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ON THE COVER

Large flock of Brown Pelicans and Double-crested Cormorants, Salton Sea, CA. | Photograph by Dessi Sieburth. Story on Page 8

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WINGING IT: DISCOVERING THE CARIBBEAN BIRDING TRAIL

PART 3: THE RARE BIRDS OF ST. LUCIA

By Robbie Lisa Freeman



The White-breasted Thrasher of St. Lucia (Ramphocinlus sanctaeluciae) is thought to be a subspecies of the bird of the same name inhabiting Martinique. | Photo by Robbie Lisa Freeman

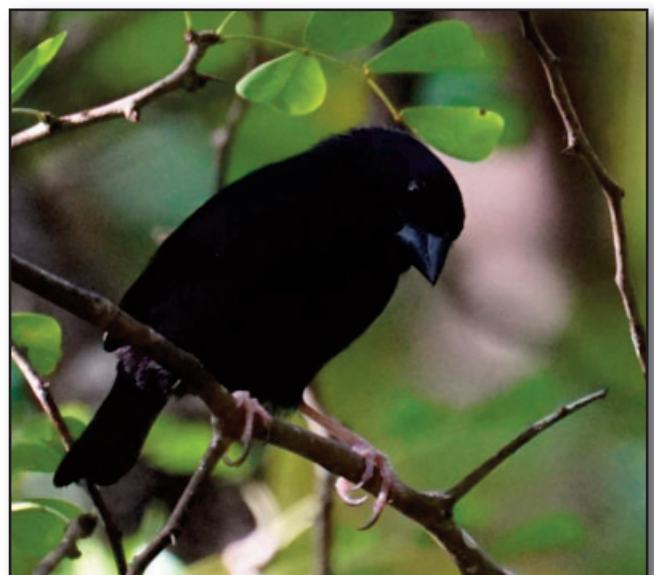
I'M CROUCHING DOWN LOW, CRAB WALKING, PEERING INTO THE dense undergrowth of trees and shrubs just off the Dennery Highway in St. Lucia. My birding guide, Valance "Vision" James, is shouting, "He's here, right here!" He's gesticulating toward something that seems so obvious to him, but is "invisible" to me — the endangered St. Lucia White-breasted Thrasher. This Thrasher, found only on St. Lucia, is one of the handful of rare, endemic birds that I've travelled 3,825 miles to see. The White-breasted Thrasher loves to stay low. He's a ground feeder, foraging swiftly around leaf litter searching for insects or berries. Finally, I spot him and raise my camera but he's gone before I can focus. My camera lens is having a love affair with the branches and leaves instead of the bird! I keep adjusting, clicking, crab walking, pursuing. Click, click, click. Turn. Click, click, click. Walk. I could swear Vision is laughing at my poor ability to see, much less shoot this bird.

Vision has been leading visitors like me around this island for more than three years as a partner in St. Lucia Birding and Wildlife Ambassadors, with founder Adams Toussaint. Toussaint is a former Chief Forester with the St. Lucia Forestry Department. Both men have reputations as some of the best naturalist guides on the island and are extremely knowledgeable about birds and conservation.

Vision is also patient. And that's a good thing. The thrasher keeps moving just out of my camera range. But slowly, slowly, I adjust to his pace, to his movements, and begin to get better views and better shots of this unique bird — one of only about 1,900 individuals left in the world. His deep chocolate plumage, which looks black and white in the low morning light, gives him an elegance that is in stark contrast to the rustic surroundings. He looks as if he's donned a tuxedo and is ready for the next Birder's Ball. But don't be fooled. This bird has been forced to be scrappy. Forests once considered his breeding and nesting grounds have disappeared with development and growing numbers of introduced species, from rats and cats to mongooses and opossums. These invaders threaten its eggs, nestlings and fledglings.

All of the island's six endemic species—the St. Lucia Parrot, St. Lucia Pewee, St. Lucia Warbler, St. Lucia Oriole, St. Lucia Black Finch and this thrasher—face the same challenges: encroaching developers and predators demanding more turf on an island only 27 miles long and 14 miles wide. Fortunately, conservation efforts have, for now, saved important tracts of tropical and mountain forests like the Des Cartiers Rain Forest, the Edmund Forest Reserve, the Castries Water Works Reserve, and the Millet Bird Sanctuary.

"Here, here!" Vision calls again. Staying low, I quickly spot a pair of St. Lucia Black Finches foraging for grubs and insects. This large-beaked finch looks similar to the Lesser Antillean Bullfinches that had appeared around every trail curve on a



The male St. Lucia Black Finch is entirely jet-black, whereas females have a buff-brown body and a gray head and chest. | Photo by Robbie Lisa Freeman



The St. Lucia Warbler feeds mostly on caterpillars, ants, spiders, weevils and other insects and can produce three to four spotted eggs from March to June. | Photo by Robbie Lisa Freeman

recent visit to Guadeloupe. But according to research, its closest relatives are actually the Darwin's finches which are endemic to Galapagos, 2,200 miles away in South America. Happily, I tick off Number 2 of the six endemic birds I came to see. But I'm anxious to get on to the showstoppers—the brighter, flashier birds of the Caribbean.

So I'm thrilled when Vision next leads us to a bright yellow bird flitting through the brush—the St. Lucia Warbler. Be still my

beating heart! I have a soft spot for warblers and had followed Yellow Warblers around Guadeloupe with the gusto of a hound dog. But this warbler is quite different. It's a bit like a Yellow Warbler wearing a gray overcoat. It's back, wings, tail feathers, and cap are blue-gray, but the face, chest and belly are lemon-yellow. Its beguiling face bears an intricate dark gray crescent under alert, coal-black eyes. Best of all, this little sprite has a penchant for posing for pictures. He courts my camera attentively, so I oblige with dozens of shots.

Shortly after, we depart the dry forest area and head to the rainforest region and The Des Cartiers Rainforest Trail. This 3.5-mile loop hike takes us through one of the wettest tropical forests on earth, receiving from 150-200 inches of rain annually. Equally important, it's one of the few trails that offers potential glimpses of what was once one of the world's most critically endangered parrots—the St. Lucia Amazon, locally called the Jacquot. After decades of habitat loss from hurricanes and humans, along with hunting and poaching of these birds for food and the pet trade, by the 1970s only about 100 remained, according to the UN Environment Program. In recognition of the bird's plight, an international conservation effort was launched that included captive breeding programs, enforced protection for and surveying of the bird, recognition of the 'Jacquot' as St. Lucia's national bird, a 'Protection through Pride' education program, and other efforts. Although aspects of these programs have not been without controversy, all together they have contributed to helping revive the species. In 1988, the parrot was moved up in status from "critically endangered" to "vulnerable" on the International Union for Conservation of Nature's Red List of Threatened Species. In the latest parrot count reported in 2016 by the IUCN, the world's most comprehensive information source on the global extinction risk status of species, the St. Lucia Parrot was estimated to be 350-500 individuals. However, that count currently remains at odds with St. Lucia's own 2010 biodiversity study. It shows the population is closer to 2000 birds—a curiously wide variance.



No matter which count is accurate, this bird is still a thrilling "comeback kid." We feel ecstatic that we'll be among the lucky visitors to see them. As we wait at various observation points along the trail overlooking a valley of trees, they tease us with their squawks. We picture them hiding out in their tree cavities inside the Gommier, Chatagnier, and other soaring rainforest trees. As

The raucous St. Lucia Parrot, or Amazona versicolor, is a large bird with a cobalt blue face and forehead, reddish-green upper breast, and green wing feathers and tail. While numbers have improved, this bird continues to face threats from habitat loss and other concerns. | Photo by Hester Whitehead, courtesy of Durrell Wildlife Conservation Trust, www.durrell.org



Fruit-loving birds, the St. Lucia Oriole can often be found near mango and banana groves. Classified as "near threatened," primarily due to loss of breeding and nesting forest habitat, there are concerns that the use of pesticides and chemicals on banana plantations may impact the birds. | Photo courtesy of Ross Tsai, www.flickr.com/photos/rosstsai/

The St. Lucia Peewee lives only in the mountain forests of St. Lucia, although there are subspecies known to exist on other islands. | Photo by Robbie Lisa Freeman

time ticks by, I will them to appear. Then I resort to silent begging. But the parrots have other ideas. After more than an hour, we have to move on. We have other birds to find.

