Sketches
SAN DIEGO AUDUBON

MAY/JUNE 2019 • VOLUME 70 • NUMBER 5

The Pollinators

They form irreplaceable strands in the intricate web of biodiversity and are critical indicators of the health – or decline – of our native habitats. They need our help.

- *The Audubon Club at San Diego City College Steps Up Big for Pollinators*
- *Silverwood and Anstine-Audubon Are Remarkable Preserves for Pollinators*
- *Three Common Pollinators and the Threats to Their Future*

San Diego Audubon Puts Down Roots at City College

The Audubon Club has transformed thirsty, unfriendly grass and roses into thriving pollinator-friendly native plant gardens

by Shari Hatch

About three years ago, Professor Lisa Chaddock viewed the "grass and a few trees and roses" behind her classroom at San Diego City College and dreamed of transforming it into a paradise for pollinators, primarily butterflies and hummingbirds. She went to work recruiting enthusiastic students to plant and tend budding native plant gardens in that same plaza area behind her classroom. She also received a modest grant from the California Audubon Society, which she used for rewarding two dedicated interns, who were assisted by students in the fledgling City College Audubon Club Chaddock had started.

The head gardener of the college, Kim Stillson, was soon captivated by the new native plant gardens, which dramatically reduced the school's water bill. The campus was undergoing new construction, so Stillson grasped this opportunity to transform the rest of the school's gardens to include more native plants, especially those that attract butterflies, hummingbirds, and other pollinators.

Before the Audubon Club first planted their pollinator-attracting gardens, few butterflies or hummingbirds visited the plaza. Now, butterflies (and their caterpillars) include Cabbage White, Cloudless Sulfur, Lorquin Admiral, Marine Blue, Monarch, Mourning Cloak, Painted Lady, Anise Swallowtail, and Western Tiger Swallowtail, as well as numerous moths. In addition, Chaddock has tallied at least 30 hummingbird sightings, including Anna's, Rufous, and Allen's. Other birds are attracted, too, such as Black Phoebes, Cedar Waxwings, House Finches, Lesser Goldfinches, Ruby-crowned Kinglets, Sage Sparrows, Wilson's Warblers, Audubon Warblers, American Crows, and at least one Cooper's Hawk.

As a tenured professor, Chaddock teaches several geography classes. She requires each student to engage in a community service project, documented with a poster (including a map), an abstract describing the project, a bibliography, and photos showing their volunteer work. Almost 200 volunteers are spread across San Diego serving our communities.

Chaddock is also the Vice President of San Diego Audubon and energetically promotes chapter involvement among her college students. The City College Audubon Club now boasts 72 student members (and counting), with new chapters emerging at San Diego Mesa College and Grossmont College, with hopes of expanding to Southwestern and other community colleges. This is a major step in achieving the goal of engaging a younger, more diverse audience in the mission of San Diego Audubon.

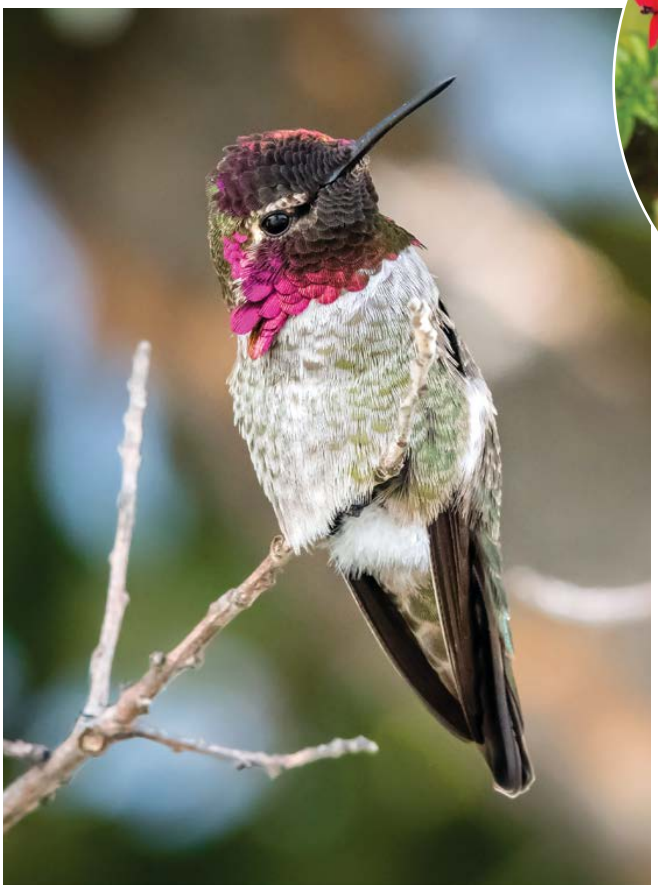
The facing page lists many of the plants in Chaddock's students' gardens, as well as internet resources you may use to create your own pollinator-friendly garden. Even if you aren't eager to plant your own garden, you can still easily enhance the lives of birds and butterflies in your area. Chaddock suggests making a watering station for birds and butterflies. For less than $15, you can buy one large (e.g., 12–20") and one small (e.g., 6–8") terracotta plant saucer. Put the large saucer in a bird-friendly location (e.g., shady, but with ample distance from cover used by predators). Center the smaller saucer inside the larger one. Place several small (1–3" diameter) smooth flat rocks in the space between the outer edge and the inner edge, as butterfly landing pads. Drizzle sand into the crevices between the rocks. Add water. Keep adding water, as needed. Birds can enjoy the inner "bath" and rocky perches, and butterflies can sip water on the sandy outer ring. Chaddock adapted this concept from **www.butterfly-lady.com/butterfly-puddling**. It works!

