

Sketches

MAY / JUNE 2020 • VOLUME 71 • NUMBER 5

SAN DIEGO AUDUBON

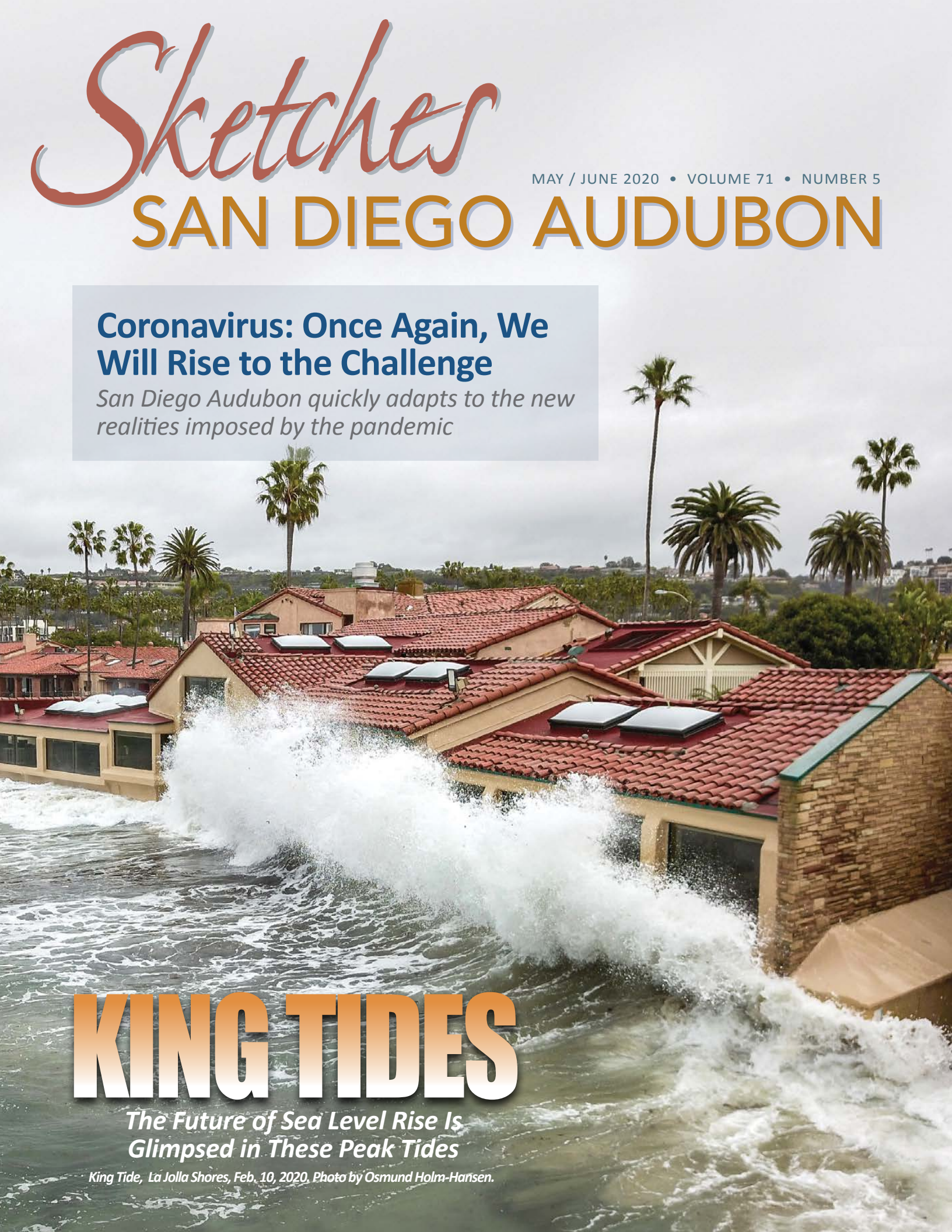
Coronavirus: Once Again, We Will Rise to the Challenge

San Diego Audubon quickly adapts to the new realities imposed by the pandemic

KING TIDES

The Future of Sea Level Rise Is Glimpsed in These Peak Tides

King Tide, La Jolla Shores, Feb. 10, 2020. Photo by Osmund Holm-Hansen.



