

VERMILION FLYCATCHER

TUCSON AUDUBON

Summer 2020 | Vol 65 No 3

INSPIRED BY
BIRDS, AND ALL
OF YOU



TUCSON AUDUBON SOCIETY

TUCSONAUDUBON.ORG
Summer 2020 | Vol 65 No 3

MISSION

Tucson Audubon inspires people to enjoy and protect birds through recreation, education, conservation, and restoration of the environment upon which we all depend.

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Hours: Open most weekdays 9 am–5 pm or when chain is down

Paton Center for Hummingbirds

477 Pennsylvania Ave, Patagonia, AZ 85624
520-415-6447
Hours: Closed through at least July 31, otherwise open daily, sunrise to sunset.

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ON THE COVER

Grace's Warbler. Photo by Carl Jackson. Carl is a professional photographer who specializes in bird photography, primarily in the southwest. He strives to share the beauty of birds and is passionate about protecting their habitats.

ABOVE: Painted Redstart, Matthew Studebaker

THE BIRDS ARE STILL BIRDING



Kimberlyn Drew is an Associate Broker with Long Realty Co. and has been a member of Tucson Audubon's Birds Benefit Business Alliance since 2006.

KIMBERLYN DREW
ASSOCIATE BROKER, LONG REALTY CO.; TUCSON AUDUBON BOARD OF DIRECTORS

The birds are still birding. They are going about the normal activities of spring and summer in Southeast Arizona—mating, building nests, tending babies, feeding—a wonderful reminder that the world still turns as life continues all around us. This makes it a bit easier to set aside our troubles and focus on the continuation of our own lives, different though they may be.

Tucson Audubon perseveres through the challenges presented by the virus and the headwinds it has created. The closures and cancellations have caused financial challenges, but our society responded to the call. In-person classes and outings have transitioned to online. Many staff work from home. The shop increased its online presence, and even facilitated a safe, “touchless” spring plant sale. Spring in Tucson wouldn't have been complete without Birdathon, and together we deftly adapted this annual fundraiser by offering options to the traditional format. As a result, we had more Birdathon teams than ever!

My husband, daughter and I formed our own small team this year, Corvid 2020, and we really enjoyed reaching out to friends and family for support. We then embarked on a 17+-hour birding outing that started south of town and took us to the top of Mt. Lemmon, then back to our own backyard. Other teams got very creative—some split up so team members could each do their own solo outings, other folks counted the birds from their home workspace window.

What I enjoyed most about participating in Birdathon was the feeling that I was doing something good, and “normal,” in support of a great local organization. I was also glad to continue to work on climate change and the impacts that will continue long after this virus is under control—by supporting a top local environmental nonprofit.

While we can't do some “normal” activities, there is clearly an upside. The reduced demand for oil and gas will naturally slow down development of new drilling projects. Photos from around the world show much cleaner air, animals retaking areas where they used to roam, and marine mammals that can hear each other more easily with reduced human ocean activities. Not to mention the opportunity for us humans to slow down our harried lives a little bit, consume less, and connect with each other more.

So what happens next? None of us really knows where this virus is going to take the world over the coming months, but we do know a few things for certain: we must continue to reduce human impact on the planet and the birds; Tucson Audubon will continue to represent birds and birders in Southeast Arizona and will need everyone's support to carry on this important work; the birds will keep birding; and so will the people who love them.



TUCSON AUDUBON All Together, We Are Southeast Arizona

A LEADING VOICE AND ADVOCATE FOR SOUTHEAST ARIZONA'S BIRDS
AND THEIR UNIQUE HABITATS FOR OVER 70 YEARS

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Become a member today at TUCSONAUDUBON.ORG/JOIN.

SOUTHEAST ARIZONA ALMANAC OF BIRDS JULY THROUGH SEPTEMBER

Summer rains in Southeast Arizona bring a bounty of food to birds in all habitats, but especially for birds in our grasslands and mountains. Bird watchers from around the world come here to find our specialty grassland sparrows and mountain warblers—two groups of birds that are labeled as highly vulnerable to changing habitats in National Audubon’s *Survival By Degrees* report. What would birding in Southeast Arizona be like without these birds?



Matt Griffiths
Communications Coordinator
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Botteri's Sparrow, Alan Schmierer

SUMMER GRASSLAND SPARROWS

If you've been to the San Rafael Valley or Las Cienegas NCA in late summer you'll know that our second rain season has made the grasslands spring to life with verdant grass and abundant insect life. Sparrow species that have relied mostly on seeds during the winter and early spring now switch over to gorging themselves on insects to prepare for breeding. Botteri's and Cassin's Sparrows have waited until this moment to increase their singing frequencies and begin display flights, and the fledging of young is timed to perfection with the ability to feed almost exclusively on bugs.

These birds might not always remain on Southeast Arizona's specialty bird list though, as climate change and habitat degradation might force them elsewhere. In *Survival By Degrees*, a warming scenario of 3°C shows Botteri's Sparrows moving north into the foothills of the Mogollon Rim and locally up into our Sky Islands—a losing proposition over the long term. Grasshopper Sparrows, a more widely distributed species in the US, is projected to lose all of its summer habitat across Arizona. All of these sparrows rely on native grassland for food and nesting locations, and the spread of non-native Lehman's lovegrass only provides them with very poor, non-nutritious forage, adding to their plight. If warming can be controlled, Tucson Audubon's planned conservation work aimed at wintering Chestnut-collared Longspurs might also be beneficial for these summer sparrows as disturbed grassland is replaced with native species.

Olive Warbler, Matthew Studebaker



Red-faced Warbler, Greg Lavaty

SUMMER MOUNTAIN WARBLERS

Spend any time speaking with out-of-town birders and invariably the conversation will turn to finding specialty warblers—the “eye candy” of our Sky Islands. Painted Redstarts, and Olive, Red-faced, and Grace's Warblers arrive in Southeast Arizona from Mexico in April and form the basis of a lot of people's “must-see” lists (along with a certain *elegant* species). This is a great group of birds to look for on a drive up Mt. Lemmon for example, as each has slightly different habitat preferences allowing you to see more of the mountain and hone your tree identification skills too.

You'll encounter Painted Redstarts first as they can be found in the widest variety of locales. This strikingly black bird, with red chest and belly and white tail patches (to confuse insect prey) nests on the ground under all types of trees from sycamore and oak, to pine and Douglas fir. The other ground-nester in the bunch is the Red-faced Warbler, but you'll have to go farther up the mountain to find them where they seem to prefer areas of pine, fir, and spruce mixed with deciduous trees such as oak, maple, or aspen. You might have to work a bit harder to find Olive and Grace's Warblers, the more uncommon species on your list. Both prefer foraging in the tallest ponderosa pines around, but thankfully they like to sing! Learn the “teacher teacher” song for Olive and the accelerating warble for Grace's, and then look for orange or bright yellow movement up in the green needles.

All of these warblers are on National Audubon's list of climate vulnerable species, with Grace's worst off at 90% habitat loss under a 3°C rise. The future could be very different for birding in Southeast Arizona as these species are pushed farther north, or up in elevation, until there is no mountain left to occupy. Will we stand by as our birds move north to southwest Colorado? Join Tucson Audubon in advocating for the protection of birds and habitat in the region!



ALL TOGETHER, WE ARE

HURTING. We've all faced so much loss in these past few months. We've lost hundreds of thousands of lives to the pandemic around the world. We've lost jobs and livelihoods and millions of experiences, too. Family vacations, the joy of sharing holidays together, attending festivals and graduations, and the simple act of spending time with our loved ones—all have been compromised.

Here at home, we've been watching our beloved Santa Catalina Mountains burn for weeks. We're mourning the inevitable losses of animal lives and erasing of fragile ecosystems, even as the fires and smoke plumes continue to dominate the horizon. Looking out from my backyard, I've watched the blazes progress through named canyons and favorite hiking areas, making me sad for Tucsonans and visitors who seek health and adventure in these special places throughout the year.

ADAPTING. At Tucson Audubon, we've been in "rapid response" mode for weeks, striving to support our broad audience of bird-lovers and conservationists-at-heart. We spent the shutdown pivoting from in-person classes, workshops, and field trips to opening up an entirely new world of educational opportunities using the Zoom video conferencing platform. We reviewed state guidelines and orders carefully and, with adjustments, we were able to keep our field staff actively engaged managing landscapes and monitoring birdlife. We spent tireless hours analyzing our finances, communicating with our donors, and offering each other lifelines to ensure that your Tucson Audubon remains strong and intact. We've avoided salary reductions and layoffs, and we are working harder than ever to maintain your confidence.

REFLECTING. We've also spent this time considering what is important. Like many of you, we've spent much of this time at home, with our loved ones. I know I've been given time to be more at ease in my Southeast Arizona environs, a place where I'm privileged to continue my Audubon career while supporting my partner's professional goals. We're also spending this time reflecting on others, and on how we can help.

At Tucson Audubon, we condemn systemic racism in our world. We're doing our level best to grow our organization in a way that is more just, equitable, diverse, and inclusive. We believe our Mission is to inspire not only the people who can chase a single rare bird that's hours from home, but also those members of our community who are traditionally underserved for access to nature. We're committed to recruiting leaders to our volunteer base, our board, and our staff who represent differing traditions, races, and communities. As our growth trajectory continues, we'll be looking to hire and train local talent, keeping the dollars we raise local, and creating opportunities in the conservation industry for talented young people of color.