Native Plants That Attract Hummingbirds, Butterflies, and Other Pollinators

The National Audubon Society features at least 19 articles on using native "Plants for Birds," which you can find in **www.audubon.org/plantsforbirds.** Probably the best resource posted is the database of native plants, which you can tailor to your own zip code at **www.audubon.org/native-plants**. In addition, Californians can take advantage of the California Native Plant Society's Calscape website, **calscape.org/search.php**. This website allows you to look up the characteristics and ideal locations for plants, by name. You can also ask for suggestions, based on the type of plant (herb, grass, tree, etc.); its sun, drainage, and water needs; ease of care; common uses; availability in nurseries; and even suggested nurseries.

Are you particularly interested in Lepidoptera (butterflies, moths, their eggs and larvae)? If so, check out the National Wildlife Federation site **www.nwf.org/NativePlantFinder/Plants**. Using your ZIP code, this site will help you "Find Native Plants" and the butterflies and moths they attract; "Find Butterflies" and the plants that attract them; and create "My List" of plants and butterflies in your location. One more local resource deserves special mention: The San Diego Natural History Museum site **sdplantatlas.org**, which offers myriad resources on local plants, highlighting native species. For instance, their website lets you map the locations of a particular genus or species (by either scientific or common name), list particular plants for a specific location, and even use Google Earth.

These resources and others helped to create the following list of plants included in Chaddock's pollinator-friendly garden. The list isn't comprehensive but merely suggests some plants that attract pollinators and other insects and birds. Here, "other insects" mostly means bees, but also includes others. "Other birds" are typically insect or seed eaters, but also nectar eaters and omnivores. To find the specific birds attracted to a particular plant species, please see **www.audubon.org/native-plants.**



Page 2: (Top) City College native plant gardens are thriving in several campus locations; (Top left) Lisa Chaddock (in hat) with Audubon Club student Kouassi "Sissy" Romero; (Middle) Shawrene Sowuths and Michelle Montano on a work party at the San Diego Bay National Wildlife Refuge.

Page 3: (Clockwise from left) Anna's Hummingbird; Monarch Butterfly (adult and larva); Audubon Club officers Christian Ayala and Chris Tinoco volunteering at the Bird Festival; and water station for both birds and butterflies.

Photos by Craig and Lisa Chaddock.