KING TIDES

The future of sea level rise is glimpsed in these peak tides

A Volunteer Photography Project to Combat Climate Change, in Cooperation with San Diego Audubon

By Leland Foerster, King Tides Project Leader, and Andrew Meyer, Director of Conservation

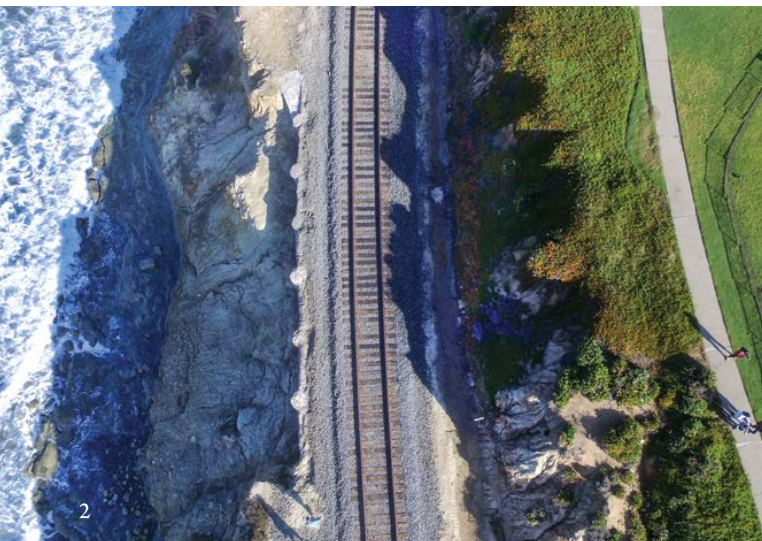


Climate change, now often called the climate crisis, is real. There is overwhelming agreement among the global scientific community that human activity is the main cause of the climate change we are experiencing now. The spike in greenhouse gases in our atmosphere since the beginning of the industrial revolution is threatening our way of life on Earth. We are already seeing expensive, disruptive effects on the health of our planet, including extreme weather events, droughts, wild fires, and sea-level rise. Arctic and Antarctic sea ice is melting at an increasingly alarming rate, and low-lying areas already show signs of rising oceans.

Atmospheric CO₂ has surpassed 400 parts per million, one of several thresholds beyond which the planet's ecological balance will be dramatically changed. The recent National Audubon modeling of North American bird ranges shows that with the critical impact of a temperature increase of 3 degrees; two-thirds of our birds will be vulnerable to the increasing impacts of the climate crisis. The arguments against vigorous action are well known. There are partial truths: "We can't afford to disrupt our economy." "Climate changes are natural cycles. It's not our fault." There are conspiracy theories: "It's a hoax, spread by the far left to take control of our government." "The science

is inconclusive; we need more studies." Similar arguments were employed by the tobacco industry for decades to sow doubts about the effects of smoking on human health. These statements are opinions or propaganda; they are not based on science. There is no more time for dithering. We must act decisively. NOW.

These images, made at 16 San Diego locations from Oceanside to Imperial Beach by 21 volunteer photographers including three high school students, were chosen in cooperation with the Scripps Institution of Oceanography, the California Coastal Commission, the City of Imperial Beach, and San Diego Audubon.



The Cove, La Jolla, King Tide, Nov. 25, 2019. Photo by Kay Collier.

Railroad Tracks, Del Mar, Feb. 8, 2020. After a 2019 Thanksgiving Day storm, the tracks were closed while the bluffs were repaired. Photo (made with drone) by Henry Niewiadomski, Senior, San Diego High School.



Path under Pacific Coast Highway, Torrey Pines State Beach, King Tide, Nov. 26, 2019. The path is completely flooded during a King Tide.