Fortunately, luck is on our side with other beautiful and rare birds along the trail. I'm particularly excited to see the St. Lucia Oriole. These birds are similar in size and coloration to the Baltimore Oriole, with black head, chest and wings, contrasting with orange tips on each wing, and an orange belly and rump. Foraging higher up in the trees for fruit, caterpillars and beetles, they can be a challenge to see. Spotting a nest is a real treat, as it is an intricately woven hanging pouch—a real testament to the architectural skills of birds.

As our half day birding trip winds down, Vision has one more endemic to secure for us, and he does not disappoint. He leads us along the trail directly to the little St. Lucia Peewee. This striking flycatcher has a soft orangish breast and rump, with a light gray-brown head and wings. He maintains a vigilant look as he scouts for small flying insects, darting out frequently to nab them mid-air. Sweet!

And that covers our endemics list. Not a perfect 100% sighting score, but an excellent morning by most any birder's standards.

Beyond the Endemics

While a big focus of my birding is to see all of the rare birds found only on St. Lucia, there are many other birds of the region that both thrill and surprise me. One bird I have coveted for years, since first seeing it online in a photo, is the Lesser Antillean Euphonia, a small jewel box of color. It is high on my



The magical Lesser Antillean Euphonia can be found throughout the Lesser Antilles, wherever wild mistletoe is growing, as it forages on the berries. | Photo by Robbie Lisa Freeman

“There it is!”

It’s magical, with a bright turquoise head and yellow beak bar, contrasting with chartreuse-green wings, back and breast.

wish list, but I expect it will take some super bird sleuthing to track down this beauty. So when, on a lark, my husband and I drive up to the highlands in Babonneau for an aerial tram ride above the treetops of the St Lucia rainforest, I am thinking more about seeing views than seeing birds. After a short wait, we board an 8-person tram, alone, with our guide, Lea. She is an animated and engaging guide, distracting me from my fear of heights by describing the unique flora and fauna of the forest. Still, we are dangling in a tram high above tall trees and a bit of panic is rising in my brain. I decide a better distraction is for me to talk about the birds we came to see on St. Lucia. Amazingly, she is equally knowledgeable about birds and when I tell her of my dream to see the Antillean Euphonia, she says it is here, right in this forest. No sooner have I expressed my delight than the tram suddenly jerks to a stop. We sit suspended over the forest canopy. No way! Panic is starting to rise again in my gut, but

suddenly Lea points to a cluster of vines and says “There it is!” I whirl my head around to see a brilliantly colored Lesser Antillean Euphonia calmly foraging on berries. I practically tumble over the tram rail trying to position my camera for a view. It’s magical, with a bright turquoise head and yellow beak bar, contrasting with chartreuse-green wings, back and breast. Despite its jewel colors, this bird easily blends into the green canopy and could have been missed had the tram had not halted to an unexpected stop. Precariously angled, I’m leaning over the tram rail and shooting over my shoulder, so excited I can barely focus—afraid it will fly. But it sits for us and shows off until the tram starts up again. Talk about lucky breaks!

Another favorite surprise of the island is the Rufous-throated Solitaire, a small songbird I had never heard of, even though it’s found on several islands in the region. Its white eye and chin markings, a brick-red throat, and slate-gray plumage give it a distinctly handsome look.

Also along our travels, my husband and I spy the Grey Trembler, the Lesser Antillean Saltador, the Caribbean Elaenia, and the splendid Lesser Antillean Crested Hummingbird. By the end of our week, we are satiated by the birding here and the many other adventures St. Lucia has to offer. It has been a trip of a lifetime and we vow to return to the Caribbean and the many other islands—and birds—we’ve yet to see.



The Rufous-throated Solitaire is a stately songbird found throughout the Lesser Antilles. | Photo by Robbie Lisa Freeman



The yellow-eyed Grey Trembler is a songbird species found only in St. Lucia and Martinique, although subspecies like the Brown Trembler are found on other islands in the region. | Photo by Robbie Lisa Freeman

This is the third and final article in a series about the Caribbean Birding Trail.

Robbie Lisa Freeman is a public relations professional in the health, fitness and wellness industry, an avid birder, and a contributing writer to Western Tanager Magazine. Follow her on Instagram @freebird2020lf.

For more information about St. Lucia Birding and Wildlife Ambassadors, email birding@stluciwildlife.com. For information on the birds of the Caribbean and the Caribbean Birding Trail, visit BirdsCaribbean.org and Caribbeanbirdingtrail.org and follow on social media: @BirdsCaribbean. 🐦



The author, Robbie Lisa Freeman, and birding guide Vance “Vision” James, scope out above the valley on the Des Cartiers Rainforest Trail, waiting for a sighting of the rare St. Lucia Parrot. | Photo by Randy Freeman

YOUNG BIRDERS

A Magnificent Seabird: The Brown Pelican (*Pelecanus occidentalis*)

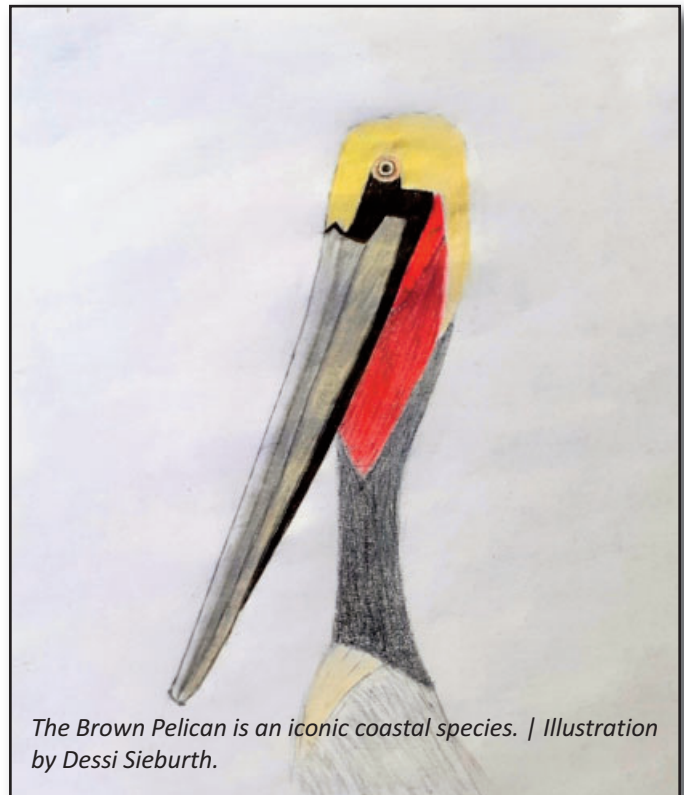
By Dessi Sieburth



Juvenile Brown Pelican in flight, San Diego, CA. Photograph by Brian Small.

Brown Pelicans enhance the beauty of our California beaches. They are one of the most common and recognizable species along the coast of southern California. Their large size and exceptionally long bills make Brown Pelicans an unmistakable species. Adults have yellow heads and white necks, while juveniles have brown heads and necks. It takes several years for juveniles to attain adult-like plumage. On any beach, you are likely to see dozens of these magnificent birds hunting over the ocean, roosting on rocks, or flying in a V-shaped formation along the coastline. It is hard to believe that only 10 years ago, the Brown Pelican population was so low that the species was on the endangered species list.

Brown Pelicans range from British Columbia to northern Chile on the Pacific Coast, and from New Jersey to Guyana on the Atlantic Coast. In coastal California, the species breeds only on the Channel Islands (on Santa Barbara and Anacapa Islands), where about 6,100 pairs nest. Small numbers have bred inland at the Salton Sea in recent years, one of the very few inland breeding localities in the world for this species. During the non-breeding season, the coastal birds leave the islands and head for the immediate coast.



The Brown Pelican is an iconic coastal species. | Illustration by Dessi Sieburth.



Adult Brown Pelican diving for fish, Galveston, TX. | Photo by Brian Small

The primary diet of the Brown Pelican is a variety of fish. They catch these fish by diving into the water from heights of up to 60 feet in the air. As they dive, they rotate to the left, probably to avoid injuring their trachea and esophagus, located on the right side of their necks. This diving technique may be learned, and not instinctual, as adult birds can be up to 30 percent more successful than young birds at catching fish. Pelicans are well-known for their impressive throat pouches, which can store up to two gallons of water. After catching fish, pelicans will sit with their bills wide open for nearly a minute to filter the water out before swallowing. During this time, gulls will often pick fish out of the pelican's open bill! The throat pouch of Brown Pelicans on the Pacific Coast is red, while the pouch of birds on the Atlantic Coast is black.

