

Vermilion

FLYCATCHER

July-September 2019 | Volume 64, Number 3



SHADE
for BIRDS
and PEOPLE

MISSION

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

TUCSON AUDUBON SOCIETY

300 E University Blvd. #120
Tucson, AZ 85705
TEL 520-629-0510
FAX 520-232-5477
tucsonaudubon.org

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NATURE CENTERS

Mason Center
3835 W Hardy Rd
Tucson, AZ 85742
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: Open sunrise to sunset

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Matt Griffiths, *Coordinator* (mgriffiths@tucsonaudubon.org)
Dorothy Fitch, *Proofreader*
Melina Lew, *Design*
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Staying Cool

Time expands and compresses while on the birding trail. I experienced this in April with my Birdathon teammates, Keith and Luke. Challenging conditions—heat and excessive wind—seemed endless at midday, and then suddenly we had only an hour of daylight remaining to locate and add Cactus Wren to our list. During the day we capitalized on the cooler, more protected riparian corridors of the Santa Cruz River and its tributaries to find birds seeking shelter from the sun. Eighty percent of the 140 species we logged were observed in areas with full or partial shade provided by sycamores, cottonwoods, oaks, and junipers.

Shade is a precious commodity for both birds and people. Birds rely on shade for the safe and successful rearing of their offspring; people rely on shade as refuge and for helping manage the energy costs of our homes, schools, and businesses. Yet shade is vanishing for many species dependent on it for survival, and we struggle to incorporate shade into the growth of our southeast Arizona communities.

Shade is critical for species like the Western Yellow-billed Cuckoo, which returns to our region at the beginning of the hot summer. The cuckoo's arrival corresponds with an

abundance of available food, which they find in lush riparian forests, like those found along Sonoita Creek and the Santa Cruz River. These environs also offer shade and shelter to cuckoos as they raise their young.

As residential and commercial development continues to expand in Cochise, Pima, and Santa Cruz counties, shade is simultaneously an amenity and a vanishing resource. You'll find information in this issue about various entities working in Tucson to ensure shade is valued and maintained. Tucson Audubon is part of this effort, teaching the concepts of creating and providing shade through Habitat at Home. The program, now in its fourth year, helps people keep buildings cool and lower utility bills—all while beautifying residential and commercial landscapes, and providing benefits to birds and pollinators.

We lost three champions of birds in the past few months. Bill Thompson III and his mother, Elsa (who founded *BirdWatcher's Digest* magazine with Bill's father), were friends I got to know during my time with Michigan Audubon. Reconnecting with Bill during last year's Southeast Arizona Birding Festival was a highlight of my first year as Tucson Audubon's Executive Director. Both are missed for their humor, positive outlooks, and

profound impacts on the recreational birding world. Locally, Mary Jo Ballator will be remembered for her generosity and devotion to the birds and birders who visited her yard, the Ash Canyon Bird Sanctuary. Mary Jo was a close friend to members of our board and staff, as well as many of Tucson Audubon's community partners.

As we settle into the season of breeding birds and, eventually, the monsoons, our birding friends of the past will be on our minds. We're looking forward to celebrating birds and birders during the 2019 edition of the Southeast Arizona Birding Festival (August 7–11), and remaining focused on advocating for the benefits of shade. Consider contacting us for a Habitat at Home (or Habitat at Work) evaluation this summer. We'd love to help you find ways to keep your home or building cool, while reducing energy costs and helping out our feathered friends.

Sincerely,



A handwritten signature in black ink, appearing to read 'J. Lutz'.

Jonathan E. Lutz,
Executive Director

TUCSON
AUDUBON
SOCIETY

FIESTA DE AVES

RECEPTION and BANQUET for the
9TH ANNUAL SOUTHEAST ARIZONA BIRDING FESTIVAL

Saturday, August 10, 2019

DoubleTree by Hilton Hotel Tucson—Reid Park
445 S Alvernon Way, Tucson, AZ 85711



Birding Forecast: July Through September



Matt Griffiths,
Digital Media & Bird Conservation

Do you write off birding in the desert during the heat of summer? It's tempting to do with the cooler climates of our Sky Islands so readily available. But if you're willing to brave the higher temps and humidity of one of our local riparian areas, you will be rewarded with bunches of birds and a good chance at something rare.