RESILIENT. We've restored strength to our 70-year-old organization. We're a determined and driven squad of professionals, but we've been tested these past few months. The truth is, we've found strength in one another, and in the community around us. We've been inspired by the fire crews protecting beloved trails and habitats in the Catalinas, and by the peaceful protesters standing up for black lives and all people of color. We are deeply appreciative of the front-line medical professionals and essential workers that put community first all these weeks and months. We are proud to represent Southeast Arizona, and draw strength from her beauty and her resilience.

Things may be different now. We must put others first more than ever. We must recognize that all of our actions have an impact on those around us, and harness that recognition to inspire positive action. We are doing our best at Tucson Audubon to bring compassion to everything we do, delivering our services the best we can, in many new ways.



Inspired by birds and all of you,

Jonathan E. Lutz,
Executive Director

REPORTS OF RESILIENCE IN EXTRAORDINARY TIMES

We are living in extraordinary times, but we are also an extraordinary community, as evidenced by the heartfelt flow of support Tucson Audubon has received from you—our members, supporters, volunteers, participants and donors. During the past three months work has continued in every corner of our organization, from progress on the Paton Center capital project to application for and receipt of a CARES Act Payroll Protection Program loan to support our staff salaries. Here's a peek at some of our recent work:

THE SOUNDS OF ELF OWLS

Two new Important Bird Areas (IBAs) were established in 2017 based on the populations of an iconic Sonoran Desert bird that nests in giant saguaro cactus—the Elf Owl, the smallest owl in the world. The Tucson Mountains IBA and the Tucson Sky Islands IBA became the focus areas for nocturnal field surveys starting in 2018 with teams of staff and volunteers documenting nesting pairs of birds by listening for their distinctive laughing calls. In 2019, this survey effort had detected 142 Elf Owl territories with the help of 55 people, most of whom were volunteers.

Under the governor's recent stay-at-home order, team-based volunteer surveys could not happen this year and only six owl territories were found by Tucson Audubon staff in Tucson Mountain Park. To help with this lack of coverage, 10 Wildlife Acoustics field sound recorders were set up along new survey routes, and among the many vocalizations detected, the recorders picked up the quieter "pair call" which can be difficult for surveyors to hear and document. Additionally, the recorders were programmed to record for an entire week to see if frequency of vocalizations from Elf Owls changed with the phases of the moon. Such a study would be very time consuming and difficult to organize for human surveyors and takes advantage of the strengths of this technology.



Elf Owl, Jeremy Hayes

Just after two years of collecting data, a pattern of Elf Owl presence and habitat use is starting to become more clear. Curiously, routes that had large and abundant saguaros sometimes reported few or no Elf Owl detections, while some routes that had smaller or fewer saguaros had many owls. In 2019 we determined that routes near desert washes had the most Elf Owls and the most abundant insects. This theory will be further explored in the spring survey of 2021.



Habitat at Home yard evaluation, Kari Hackney

YARD EVALUATIONS

A major perk of the Habitat at Home program is that it offers access to custom property evaluations which help participants realize their yards' full potential for supporting birds and other pollinators. Observing CDC guidelines, program staff have continued to meet with homeowners on their own properties to recommend the most appropriate native plants based on elevation, soil type, solar aspect, and moisture availability. Ideal locations for passive and active rainwater harvesting were mapped, and homeowners were advised on the suitability of various nestboxes. Throughout the pandemic crisis, Tucson Audubon continued its work to protect birds by giving interested homeowners the tools they need to enact conservation where they live.

CoATIS ON THE SCENE

Invasive plants pose a significant and increasing threat to our region—permanent conversion of the Sonoran Desert and direct threats to Purple Martins, Gilded Flickers, and other saguaro-nesters. These concerns overlap threats to health and human safety from burning riparian forests and mountain foothills. Enter the CoATIS (Collaborative Audubon Treatment and Inventory Squad), our invasive species hot-shot crew, to the scene. Created in January as a partnership with the National Park Service, Saguaro National Park, and Fish & Wildlife Service, this team performs invasive species treatments and monitoring in the region's most ecologically sensitive areas.

Even COVID-19 couldn't stop the CoATIS. Once continuing treatments in increasingly trafficked federal lands became untenable, the CoATIS and agency-counterparts refocused their efforts: 1) a last-ditch effort to protect a remote corner of Buenos Aires National Wildlife Refuge (BANWR) by vacuuming dense stinknet (*Oncosiphon piluliferum*) seeds off the desert floor; 2) a weeklong pivot monitoring plant recruitment on Masked Bobwhite habitat restoration plots at BANWR; and most importantly, 3) back-end work building out Refuge/Park/Monument species lists for future predictive modeling of which invasive species are likely to eventually show up at each!



CoATIS, Tony Figueroa



ZOOM ENGAGEMENT

As the COVID-19 pandemic first struck Arizona and Tucson Audubon began announcing our closures and cancellations, we recognized that losing touch entirely with our community was not an option. Our field trips, classes, Nature Shops, Paton Center, and Mason Center are all gateways to engagement with thousands of people monthly. These are the gathering opportunities for our community of supporters, and key to fulfilling our mission.

We immediately began exploring the Zoom video-conferencing platform as a vehicle for establishing meaningful online connections. While we cannot replace the excitement of joining together outdoors, face to face, human to bird, the participation in our online engagement opportunities and the waves of positive feedback from our supporters has been phenomenal.

In April, May, and June we held 53 virtual events with total attendance of more than 2,000 participants! Classes and socials have covered topics such as Habitat at Home, Canyons in Southeast Arizona, Digiscoping, "Best Bird Ever Stories," and more, creating a dynamic learning and social environment for bird and nature enthusiasts all around the nation. A recent Zoom event hosted more than 150 individuals from 23 states.

JUST ADD WATER – DIY BIRDBATH DRIPPER & BUTTERFLY PUDDLER



TUCSON AUDUBON SOCIETY
HABITAT *at* HOME

251

PARTICIPATING YARDS
17% increase January–June 2020

397

ACRES OF HOME
HABITATS ESTIMATED

Adding a simple shallow dish of water is an easy yet effective way to provide an essential habitat component to your outdoor space. To make your water source even more alluring to birds, add water movement. The glimmer and sound of moving water catch the attention of birds from afar, inviting them into your urban spaces. Circulating pumps, misters, and solar-powered water wigglers are readily available at home stores and online and are great options for moving water around. But, if you're a serious DIYer, you can easily make one yourself from items you already have, using just a little imagination and creativity.

When making anything, I try to be open to the creative process and let spontaneity guide me. I visualize what I want to make and the function it needs to serve, and then search the house for items that meet those requirements.

For this water feature, I needed a vessel for the water, a structure to support and extend the irrigation line out, and a way to attach it to the side table that would hold the birdbath. The salvaged materials I used were an extra plant saucer, old aluminum tray, a broken desk leg, plant stake, and the always handy zip tie. To create an arm that would extend over the birdbath, I drilled a hole in the desk leg at the height I wanted the water to fall from and inserted the plant stake to the length needed. Next, I attached the ¼" irrigation line to the desk leg—this is where zip ties save the day. To create a slow drip from the irrigation line, I attached an adjustable-flow dripper cap that worked swimmingly.

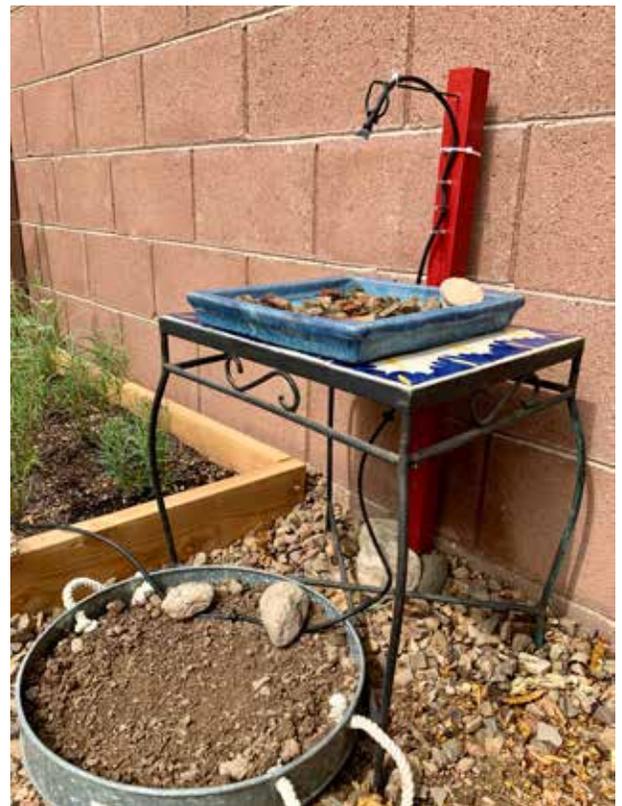
In an effort to invite more butterflies to my backyard and encourage them to stay, I added a simple butterfly water source—the puddler. To do this, I simply filled the aluminum tray with sand and placed it below the birdbath where it could catch the overflow and provide a bit of shade. Since butterflies need a surface to land on in order to drink, just be sure to add enough sand so they can drink and stay dry.

Flip on your irrigation and enjoy the view!

Share your Habitat at Home DIY projects with us on Facebook or via email at habitat@tucsonaudubon.org.