Pesticide use throughout the 1950s and 1960s was responsible for a rapid decline in pelican populations. Irrigation run-off from farms sprayed with pesticides ended up in the ocean, and the pesticides entered the food chain through fish, becoming concentrated in predators such as pelicans, eagles and ospreys. The pesticide DDT caused pelicans to lay eggs with shells so thin that the eggs would break under the weight of the incubating parent. An even more deadly and less well-known pesticide, endrin, would kill pelicans directly. The Brown Pelican, the state bird of Louisiana, was extirpated from Louisiana by 1963 due to these pesticides. Once DDT was banned in 1972, and endrin in 1984,



Adult Brown Pelican showing pouch, San Diego, CA. | Photograph by Brian Small.

pelican populations quickly rebounded. The Brown Pelican has made a great comeback in Louisiana, and currently, 11,000 pairs of Brown Pelicans breed there. The Brown Pelican was removed from the endangered species list in 2009.

Although Brown Pelicans are a symbol of successful conservation, they still face many threats, and their populations need to be carefully monitored. Oil spills are the primary threat; when a Brown Pelican's feathers become oiled, they are no longer waterproof, causing them to die of hypothermia or drowning. The Deepwater Horizon Oil Spill in the Gulf of Mexico caused an estimated 82,000 Brown Pelican deaths. Another threat is plastic; an estimated 90 percent of Brown Pelicans have plastic in their stomachs. When a pelican's stomach becomes too filled with plastic, it can no longer store other food items in their stomachs, leading to starvation.

Brown Pelican populations along the Pacific Coast are being carefully monitored to record their recovery. Every year, in March and September, Brown Pelican populations from over 150 sites from Washington to Baja California are surveyed by the U.S. Fish & Wildlife Service, Cornell Lab of Ornithology, state agencies, Conservacion de Islas, and the Audubon network.

In 2018, I participated in surveying Brown Pelicans around the Los Angeles Harbor, organized by wildlife biologist Bernardo Alps. A total of 20682 Brown Pelicans were counted along the Pacific Coast in September of 2018.

To learn more about survey results please go to: <https://ca.audubon.org/brownpelicansurvey>. The next survey has been scheduled for September 12, 2020*, and to participate in a survey in California, please contact Anna Weinstein (aweinstein@audubon.org). These surveys not only help us monitor pelican populations, but they also help us get an idea about the health of our coastal ecosystems, because pelicans rely on healthy fish populations for survival and reproduction.

Thanks to Brian Small who provided some of the photographs for this article.

*please be aware of potential changes in dates because of Covid-19

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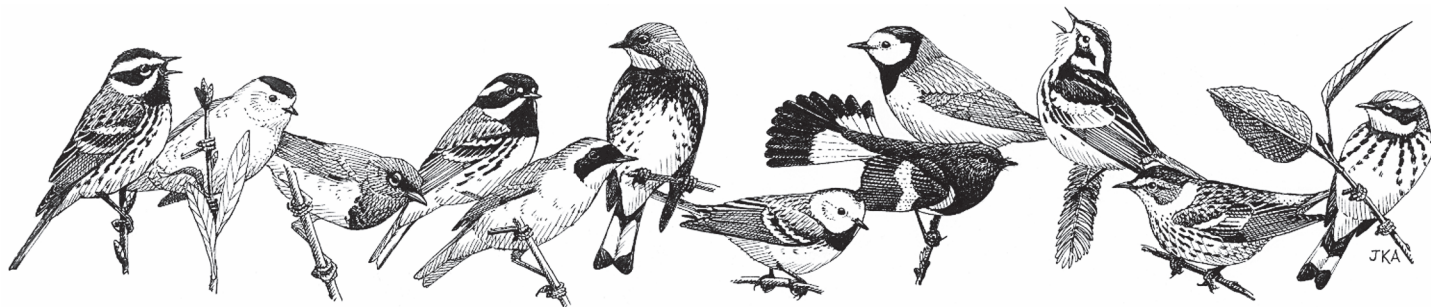
<https://birdsoftheworld.org/bow/species/brnpel/cur/introduction>



Adult Brown Pelican, Redondo Beach, CA. | Photograph by Dessi Sieburth.



Adult Brown Pelican in flight, San Pedro, CA. | Photograph by Beatrix Schwarz.



BIRDS OF THE SEASON — August 2020 | By Jon Fisher

By normal standards the first half of the summer of 2020 was relatively mild. No complaints about that, as those lower temperatures mean a more pleasant time in the field. As of mid-August however both the heat and seemingly inevitable fire season had arrived.

Locally, the Lake Fire west of Lancaster was notable, obliterating over 30,000 acres of forest as of this writing. Though this pales in comparison to the Station Fire of 2009 which burned five times the area, it is hardly insignificant. That habitat will eventually recover, but it will take many decades.

Overly hot weather in the latter half of August did seem to have a suppressing effect on migrant numbers, at least in the lowlands where passerines were noticeably scarce.

Those events aside, migration was on schedule. A variety of shorebirds were in evidence by early July and numbers continued to rise. Passerine migrants began turning up later in the month and through August, with movements and numbers most obvious in the mountains.

As always, a handful of vagrants were found. Even with the many and growing number of active birders in the county, there is always more to be discovered.

Here's a look at notable birds from late June through August...

Well out of season were **Hooded Mergansers** at the Sepulveda Basin in Van Nuys on July 20 (Ken Reichner) and at Topanga lagoon on August 7 (Naresh Satyan).

Common Ground Doves continued in small numbers along the San Gabriel River in the Cerritos

area with up to three reported there through July 14.

A few of the introduced **Spotted Doves** persist near downtown Los Angeles with up to three observed in Compton from July 16-22 (Richard Barth). The decline of this species in the region since the 1980s has been remarkable, probably mainly due to predation by increasing numbers of Cooper's Hawks and Fox Squirrels.

White-winged Doves, scarce but expected in late summer and fall, were along the Los Angeles River in Long Beach on August 16 (Dessi Sieburth, Mark & Janet Scheel), in Redondo Beach from August 23-24 (Lynne Sands) and at Pt. Dume in Malibu from August 22-24 (Cynthia Shotte).

Black Swifts continued to be seen above Claremont Wilderness Park in the late afternoon and early evening, with from one to four birds present through August 9.

An **American Oystercatcher** continued at Royal Palms Beach in San Pedro through August 22 and one- perhaps the same bird- was at Dockweiler State Beach in El Segundo on August 13 (Jon Parker).

Notable in the county was a **Red Knot** found at the Ballona Creek mouth on July 1 (Mark & Janet Scheel).

Semipalmated Sandpipers- scarce but regular fall migrants- were along the lower Los Angeles River in Cudahy on June 30 and in Long Beach on July 5 (Chris Dean, Rose Veniegas). Three more were along the river in Long Beach on July 25, with one remaining through July 27 (Mark & Janet Scheel, Richard Barth, Jeff Boyd). Most recent were two there from August 15-16 (Richard Barth).

Unusual inland was a **Red Phalarope** along the Los Angeles River in the Sepulveda Basin in Van Nuys on August 7 (Nurit Katz). As the most pelagic of phalaropes, this species is rarely recorded away from offshore waters.

A rare **Laughing Gull** was seen briefly at Dockweiler State Beach in El Segundo on July 1 (Chris Dean). Up to two unseasonal and summering **Glaucous-winged Gulls** continued along the Los Angeles River in Maywood through August 23 and another along the river in Long Beach on July 25 (Tom Miko).

Remarkable was a **Magnificent Frigatebird** observed flying over Hahamongna Watershed Park in Pasadena on August 4 (Tom Cassaro). Though records from the interior southwest are not unknown, they are few in number. This bird is one of only several that have ever occurred away from coastal Los Angeles County.

A continuing **Neotropic Cormorant** was at the spreading basins below Hansen Dam from June 27-July 20 (Brad Rumble). What was probably the same bird was seen flying over the area on August 16. Another was along the lower Los Angeles River in Long Beach on June 28 (Jeff Boyd), with three eventually found there; one to two lingered through August 23. Two additional birds were at the Sepulveda Basin in Van Nuys from August 7-25 (Jon Fisher). This species was first recorded in the county in 2016. Today they are still by no means common, but neither are they unexpected.