Some Native Plants Used in the City College Gardens

- Black Sage *(Salvia mellifera)*, shrub; nectar, seeds; Lepidoptera, other insects; hummingbirds, other birds
- Bladder-pod Beeplant *(Peritoma arborea)*, shrub; nectar, fruit, nuts/seeds; Lepidoptera, other insects; hummingbirds, insect- and seed-eating birds
- California Poppy *(Eschscholzia callifornica)*, flower; pollen (not nectar); Lepidoptera, other insects
- California Sage, aka Chia or Golden Chia *(Salvia columbariae)*; annual, perennial; fruit, nuts/seeds; insect- and seed-eating birds
- Cleveland Sage *(Salvia clevelandii)*, shrub; nectar; Lepidoptera; hummingbirds, insect- and seed-eating birds
- Coffeeberry (aka Jojoba) *(Simmondsia chinensis)*, shrub; fruit, nuts/seeds; Lepidoptera; insect- and seed-eating birds
- Monkeyflower *(Mimulus Scrophulariales or Mimulus ringens)*, shrub or flowering subshrub; Lepidoptera, other insects; hummingbirds, insect- and seed-eating birds
- Narrow-Leaf Milkweed *(Asclepias fascicularis)*, flowering; fruit, nuts/seeds; Lepidoptera; insect- and seed-eating birds
- Wedge-Leaf Buckbrush *(Ceanothus cuneatus)*, shrub; Lepidoptera; insect- and seed-eating birds
- White Sage *(Salvia apiana)*, shrub; Lepidoptera, other insects; hummingbirds
- Yarrow *(Achillea millefolium)*, flowering herb; Lepidoptera, other insects; some cavity-nesting birds use yarrow to line their nests, perhaps helping to inhibit the growth of parasites

Native Trees Known to Attract Lepidoptera

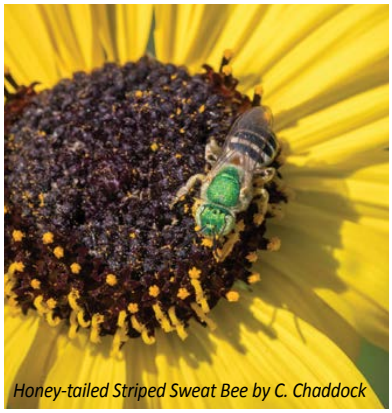
- Oaks (*Quercus* species), can attract 275 species
- Blue Paloverde *(Parkinsonia florida)*, attracts 5 species
- Pines—Coulter Pine *(Pinus coulteri)*, Jeffrey Pine *(Pinus jeffreyi)*, Parry Pinyon *(Pinus quadrifolia)*, Ponderosa Pine *(Pinus ponderosa var. benthamiana)*, Singleleaf Pinyon *(Pinus monophylla)*; pines can attract 220 pollinator species. Coastal species include Torrey and Monterey Pines *(P. torreyana and P. radiata)*

Pollinators At Risk

Habitat Destruction, Pesticides, and Climate Change Are Undermining the Foundations of Vital Ecosystems

By Brianne Nguyen

Do you like coffee? Chocolate? Roses? Bananas? If so, you have pollinators to thank. Around 75% of flowering plants rely on animal pollinators. Busy bees, bats, beetles, flies, butterflies, moths, and birds all carry pollen from plant to plant while collecting nectar, making them an integral part of the growth and propagation of so many plants and foods that we know and love.



Honey-tailed Striped Sweat Bee by C. Chaddock

For some people, it isn't always easy to appreciate the pollinators. Bugs get an especially bad rap, as they may interfere with our *al fresco* dining and strike fear in the hearts of insectophobes. Yet, most people don't seem to mind the more aesthetically pleasing Monarch Butterflies and Honey Bees. And who doesn't adore a hummingbird? Here's a closer look at what these three different pollinators bring to our region, and the unique challenges they face.

• Monarch Butterflies have long been a common sight in San Diego during winter. But over recent years we're not seeing as much of the iconic butterfly, with its brilliant orange back and dappling of white spots. Monarchs need our help. Their numbers have dropped significantly over the past two decades, a decrease that's attributed to habitat loss and fragmentation, pesticides, and intensified weather events that come from a changing climate. Their migration routes have been set for thousands of generations, but without the plants they need to raise their larvae, fewer and fewer of them return.

• The Honey Bees, universally recognized pollinators, are a different story. While Honey Bees do a lot of good for the world through pollinating, they might not be as innocent as you'd expect. The iconic Honey Bee is not native to San Diego or even to North America. Honey Bees came to North America from Europe in the 1600s, then moved to California during the gold rush in the 1800s. The Honey Bees that many of us recognize are feral escapees of bees brought to pollinate farms and other agricultural efforts. Their ability to communicate the location and abundance of food to the rest of their colony has made them excellent competitors in this new environment. They compete against the hundreds of species of bees native to San Diego. A recent study by researchers from University of California, San Diego, found that most of the foraging on the flowers of native plant species was being done by Honey Bees. This affects native pollinators through competition for food but may affect native plants as well, as Honey Bees have been shown to be relatively rough with flowers while visiting, and can possibly harm their reproduction. Like all bees, Honey Bees are often poisoned by pesticides. For that reason, the Environmental Protection Agency asks that you report bee kills to beekill@epa.gov so they can identify patterns associated with the use of specific pesticides or active ingredients.