(Inset, below) Same path under Pacific Coast Highway, Torrey Pines State Beach, A normal day, Feb. 17, 2020. The path is well used during regular tides. Both photos by Bill Evarts.



(Bottom) San Diego Bay National Wildlife Refuge, King Tide, Nov. 25, 2019 The marsh is flooded. No place for birds to feed and rest. (Inset, below) San Diego Bay National Wildlife Refuge Low Tide, Feb. 2, 2020 The marsh is available. Birds can feed and rest. Both photos by Sandeep Dhar.

King Tides are the highest tides of the year. As the moon and the sun align to pull the oceans with the greatest strength, King Tides occur on predictable, annual cycles, making a couple of our winter high tides the highest of the year. They preview the effect of sea-level rise in our bays and along our coastline. High water threatens and damages our infrastructure and natural habitat. These photos show places you've probably visited; we hope they help you visualize how sea-level rise will affect our coastal habitats. They show the new normal for the coming decades. If the sea level continues to rise, the costs will compound dramatically. Our work will not have an impact unless we share it. We intend to use the images in meetings, exhibits, presentations, as well as news and social media outlets, to motivate vigorous action to combat the climate crisis. *(Continued on next page)*



Kendall-Frost Marsh, Mission Bay, King Tide, Nov. 24, 2019. The marsh habitat is flooded. No place for marsh birds to feed and rest.

Kendall-Frost Marsh (inset, below) at Low Tide, Nov. 27, 2019. The marsh habitat is active. Photos by Elizabeth Faulkner, Senior, Mission Bay High School.





Oceanside Strand, Nov. 24, 2019. King tides threaten homes and lower property values. (Inset) normal tide. Photos by Sol de Piérola-Foerster, Oceanside High School.

This series of King Tide photographs helps to bring home what sea-level rise will look like for San Diegans in the coming decades. The remarkable photographs are evocative in a way that no statistical report or story can be.

Nonetheless, other reports and state programs are also valuable. Many California state reports outline ambitious strategies for combating our climate crisis and working to help our coastal habitats persist while the sea levels rise. The Southern California Wetlands Recovery Project released *Regional Strategy 2018*, which described the loss of coastal wetland ecosystems (62% since 1850), the continuing loss with sea-level rise (30% lost from what remains) and the project's goals for habitat restoration. This year, the California Ocean Protection Council released their *Strategic Plan* that includes a call to action to restore, protect and create 10,000 acres of coastal wetlands in the next five years. Reports and plans like these are important to push us toward collective, unprecedented action. These King Tide photos, and continued advocacy and leadership on projects such as ReWild Mission Bay, can be combined with these strategic plans to support and guide communities to restore and expand tidal habitats whenever possible.

If you would like more information about this project, please contact Andrew Meyer, Director of Conservation, San Diego Audubon, meyer@sandiegoaudubon.org or Leland Foerster, Project Leader, lelandfoerster@mac.com, call 619-990-0312, or visit lelandfoerster.com.

PRINCIPAL SCIENTIFIC REFERENCES: NASA, Global Climate Change, Vital Signs of the Planet, NOAA, Global Sea Level, and Observations from Space, US Global Change Research Program, Fourth National Climate Assessment; *Impacts, Risks, and Adaptation in the United States*.



Seaside Beach, Solana Beach. Unstable cliffs, Feb 8, 2020. Big waves are eroding and cracking cliffs. Homes are threatened. Photo by Jennifer Nelson.



Dog Beach, Del Mar. King Tide, Nov. 11, 2019. The beach is flooded; no place for dogs or people. (Inset) shows normal tide. Photos by John Leighton.

Once Again, We Will Rise to the Challenge

Travis Kernitz, San Diego Audubon Executive Director

Over the past month, as San Diego Audubon's newly appointed Executive Director, I have been overwhelmed with gratitude. Gratitude for what you have built and accomplished. Gratitude for the thoughtful, passionate, skilled, and downright fun people that execute our mission. Gratitude for the opportunity to lead this organization into a new chapter. After speaking with many of you, I know how special we are and how critical our work is for birds, wildlife, wildlands, and San Diegans. I also know we are resilient and we come together in challenging times.