Typically absent in summer were up to seven **American White Pelicans** that continued along the lower Los Angeles River in Long Beach through August 2.

A nice find at Averill Park in San Pedro was an immature **Little Blue Heron** on August 13 (Bobby Trusella). Rare but becoming more regular in the county was a **Reddish Egret** along the Los Angeles River near downtown Los Angeles from July 22-25. What may have been the same bird was at Malibu Lagoon from August 6-8 (Chris Dean).

First recorded in the county in about ten years ago, **Yellow-crowned Night-Herons** have been increasingly reported of late. One continued at Sims Bio Pond in Long Beach through August 20, with up to three present there during the period. Up to three more continued the Ballona area

through August 24, while single birds were at Malibu Lagoon from July 31-August 1 (Femi Faminu), at the Dominguez Gap Wetlands in Long Beach on August 3 (Hawk McFadden) and at the Redondo Beach Marina on August 21 (Joshua Joun).

An early **Northern Harrier** was at Zuma Canyon on July 25 (Taylor Driggs) and **Zone-tailed Hawks** were spotted over Altadena on July 28 (Catherine Hamilton, Luke Tiller) and in Monrovia on August 1. The latter bird has been in that area since January of 2019.

Red-eyed Vireos were along the Vincent Gulch Trail in the San Gabriel Mountains on June 20 (Naresh Satyan) and along the Lower Willow Springs Trail in Rolling Hills Estates on August 4 (Bobby Trusella).

Away from expected areas was a **Brown Creeper** in Rancho Palos Verdes on July 27 (Jim Aichele, Cathy Nichols).

A **Hermit Thrush** was at Hahamongna Watershed Park in Pasadena on June 21 (Darren Dowell). There aren't many reasons this species would remain in the lowlands at this time of year, and this bird did in fact show signs of injury which precluded it from attempting to migrate.

Quite rare in summer was a **Ruby-crowned Kinglet** along the Throop Peak trail in the San Gabriel Mountains on June 21 (Mark & Janet Scheel). This species has been known to breed in very small numbers at higher elevations in the county, but records are few.

A **Lark Bunting** was found on the superb vagrant trap of San Clemente Island on August 7 (Justyn Stahl, Steven Munoz, Susan Meiman).

Several **Brewer's Sparrows** including juveniles were along Blue Ridge Road in the eastern San Gabriel Mountains as early as July 3 (Catherine McFadden, Paul Clarke). These birds are likely dispersing from more distant nesting areas, as there are no known breeding sites in the county.

Quite a surprise was a **Golden-crowned Sparrow** at Malibu Creek State Park on June 21 (Femi Faminu). Fairly common from September through April, summer records are virtually unknown.

A **Black-and-white Warbler** along the LA River in Atwater Village from August 14-17 was the first vagrant warbler detected this fall (Andrew Birch).

Up to three **Northern Parulas** continued at Ernie Howlett Park in Rolling Hills Estates through July 31, with breeding suspected there. Such an occurrence in California is hardly without precedent; a few do breed regularly along the central coast and occasionally elsewhere in the state.

A singing male **Hooded Warbler** was in Calabasas from June 24-28 and a **Wilson's Warbler** was in the same area from June 24-26 (both Kimball Garrett).

A late spring vagrant was a **Yellow-throated Warbler** spotted at a residence in Pasadena on June 18 (Darren Dowell). Also of note was a continuing **Grace's Warbler** at Charlton Flat in the San Gabriel Mountains reported through July 24.

Rose-breasted Grosbeaks were in Bel Air on June 20 (Rhys Marsh), in Chadwick Canyon on the Palos Verdes Peninsula on August 1 (Bobby Trusela) and in Topanga on August 3. The only **Indigo Bunting** recorded was at Hahamongna Watershed Park in Pasadena from August 1-16 (Darren Dowell).

The pair of **Summer Tanagers** at Pearblossom Park in the Antelope Valley continued through August 22 and another remained at Sycamore Flat Campground along Big Rock Creek through July 17. New birds were at Paramount Ranch near Agoura Hills on August 4 (Dan Cooper), in La Canada on August 21 (Alex Haun) and at O'Melveny Park in Granada Hills on August 23 (Ed Thomas).

The next couple of months should be rewarding for birders. With shorebird migration continuing through September and passerines building to their peak numbers in September and early October, there will be a lot going on. Throw in a handful of eastern and possibly a few Asian vagrants and there's the potential for a great fall season. No

predictions though; each year is different and we never know exactly what to expect.

There seem to be no end of places to bird during this time. Though partially or largely lined with concrete, our river corridors- the Los Angeles, the San Gabriel, the Rio Hondo, as well as some smaller ones- can offer interesting birding. A good portion of lower Ballona Creek is birdable as well.

It's still early for most waterfowl, but deep water lakes in the interior can be worth a look; Castaic Lake and Lagoon, Quail Lake, Pyramid Lake all have potential and tend to be underbirded in the summer and fall season. Closer to home for most, Santa Fe Dam and Bonelli Regional Park feature decent-sized lakes that can attract a stray gull, booby or other oddity.

While the deserts are usually best in spring, they can also be quite good in fall. Parks and green patches will attract migrants and wintering birds start arriving in September. The adjacent San Gabriel Mountains, already great for southbound migrants, will continue to be worth covering into September and October and beyond.

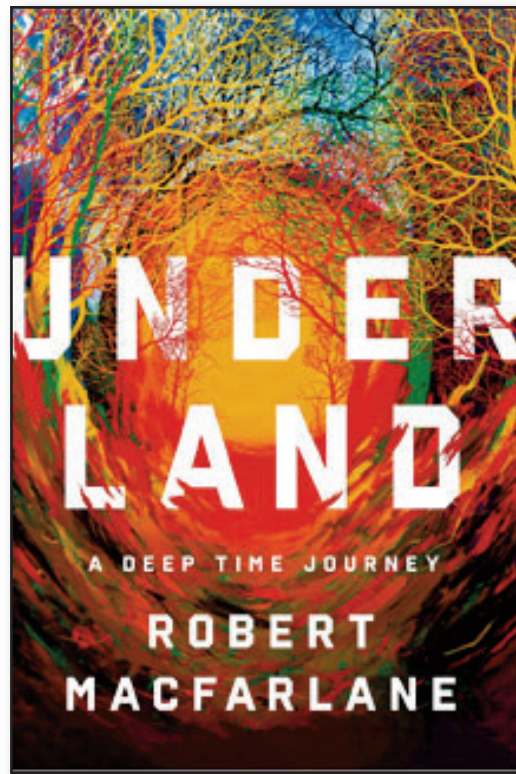
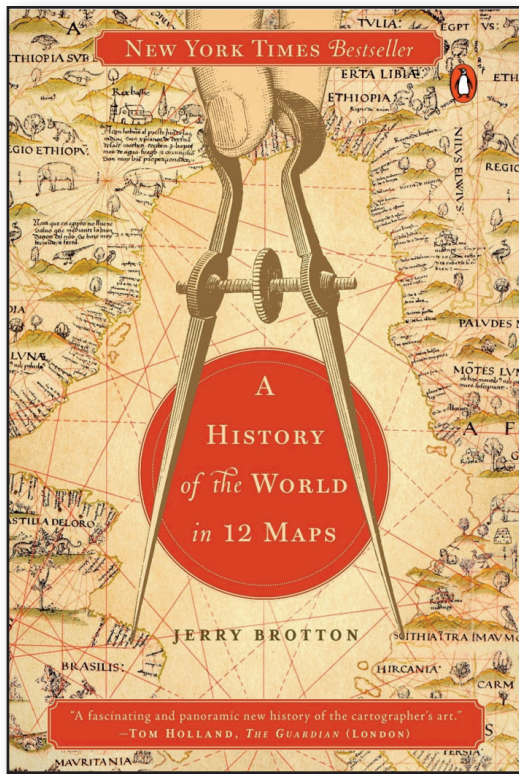
Despite rampant development over many decades, Los Angeles County still offers some worthwhile coastal birding spots, all of which produce migrants and rarities. Malibu Lagoon, Leo Carrillo State Beach, Pt. Dume, the Ballona area and Cabrillo Beach head the list.