• Much larger than any of our insect pollinators is the world's smallest bird: the hummingbird. Quite a few species are native to San Diego, including Anna's, Allen's, Costa's, Black-chinned, Rufous, and Calliope. Hummingbirds are considered to be nectivores, as around 90% of their diet is composed of flower nectar. They prefer long tube-shaped flowers, to which their long tube-shaped beaks are well adapted. While taking a drink, hummingbirds often pick up pollen around the base of their beaks or on their heads. When they move to the next flower, they deposit the pollen. They are extremely quick and favor moving from plant to plant, making hummingbirds great pollinators. Where a bee might have trouble landing on a downward-facing blossom, a hummingbird excels. Some flowers depend on hummingbirds specifically for pollination, and without them, those flowers could not reproduce. Unfortunately, hummingbirds are suffering. Habitat destruction is the main threat. In addition, climate change has affected hummingbird migratory patterns, and hummingbirds outside of their normal ranges can have difficulty finding food. Climate change also can affect the timing of blooms, disrupting the interactions of plants and pollinators. Extreme weather events such as droughts and delayed frost also affect plants, depleting the food sources that pollinators require.

What You Can Do

You can help pollinators by planting native nectar-rich plants in your area and supporting the conservation of native and natural habitats. As habitat loss and fragmentation increases, native plant gardens become more and more important. If enough islands of native vegetation exist, a pollinator-road of sorts could be formed for all pollinators in need. Think of your backyard as a pit stop for a road-weary butterfly or hummingbird. Milkweed is a favorite of Monarchs.

Remember, you should never use pesticides on a plant meant for pollinators. No matter how pesky aphids and other insects may get, resist! Pollinators need us, and we need them.

Online Resources

U.S. Fish & Wildlife Service: Pollinators (www.fws.gov/pollinators)
Save the Monarch Butterfly (www.fws.gov/savethemonarch)
San Diego Zoo Animals & Plants: Hummingbird (animals.sandiegozoo.org/animals/hummingbird)

Silverwood Calendar for May/June 2019

May 5 and 26 (Sundays) — Open visitation from 9 am to 4 pm, with guided nature walks at 10 am and 1:30 pm.

May 12 (Sunday) — ***San Diego River Day***. Learn all about tributaries at Silverwood's special theme hikes at 10 am and 1:30 pm. Learn more at www.sandiegoriver.org**.**

May 19 (Sunday) — It's ***Endangered Species Day,*** an opportunity to learn about the importance of protecting endangered species and everyday actions you can take to help protect them. Silverwood will host special theme hikes at 10 am and 1:30 pm.

May 1, 8, 15, 22, and 29 (Wednesdays) — Visitation from 8 am to noon.

June 2 (Sunday) — Open visitation from 9 am to 4 pm. Join us for special flower-themed hikes at 10 am and 1:30 pm: April showers bring June flowers, too! See the spring display of *Penstemon, Diplacus,* and other annual ground-cover flowers along the trails.

June 9, 23 and 30 (Sundays) — Open visitation from 9 am to 4 pm, with guided nature hikes at 10 am and 1:30 pm.

June 16 (Sunday) — ***It's Father's Day!*** Open visitation from 9 am to 4 pm. Bring Dad out to enjoy the guided nature hikes at 10 am and 1:30 pm.

June 5, 12, 19, and 26 (Wednesdays) — Visitation from 8 am to noon for members only.

Call 619-443-2998 for information. Silverwood is located at 13003 Wildcat Canyon Road in Lakeside. Watch closely on the right for Silverwood entrance sign. Silverwood closes during August and September.

VOLUNTEERS: *If you'd like to help, call Phillip Lambert at 619-443-2998.*

Silverwood Scene

After Plentiful Rains, Native Bees and Butterflies Abound

By Phillip Lambert, Silverwood Resident Manager

This winter and spring, Silverwood received more than 17 inches of rainfall. Parts of Southern California hadn't seen this much rain in decades. With all of the precipitation, the sanctuary's native annual wildflowers are in full bloom — a sight to see. But it's not just flowers worth checking out: the many species of flowering annual and perennial plants have brought a bounty of native pollinators — butterflies, moths, native bees, hoverflies and wasps, and of course, hummingbirds.