Kim Matsushino
Habitat at Home Coordinator
kmatsushino@tucsonaudubon.org



Photos by Kim Matsushino

MONSOON BLOOMS

After struggling through May and June with low humidity, unrelenting sunshine, and prolonged high temperatures, the monsoon is a turning point for plants (and people). Increased humidity and cloud cover mitigate the intensity of the sunlight and keep temperatures down. The surges of wet tropical air bring localized downpours. Rainwater contains nitrogen in varying amounts and this is exactly what the plants need—they absorb moisture and nitrogen and utilize it for growth and for flowering. Nitrogen is an element that is not available from your standard hose bib. Harvest that rainwater; it is precious.

Here are some reliable monsoon bloomers.



Lynn Hassler
Nature Shop Garden
Volunteer Captain



HUMMINGBIRD TRUMPET

SCIENTIFIC NAME: *Epilobium canum* ssp. *latifolium* (*Zauschneria californica* ssp. *latifolia*)

FAMILY: Onagraceae (Evening Primrose)

NATIVE RANGE: 2500–7000'; rocky slopes and canyons, along washes and in other damp areas, California, southern Arizona, southwest New Mexico, Mexico

WILDLIFE VALUE: Flower nectar is a magnet for hummingbirds; also attracts butterflies and other insects

This splashy color accent has 2" long reddish-orange tubular flowers that are adored by hummingbirds. Monsoon blooms arrive at the perfect time as hummer migration kicks into gear. Plant several together in full or filtered sun. Stems are brittle and break easily so avoid high traffic areas. Hummingbird trumpet spreads by underground rhizomes which are cold hardy to zero degrees. Cut to within a few inches of the ground in late winter to remove dead stems and foliage. This perennial herb grows 2' high and 2–3' wide and needs water to look good and to bloom.



SACRED DATURA, JIMSON WEED, THORNAPPLE

SCIENTIFIC NAME: *Datura wrightii* (*Datura meteloides*)

FAMILY: Solanaceae (Nightshade)

NATIVE RANGE: 1000–6000'; washes and roadsides from deserts to mesas, southern California, Arizona, New Mexico, Texas south to South America

WILDLIFE VALUE: Flowers attract pollinating hawkmoths and other insects

This perennial herb grows 3–4' high and 3–6' wide so give it a wide berth in full sun or partial shade. Choose a location where the handsome, large white trumpet-shaped flowers (with a strong sweet fragrance) will be noticed. Blooms sporadically throughout the warm season if soil moisture is present, but flowers most heavily in late summer. Hawkmoths pollinate the flowers and lay eggs on the foliage. The caterpillars incorporate the plant's toxins (all parts of the plant are poisonous if ingested) into their own tissues and become distasteful to potential predators. Plants die back in winter but grow back from a thick perennial root.



WILD COTTON

SCIENTIFIC NAME: *Gossypium thurberi*

FAMILY: Malvaceae (Mallow)

NATIVE RANGE: 2500–5000'; rocky slopes, washes, and along roadsides in the Sonoran Desert from southern Arizona into Mexico

WILDLIFE VALUE: Flowers visited by butterflies, bees, wasps, flies, and other pollinators which in turn attract insect-eating birds; ideal perch for hummers and goldfinches

This handsome large shrub/small tree provides year-round interest. Bright green, lobed leaves appear in spring and get larger and larger as the heat comes on. Creamy white flowers that turn pinkish sometimes occur in spring, but really shine during the monsoon. In fall, leaves turn yellow or red before dropping. Persistent seed pods lend interest when the plant is leafless in winter. Plant in full sun or part shade. Water every week during the warm season. Plants are not fussy about soil and grow to 7' high and 3' wide. Reseeds easily. Plant three together for a lush-looking "grove."

photos by Lynn Hassler



SEARCHING FOR DRAGONS ALONG THE SANTA CRUZ RIVER



Michael Bogan
Assistant Professor
School of Natural Resources and the Environment
University of Arizona

Dense riparian forest and emergent aquatic plants along the Santa Cruz River in Marana, just upstream from the Sanders Road bridge. All photos by Michael Bogan

Water is not the first thing that people associate with the city of Tucson. We live in the arid Sonoran Desert where, by definition, water is scarce. However, the Santa Cruz River flows right through the heart of our city. The river provided water for drinking and agriculture to the Tohono O'odham and Hohokam for thousands of years before settlers took the land, pumped the river dry, and built our city. But today the river is flowing again in Tucson and Marana, thanks to inputs of *treated effluent*—a highly processed and purified version of the water that flows down the drains in your homes.

Dragonflies and damselflies (Odonata) are wildly colorful insects that spend most of their lives as larvae in freshwater habitats, such as the Santa Cruz River. The larvae are hard to see, but the adults dazzle us when they emerge into their aerial stage. Unfortunately, we don't know much about the dragonflies and damselflies that lived in the historic Santa Cruz River before it dried up. But my collaborators and I are studying the species you can find in our effluent-dependent river today—and there are an incredible number of them!

To date, we've found over 50 species of dragonflies and damselflies in the river in Tucson and Marana. There are only 140 or so species known from the entire state—so over 35% of Arizona's species can be seen just in our city, in an ecosystem supported entirely by our treated effluent!

There are several potential reasons why the Santa Cruz River's dragonfly and damselfly fauna is so robust. First, dragonflies are strong fliers, so it was pretty easy for them to return when we put water back into the river. Second, the water is warm and nutrient rich, so dragonfly and damselfly larvae can grow fast and have lots of food to eat. They're voracious predators as larvae and adults—for example, each one can eat 100 or more mosquitos a day. Finally, many dragonfly species are less sensitive to high water temperatures than other aquatic insects. So, they might not mind the harsh conditions our urban river presents during our long, hot summer.

I hope this information and these photos will encourage you all to go out to the river this summer and enjoy our beautiful dragonfly fauna. You can identify species using this article, a local field guide (e.g. *A Field Guide to Damselflies and Dragonflies of Arizona and Sonora*), the Arizona Dragonfly website (azdragonfly.org), or the Dragonfly ID app. You also can contribute to our scientific understanding of these beautiful creatures—just snap a photo when you see one along the river and upload it to iNaturalist or other community science platforms. Additionally, you can support new efforts to put more water into the river—such as Tucson Water's Heritage Project. Finally, please continue to conserve water in our desert city—the dragonflies and numerous other aquatic and riparian species are depending on us to do so!

COMMON YEAR-ROUND RESIDENT ODONATES OF THE SANTA CRUZ RIVER



AMERICAN RUBYSPOOT (*Hetaerina americana*): Distinctive red spot on the base of the wings, found along well-vegetated streams, where adults commonly perch on the branches of riparian plants.



BLUE-RINGED DANCER (*Argia sedula*): Blue rings on an otherwise black abdomen, very abundant in a wide variety of habitats, from slow to fast flowing stream reaches and even ponds.



COMMON GREEN DARTER (*Anax junius*): A large blue-and-green dragonfly frequently seen patrolling back and forth over a wide variety of aquatic habitats, and sometimes far from water during migratory flights.



DESERT FIRETAIL (*Telebasis salva*): Small, crimson-red damselfly, commonly seen perched on emergent plants in slow-moving parts of streams or marshes.



FAMILIAL BLUETE (*Enallagma civile*): Medium-sized and mostly blue damselfly with black stripes, found in a very wide variety of habitats, including streams and ponds.



FLAME SKIMMER (*Libellula saturata*): Large bright orange-red dragonfly that is often seen patrolling back-and-forth over open stretches of streams and ponds, often returns to the same perch.



MEXICAN AMBERWING (*Perithemis intensa*): Tiny bright yellow-orange dragonfly found along streams and ponds, usually perched on branches or emergent vegetation just above the water.



NEOTROPICAL BLUETE (*Enallagma novaehispaniae*): Small turquoise, purple, and black damselfly found on vegetation along the stream margin—this tropical species first colonized Arizona waterways only six years ago, but it has become abundant on parts of the Santa Cruz River!



POWDERED DANCER (*Argia moesta*): Large blue and gray damselfly found patrolling wide parts of the Santa Cruz River or perched on streamside or emergent rocks in swiftly flowing reaches.



ROSEATE SKIMMER (*Orthemis ferruginea*): Large, unmistakable, hot pink and purple dragonfly commonly seen patrolling wide open reaches of the Santa Cruz River.



VARIEGATED MEADOWHAWK (*Sympetrum corruptum*): Medium-sized dragonfly with a complex patterned abdomen, seen flying over nearly any type of aquatic habitat, and can wander many miles from water.

FAREWELL, BIRDER-IN-RESIDENCE LOUIE DOMBROSKI



The Paton Center is defined by people as much as the property's iconic Violet-crowned Hummingbirds. Visitors and members of Tucson Audubon have vivid memories of the couple that started it all, Wally and Marion Paton. Many remember Larry Morgan's charming Mississippi accent. More recently, Tina Hall was a major influence on growing and supporting the Paton Center's flock of volunteers, while her husband, Bruce Ventura, interacted frequently with birders. Short-term resident Louie Dombroski was Tucson Audubon's first Birder-in-Residence and had this to say about his experience:

Within minutes of arriving at the Paton Center in December 2019, I saw the first Violet-crowned Hummingbird of my stay. The next day I was pointing out the hummingbird to a guest, the first of hundreds of birders I assisted with recording a new Life Bird. Re-living the experience of seeing a bird species for the first time through the eyes of a new birder was a recurring highlight of my stay. When Tucson Audubon staff made the difficult but thoughtful decision to close the property due to COVID-19, a few birders still visited. Looking towards the Patons' backyard from the road, as birders did many years ago, the Violet-crowned Hummingbird was a bonus for those with patience and luck. I'll miss the times when I would train a spotting scope on a perched hummingbird, and the experience of enjoying hummingbirds in Wally and Marion's backyard could be shared by many. Once the health crisis is behind us, I'm looking forward to the Paton homestead being enjoyed by birders from across the country and around the globe once again.