The coastal slope will surely produce a fair share of vagrants among the usual western migrants. Various parks and patches of habitat here can be quite good in fall. Harbor Regional Park, Sand Dune Park, Banning Park, La Mirada Creek Park and Madrona Marsh are among the most popular and productive and will undoubtedly be well-attended by birders. Yet there are a host of smaller and lesser known parks and green spots that are less visited- or rarely so; fall can be a good time to just get out and explore. 🐦

BOOK REVIEW

A History of the World in 12 Maps & Underland: A Deep Time Journey

Reviewed by Brandon Kim, Greenhouse Program Intern



My earliest memory of Google Maps is in the backseat of my dad's car. We were visiting my cousins in Connecticut, and we had ordered pizza for dinner. One of my cousins had opted to join my dad and I in picking up the order - something that proved useful when he started shouting that we had gone the wrong direction.

My dad looked at his phone. "But Google Maps is never wrong," he said.

As it turned out, it had misinterpreted his request - there were two pizzerias with the same name, and we had gone to the wrong one. My cousin was left vindicated: his mental map, it seemed, was superior.

I tell this anecdote because I think it summarizes the essence of what has been lost in regard to maps with the advent of technology. Google Earth is the last of the 12 maps that Jerry Brotton covers in his monumental *A History of the World in 12 Maps*, and his initial description is reverential: "This is the geographer's ultimate object of study, an image of the whole earth."

And why wouldn't he be impressed? In his introduction, Brotton lays out a definition of mapping that is as revolutionary as Ptolemy's *Geography*, which is by coincidence the very first map that he covers. Brotton introduces us to a kind of cult of cartography; a perception of mapmakers as gods who "do not just reproduce the world, [but] construct it." For much of human history, it was impossible to see the entire

world in the way that we do, through images from space and geospatial technologies. Instead, says Brotton, the "only way of comprehending the world was through the mind's eye" - or, through world maps.

Trawling through these weighty paragraphs, I was stunned. Brotton's book was published in 2012, when I was just nine years old; Google Maps, meanwhile, was first launched in 2005, when I would be just two. In other words, I have grown up in a world where it was always possible to visualize the Earth. It had never before occurred to me that things could be different - that we could be, for the intents and purposes of those long-ago peoples, less than gods.

Of course, Google Maps isn't perfect, as both my cousin and Brotton can tell you well. Brotton in particular concludes his book with the statement that it is impossible to create an "accurate map of the world," for all of Google's successes. Yet we have become increasingly reliant on it - to the point where these ancient conceptions of mapping have all but vanished from our collective memory. The unique thing about each of the maps in Brotton's book is that they are imperfect, and in that regard, human. Every one of the maps reflect in some way the context of their birth, and thus the civilizations that created them. They are cultural centers - a fact that makes them useful for telling "a history of the world."

The same goes for the "Underland" of Robert Macfarlane's imaginings. If Brotton redefines mapping, then Macfarlane redefines the

world beneath the earth. The first chamber of his half-narrative, half-science book whispers of an almost Hades-like underworld - necropolises of Egypt, miners digging for gold, a father and son burying a time capsule that they unearth thirty years later. At the end of this chapter, Macfarlane gives us a definition of his self-coined term: the underland, he says, is that into which "we have long placed that which we fear and wish to lose, and that which we love and wish to save."

He elucidates in the following pages. Macfarlane's conception of the underland is complex - un-bound by the typical images of caves and tunnels. The underland is a place of "deep time", a place of "epochs and aeons." It is a place where humanity represents just a blip in the grand history of the earth, and where its memories are kept hidden. It is a place where strange, old things are buried - and from which these things are emerging, with the advent of the Anthropocene. It is precisely because we are being confronted with the underland that Macfarlane has chosen to write about it.

Throughout his book, Macfarlane travels to various underground places - caves, mines, underground laboratories. Each of these places represent a different aspect of humanity, brought together by the deep allure of the underland. In this regard, the underland is a cultural center; in this regard, Macfarlane's book is just as much a book on history as Brotton's. For as long as it has existed, after all, humanity has been exploring this space beneath the earth.

Yet Macfarlane approaches his subject matter differently from Brotton. Brotton is a professor, and his descriptions of the maps he covers are largely informed by books and primary documents. This lends itself to a rather lofty, detached view of human history - one just as god-like as the cartographers of the maps that comprise his book. Macfarlane, in contrast, writes himself into the story. This is half-narrative, after all, and it is a personal one. If Brotton alights from above, then Macfarlane creeps below, wriggling belly-first through claustrophobic tunnels and descending into the bellies of mountains.

This disparity is none so apparent as when the two books converge on a single region of study - that is, France. Brotton focuses his efforts on the Cassini map, a Revolutionary-era masterpiece of cartography. It is a supreme illustration of the role of map as cultural center; it reflects a sense of fervent French nationalism at a time when even the names of months were being redefined by revolution. The Cassini map was the first topographic map of the entire Kingdom of France, and according to Brotton, it "presented its subjects with an image of a nation that was worth fighting for, and even dying for, in the endlessly repeated act of national self-sacrifice."

Macfarlane too uses a map in his description of the country, albeit one of a decidedly different sort. It is a map of an "invisible city" - of the Paris catacombs, buried deep below the main city. Macfarlane consults from this map as he descends into this French underland, a place every bit as embodying the spirit of revolution as that of the First Republic. To the cataphiles that roam its tunnels, the Paris catacombs are a "Temporary Autonomous Zone" - a place where "people might slip into different identities, assume new ways of being and relating, become fluid and wild in ways that are constrained on the surface."

Macfarlane joins these cataphiles - and in doing so differenti-

ates himself from Brotton. He explores the history of this underland for himself, learning how successive generations of Parisians have interacted with and used this space for their own purposes. Seven years before the Cassini map was completed in 1793, the city decided to evacuate its dead from its "cemeteries, crypts and tombs" to the catacombs, which were newly mined out of the limestone beneath the city. While the catacombs evolved in purpose, the dead remained, and Macfarlane's explorations repeatedly remind him - and the reader - of that fact. In one passage, Macfarlane enters a vertical shaft into which "hundreds of human bones are embedded: skulls, ribs and limbs." A realization comes to him - "both cities, upper and lower, as a single necropolis."

This difference in approach expands into a difference in style as well. The first chapter of Brotton's compendium provides a microcosm: he writes like a textbook, with long-winded sentences that for the inexperienced reader come off as exceedingly dry. Though in many ways, this makes sense. After all, Brotton has never experienced the history he writes about, only read about it. Once again, he is omniscient; a narrator who can always describe, but never feel. Brotton's book fails in its inability to capture the human element - and this, Macfarlane does well.

Macfarlane's prose is beautiful, almost heart-stopping at times. It is painfully relatable: in one deftly painted passage, he writes about a moment in which, having just returned from the underland, he checks first the room of his youngest son, Will, to see if he is sleeping. For a few moments, Will is completely still - and suddenly panicked, Macfarlane quickly reaches his hand "towards his mouth to feel for his breath, to search for proof of life in the darkness." Reading it, I wanted to say: I have done this! I have completely done this! Because this is a moment that is universal to all of us, and one that perfectly encapsulates Macfarlane at his best.

Of course, Macfarlane too has his hiccups. There are passages that lean a little purple at times, like that only paragraphs later, when he describes the "starlight silvering the fine down on the edge of [his son's] skin." Macfarlane knows beauty, but not quite restraint, and this is certainly evident in his occasional, purely imagery-driven tangents. Sometimes this devotion to beautiful writing leads to description that seems semi-fictionalized; in one instance, Macfarlane describes two children talking about the popular game Minecraft in a transcription that seems less than faithful. The conversation reads as if it has been stylized; it's too aesthetic. I suspect that this decision is motivated by Macfarlane's desire to capture the feeling of his experiences, rather than their complete truth. And while this isn't necessarily ethically wrong, it is blatant enough that it feels out-of-place - one more example of Macfarlane's tendency to lean to the extreme, in an approach that is again opposite of Brotton's.

In many regards, these books mirror and overlap with each other. If the act of mapping represents the adoption of a "god-like perspective on earthly creation," as Brotton describes, then Macfarlane's lyrical descent into the underland is its opposite. And if a map can truly be considered a cultural center, "providing a unique image of its time and place," then so is the underland, with its long history of human interaction.