Some of these pollinator species are generalists, so they're not picky in terms of what species of plant flowers they feed on. But we also have a few specialists, which feed on an individual species or family of plants.

The first noticeable species of pollinator on the scene this year was the Sara Orangetip Butterfly *(Anthocharis sara)*, which stopped at the first native annuals to begin blooming in the borage family: Rancher's Fiddleneck *(Amsinkia intermedia)*, Rough Popcornflower *(Plagiobothrys collinus var. fulvescens)* and Smallflower Baby Blue Eyes *(Nemophila menziesii var. integrifolia)*. Later, these butterflies were found feeding on Blue Dicks *(Dichelostemma capitatum ssp. Capitatum)*, a long-stemmed wildflower.

The Sara Orangetip is a California endemic butterfly and a generalist feeder, though it typically lays eggs on species in the mustard family. Luckily for this beautiful insect, we have 11 species of native mustards at Silverwood, including milkmaids *(Cardamine californica)*, Western Tansy-mustard *(Descaurainia pinnata ssp. Brachycarpa)*, Dwarf Athysanus *(Athysanus pusillus)*, and their favorite here, Tower Mustard *(Turritis glabra)*.

Pale Swallowtail

Another butterfly thriving at Silverwood this year is the Dainty Sulphur *(Nathalis iole)*, among the smallest of butterfly species. But as the spring months progress, more species begin to show. Among our visitors are Anise Swallowtail *(Papilio zelicao)*, Western Tiger Swallowtail *(Papilio rutulus)*, and Pale Swallowtail *(Papilio eurymedon)*. The Anise Swallowtail arrives when species in the carrot family — Southern Tauschia *(Tauschia arguta)*, Pacific Sanicle *(Sanicula crassicaulis)*, and Shiny Lomatium *(Lomatium lucidum)* — begin their bloom, while the Western Tiger Swallowtail utilizes a large variety of host plants, mostly trees such as cottonwood, aspens, poplars, alders, ashes, and willows.

Bees are also in abundance here at Silverwood. San Diego has about 400 species of native bees. The Digger Bee *(Anthropora edwardsii)* is prevalent in Southern California and is specifically adapted to the tiny flowers of the native Manzanita. Digger Bees typically create colonies in the ground, where each pair digs a hole to rear their young. Here, the Digger Bees begin their colonies in mid-March in open areas such as the parking lot. In fact, you may notice that we sometimes rope off areas with large colonies to keep them safe from cars and foot traffic.

Bumble Bees are the only social bees native to California, and you'll also find them throughout Silverwood's 475 acres. *Bombus melanopygus* is one of the earliest-emerging bumble bees in Southern California, often seen foraging on early-blooming shrubs like manzanitas *(Arctostaphylos)*. They will later feed on Showy Penstemon during late spring, along with the California Carpenter Bee *(Xylocopa californica)*.

California Clearwing Moth

The best season to view the many species of native pollinators is during the summer months of July and August. This is when the fragrant Cleveland Sage *(Salvia clevelandii)* is in full bloom, high up along the ridgeline. As the temperature increases, the non-native European Honey Bees will crowd out any standing water sources, bringing the water back to cool down the brood nest temperature for proper development. While Honey Bees are busy collecting water, the Cleveland Sages are swarming with native pollinators. It's the only time of the year to see a particular type of hummingbird moth, the California Clearwing Moth *(Hemaris thetis)* feeding like a hummingbird as it hovers to collect nectar. Though adults feed on a variety of flowers, the female prefers to lay eggs on plant species in the honeysuckle family.

As the rain was tapering off this spring, I happened to browse through hundreds of images in my files, looking for all of Silverwood's pollinator species. I came across an old image, taken in 2007, of an enigmatic moth-like insect with extremely long antennae. For years I was unable to identify the species, so I decided to submit my image to **bugguide.net,** run by Iowa State University's Department of Entomology. I got a response from them with an answer to the mystery: The insect is a species of Fairy Longhorn Moth *(Adela flammeusellain)* in the family Adelidae. These are very small "micromoths" with antennae that are three times as long as the forewing in males, and up to twice as long as the forewing in females. Their larva host plant is Owl's Clover, an annual herb, which is probably what the adults feed on and pollinate. As they move about, they look like little fairies dancing in the air. There's always something new to amaze me at Silverwood.