In 1922, shortly after our founding, our chapter was disbanded. Years later, with a new vision and momentum, our community once again established San Diego Audubon as a chapter and we have been running strong ever since. Grateful thoughts to Major Chapman Grant and our earliest members for the foundation we stand upon today.

In 1961 the Western Salt Works in South Bay, a critical nesting habitat, was severely vandalized. It was the San Diego Audubon Society, alongside our partners, who rose to the challenge and fought for years to protect it. It was through the tireless efforts of Jim Peugh, our team, and partners that we were able to persuade the federal government to create the San Diego Bay National Wildlife Refuge in 1999.

In 2003, the Cedar fire devastated the Silverwood Wildlife Sanctuary and we again rallied. With Phil Lambert leading the charge and so many others who pitched in not only to help Silverwood recover, but also to become even stronger. Silverwood is currently a critical resource for wildlife and a model of effective restoration and management practices.

Now, in 2020, the COVID-19 virus has swept across the globe, affecting millions and devastating livelihoods. Schools, work, and parks are shuttered as San Diegans shelter in place awaiting relief, treatment, and a return to normalcy. There is much uncertainty during these grave times. However, what we do know is that our society, the San Diego Audubon Society, will once again come together and rise, stronger than before. We will adapt, as the animals



and wild places we protect and enjoy have done for centuries and recently, more than ever. This is a global threat to our way of life, and like the way we have taken on climate change, we will again be leaders in the support of our community and will advocate for a new way, one that best protects nature and our fellow humans.

The San Diego Audubon Society will reach out, listen, and offer aid, share stories, and keep hope close to our hearts. We will renew our backyard bird-watching interests and embark on inward reflection, contemplating what is most important.

I am grateful to be on this journey with you. I await the day we can celebrate our history and strength together, as one remarkable society, the San Diego Audubon Society.

PLEASE NOTE: Following state guidelines, the SDAS office will be closed until further notice. All of our office-based staff is working from home. All birding trips, educational events, and in-person meetings are being cancelled until it is deemed safe to resume. Please email sdaudubon@sandiegoaudubon.org with any questions. We will get back to you!

Restoring Habitat at the Otay Valley Regional Park

by Adrian Ramirez, SDCC Audubon Club

We are deeply grateful to all of the 75-plus volunteers who came out to help us beautify the Otay Valley Regional Park in early March. We removed more than 250 pounds of invasive plants around the park and cleared habitat space where we were able to plant over 275 California natives of various species. Native flora are important for migrating birds and butterflies, as well as the other animals that make Otay Valley Regional Park their home. We also anticipate that with this ongoing project, local residents, families, and friends will continue to come out and see the beauty that this park brings to

the neighborhood, as well as the unity that empowers the wonderful work being accomplished. The efforts will continue, and we'll continue to need volunteers. Please keep a lookout for an update on future events describing how you can help. All of this would not have been achieved without our invaluable partners, the California Native Plant Society, National Audubon, the City of San Diego, and of course the San Diego Audubon Society.

Photos by Christopher Tinoco



While hiking your favorite trail, overwhelmed by the beauty of the natural world, your focus is suddenly averted by a buzzing noise very near your ear. With your attentive ears following the buzzing, your eyes finally catch sight of a bee landing gently on a flower. Relieved that you found the source of the noise which took your focus away from the far off landscape, your curious mind takes control as you observe one of nature's magical elements, pollination. While the bee is contentedly collecting nectar, the pollen from the flower is deposited on the bee (that includes clinging to the hairs of their bodies and legs). Sunflowers, lavender, and honeysuckle are examples of plant species that cause a buzz, both for future generations of these particular plants, as well as for larvae in the bee's nearby colony.