—Louie Dombroski, Paton Center Birder-in-Residence
December 2019 to May 2020



Louie Dombroski, Jonathan Lutz

PATON PROJECT UPDATE

Tucson Audubon's Paton Project Team and collaborators, D U S T Architects, have been busy despite the pandemic. During the past three months, we've answered critical questions about our ability to commence new construction in the Sonoita Creek floodway, about the costs of incorporating public restrooms into the building that will replace the Patons' home, and how to optimize our onsite parking. Our Master Planning process is scheduled to conclude in late summer, and pending agency and local government approval of a Site Development Plan, we'll be able to activate the Architectural and Engineering phases of our project soon thereafter. We appreciate everyone's interest and patience as we move intentionally through these steps. As always, for the latest information about the Paton Project, please subscribe to Tucson Audubon's weekly emails, follow our Facebook page, and visit tucsonaudubon.org.

Some kind words about Louie's tenure:

I'm pleased Louie was able to spend the past season with us at the Paton Center, and for providing wonderful and trusting eBird reports throughout Santa Cruz and southern Pima Counties! —Laurens Halsey

My primary reason for writing is to let you know how much MaryAnne and I appreciated getting to know Louie Dombroski this winter and what a great job he was doing at Patons'. I don't think we ever visited or walked by without seeing Louie outside interacting with visitors. I'm sure you know his love of birding is contagious! —Gregg Chance

Louie is 100% engaged 100% of the time. I don't really know how he has any voice left by the end of the day, as he makes sure he talks to all the guests he encounters, and then will spend whatever time is necessary to ensure they have seen their bird, or to educate, and elucidate. We definitely picked a good one! —Thor Manson

THICK-BILLED KINGBIRD

Keith Kamper
Paton Center Volunteer
and Board Member



Thick-billed Kingbirds are show offs. Allan Phillips, in *The Birds of Arizona*, called this species “The loudest bird in Arizona,” and I doubt few who have heard them would disagree. Perching atop tall trees, this tyrant flycatcher pursues insects on hawking flights. Like a NFL football player hotdogging in the endzone after a touchdown, with each successful insect-capturing flight, the kingbirds cement their show off status, with exaggerated wing shaking, crown feathers erected and with much vocalization. This highly-sought species, reaching the United States only in Southeast Arizona and extreme southwestern New Mexico, is present only in season, and at relatively few locations. However, if you know where to look, it is easy to find because of their refreshingly conspicuous habits. Often heard, and sometimes seen from and at Tucson Audubon’s Paton Center For Hummingbirds, other good places to observe this species include the Patagonia-Sonoita Creek Preserve adjacent to the Paton Center, and the famous-with-birders Patagonia Roadside Rest.

Thick-billed Kingbirds are medium to large flycatchers, with sexes alike. Dusky brown above, underparts whiteish, gray breast and variable amount of yellow on the belly. Well-named, the bill is truly

massive and quite distinct in the field, making it hard to mistake this species for anything else. Rarely seen is the yellow crown stripe, usually concealed. Thick-billed Kingbirds in Southeast Arizona occur near streams or rivers, the edges of riparian woodlands with large Arizona sycamore or Fremont cottonwood. A smaller number inhabit sycamore-lined canyons.

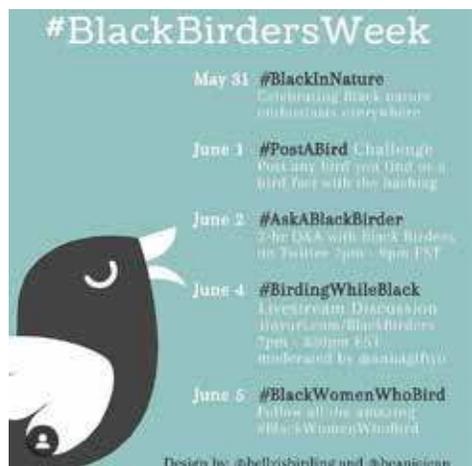
There is surprisingly little information in the scientific literature about Thick-billed Kingbird breeding and nesting behavior. Upon arriving in May in Southeast Arizona, courtship flights and pairing begins. Nests are built high in tall trees including Arizona sycamore, netleaf hackberry, occasionally ash, and in mistletoe clumps in Fremont cottonwoods. The nests, made of thin twigs and grass, aren’t the sturdiest, yet the kingbirds persevere, laying on average 4–5 eggs. Indirect data from the *Arizona Breeding Bird Atlas* suggests that some might have two broods a year. Incubation is thought to be done by females, and is likely similar in duration to other tyrant flycatchers, at around 16 days. Careful observation and documentation by observers like you could contribute to our knowledge of this delightful Arizona show off.



Thick-billed Kingbird, Jackie Bowman

BLACK BIRDERS WEEK

A REVOLUTION—THROUGH THE USE OF SOCIAL MEDIA



The already iconic Black Birders Week Schedule of Events May 31–June 5, designed by Danielle Belleny and Beanie Jean

Sparked by the racist incident involving Christian Cooper while he was birding in Central Park, a group of more than 30 Black birders, scientists, and nature enthusiasts organized the world's first Black Birders Week, which occurred May 31–June 5, 2020. The goal was to amplify the voices and visibility of our Black birding community across the nation—and it worked.

Through massive participation in online events driven by the digital platforms Instagram and Twitter, hundreds of thousands of people saw, heard, supported, and celebrated Black birders.

Black Birders Week launched a revolutionary movement in the birding and conservation worlds through the use of social media applications that are accessible and easy to use. Their power to drive change has proven remarkable.

 Join in this crucial conversation from wherever you are by subscribing to Instagram at: [instagram.com](https://www.instagram.com), or you can type the following web address directly into your browser: [instagram.com/tucsonaudubon](https://www.instagram.com/tucsonaudubon). We look forward to your participation in this ongoing movement.

EFFECTING SYSTEMIC CHANGE

It took the BlackAFInSTEM collective 48 hours and 30+ co-organizers to plan out the #BlackBirdersWeek viral visibility campaign.

Black Birders Week was initiated as a direct response to Christian Cooper's Memorial Day altercation in Central Park where he was threatened by a white woman after asking her to follow Park guidelines and leash her dog. She almost instinctively called the police on Cooper, counting on using them as her personal security force as she weaponized her tears to induce a response that could easily have led to Cooper's death.



Christian Cooper in New York's Central Park on May 27, 2020. Brittainy Newman / The New York Times

While started in response to the Central Park incident, Black Birders Week became so much more. Black Birders Week captured a moment to make room for ourselves and showcase joy in these natural spaces as resistance to the negative narratives woven about Black people.

We in the BlackAFInSTEM collective were able to harness a painful moment and transform it into an affirming and community-building experience. In a time where face-to-face interactions are limited due to the COVID-19 pandemic, we were able to close the distance between our cities, states, and countries to help fellow Black naturalists find each other and realize that they are not alone.

BlackAFInSTEM was started as an online group chat and has moved forward to becoming a grassroots group that seeks to effect systemic change in our own community and how others interact with our community. Black Birders Week was one piece of a larger movement to affirm that we're not going anywhere. We exist in these spaces and our presence will only continue to grow, especially now that there is a visible community of us.



Tyler O. Jones, MSc
Co-organizer of Black Birders Week

Tyler earned her Master of Science in Entomology from The Pennsylvania State University. She is an experienced science communicator in person, print, and multimedia, and was recently a featured speaker on the BLISTER Podcast: BlackAFInStem, Birders, & Bees. Website: [tylerondrea.com](https://www.tylerondrea.com)



Deja Perkins, Urban Ecologist and Ornithologist. Painting by Casey Girard



Red-winged Blackbird by David Greaves, Founder of Nature Under Your Nose, Photographer, Videographer, Educator



Black Birders Week June 2nd "Ask a Black Birder" designed by Chelsea Connor and Sheridan Alford

YOUTH VOICE: NO MORE NO-GO ZONES

COVID-19 has limited many birders, as getting out into nature and public spaces is more difficult. To continue birding in the middle of a pandemic requires a bit of perseverance. But the challenges presented by this crisis to most are negligible compared to the constant hurdles faced by Black birders.

By now many of us know about the incident in which Christian Cooper, a prominent birder and one of the directors of the New York City Audubon Society, was threatened by a white woman while he was birding in Central Park. The incident sparked an important and long overdue conversation in the greater birding community about the challenges Black people face in enjoying (or simply being present in) nature, which was the focus of the recent #BlackBirdersWeek. This conversation exposed me to the voices of Black birders and raised my awareness of the things they deal with. Dr. J. Drew Lanham wrote an article that was particularly eye-opening for me, titled "9 Rules for the Black Birdwatcher." It warns Black birdwatchers not to bird at night, never to bird in a hoodie, and to always carry identification and binoculars as proof of their innocent birding. I also learned about areas Black birders call "no-go zones." These can be as small as a neighborhood like Howard Beach or as big as a state like Texas. These two places are both no-go zones for Cooper because of their histories of violence against Black people.