A Silverwood pollinator montage. All photos by Phil Lambert

Anstine Ambles

by Patti Langen, Anstine Committee Member

***Pollinators at the Preserve:** Native plants provide critical fuel for dwindling populations of insect species*

Even before spring had officially sprung, it was hard to miss the awe-inspiring, mass migration of Painted Lady *(Vanessa cardui)* butterflies passing through San Diego County in March. While very determined in their northward travels toward the Pacific Northwest, these small, orange butterflies occasionally stop briefly to take in nectar. At the Anstine-Audubon Nature Preserve, Menzie's Fiddleneck *(Amsinckia menziesii)* was a particular temptation for some of these winged travelers to pause and refuel. Unlike the cosmopolitan Painted Lady butterflies, Menzie's Fiddlenecks are native Californians that bear small, golden-yellow flowers and like to grow in sunny locations.

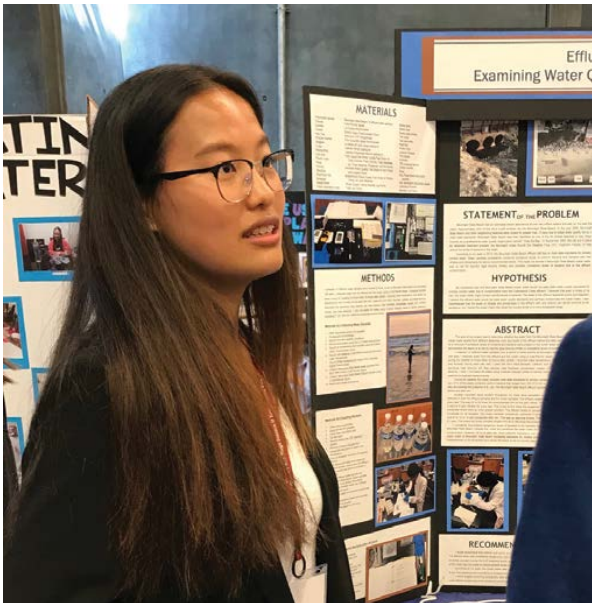
Many other insect pollinators frequently visit the habitat that Anstine provides. Native bee species, often confused with small flies, provide an important service pollinating the native flowering plants here. These important contributors to biodiversity prefer loose colonies or a solitary lifestyle, in contrast to their hive-building European Honey Bee counterparts.

In addition to insect pollinators at Anstine, Anna's and Allen's Hummingbirds are common visitors helping to distribute pollen as they fly from flower to flower. Some of their favorite nectar sources found at Anstine include San Diego native plants such as Cleveland Sage *(Salvia clevelandii)*, Fuchsia-flowered Gooseberry *(Ribes speciosum)*, and Monkeyflowers *(Diplacus* species*)*.

The precipitous decline of Monarch Butterfly populations, as well as other insects in recent years, marks a troubling trend. In the spirit of "think globally, act locally," there are tangible steps that we, as concerned citizens, can take to push back against this trend. By creating microhabitats to supplement the remaining local habitat in our county, we can act locally to help some of our native pollinators. For Monarchs in particular, Narrow-leaved Milkweed *(Asclepias fascicularis)* and California Milkweed *(Asclepias californiana)* are San Diego native plants that not only serve as host plants for adults laying eggs and as a critical food source for growing caterpillars, but also provide nectar-producing flowers for the adult monarchs.

Anstine is open to the public on Saturdays from 9:00 am–12:00 pm and the third Wednesday of the month from 8:00 am–11:00 am (from October through June).

Menzies' Fiddleneck (top left) and Cleveland Sage (above right). Photos by Rebekah Angona. To left: Allen's Hummingbird by Ed Henry.



SDAS Selects 2019 Science Fair Winner

Joy Ruppert, an 8th-grade student at The Rhodes School, was chosen by judges Jim Peugh and David Kimball for the annual San Diego Audubon's 2019 Greater San Diego Science and Engineering Fair award.

Her project, entitled "Examining Water Quality at Moonlight Beach," involved taking water samples over three months at Moonlight Beach and measuring chemicals and bacteria. Her major finding was that discharge from the effluent water treatment facility fails to meet the state water standards when it enters the ocean. We congratulate Joy and wish her continued success in her academic career.