What exactly is pollination, one may ask? Without diving too deeply into the pollen, pollinator species are able to inadvertently transfer pollen from a part of the male portion of a flower (known as the *anther*) to a part of the female portion of a flower (the *stigma*). When this occurs between the same plant



Clockwise: Honey Bee, Monarch Butterfly, and Mason Bee. Photos by Anna Prowant.

species, new life is created through the formation of seeds, which provide future generations wherever the seeds are dispersed.

Other examples of pollinator species include butterflies, such as the far-reaching Monarch Butterfly, known for particularly enjoying milkweed. It is a mutually beneficial relationship, as the pollen from this species sticks to the butterflies' legs and can provide new life for the plant the Monarch enjoys so much. Wasps also play an important role in the pollinator game, albeit not quite as effectively as bees, as they tend to lack the fuzzy hairs of their bee counterparts. Flies, including mosquitoes, as well as moths, beetles, and even some ants also possess the ability to pollinate the native flora around them.

A hummingbird may pollinate a single flower when its fluttering body dislodges pollen into the air or when pollen sticks to its beak as it moves from flower to flower

seeking nectar. Joining moths in the nocturnal pollination festivities, nectar-feeding bats are effective pollinators, as their fur provides ample transport of pollen to the many flowers they will visit during their nightly journeys.

So the next time you're out hiking, consider nature's little helpers, who assist in the creation of the beautiful landscape surrounding you.

Following the COVID-19 guidelines, Anstine is closed until further notice.

Annual Mariner's Point restoration a timely success

Megan Flaherty, Restoration Program Manager

For the ninth year in a row, San Diego Audubon staff, Board members and volunteers teamed up with SDG&E's Environmental All-Stars to restore nesting habitat at Mariner's Point. Over a hundred employees, and their families assisted with our efforts to thin out vegetation, and to create open, sandy spaces for the soon-to-be-returning California Least Terns and their chicks.

As the most productive tern nesting site in Mission Bay for over a decade, ensuring that the area is properly restored before the terns' arrival in mid-April is one of our top priorities. We are therefore extremely grateful for the continuing partnership with SDG&E, and for the enthusiastic support of their employees, which allowed for the removal of more than 900 pounds of vegetation at this event alone. Family members took advantage of birding opportunities, with Killdeer and Horned Lark present on the site, and Brown Pelican, Lesser Scaup, Brant, and Long-billed Curlew along the water's edge. Volunteers also helped to repaint a few of the more chipped decoys—decoy terns made out of clay, which are used to attract nesting birds to an area.

The successful removal of an entire dumpster of vegetation was extremely serendipitous, as this wound up being our final Least Tern work event of the 2019–2020 season, due to event cancellations in response to COVID-19. Fortunately, the site looks great and will be ready for our favorite nesting seabirds, despite the change of events. This event was also a reminder of the strength, diversity, and passion of our Audubon family, without whom none of this work would be possible.



Conservation Chair Jim Peugh shows volunteers the ropes on invasive plant removal. Photo by Madison Conrado.

Silverwood Scene

In full bloom: Chaparral shrubs mark the new season with abundant color and seed production

Phillip Lambert, Silverwood Resident Manager

Pre-spring rains were persistent at the Silverwood Wildlife Sanctuary, and the landscape responded in beautiful form. By mid-March, we had already received 4.8 inches of rain for the month, bringing this season's total to 15.36 inches. Predictably, the ample moisture prompted many species of plants to bloom and get a jump on seed production before the dry season was set to begin.

Four species of Ceanothus, Ramona-Lilac (*Ceanothus tomentosus*), Hairy Ceanothus (*Ceanothus oliganthus* var. *oliganthus*), Chaparral Whitethorn (*Ceanothus leucodermis*), and Thick-Leaf-Lilac (*Ceanothus crassifolius*) were in full bloom, showing off their flowers in various shades of blue and white.

