board! You will join a dedicated group where you can share your talents and skills with like-minded volunteers.

## BOOK OF THE MONTH

Christine Ilgen, Volunteer  
Library Committee



Book Review: Scott Weidensaul, *A Bird on the Wing: The Global Odyssey of Migratory Birds* (New York: W.W. Norton, 2021) Amazon paperback, \$13.19.

*A Bird on the Wing* is an entertaining and detailed account of the annual several-thousand-mile foray of migrating birds, often to the same destinations. At one location they will prepare for the journey and at the other end will mate. Stopover points offer food, water, and suitable habitats.

Depending on the staging grounds in the northern or southern hemisphere, migrants typically travel in one direction in the spring and in the reverse direction in the fall, although not following the same routes in both directions. Sometimes, flocks of the same species begin travel together and then split up. For the numbers of migrants, search the following data bases: E Bird, National Audubon Society, and the Breeding Bird Survey.

The Cornell Laboratory of Ornithology has been at the forefront of technologies that follow migrations. Identifying migrating birds and their routes is aided by a banding technique developed at Cornell. Researchers retrieve eggs from nests, and when the eggs hatch, a metal ID band is attached to one leg of a chick and a colored band to the other. The chicks are then returned to their nests to mature. When they begin their migrations, scientists at known stopping points add additional distinctively colored bands. At the end of an annual migration, adult birds are recaptured and data from the bands compiled. Currently, a more advanced technique attaches an

inexpensive computer chip to the chicks and data is collected throughout the migration. This eliminates the need to recapture adult birds at their destination.

Migratory success is affected by many factors during the journey, such as dietary preferences. Snowy owls “will eat almost anything during the winter,” but feed exclusively on lemmings during their summer stay in the Arctic.

Predators are another consideration, especially for water birds, a favorite prey of rats. Several countries now have successful programs to rid water habitats of rats.

Migration is heavily influenced by climate change. Weidensaul states that, “climate change is reshaping every single thing about migration.” The chapter “Tearing up the Calendar” considers this topic. A warming planet has led to less water and food. Even the hatching time of caterpillars consumed on route is affected by a warmer world.

This book is worth a close read. According to Weidensaul, we know the routes taken by many species but not the answer to a central question: what prompts migration? Some scientists speculate that migration is related to day length or weather. Because most migration takes place at night, others argue that patterns in night skies may influence its timing. According to genomics, migration is not an inherited trait.

A final example illustrates the difficulty of investigating bird migration. A Cornell researcher located a single gray-cheeked thrush in Denali National Park. During its previous ten months, it had flown to the Yukon, British Columbia, Minnesota, Kentucky, and Mississippi. Lastly, it visited the Western Caribbean and a rainforest in Panama, before reaching its wintering grounds in Venezuela. About four months later, it would take wing and head north again.

(Note: Another good source on bird migration is the Cornell Lab of Ornithology publication, *Living Bird*, volume 36, issue 2 (Spring 2017), pp. 24ff.)

*What An Owl Knows* by Jennifer Ackerman, Penguin Press, 2023, 299 pp.

This book is a compelling case for doing more research on protecting owls. There are some 260 species of owls, on every continent except Antarctica. Scientists are continually finding new species.

By looking at research studies, analyzing the culture and environment where the birds are located, and joining scientists in the field conducting their studies, Jennifer Ackerman unfolds new facts through stories that support the “save the owl” agenda. Apparently, we don’t know much about them, due in part to their appearance and behavior. They are camouflaged, and some move during the night while others live underground. Due to the latest technology, such as satellite imagery, scientists have made important discoveries that may benefit not only the owls, but humankind.

Research on the owl’s brain has stimulated more inquiries and questions. *Mystery*, *magical*, and *surprises*, are words used throughout the book to describe experiences with these owls and their species complexity. Aside from our basic information, scientists are asking questions about: how they communicate, their personalities, how they detect prey at night with such precision, their intelligence, new information on the Snowy Owl, and what can be used to help humans in their quest for good health.

Here are a few “aha moments” revealed in Ackerman’s work on process and discovery: researchers use a dog’s sense of smell to locate hard to find owl species; owls can regenerate hair cells and thus retain their hearing; DNA may determine if the Burrowing Owl is actually two or more species; and The Great Horned Owl baby starts vocalizing in the egg.

There is still much that we don’t know about these discoveries: their migration strategies, communication, sleeping, the brain, and the connection between owls and humans. It is possible owls have been adapting to climate change—what have they learned that we could benefit from?



# VOLUNTEER ORIENTATION

Photos by Marla White.





# FAMILY BIRD FESTIVAL

Photos by Marla White.