Birding Trip Leader Peter Thomas Prepares to Step Down, Leaving Amazing Legacy

For many Audubon chapters around the country, birding and field trips are the focus (or even sole content) of their programming. San Diego Audubon is much more than birding walks, but these trips are, and will remain, an integral component of our mission — fostering the protection and appreciation of birds, other wildlife, and their habitats. Throughout the steady development of our professional staff and the subsequent transformation of our chapter, our birding program has remained volunteer led. It is with real appreciation that we offer this brief recognition of Peter Thomas, a former SDAS president who has shouldered the field trip program for eight full years, and brought it to a level not experienced before. Peter is stepping down from his role this summer, but will remain very much active as a regular trip leader.

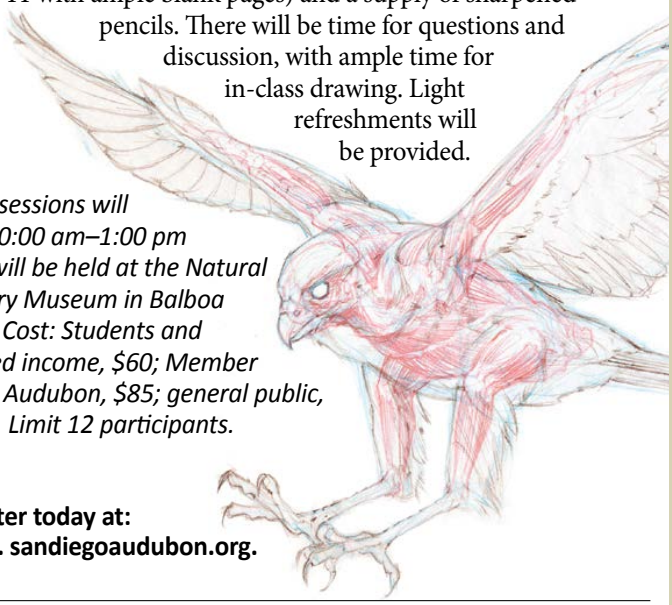
Peter has planned and coordinated the 45 or so trips the chapter offers each year, and has led or co-led nearly half of them. He has recruited new trip guides, and has woven together a community of birders that make each Audubon trip truly special. He has scouted for new locations, often surveying routes ahead of the weekend trips to familiarize himself with the conditions and potential for good birding and a

Drawing Birds as Living Animals

A Bird Drawing Workshop for All Skill Levels

May 4 and 11, 2019 (two Saturdays), taught by David Stump

This workship is an in-depth, two-session presentation of the artistic anatomy of birds, looking at the great diversity of bird forms. Learn to "see" the underlying body form of birds, to understand how all the parts fit and move together, and to discover ways to make your drawings seem more lifelike and dimensional. A 16-page workbook will be provided for each participant, and each lesson will be illustrated in a Powerpoint presentation. You will need to bring a sketch pad (preferably 8.5 x 11 with ample blank pages) and a supply of sharpened pencils. There will be time for questions and discussion, with ample time for in-class drawing. Light refreshments will be provided.



Both sessions will run 10:00 am–1:00 pm and will be held at the Natural History Museum in Balboa Park. Cost: Students and limited income, $60; Member of SD Audubon, $85; general public, $105. Limit 12 participants.

Register today at: www. sandiegoaudubon.org.

---

rewarding nature experience. As a result, our map has expanded, with many new sites added over the years. He has created innovative overnight trips to the desert and the Salton Sea. Peter has sent hundreds of follow-up reports and species count lists to the participants, enhancing the value of the citizen science component built into each trip. He has generously given time to respond to individual questions and needs. He coordinated with David Kimball in the development of our online registration system, a highly effective way to maximize the scope and efficiency of the program. In sum, Peter has led the program with distinction and skill, and we will be hard pressed to replace him. We also want to thank his wife, Millie, who has been a key part of his team and has her own legacy of contribution to San Diego Audubon, including invaluable pro bono legal work.

Thanks, Peter, for helping us "cherish nature."

Peter and Millie, by Sue Smith

Pacific-Slope Flycatcher by Peter Thomas

birding trips

MAY and JUNE

Please regularly check our website at **sandiegoaudubon.org** for full trip information as it becomes available. All trips subject to change.