Both these books tackle the same subject - human history. To read them back to back, as I did, is to see two sides of a coin at once. It is the same story, told in different ways. 🐦

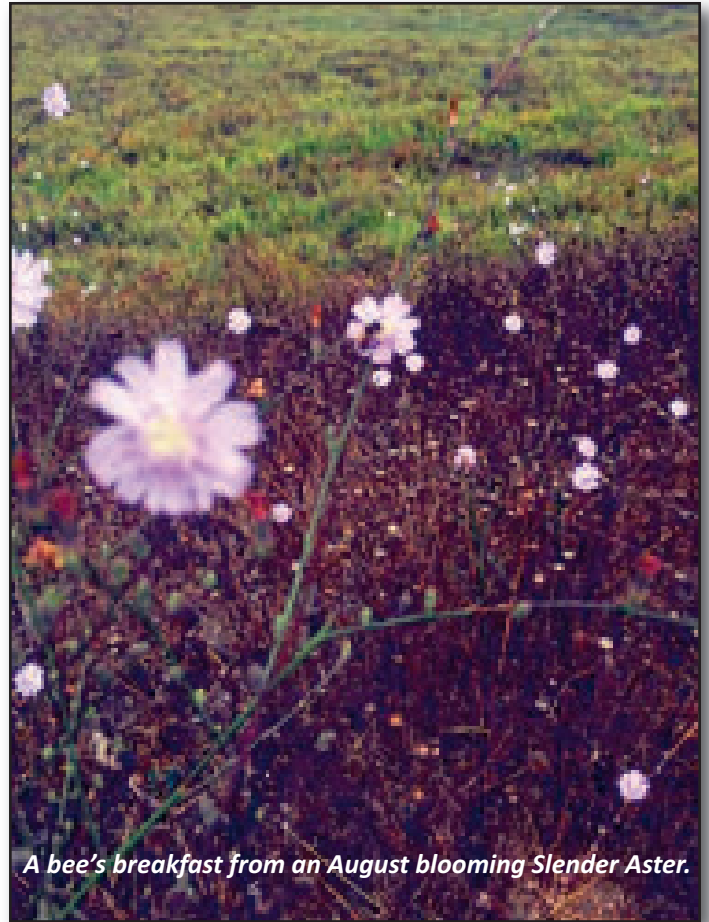
OUTDOOR EDUCATION

More On Perspective

By Cindy Hardin, Director of Outdoor Education



Goldenbush about to burst into bloom.



A bee's breakfast from an August blooming Slender Aster.

The year 2020 has been rife with events unlike any that we have ever seen. Our way of life from a mere six months ago has changed in many new and challenging ways. Lots of new nomenclature is also popping up in the language that we use: compliance, non-compliance, rate per 100,000, unprecedented, synchronous, asynchronous, pandemic-the list goes on and on.

One word that is being used with frequency is “pivot”. In past times, I would hear this word while viewing a basketball game, as in “great pivot shot”. To pivot is to change direction quickly, be it in the physical or mental sense. And since March, people have pivoted to an entirely new approach to work, shopping, social interaction, education-pretty much all that we do in our day to day existence.

It is amazing how quickly new information works to change one’s mindset and reactions. I am quite an extrovert, and getting together with a good-sized group and sharing food and laughter has always been a favorite pastime. But now, if I see any footage of large crowds gathering (I am looking at you, Sturgis, South

Dakota!), I actually cringe in horror. In five short months many things that brought great joy to all of us are now at least temporarily out of reach. My perspective has changed profoundly in approach to social life. I suppose you could say I have pivoted to a more solitary existence. But I never feel a lack of company when in nature-and that is where I have been spending much of my time.

There is consistency to be found in the natural world. This steadiness can be quite comforting in this unsteady period. By the time this article is printed, we will be in the waning days of summer, with fall on the horizon. Already migratory birds are returning for their winter stay in our region. The Kingfisher and Loggerhead Shrike have returned to the Ballona Wetlands for the season, and shorebirds are plumbng the sand and mudflats for an invertebrate snack after exhausting their reserves during their journeys south. Meanwhile, several species of swallows are busily feasting on the insects that are abundant this time of year, fueling themselves for their trip to the warmer climes of Mexico and beyond. Seasonal changes continue, and are absolutely predictable.

The vegetation at Ballona is changing too. Those plants that bloom after winter rains, like Bush Sunflower and Dune Lupine, have long dropped their blossoms and most of their leaves. This behavior, called Summer Dormancy, is an adaptation that allows native plants to survive in our Mediterranean Climate, one that is characterized by cool wet winters and long dry summers. But the Dune Buckwheat still has a fair amount of blossoms, and the champion late summer bloomers like Coast Goldenbush and Slender Aster are about to burst into a profusion of yellow and pale lavender.

This is known as secessional blooming, and is a hallmark of a truly biodiverse habitat. As one species stops blooming, another will start to flower, and if the proper palette of plants is in place, there will be some type of fodder in the form of nectar available for our precious pollinators all year long. Not only do these pollinators provide the fertilization that allows a plant to produce seed; they also play a key role in the food web. Lizards are insectivores, along with some of our most beautiful birds, like the above-mentioned swallows. Snakes eat lizards, and that snake might go on to become dinner for a Red Tail Hawk. And the Cooper's Hawk is always on the lookout for a wayward smaller bird for a meal.

A constant yet everchanging food source means more animals and a healthier ecosystem. Unfortunately, the majority of habitat for animals in our big city has either been lost of

severely fragmented. Some forward-thinking citizens have been successful in creating habitat in their own back yard. And how did they accomplish this amazing win for animals and nature? They planted native plants! We at Los Angeles Audubon are huge proponents of replacing water guzzling lawns and introduced plants with California natives. But a frequent argument is that these gardens "look dead" during part of the year, or appear "weedy", which discourages some people from embracing natives.

And this is where a change of perspective, or pivot, is important. A plant that is in summer dormancy, like the Bush Sunflower, actually provides a huge amount of seeds for the California Towhee and the soon to return White Crowned Sparrows, who are famished from their long migratory trip. Those dried up plants are not dead—they are a seed bank for next year. And with the strategy of using plants that bloom at different times of year, or secessional planting, there is no reason to not have some things in flower in a native garden all year round.

The coming fall season is the perfect time to plant natives. Although some watering is required upon the initial installation, the rains of late autumn and winter will allow the new plants to establish themselves and thrive. Many environmental groups hold native plant sales during late September and October. Often there are native plant enthusiasts on site



The Buckwheat says goodbye and the Goldenbush says hello!



As the Branching Phacelia sets its seeds, the Goldenbush steps in to feed the insects.



Neighborhood Native Plant front yard-lush, green and in bloom in late August.

at the sales to advise novices on what plants would do best in the particular conditions of your area. And careful planning will produce a garden that has some flowering year-round.

A switch to native plants is a beautiful pivot, that will bring more life and energy to your yard, while saving you money on your water bills. Due to the current situation, many of us are spending more time at home. With a biodiverse, native habitat in place, a veritable nature show will be on view from your window-no need to turn on the computer. This could be one of the most satisfying and rewarding pivots of 2020, and LA Audubon encourages everyone to take a chance and make a change in your landscape, and your perspective on what makes a beautiful garden. We even have an on-line resource for you to use: the “Kill Your Lawn” comic book! This very popular booklet was created by High School students that were part of our Greenhouse Program. It includes lots of ideas and techniques that can be used to create a wildlife friendly, Southern California sustainable garden. And if you do choose to take this step, we would love to see the changes that are being made to your patch. Your documentation could be a part of our newsletter! We hope to hear from you. 🐜

FROM OUR READERS

The Spider and the Fly

By Ms. Sherry L. Roberts



My first year with a full-blown vegetable garden, and it has brought a plethora of interesting insects. One such was a jumping spider, about one half the size of the fly standing beside it upon the wooden railing of the raised vegetable garden.

The spider walked to close in on the fly and the fly backed away each time but still standing upon the rail. The spider tried once to “jump” it, but the fly hopped up and landed a good 5 inches away. The spider tried another tactic: “Why not try to walk BEHIND the fly where those enormous compound eyes cannot see me?” So the spider slowly moved in to circle in the direction of the back of the fly, while all the time watching the fly. The fly, suddenly and shockingly, sped off into the sky, only to circle back, dive-bomb the spider’s back instantaneously, then land, nonchalantly, back onto the railing beside the spider. The spider was shocked, it was clear. It gave up and retreated back beneath the zucchini leaf, leaving the fly to bask in the warm sun of a summer morning.