This conversation has made it clear that birding organizations need to take an active role in supporting Black birders and confronting the racism they face in natural and public spaces. As Cooper said recently in a Facebook livestream event hosted by the National Audubon Society, "If the [birding] organizations want to remain relevant... they're going to have to find ways to make sure that we feel included and that we want to be out there." Tucson Audubon's support of my interest in birds is an example of its

commitment to the younger generation of bird enthusiasts. I was happy to see Tucson Audubon continuing this inclusive policy, using its platforms to highlight the voices of Black birders during Black Birders Week. I learned a lot by reading these posts and hope you get a chance to read them too, if you haven't already. Unfortunately, many environmental organizations tried to shut down the conversation about birding while Black, labelling it 'too political'. I am in full support of Tucson Audubon expanding its efforts to create space for Black birders in Southern Arizona and I hope the people reading this are, too!

Corina Newsome, an ornithologist and co-organizer of Black Birder's Week compared the importance of racial diversity in a community to ecological diversity, saying: "Diverse communities are better equipped to withstand the pressures that come with existence, and maximize their contribution to the world." I hope everyone reading this is in good health and able to continue appreciating birds. I am committed to working towards a future without no-go zones, where anyone can bird safely.

SOURCES:

- Newsome, Corina. "I think you're the token." *Hood Naturalist*, 30 Oct. 2018.
- Lanham, J. Drew. "9 Rules for the Black Birdwatcher." *Orion Magazine*, 25 Oct. 2013.
- National Audubon Society. @nationalaudubonsociety. "Birding While Black: A Candid Conversation." *Facebook*, 4 Jun. 2020, 8:55 am.



Maia Stark is a long-time member of the Tucson Audubon Community. She has participated in 6 Birdathons and is the recipient of a Tucson Audubon youth grant to participate in a Cornell Lab of Ornithology online course: Comprehensive Bird Biology. Her family is currently living in Switzerland.

BIRDABILITY: ON THE MOVE IN SOUTHEAST ARIZONA



Birdability Stakeholder and Volunteer Forum:
Wednesday, August 5, 11:00 am–Noon
Special Guest: Virginia Rose, Birdability Founder

Birdability is a movement to introduce the joys of birding to mobility-challenged individuals, and make birding more inclusive and accessible.

Founded by Virginia Rose, the initiative has swept the nation in recent years. Tucson Audubon first provided web resources in support of Birdability in 2016 and is now investing more deeply in providing access to Southeast Arizona's treasured birds for those with a variety of mobility challenges.

Are you interested in helping everyone find access to local birds?

Do you have experience with mobility-issues?

Do you know someone with mobility issues who might benefit from birding experiences?

Tucson Audubon is seeking stakeholders to join us for an initial forum exploring how best to bring Birdability successfully to our community: leadership, volunteers, anyone who would like to be involved in making birding in Southeast Arizona more accessible and inclusive.

Site assessments will be the primary project launching this initiative. The stakeholder group will be tasked with reviewing the accessibility of birding sites around Tucson and Southeast Arizona using access considerations developed by Virginia Rose. These assessments will provide us with more accurate and descriptive accounts of local accessibility and allow us to update our Birdability webpage with the most current information.

For more information, contact Autumn Sharp, Communications and Development Manager, at asharp@tucsonaudubon.org.



STRENGTHEN THE FLOCK!

You can impact the Tucson Audubon mission all year long!

Become a Frequent Flyer today! Provide Tucson Audubon with a guarantee of regular, predictable funding we can use to respond to conservation, advocacy, restoration, and education needs.

It's easy! Make a monthly gift to Tucson Audubon through your credit card or bank account. We'll send you an e-mail confirmation each month, and a year-end annual giving statement in the mail for your tax purposes. Your membership automatically renews, so you'll never miss an issue of the *Vermilion Flycatcher*!

Sandhill Cranes aren't the only frequent flyers bringing joy to Southeast Arizona.



TUCSONAUDUBON.ORG/FREQUENTFLYERS

Keith Ashley, Development Director · 520-260-6994 · kashley@tucsonaudubon.org

NOTES FROM A NOVICE BIRDER



Nancy Boyle
Community Relations Manager
Splendido
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Splendido is fortunate to have Honeybee Canyon practically in our backyard, and now the nature-filled treasure holds a special place in my heart after experiencing it with the birders from the Tucson Audubon Society. Last December, I tagged along for one of a series of Splendido-sponsored bird hikes, and had an amazing time peering through our guide's high-end scope and watching knowledgeable hikers identify more than 20 birds, often by the call alone.



A fellow team member had an equally exciting time on his first outing. "I couldn't have asked for a better experience," said Todd Lutz, Splendido's Get Fit Coordinator. "Everyone was very welcoming and really made me feel a part of the group. Our leader gave us the flexibility to navigate the trail in order to find the birds we felt were the most inspirational. It's a morning I'll always remember."

Todd and I took part in separate hikes, yet we were both lucky enough to spot the Great Horned Owl that lives in Honeybee Canyon. Splendido's sponsorship of the hikes so they are free to participants is part of a larger partnership with Tucson Audubon, and a great fit for our Life Plan Community, which is home to many nature lovers. Learn more about us at splendidotucson.com.



BIRDS
BENEFIT
BUSINESS
Alliance

Many thanks to our Birds Benefit Business Alliance Members, who show their support for Tucson Audubon's mission through annual contributions and in-kind donations.

For more information about their businesses visit tucsonaudubon.org/alliance.

PREMIERE (\$5,000+)

Carl Zeiss Sports Optics
Splendido at Rancho Vistoso
Tucson Electric Power

LEADING (\$2,500)

Birdwatcher's Digest
Cornell Lab of Ornithology
Swarovski Optik
Tamron USA

SUSTAINING (\$1,000)

Alexander | Carrillo Consulting
Beaumont & Port Arthur Convention
and Visitors Bureau
Birding Ecotours
Diet of Hope Institute
Dr. Miguel A. Arenas, MD
Green Valley Pecan Company
Hatfield CPA LLC
Historic Y
Kimberlyn Drew, Realtor
Originate Natural Building Materials Showroom
Sabrewing Nature Tours
Vortex Optics

SUPPORTING (\$750)

Solipaso Tours / El Pedregal Nature Lodge

CONTRIBUTING (\$500)

Adventure Birding Company
AZ Birder Casitas
Bed and Bagels of Tucson
Desert Harrier
Hunts Photo and Video
Tucson Water
Visit Tucson
Westgate Garden Design
WINGS Birding Tours Worldwide

BANK OF THE WEST



BANK OF THE WEST
BNP PARIBAS

Albert Celaya
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bankofthewest.com

From the moment Tucson Audubon became aware of the federal government's intention to pass legislation enabling a stimulus package, Bank of the West was a partner in our emergency financial decision-making. When the CARES Act signed into law and details of the Payroll Protection Program and other loan programs became available, we relied on our contacts at Bank of the West (primarily Sr. Relationship Manager, VP, Albert Celaya) for information pertaining to our non-profit organization's eligibility. In reflection, Tucson Audubon's leadership team is grateful for the decision to move 90% of our banking business to Bank of the West in the final quarter of 2019. The new relationship enabled the smooth communications that ultimately led to applying for and receiving a loan through the Payroll Protection Program. Our hats are off to our banking partners for their hard work and tireless efforts to support our 70-year-old, Tucson-based non-profit organization—and thousands of other business customers in Southern Arizona.

MIGRATORY BIRD TREATY ACT

WHAT IS IT AND WHY DOES IT MATTER?

The breathtaking spectacle of migration is key to the survival of our birds. Many of us feel the pulse of the seasons through the movements of birds in their quest for endless summer. Spring is signaled in Tucson by the song of the arriving Lucy's Warblers, and autumn arrives in the Sulphur Springs Valley with the trumpeting call of Sandhill Cranes, flying in formation overhead. Bird migration is one of the world's elusive wonders, because just like the birds themselves, it cannot be easily pinned down to study. However, with modern advances in technology we are learning much more about the exact pathway birds take and the timing of their journeys. Migration continues to captivate the curiosity of scientists as well as the imaginations of all of us who take notice of the seasonal movements of birds. It is at once fleeting and at our doorsteps. It is also critical to the survival of our birds.

The Migratory Bird Treaty Act of 1918 (MBTA) is the cornerstone of bird protections in the US, covering over 1000 species of migratory birds. The original treaty was between the US and Great Britain, and has since



Nicole Gillett
Conservation Advocate
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expanded to include Japan, Mexico, and Russia. The power of this treaty lies in its expansive coverage—it is illegal to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds. The MBTA has been significantly weakened by a federal opinion to reinterpret what an “incidental take” means. Under the traditional interpretation, any unintentional and avoidable killing of covered migratory birds by industrial activities would qualify as a violation of the MBTA. Under the new opinion, only purposeful acts will be covered. This drastically weakens the MBTA because a mistake or accident, such as oil spills, will no longer be prosecuted under the MBTA.

Arizona hosts over 500 migratory birds each year. Each of those birds is protected under the Migratory Bird Treaty Act. We need a strong MBTA to ensure that all companies, agencies, and individuals are held accountable for upholding migratory bird safety and prosecuted for causing harm to migratory birds. We need your help to keep this bedrock protection for migrating birds intact and ensuring they are able to travel around the world safely.

CHOOSE YOUR FAVORITE BIRD AND SHARE YOUR CREATIVITY TO BUILD A VIRTUAL FLYWAY!



In response to the attack on the MBTA, Tucson Audubon is launching the **Free to Fly** campaign that will leverage the strength of numbers in a united voice to honor and protect our Treaty. Let's come together to tell the story of each, unique migratory bird species that we have connections to here in Arizona, and help connect the importance of protecting the MBTA to ensuring our favorite birds remain Free to Fly.