SAN DIEGO AUDUBON BIRDING TRIPS *are open to all. Please remember that these birding trips are very popular, and most fill up quickly. Please limit yourself to one or two trips to leave room for others.*

1: Follow our listings on our new website at sandiegoaudubon.org *(Go Birding, Local Bird Trips). Trips shown in* Sketches *are posted first online, generally around the latter part of the month prior to issue date. Starting dates for registration will be indicated on the website.*

2: Online registration is *required* for all field trips. *Attendance for trips is now capped at specific numbers to ensure the best experience for all participants, and all trips are filled in order of registration. A few trips will require a registration fee. Even if a trip is full, you can register for a potential opening.*

3: For directions, go to the SDAS website *(look for Go Birding, then Local Bird Trips). Google Maps info is provided for each birding trip. Detailed trip descriptions are provided.*

Call Peter Thomas with questions at 858-571-5076, or email your queries to: prthomas1@yahoo.com. ***And always remember, "Cherish Nature."***

MAY

Dairy Mart Ponds and the Bird and Butterfly Garden
Saturday, May 4, 8:00 am – 11:00 am
Leaders: John Walters, 619-267-1821, and others
Capped at 25 participants. *Directions on website.*

Torrey Pines State Reserve – Flintkote Avenue
Saturday, May 11, 8:00 am – 11:00 am
Leaders: John Bruin, 505-401-3022, and others
Capped at 25 participants. *Directions on website.*

The Old Mission Dam, Mission Trails Regional Park
Sunday, May 19, 8:00 am – 11:00 am
Leader: Terry Hurst, 619-318-7717, and others
Capped at 25 participants. *Directions on website.*

Tecolote Canyon Natural Park
Saturday, May 25, 8:00 am to 11:00 am
Leaders: Anitra Kaye, 619-517-1168, John Walters, and Jack Friery
Capped at 25 participants. *Directions on website.*

COMING IN JUNE:

The following trips are being planned for June, with the dates and times to be confirmed and posted on our website toward the end of April. All trips are subject to change; rely on our website for all current information.

Walk to the Mouth of the Tijuana River
Agua Dulce in the Laguna Mountains
Tecolote Natural Park
Lake Hodges – Bernardo Bay Trail
Otay River Valley *(new approach)*
Hike to Big Laguna Lake

Visit www.sandiego.org/articles/birding/birding-in-san-diego—a-field-guide.aspx *to read Peter's guide to birding San Diego.*

San Diego Audubon Society
4010 Morena Blvd. Ste. 100
San Diego, CA 92117

Nonprofit Organization
U.S. Postage
PAID
SAN DIEGO, CA
Permit #37

Become a Friend of San Diego Audubon today and enjoy these many benefits:

It takes only a couple of minutes to sign up or renew at **www.sandiegoaudubon.org**. *– you can call or visit our office for a brochure*

- Subscription to *Sketches,* our member magazine (6 issues a year)
- Access to free local birding trips
- Members-only guided walks at our two nature sanctuaries
- Discounts on nature guidebooks and other merchandise and access to our excellent library
- Access to a wide variety of volunteer opportunities
- Discounts on special workshops about birds, native plants, and more
- Invitations to special events such as our holiday party and volunteer celebration
- Email newsletter updates, including advance notice of events

While San Diego Audubon is a chapter of National Audubon Society, we are an independent not-for-profit organization. We encourage you—especially if you are already a National Audubon member—to become a Friend of San Diego Audubon to directly support our local conservation and education programs.

Friends of SAN DIEGO AUDUBON

Sketches SAN DIEGO AUDUBON

SKETCHES is published bi-monthly, in odd-numbered months. For details on submissions and deadlines, please contact Kelly Quigley at **kellyquigley@gmail.com**

SDAS OFFICE 4010 Morena Blvd. Ste. 100, San Diego, CA 92117. Our reception desk is staffed by volunteers, and time slots may go unfilled. Please call ahead before planning your visit, to ensure someone will be there to assist you. Messages can be left at any time on the office answering machine at 858-273-7800, or email **sdaudubon@sandiegoaudubon.org.**

San Diego Audubon Office: 858-273-7800

California Audubon Society: www.ca.audubon.org
National Audubon Society: www.audubon.org
National Audubon Activist Hotline: 800-659-2622
National Audubon Customer Service: 800-274-4201

San Diego Audubon Society is a chapter of the National Audubon Society

Audubon

Visit our new website at
www.sandiegoaudubon.org
Visit for all online resources, including our **Events Calendar and Birding Trips**

Like us on Facebook:
facebook.com/sdaudubon

Follow us on Twitter:
twitter.com/sdaudubon

...Fostering the protection and appreciation of birds, other wildlife, and their habitats...