Along with other shrub species, seeds from the Ceanothus are an essential staple for not only the many resident species of birds here at Silverwood, but also small rodents and even the Harvester Ants that depend on seeds to supplement their sustenance. On average, annual seed production of one Ceanothus plant can reach up to 21,000 seeds, depending on annual precipitation levels. Seed production, of course, also requires flower pollination—and that depends on healthy levels of insect populations, which are also an important food source for many species of birds.

Most seeds produced in a year are consumed within a few months. In some areas, rodents such as the Deer Mouse (*Peromyscus maniculatus*) and six other species of recorded mice, the Delzura Kangaroo Rat (*Dipodomys simulans*), Dusky-footed Woodrat (*Neotoma fuscipes*), and even Desert Cottontails (*Sylvilagus audubonii*) may consume up to 99 percent of the seeds produced annually by the Ceanothus.

At Silverwood, these colorful shrubs abound, with anywhere between 30 and 60 plants of various species of Ceanothus within one square acre of our chaparral habitat, producing on average 800,000 seeds each season. For comparison, an average three-pound can of millet bird seed that we use to fill the bird feeder in the observation area contains about 240,000 seeds (the bird seed consists of Milo and White Preso seeds cultivated from grasses in the *Poaceae* family). After filling a feeder in the observation area, all the seed is gone by the end of the day—consumed by a covey of California Quail joined by Mourning Doves, House Finches, and our two towhee species, among other seed-eaters.

When you think about it, every acre of chaparral lost to invasive plant species, development, and increased fire frequency has an impact on all the wildlife it sustains.

When Silverwood reopens, we will have major needs in trail maintenance and other tasks. Please consider how you can help when the gate swings open once again.



Ceanothus and Bush Poppies carpet the Silverwood slopes, while dozens of other native plants bloom or prepare to bloom. Photo by Phil Lambert.

A male California Quail stays alert while picking up fallen seeds and kernels at a Silverwood bird feeder. Photo by Ed Henry.

PLEASE NOTE: Following COVID-19 guidelines, **Silverwood is closed until further notice.** This calendar is fully contingent on these health concerns. Please call (619) 443-2998 or visit www.sandiegoaudubon.org for information.

SILVERWOOD CALENDAR

MAY (Contingent)

May 3, 24 (Sundays) — Open visitation from 9 a.m. to 4 p.m.; guided nature hikes at 10 a.m. and 1:30 p.m.

May 10 (Sunday) — San Diego River Days. Silverwood will be hosting a theme hike on Tributaries at 10:00 a.m. and 1:30 p.m.

May 17 (Sunday) — Endangered Species Day. Silverwood will be hosting theme hike on Endangered Species at 10:00 a.m. and 1:30 p.m.

May 6, 13, 20, 27 (Wednesdays) — Open visitation from 8 a.m. to 12 p.m.

JUNE (Contingent)

June 7 (Sunday) — Open visitation from 9 a.m. to 4 p.m.; special theme nature hikes at 10 a.m. and 1:30 p.m.: "April Showers Bring June Flowers, Too." See the spring display of Penstemon, Diplacus, and other annual ground-cover flowers along the trails.

June 14, 29 (Sundays) — Open visitation from 9 a.m. to 4 p.m.; guided nature hikes at 10 a.m. and 1:30 p.m.

June 21 (Sunday) — Happy Father's Day! Bring dad for open visitation from 9 a.m. to 4 p.m., and guided nature hikes at 10:00 and 1:30.

June 3, 10, 17, 24 (Wednesdays) — Open visitation from 8 a.m. to 12 p.m.

Silverwood is located at 13003 Wildcat Canyon Road in Lakeside. Watch closely on the right for the entrance sign.



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 to keep our programs moving forward:

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.



Sketches SAN DIEGO AUDUBON

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

DUE TO THE COVID-19 GUIDELINES, THE SDAS OFFICE IS CLOSED UNTIL FURTHER NOTICE.

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

Please send messages by email rather than call:
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 website at
www.sandiegoaudubon.org

Log on for online resources. *As our office is closed, please check our website for all updates.*

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...