Tucson Audubon needs your contributions to create a **Virtual Flyway!** The Virtual Flyway represents the phenomenon of migration through the stories of birds along their migratory routes through Southeast Arizona. It will also function as a "Flyway" for your voices to be heard by decision-makers at the federal level.

Your submissions will be collected and curated into a digital representation of individual voices each sharing the story of Arizona's migratory bird life through various artistic mediums, including written works, photography, video, and visual arts. The **Virtual Flyway** will be housed on a website available to the public, and leveraged when meeting with decision-makers at the federal level. Visit tucsonaudubon.org/virtual-flyway for more information and submission details. You can also email Nicole at ngillett@tucsonaudubon.org if you have any questions.

VERMILION FLYCATCHER IN A MESQUITE TREE

Saraiya Kanning, Raebird Creations, silk painting adhered to canvas



Vermilion Flycatchers can be seen perched on fence posts and at the edges of trees, where they dive out to catch insects, often returning to the exact same perch several times over. Males are an eye-snagging ruby red, while females are tan with a slight wash of peach on their undersides. This silk painting pays homage to the Vermilion Flycatcher's vibrant plumage and alert personality.

It's hard to imagine a walk in Tucson without stumbling upon this characteristic bird of the Sonoran Desert. I often walk my dog along the Rillito River and find these birds on fences bordering open lots. Sometimes one perches in a mesquite right above my head, and I take this proximity as a token of the desert's beauty, a gift of scarlet memory I can store in my pocket for more mundane days.

NICOLE'S POEM TO ANNA

Nicole Gillett

Oh look—too cute!
A flit and buzz—and a flash of technicolor.
Must be Anna's Hummingbird!
I call my Mom—up in Oregon.
Mom I see an Anna's—here in the backyard!
Oh wow—says Mom—I see those too!
How cool. How special.
That Anna's sure brings us together.

Nothing can cause me to pause in the garden like the sound of a buzzing hummingbird. I love watching them hovering and flitting about plant to plant. It is amazing to me that these same colorful, tiny birds can be spotted by my family over a thousand miles away. The magic of migration can bring us together in unexpected ways.

IN SEARCH OF ENDLESS SUMMER: SOUTHERN ARIZONA'S MIGRATORY MYSTERY



Jennie MacFarland,
Bird Conservation Biologist
jmacfarland@tucsonaudubon.org

The Migratory Bird Treaty Act (MBTA) explicitly protects 535 bird species that occur in Arizona. This list includes species that travel long distances every year, such as the Rufous Hummingbird, which flies nearly 4,000 miles each way on its annual migration. This distance is the equivalent of 78 million Rufous Hummingbird body lengths, making theirs the longest migration of all species when using this unusual unit of measurement. The MBTA also protects bird species that have much shorter migrations, such as the Elf Owl. This tiny hunter is the smallest owl in the world. They are numerous in high quality Sonoran Desert and Madrean Oak habitats of Southeast Arizona every spring and summer. After successfully bringing up their young, they head south and spend their winters in southwest Mexico, before setting off north again in early spring. This is the life of migratory birds—nearly always on the move.

Within those 535 species named in the MBTA, there are species with migratory journeys of astonishing lengths, and some with shorter cycles. Arizona is a large state with a dynamic landscape composed of many habitat types. Our huge diversity of bird species means that many different migration strategies are represented. Migration can include the subtle act of birds changing their elevations throughout the year, but within the same general area. Even species that we think of as resident, such as Phainopepla, make annual movements that have only recently been confirmed with scientific research. They nest in desert habitats that we are so familiar with here in southern Arizona every spring. While they are here they are closely associated with clumps of native mistletoe that provide berries to eat and a safe place to nest. These same birds then head west to nest again in the summer in woodland habitats with totally different foraging opportunities. Migration is a subtle and broad concept with mysteries that science is still endeavoring to unravel. The MBTA has been in effect for just over 100 years now, and thankfully is broad enough in its definition of what species are included in the Act to include birds that utilize all of these varied strategies of movement to survive and, hopefully, thrive.

DESERT PURPLE MARTINS

Every spring, people on the eastern half of the United States and western seaboard anxiously await the return of Purple Martins. Providing Purple Martin nesting structures is a beloved pastime for many enthusiasts. But did you know that some Purple Martins nest in the Sonoran Desert in giant saguaro and cardon cactus? These birds are a distinct subspecies known as *Progne subis hesperia*, the Desert Purple Martin. All Purple Martins are migratory, but the migratory pathways and wintering grounds of each type are still being discovered by the ornithological community. Desert Purple Martins are especially mysterious and understudied. Tucson Audubon has been investigating these fascinating birds for seven years, and with the help of a recent \$10,000 private donation, we'll utilize exciting technology to study them in 2021. By collecting feathers from nests or other found birds this summer, we will begin collaborating with researchers at Northern Arizona University on a stable-isotope study that helps identify where our Purple Martins overwinter, and the environmental pesticide loads in their wintering grounds. We will soon also establish a MOTUS receiver antenna to track movements of tagged Purple Martins as part of a global network to track any tagged bird, insect, or bat species. Stay tuned for information on how you can help with this project.



Purple Martin, Ned Harris

TUCSON BIRD COUNT HITS A NEW HIGH

Jennie MacFarland,
Bird Conservation Biologist



183

PRIMARY OBSERVERS
20% increase in participants in 2020

135

ROUTES OBSERVED
22% increase in total routes in 2020

152

SPECIES IDENTIFIED
Spring 2020

Founded at the University of Arizona in 2001, the Tucson Bird Count (TBC) has been a major conservation project of Tucson Audubon since 2012. It is both the largest and longest running spring urban bird count in the world! The original intention of the count was to understand how urban areas could be modified to create more useful habitat for native birds. This mission is a central pillar of Tucson Audubon's conservation goals, and continues to be a main driver of the count.

An important and exciting milestone has been reached during this 20th annual spring count. The 2020 Tucson Bird Count had the highest number of participants and the highest number of routes surveyed since Tucson Audubon took responsibility for the project in 2012. Some recent changes to the logistics likely contributed to this success. Data can be entered using eBird's excellent smartphone app, and this makes performing a count easier than ever for volunteers. Considerable effort went into preparing this new data entry option, which was piloted on the 2019 count. It worked well for that count, and many volunteers found it even easier to use the second time around.

The original website data entry tool remains, and is working very well after considerable improvements over the last several years. All data entered via eBird will be added in batches to the original Access database, which has been in use since the founding of TBC. This was made possible with much work from Jessie Banghoo, our TBC technology volunteer. Jessie built a custom program that interprets the eBird checklists and inserts the data into the Access database. This was critical as the database is used for the

improved and entirely new mapping features now available on the TBC website.

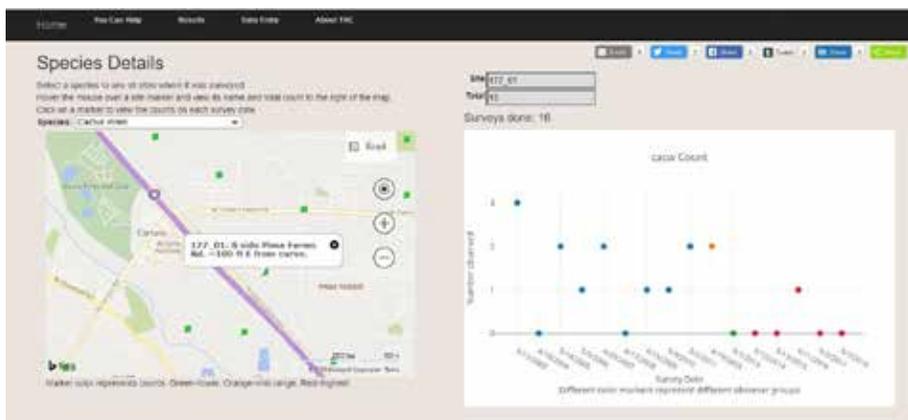
The new Number of Species Map allows you to choose a count period, or set a custom span of dates. A map is generated showing the survey locations and number of species at each. If you click one of the numbers, a species list appears on the right.

The other new map is the Species Detail Map. Choose a species from the menu, and a data-driven map loads. The flag markers on the map are color coded from green (fewer observations) to red (most observations). If you click a location flag, a graph appears on the right, showing the number of individuals documented at that location during each count period.

It's a very useful tool that can discern patterns over time from the TBC dataset.

Tucson Audubon has partnered with Centennial Elementary School, and now the students can use TBC data and maps for their science fair projects. A dataset that originated at University of Arizona now provides data for young people just starting to explore the concept of interpreting data.

I am immensely proud of and grateful to the TBC volunteers who not only persevered through the most logistically challenging year this count has ever faced, but put in a record-breaking level of participation, all during a global pandemic. Thank you!



CACTUS WRENS—A DATA EXAMPLE

Analysis of TBC data in the past has made it clear that Cactus Wrens are sensitive to urban encroachment. They tolerate some urbanization but the data shows a critical density of urbanization acts as a tipping point and causes them to abandon an area, while Curve-billed Thrashers remain. You can check out these maps for yourself and explore trends for all species and count locations at tucsonbirds.org.

PECULIAR HABITS, SOUNDS, BEHAVIORS, FEATHERS, AND FLUFF

Soon after the Nestbox Project was launched in 2015, Tucson Audubon members had nest cams streaming the activities of Western Screech-owls and Brown-crested Flycatchers onto their family TV's. Video clips were then shared with our entire audience. Fast forward to 2019 when we took a big step forward by installing a Western Screech-owl nest cam that live-streams directly to our website. Together we watched Howie and Holly raise two beautiful chicks.