Ms. Sherry L Roberts
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INTERPRETING NATURE

Baldwin Hills Greenhouse Program Research Projects, 2019-2020 school year

By Stacey Vigallon and Baldwin Hills Greenhouse Program Interns

On June 9th, 2020 the Baldwin Hills Greenhouse Program wrapped up its 12th school year. Despite incredibly challenging circumstances during the spring, Greenhouse Interns did their best to see their projects through to completion. For the first time in the program's history, we were unable to host the Cactus Commencement Ceremony, a culminating event where students formally present their work to an audience of friends, family, and community members. Interns collectively invested hundreds of hours in the research process: crafting a proposal, collecting and analyzing data, and designing a research poster. Each year, we publish the research abstracts in an effort to share the knowledge gained with a broader audience and to acknowledge the interns' hard work and commitment. This year's projects include both qualitative and quantitative approaches to better understanding humans and nature in our city.



Cyanotype of sage as part of Akari's herbarium project.

Akari Johnston

Cyanotype Herbarium of Baldwin Hills

Herbariums are important for cataloguing plants, and plants are typically pressed and taped into the pages, preserving them for centuries. My version is a cyanotype herbarium of the Baldwin Hills. Cyanotyping is a form of photography that uses a solution of potassium ferricyanide and ferric ammonium citrate that reacts with sunlight to produce silhouetted shapes on treated paper. Cyanotyping's most well-known use was by Anna Atkins, a 19th century botanist who used the process to create a kelp herbarium, which is similar to my project. Although the plan for my project was initially the creation of an herbarium book containing the original cyanotype prints, COVID-19 forced me to change that plan. Instead, I created a digital herbarium with scans of each print and links for each plant to Calflora. My digital herbarium can be used by the public to learn about and identify plants seen at the Baldwin Hills Scenic Overlook, which spreads awareness of the various local plant life as well as the differences between native and invasive plant species. Next year, I will continue the project by creating more cyanotype sun prints, adding written descriptions of each plant and creating a bound book of the sun prints.

Savannah House

Writing a Handbook: How the Greenhouse Program has Impacted the Community

Through this handbook, I want to relay the story of the Baldwin Hills Greenhouse Program. As a third-year intern, I know firsthand the hard work and the diligence it takes to do research at the park. In the last two years, I have done research on the effects of different soil types on native plants' germination and transplant survival rates. I have written a paper on, created a poster, and publicly presented both projects. Not only do I want to give the program the acknowledgment it deserves, but share the knowledge that interns have found with the public and highlight the work they have done since 2008. There are 82 projects from 2008-2019, and I organized each one on a spreadsheet. All staff and some alumni got individual interviews, and the majority of current students were interviewed in groups. My major focus ended up being how Greenhouse impacted each of the students and what they took away from the program.



Denny Lorenzano

Phenology at Baldwin Hills Scenic Overlook

My project focuses on phenology in the Baldwin Hills. Phenology is the seasonal timing of life cycle events in animal and plant life. From Jan 10, 2020 to March 10, 2020, I observed non-native and native plants as well as birds at Baldwin Hills Scenic Overlook State Park. I focused on four native plants (Toyon, Encelia, Bladderpod, and White Sage) and the area behind the greenhouse where non-native plants could be viewed. Being able to come to these sites, taking photos and notes really shows how important certain plants are to animal life. The toyon created food for animals, and when the encelia bloomed, bees were able to pollinate in a variety of areas. Overall, I was able to observe 21 different types of bird species during the course of these surveys. Conducting bird surveys helped me understand what birds were most common in the months, it showed me which birds stayed for the winter and which birds came back for nesting. Next year, I will incorporate drawing into my phenology observation process.

Interns survey for birds at Baldwin Hills Scenic Overlook State Park.

John Recendez

Next Steps for a Greenhouse Business Plan

My long-term project is a business plan focused on selling plants to the public at the Baldwin Hills Greenhouse Program. The purpose behind it is to benefit both the community and the environment as well as greenhouse through several factors. The majority of my time this year was spent connecting my project to climate change and considering benefits the project would provide. The research consisted of the books and other media that I researched in order to connect my project to climate change. My project focuses more on the benefits of the selling and buying of native plants rather than profit. My next steps are to deal with the technical details of my project involving tax information and ownership of the plants.

Aaron Rivas

Irrigation Systems and Native Plant Survival

Due to Los Angeles's Mediterranean climate and California's frequent droughts, irrigation systems have become a necessity for native plants that do not receive adequate water. This includes the many native plants at the Baldwin Hills Scenic Overlook (BHSO) State Park, which are being restored in order to serve as habitat for native animals. For my project, I investigated plant survival in ring and drip irrigation systems. I divided the traffic circle at the entrance to the park into two sections, one with drip irrigation and one with ring irrigation, and installed native plants such as arctostaphylos, encelia, blue-eyed grass, California fuchsia, and white sage. I hypothesized that plants in the ring irrigation system would have higher survival than plants in the drip irrigation system. I had found that all 11 plants survived in the ring irrigation, and 9 of the 11 survived in the drip irrigation.



Sienna crochets a sample swatch with plarn she created from single-use plastic bags.

Sienna Koizumi

Exploring the Properties of Repurposed Single-Use Plastics

My project is about ecological and mental well-being. Hand-work, such as crochet and knitting, can positively impact the well-being of crafters, providing them with a feeling of productivity and calmness. They can be done with a variety of material, including yarn made out of plastic bags, or "plarn." Reusing disposable plastic bags can prevent them from going to the landfill, where they have a detrimental impact on the environment. For my experiment, I made sample swatches of five different types of plastics: bread bags, produce bags, grocery store bags, frozen food bags, and shipping bags. I first had to cut them into loops and connect them into a chain that I could then crochet into small swatches (8- to 9-inch squares). After completing each swatch, I recorded various factors including stretchability and texture. I concluded that some materials were significantly more difficult to use than others, making them less probable candidates for creating next year's project: a giant plarn octopus. Next year, I will probably use grocery shopping bags and produce bags, but knowing the properties of the other materials will come in handy. By experimenting with plarn, I have learned lessons that will enhance next year's project.



Natan introduces a mindfulness activity to the entire group of Greenhouse Program students.

Natan Euol

Studying Effects of Mindfulness Activities on Greenhouse Students

Mindfulness is about being present in the moment and conscious of what you are feeling both internally and externally, and my project studies the effects of different mindfulness activities on students' emotional state and stress levels while identifying what outside factors play the biggest role in those results. The data for my project came from conducting experiments and designing surveys around 3 mindfulness activities, guided meditation, self-meditation, and due to quarantine, digital campfire meditation. Upon completing the experiments, we see that college was the biggest outside factor affecting interns' emotional state. Despite that my prediction was that school would be the biggest factor, considering our program has many interns in their senior year these results are no surprise. As for the effect on students' stress levels, my data showed that the self-meditation exercise had the highest report of a decrease in stress at 61.6%. When looking at focus levels, you see the highest report of an increase in focus levels in the

third experiment, digital meditation, at 52.9%. It is most important to note that in my post-experiment survey, 100% of interns attributed mindfulness to improvement in their emotional state and 77% felt an outdoor setting was most effective for them, that's why it's crucial we take advantage of the benefits of being mindful and study how coupled with nature it can work to better improve one's mental health and view of our environment.

Azul Calderon

Spanglish Ecology of the Baldwin Hills

My project is a podcast, The Spanglish Ecology of Baldwin Hills. I will address Baldwin Hills ecology in order to educate the public about how diverse the land is and teach them new basic Spanish words relating to ecology. I first had to learn about ecology and find out which intern projects best fit my narrative. By interviewing 4 of my fellow interns, I was able to find out what makes Baldwin Hills unique to other parks in this area, gain other students' perspectives on ecology, and find out what made them so interested in it. In order to record the interviews, I used a Sony model #ICD/UX560 microphone that had an SD card and I relied on the internal mic. I went back and listened to the podcasts and I learned that all 4 interviews had a common theme: when we educate the public about the environment, people better understand the situation and may be more willing to take action. My plan next year is to combine the Spanglish ecology of Baldwin Hills with capturing the soundscape of Baldwin Hills.