Olya Phillips
Citizen Science Coordinator
ophillips@tucsonaudubon.org

This year, we expanded to include Lucy's Warbler and American Kestrel nest cams in our scientific toolbox. When we installed these cameras, we had no idea how valuable they would be to our community as together we navigated a locked-down world in the midst of a pandemic. Birds offer so much with their peculiar habits, sounds, behaviors, feathers, and fluff. Through the use of technology, we found new ways to remain connected to each other, and to the birds we love.



WESTERN SCREECH-OWLS: HOWIE AND HOLLY

Western Screech-owls look very similar to each other, but we can tell them apart by their size. Holly is the larger of the two, and Howie is the smaller. They started out this year laying a whopping 5 eggs. Howie fed Holly while she diligently incubated the eggs. Unfortunately, they never hatched. It is unlikely the pair will try for a second brood this year, but we are rooting for them for next spring!

LUCY'S WARBLERS: LUCY AND LUCKY

Lucy's Warblers are even harder to tell apart, unless they take a little bow to reveal that males have a darker, more defined rusty cap. With funding from North American Bluebird Society, we purchased a camera to help study the Lucy's Warbler nestbox 24/7 without disturbing the birds. Lucy and Lucky raised 5 chicks and we documented every step: parental care, nest building, incubation, brooding, and other previously poorly documented aspects of their breeding cycle.

AMERICAN KESTRELS: KATE AND FALCO

American Kestrels are much easier to tell apart than Western Screech-owls or Lucy's Warblers. The male sports blue-gray wings, while the female's wings are reddish brown. Kate laid eggs in early March, and a month later had five fluffy, white hatchlings! As is common with large clutches, one of the chicks did not survive, but the rest grew strong and healthy: three boys and one girl. One by one, they left the confines of the nestbox in mid-May to join their parents and learn about their big, new world.

We watched these birds develop and grow strong, cheered on by a community of bird lovers behind the scenes. Families tuned in all the way from London. In fact, our live nest cams were viewed nearly 10,000 times this spring. You can relive many of the highlights at tucsonaudubon.org/nestbox. Each of these cameras was sponsored by volunteers and grants. We are grateful for your ongoing support of Tucson Audubon's nestbox program!

LUCY'S
WARBLER
NESTBOX
PROJECT
UPDATE

3,152

NESTBOXES
ON THE
LANDSCAPE

540

NESTBOXES PUT OUT IN
2020 TO STUDY HEIGHT &
DIRECTION PREFERENCE

355

NESTBOX OWNERS
REGISTERED TO HELP
WITH OBSERVATION

170

NESTS ON EXPERIMENTAL TRAIL
LOCATIONS ALONE
680-850 fledglings estimated from these nests

CURVE-BILLED THRASHER (*TOXOSTOMA CURVIROSTRE*)

In this column we look at some of our Southeast Arizona borderlands specialty bird species. Birders from all over the US travel here to add birds to their life lists, and we are proud of the birds that make our region unique! But how well do you know your local birds outside of the context of Southeast Arizona? Here we take a broader look at some of our iconic species, and try to see how they fit into the larger birding landscape.

Let's be honest. Curve-billed Thrasher isn't the rarest thrasher. LeConte's Thrasher maintains a more limited geographic distribution, Bendire's Thrasher has a more selective habitat preference, and Crissal Thrasher exhibits more secretive behavior. But no thrasher gives us a sense of place here in Tucson like the Curve-billed Thrasher. For me, the loud and familiar announcement call ("wit-WEET!") of the *cuilacoche*, as thrashers are known in parts of Mexico, is one of the most characteristic bird vocalizations of my neighborhood in central Tucson.

The Curve-billed Thrasher is a member of the Mimidae, the avian family that includes not just the thrashers but also the mockingbirds, catbirds, and the tremblers of the Lesser Antilles. The Mimidae is a widespread family, endemic to the New World but found throughout, including several offshore islands that they have colonized. The mockingbirds in particular appear to be resilient, adaptable, and cosmopolitan, with various species inhabiting

every country in the Americas, from Canada in the north to Chile and Argentina in the south. However, the thrashers are much more specialized to the types of habitats that each species occupies, and also much more uniquely North American: in fact the ten species in the genus *Toxostoma* (which does not include the Sage Thrasher, placed in its own genus and more closely related to the mockingbirds) reach their highest species density in the states around the headwaters of the Gulf of California, both north and south of the US-Mexico border. To tick all the *Toxostoma* thrashers on your life list would entail visiting at least three US states and at least 2–3 *estados* in Mexico, but you could argue there's no better place to start than southern Arizona, where with effort and a bit of homework you can fairly easily get four species in close proximity in early spring.

Our Curve-billed Thrasher could be considered the flagship thrasher species, second in range size only to the Brown Thrasher of eastern



North America and overlapping broadly with all of the other *Toxostoma* species except the more coastally-confined California and Gray Thrashers. With a highly complex song, semi-terrestrial lifestyle, messy foraging habits that involve exuberantly digging in soil and leaf litter with its formidable bill, and overall charismatic personality, the Curve-billed Thrasher, to me, is the essence of what it means to be a thrasher.



Curve-billed Thrasher, Dan Weisz;
(above) The Ocellated Thrasher
(*Toxostoma ocellatum*) of central Mexico
is the closest relative of the Curve-billed
Thrasher, Brad Singer

Scott Olmstead is a high school teacher, member of the Arizona Bird Committee, and occasional guide for Tropical Birding Tours.



VIRTUAL SOUTHEAST BIRDING FESTIVAL

THE 2020 SOUTHEAST
ARIZONA BIRDING FESTIVAL
HAS GONE VIRTUAL.

SAVE THE DATE
FOR OUR
10TH ANNIVERSARY,
AUGUST 11–15, 2021

TUCSONAUDUBON.ORG/FESTIVAL

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BIRD WATCHER'S
DIGEST

Let's continue to celebrate the unique biodiversity of Southeast Arizona this monsoon season together online. Visit our festival website for more details on events the week of August 5–8:

- *How to Study & Learn Bird Songs* with Tom Stephenson, author of *The Warbler Guide*
- Forum on *Birdability*—initiative to make birding more inclusive and accessible to mobility-challenged people
- Virtual Birding Tours around SE Arizona with some of your favorite guides
- *Birding with a Purpose* events centered on the Sonoita Creek Watershed
- Birds 'n' Beer Gathering

Thank you to our sponsors, partners, guides, volunteers, staff, and participants who are birding with us in spirit, we'll miss seeing you! We look forward to August 11–15, 2021!

Vermilion Flycatcher, Freddie Huang

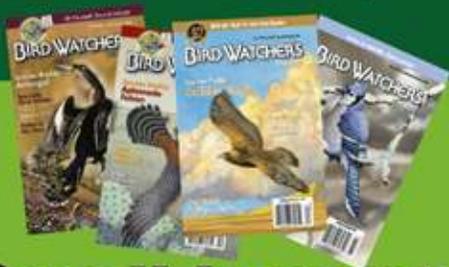


WEST ARIZONA

AUGUST 5-8, 2020



NEW subscribers to *Bird Watcher's Digest*, *Watching Backyard Birds*, or BOTH: Here's How YOU Can Support Tucson Audubon Society/Southeast Arizona Birding Festival!



BIRD WATCHER'S
DIGEST



Watching
Backyard Birds

2020 is the year of virtual birding festivals. As a sponsor, we're supporting the Southeast Arizona Birding Festival by extending a special offer to event attendees and supporters! For every new subscriber who signs up with the code SSTUAS, 50% of the subscription price will go to Tucson Audubon Society. It's a WIN-WIN!

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TUCSON AUDUBON SOCIETY

BIRDS & COMMUNITY

ZOOMING TO LEARN AND ENJOY

MORE INFORMATION AT [TUCSONAUDUBON.ORG/NEWS-EVENTS](https://tucsonaudubon.org/news-events)

Our virtual classes have opened up avenues for deep, continued learning on a variety of topics throughout these past few months, and have included many new leaders and partners. While we look forward to the days when classes can resume in person, we also know that online opportunities are here to stay for Tucson Audubon. The number of people we are serving from all around the country via this new platform speaks volumes about its value for our education mission.

LOOKING BACK

Throughout April, Holly Kleindienst, one of our super volunteers, led us through best practices for eBird in three sessions which attracted 153 participants. Using eBird adds your voice to “the world’s largest biodiversity-related citizen science project,” and adds depth to your, and others, birding experiences. Look for more virtual eBird classes this fall.

Scorpions of Southeast Arizona was a phenomenal class led by birding guide Chris Benesh who enriched the nature knowledge of over 75 participants in May. Tucson Audubon will always have a focus on birds, but expanding our appreciation to encompass all nature enables us to see the bigger picture of ecology and conservation.

Ten of our 53 virtual classes (April–June) were in cooperation with Tucson Audubon partners, including Sierra Club, Tamron, Swarovski Optik, Carl Zeiss Sports Optics, Tucson Water, Birding Ecotours, Hunt’s Photo, Babita Tours, Splendido at Rancho Vistoso, and Solipaso Tours.