Omar Mahfouz

Native Plants Survival Investigation

The Baldwin Hills area is home to a wide range of wildlife, including coyotes, mice, several species of birds, and other mammals (Molina 2001). Over time, however, most of the wildlife was lost to human activity. Habitat restoration can reverse this. I have designed an experiment with native plants in order to demonstrate a viable way to restore the habitat of the Baldwin Hills. I have grown native plants in a greenhouse and a hillside and have investigated the germination rate of the seeds in both areas, in addition to installing a wildlife camera on the hillside to capture animals. Originally, my hypothesis was that the plants in the greenhouse would grow taller than those on the hillside, but I have shifted my focus to how many of the seeds germinated. Throughout the experiment, the general pattern was that plants in the greenhouse would germinate at a moderate rate for a sustained period of time and that the number of plants in each area would suddenly decrease. The implications of my results are important: the sudden decrease in plants in both areas suggests that a larger land area was required for the plants, as well as more protection from predators.



Ahmad Rizwan

Window Stickers to the Rescue: Preventing Bird Collisions

It is crucial to acknowledge the dangers of windows that impose a threat to birds. The issue of bird collisions can be seen in a recent congressional bill. The Bird-Safe Buildings Act (H.R. 919) will require there to be sustainable standards in terms of designing windows. This proves that this problem is urging people to take the initiative, and for this reason, we all need to act both locally and nationally to prevent the increase in bird mortality. In order to decrease the potential danger that windows impose on birds in my local area, I took photos of the Visitor Center's windows located atop of Baldwin Hills Scenic Overlook to visualize where to put the stickers on the glass windows so birds could see them. I sketched images of a Northern Mockingbird, Allen's Hummingbird, and a Red-Tailed Hawk on newsprint paper, took photos of the drawings, and then uploaded them to Adobe Illustrator and Photoshop for processing into stickers designs. I would like to present my project to the Los Angeles Audubon Society Board to get support for placing my stickers on the Visitor Center's windows

This is a digital composite of what Ahmad's stickers would look like on the BHSO visitor center windows to reduce bird collisions.

Axel Maya

Comparing Compost Bin Types for Invasive Plant Composting

From January 2019 to October 2019, I conducted an invasive-plant composting project at Baldwin Hills Scenic Overlook State Park. Knowing an effective method for composting invasive species leaves a smaller carbon footprint and provides another way of eliminating invasive species. I compared 3 types of compost bins (trashcan, open wire, and pallet box), using the same mixture of invasive grass for all three. My hypothesis that the trash can compost would take less time to decompose was not supported by my results. The compost height for all three types of bins was reduced to 1/3 of its original height by the end of the project, with no major difference between each type. The box and wire compost did not have a smell, while the trash can compost did. The wire and box compost was drier and colder than the trash can compost, which felt moist and hotter. In October 2019, over 250 days since starting the compost. I documented characteristics of the composts, such as color, texture, presence of invertebrates, animal remains, and pH. Overall, both the box and wired composts were the same in results, while the trashcan had differences.

Brandon Kim

Analyzing the People-Nature Relationship Via Student Literary Samples

Human modification of the environment has led to a significant human-nature disconnect; my project investigates this disconnect by examining the relationship between people and nature via literary samples. I collected these samples from students in the Baldwin Hills Greenhouse Program, who responded to: (1) a twenty-word story about a natural experience, (2) a reflection on the reasoning behind habitat restoration and a prediction about what the Baldwin Hills Scenic Overlook would look like in 10 years, (3) a six word story written following a bird walk at an all-ages youth summit, (4) an emotional reflection on nature, and (5) a 25-30 word free-write based on a peer-given nature-related word. I conducted a thematic analysis of these samples based on a theme code that I developed. Major trends that emerged included frequent mention of location, plants, and animals, which suggests that these three aspects are tied heavily to natural experiences. In addition, responses overwhelmingly displayed a sense of excitement, awe, adventure, and/or optimism, which suggests that nature is perceived as a new, exciting place separate from daily urban life. Interestingly, responses to Prompt 4 displayed a sense of peacefulness, tranquility, calm, and/or relaxing, which suggests that the actual emotional impact of nature may be the inducement of a calm mindset. These results may help people better manage their time in natural spaces and urban-induced stress. In addition, it can help those involved in conservation efforts to know which aspects of nature are most valued, and thus should be highlighted.

FROM OUR READERS

Springtime in South Pasadena

By Mary Ann Lower | Photos by Julie Vogel



One of my bird guides said that wrentits produce 4-5 eggs, so I'm hoping 2-3 little chick survived. We never saw them unfortunately. Julie and I hope they return next spring. I had the nest framed with the eggs.

Birding in our yard has helped us spend happy times, during this Covid lockdown. I hope we can spend time like this all year, and in years to come.

I didn't remark about the big flock of parrots!! They are always with us! Eating the berries in the hackberry trees We have quite a few in our yard and the neighbors yards as well. the whole flock of 40-50 roost in the palm trees a block away.

They make such a racket, it is amazing that we don't even notice some days. That is, until we get into our cars that are generously splattered with berry hulls, leaves and big splats of guano. The birds are very beautiful and fun to watch however. We amaze our out of state friends with them.

This spring we have lots of butterflies. It must be due to the large amounts of native California plants Julie has put in our landscaping.

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It has been an eventful spring. Early I spotted a pair of Red Whiskered Bulbuls, a first for me. They must have been nesting nearby, as I saw and heard them all season. Next our ravens returned daily, in the carrotwood tree, enjoying the large berries, in spite of the 'gang' of mocking birds dive bombing them and hissing away. It went on all afternoon for all of a month, and then one day in June they all vanished. The mourning doves nested in our stag horn ferns. The usual exposed "nest" of a few weeds and mom was on it and produced two eggs. She and her mate are calm, allowing us to get very close, checking up on her progress. This pair nested four times this year (some years only two or three). Their matings produced two chicks who fledged after 16-18 days. One produced only one healthy youngster. The last nest emptied on August first. Both juveniles are still in the yard, attended by the parents. They coo all day. I work very hard to keep our big retrievers away from them.

The most amazing event, was the nesting of a pair of wrentits. I've never seen them in our yard before! They built a nest deep in a staghorn fern, and we watched them bring nest material for many days, and then bring insects and little worms all day. Before we knew it, they too were gone. When we were sure about that, we cut into the plant and removed the little nest, so carefully built with soft strings, dryer lint and dog hair. There were two little eggs left.



FROM OUR READERS

A New Beginning, By Rachelle Arslan

By Rachelle Arslan



Leaving California is never easy, especially when you're fifteen years old. The night before my father's job moved my family to St. Louis, Missouri, we had dinner at the Charthouse in Malibu. It was a pink and orange sunset. Seagulls gathered, uttering mournful cries that to my teenage ears sounded like painful goodbyes. I watched a pelican dive into the Pacific, pursuing its dinner beneath the waves. I turned my attention back to my plate. The thought of leaving my home state and its beautiful wildlife to move to the frigid Midwest had all but killed my appetite. I looked back out the window and saw a small pod of dolphins playfully chasing one another. I wanted to cry.

The next day we arrived in St. Louis. A blizzard had fallen upon the city. The wind chill was 20 below. I sat in my new bedroom unpacking my belongings, thinking about all I had to leave behind. I had never seen a blizzard before. It wasn't something I had ever wanted to see. The thought of starting over at a new school was painful. Even the landscape was foreign and uninviting. The trees were bare, the ground was covered in snow and there were no signs of life. In California, there was always a bird or a lizard or butterfly to

be seen, but this place was a barren wasteland. It might as well have been Siberia.

After a fitful night's sleep, I woke up early and went to the kitchen to have breakfast. The dishes were still packed. The house was cold and my anxiety began to rise as my thoughts turned to my new school then again back to California. I bet its 75 degrees in Los Angeles, I thought.

Out the window, I saw a sudden bright flash of red dart by. I got up to investigate.

Sitting upon a black wrought iron fence was a bright red bird with a black mask. Its contrast against the snow was stunning. Mesmerized, I sat and watched. The bird raised its crest, flicked its tail and let out a lovely melody:

Cheerily-cheerily-cheer-cheer-cheer

Suddenly I felt a little less alone.