Luke Safford
Volunteer Coordinator & Festival Coordinator
lsafford@tucsonaudubon.org

LOOKING AHEAD

Sign up now for one of the upcoming *Free to Fly* sessions, which will leverage the strength of numbers in a united voice to honor and protect the Migratory Bird Treaty Act. A special session will be held on July 10 at 10 am as Steve Holmer, Vice President of Policy at American Bird Conservancy, and Sarah Greenberger, Senior Vice President, Conservation Policy with National Audubon Society, join us to discuss the threats and rollbacks to the Migratory Bird Treaty Act, as well as a proposed bill to save our migratory birds, and how you can get involved.

More upcoming classes will cover Tucson Audubon’s work with Lucy’s Warblers & Purple Martins, the *Birding the Calendar*, and *Rare Birds in Southeast Arizona* series, and more! If you need assistance getting started with Zoom, or have questions about the classes or socials, please contact Luke Safford at lsafford@tucsonaudubon.org.

APRIL–JUNE



Lucy’s Warbler, Mick Thompson



Crescent-chested Warbler, a very rare bird in Southeast Arizona, Greg Lavaty

DISCOVERING NEW WAYS TO BIRD



Whenever people gather behind a common purpose for the greater good, we are inspired. For thirty-four years now the volunteer fundraisers and adventurers who make Tucson Audubon's Birdathon happen have demonstrated what can be achieved when we combine our passion for birds with our shared will to protect them. This year, COVID-19 struck Arizona just as our teams began to gather. Thanks to the innovation and determination shared by our community of bird enthusiasts, Birdathon 2020 re-invented itself to meet the new challenges. We are grateful for the creativity, personal investment, and dedication of will and spirit that made this year's Birdathon a month to remember. The numbers say it all...



In our eyes, all Birdathon participants are winners, but this year these teams went above and beyond in creativity, fundraising, story-telling, and of course, birding. New this year was a panel of judges who decided the final three categories. Congratulations to all!

- Big Day Traditional** Leave the Flock Behind
- Big Day Freestyle** Wrenegades
- Best Bucks for Birds** Always Birding
- Social Media** Nerdy for Birdies
- Home Patch** Birds on a Wire
- Birdathon Beyond AZ** Air Force Swan
- Grand Champ** Corvid 2020

Big Birdathon thanks to our 2020 sponsors!



Cluster Footh; White-faced Ibis, Chris Rohrer; Andy Moore; Bullock's Oriole, Richard Fray; Sarah Pike and family

WOO HOOT!

BIRDY NEWS BITES WORTH CELEBRATING

2020 SPRING NATIVE PLANT SALE

Taking our cue from nature and the changing of the seasons, we forged ahead despite challenges and in May, we held our annual Tucson Audubon Spring Native Plant Sale (with some adjustments). Using our new online platform for orders, the response was phenomenal. Over 500 native plants are now creating habitat for birds and pollinators while bringing beauty and joy to the people who planted them in their yards. It was such a huge success that we'll be offering a fall sale to our loyal community of native plant enthusiasts! Watch for details in our E-newsletters and be sure to check out our Online Nature Shop at tucsonaudubonnatureshop.com.

MASKED BOBWHITES... OFF THE REFUGE!

The Buenos Aires National Wildlife Refuge was created in 1985 as a final refuge in the US for the Masked Bobwhite (*Colinus virginianus ridgwayi*)—our local sub-species of Northern Bobwhite and one of the first species listed as 'Endangered' in 1967. Recent habitat and reintroduction-process improvements have led to a dramatic uptick in overwintering survival of bobwhites on the refuge. Tucson Audubon currently has five agency-assigned staff working with the Refuge on the reintroduction effort aiming to re-establish a wild population, and there are signs this work is finally paying off. In an incredible turn of events this summer, the owners of Rancho Sierra Vista de Sasabe, right across the fence from the Refuge, have documented Masked Bobwhites roaming their lands—outside the refuge—where they have been performing bobwhite-oriented habitat restoration for 17 years in hopes of this day coming.

VIRTUAL PLANT FESTIVAL: JUNE TO OCTOBER, 2020

Tucson Audubon is thrilled to participate in the first ever Virtual Plant Festival! Look for two "booths" featuring Tucson Audubon's work and programs at azplantfest.org. Tucson Audubon encourages native planting and gardening to help support our birds and wildlife in a world with ever shrinking available habitat. Visit this year's Virtual Plant Fest to learn and celebrate plants in Arizona!



GIFTS IN HONOR OR MEMORY OF

- In honor of Becky Armstrong from Patsy Hansel
- In honor of Betsy Gulotta from Julie Gibson
- In memory of Clara Drobka & Imogene Wilcox from Diane Drobka & Craig Wilcox
- In memory of Devey Stoller from Jolly Tager & Michael Fredrickson
- In memory of Dorothy Bray from John Catero
- In memory of Elnolan Ulreich from Judy & John Ulreich
- In memory of Jolene Hansen from Edward Hansen
- In honor of Julia Gordon from Anne & Sam Shivers
- In honor of Katrina Messing from Luci Messing
- In memory of Marilyn Markin from Jack Botts
- In honor of Mary Fitzgibbons from Mary Williams
- In memory of Mary Lou Andrews from Greg Andrews
- In honor of Suzanne Benedict from Joey Flynn



Northern Parula, Mick Thompson

CRITICAL CONSERVATION CONTINUES

2020 Summer Matching Gift Challenge

Driving home in the evening from the Mason Center, crossing over the Santa Cruz, I frequently spot a Great Blue Heron flying high overhead—long neck tucked in like an empty lunch bucket, enormous wings methodically treading air. *Heading home from another tough day at the ponds*, I imagine. *At least it's a traffic-free commute*. I don't connect with birds through a scientific lens, so I feel free to speculate poetically.

However challenging a desert-dwelling heron's career-life must be, how much harder is it to make a decent living as a water bird in Arizona TODAY?

From climate change to that staggering loss of 95% of our riparian areas to the vicious attacks on the Migratory Bird Treaty Act... rough times indeed. **All the more reason to celebrate and support Tucson Audubon.**

The work of our restoration, conservation, and advocacy staff focuses largely on healing, protecting, and advocating for riparian habitat and our waterways: the Santa Cruz and San Pedro Rivers, as well as the small but mighty Sonoita Creek. Our engagement efforts, from Sweetwater Zoom socials to this year's Virtual Southeast Arizona Birding Festival, are designed to connect people meaningfully with the birds of Southeast Arizona, so that they can love them, and in turn show up to protect them. Great Blue Herons around the country have been counting on the Audubon movement for more than a hundred years—and we are counting on YOU.

Together, we can help all the birds of Southeast Arizona tied to our diverse riparian, desert, grassland, and mountain ecosystems, and by doing so, we can help each other and ourselves to a better present and future. This summer, as we launch our **Critical Conservation Continues | 2020 Matching Gift Challenge**, we hope you enjoy our efforts to share with you a few of the ways we strive to improve the lives of birds and people in Southeast Arizona.



Please give now to support this important work.

Keith Ashley
kashley@tucsonaudubon.org
520-260-6994



CONSERVATION CAN BE YOUR LEGACY

Over the years you have supported Tucson Audubon's mission: *inspiring people to enjoy and protect the birds of Southeast Arizona*. When you include us in your estate planning, you join many others as a member of our **Vermilion Society**—and you gain peace of mind, knowing that your values will continue to become action on behalf of birds and their habitats, far into the future.

There are many types of Planned Gifts to explore: gifts left by bequest in a will or trust, charitable gift annuities, beneficiary designations for your IRA, 401K, or life insurance.

We sometimes receive bequests from people whom we have never had the opportunity to thank. If you include us in your estate plans, we hope you will let us know. We value the opportunity to thank you, and your gift can inspire others in their legacy planning.

For more information, please contact: Keith Ashley, Development Director, 520-260-6994.

TUCSON AUDUBON



VERMILION
SOCIETY

LEGACY GIVING CLUB

The *Vermilion Flycatcher* is the newsletter of the Tucson Audubon Society, a chapter of the National Audubon Society. National Audubon Society members and members of other chapters may receive the Flycatcher by becoming a Friend of Tucson Audubon. For more information visit: tucsonaudubon.org.



TUCSON AUDUBON NATURE SHOPS

PLEASE NOTE

The Nature Shop at the Historic Y is currently open on a reduced schedule. Visit tucsonaudubon.org/nature-shop for the latest updates. See the expanded inventory of our online shop at tucsonaudubonnatureshop.com.

MAIN SHOP

300 E University Blvd #120, Tucson 85705
(corner of University & 5th Ave.)

AGUA CALIENTE PARK SHOP

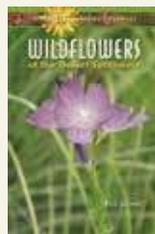
12325 E Roger Road, Tucson 85749

NOTE: The Nature Shop at Agua Caliente Park is currently closed until further notice.

Nature Shop space generously provided by
Pima County Natural Resources, Parks & Recreation

LOOKING AROUND OUTSIDE

Many of us instinctively turn to nature in a time of crisis to find solace and even distraction from the day to day stress. Perhaps for some of us our current situation has provided an opportunity to reconnect with our environment and given us the time to notice and appreciate our surroundings. The Nature Shop can help you identify the birds and wildlife you've been seeing with a variety of field guides and fold out guides. Can't get a good look? Maybe it's time for a decent pair of binoculars. We have those, too; from entry level to premiums. Our new Online Nature Shop has a terrific selection of merchandise for everyone, including optics, and every purchase supports the Tucson Audubon Society.



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Desert Southwest
\$12.95



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of the Sonoran Desert
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Southeast Arizona
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of North America
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There's never any sales tax since we're a non-profit, and all purchases support our mission to protect birds and their habitat.