The cottonwood and willow gallery forest and associated mesquite bosque of southeast Arizona riparian areas provide great shade and are often several degrees cooler than the surrounding desert. The presence of water and several vertical layers of thick vegetation

make an awesome habitat for food resources and nesting. It's no wonder neotropical migrants flock to these sites to take advantage of the bounty, especially after summer rains start.

To experience one of the best dawn choruses in the southwest and feel like you traveled to the tropics, check out one of these local riparian areas and be prepared to be overwhelmed by the sights and sounds while enjoying some well-earned shade as a resident of the Sonoran Desert.



Santa Cruz River, Tubac Area

Some of the best riparian habitat in southeast Arizona is located along the Anza Trail in and around Tubac. The Santa Cruz River here supports towering cottonwood and willow trees, and the trail winds between these and the adjacent mesquite bosque, providing access to many nesting specialty birds and occasional rarities. Entry points to the trail include Tubac Bridge, Clark Crossing, Tumacacori National Monument, and Santa Gertrudis Lane. Along with all the expected breeding birds from Common Yellowthroat to Summer Tanager, great recent finds here include Rose-throated Becard, Sinaloa Wren, Hooded Warbler, Painted Bunting, Green Kingfisher, and Thick-billed and Tropical Kingbirds.



Tanque Verde Wash, East Tucson

The most easily-accessible riparian habitat right in Tucson is located along the Tanque Verde Wash at Wentworth Road and at Tanque Verde Loop Road. You won't believe your eyes and ears that this wild area still exists on the edge of Tucson. Just walk up or down the wash and you'll likely find nesting Bell's Vireo, Lucy's Warbler, and Yellow-breasted Chat. Be sure to listen for the sad cry of a Gray Hawk echoing through the trees. The weedy patches along Wentworth are good for Lesser Goldfinch as well as the more rare American and Lawrence's Goldfinches, Painted Bunting, and Dickcissel.



San Pedro River Valley

No discussion of riparian areas of southeast Arizona would be complete without mentioning the San Pedro River and its many access points. Starting in the north, the St. David Cienega is a remnant desert marsh that is the best place in Arizona to find nesting Mississippi Kites. Farther south is the nationally-known San Pedro Riparian National Conservation Area, also designated a Global Important Bird Area. The center of birding activity here is the San Pedro House (with gift shop and restrooms). A walk along one of the trails could yield Gray Hawk, Cassin's and Botteri's Sparrows, Yellow-billed Cuckoo, Northern Beardless-Tyrannulet, and the rare Green Kingfisher.

Green Kingfisher, Rhett Herring; Tanque Verde Wash, Matt Griffiths; Gray Hawk, Roger van Gelder

SHADE *for* BIRDS and PEOPLE

SHADE IS A VANISHING RESOURCE

Tucson is 3rd Fastest Warming City in America

Climate Change

Urban Heat Island Effect

Loss of Tree Canopy

SHADE CAN BE MADE IN SOUTHEAST ARIZONA

Shade Tucson Coalition

Tucson Audubon Habitat at Home Program

Habitat Restoration Projects

Urban Forestry

Nestboxes

TOGETHER WE CAN PROTECT AND CREATE SHADE

Vote!

Support Your Shade Tucson Coalition

Join Tucson Audubon's Habitat at Home Program

Plant More Trees!

SHADE...

improves real estate value

reduces utility demand

increases success rate
for nesting birds

enhances mental
and physical health

provides food and
comfort for wildlife

supports recreation and
community gathering

preserves culture
and heritage

provides food

improves water quality

increases tax revenue



Elegant Trogon, [Martin Molina](#)

The VALUE of SHADE

Green Spaces for Birds and People



Jennie MacFarland,
Bird Conservation Biologist



One of the unmistakable signs that summer is upon us in Tucson is clusters of cars gathered around parking lot trees. No matter how tiny these trees are, we crave the shade they provide for us and our vehicles.

Birds are no different....

Anyone who has lived in southern Arizona for more than a year knows the value of shade. In any parking lot in Tucson, the premium spaces are not the ones closest to the building, but the ones with shade. And just like people, birds seek out shade during the hottest times of the day, especially in spring and summer.

Lucy's Warbler in dappled shade with nest material, Lois Manowitz; Tucson shade in parking lot, Jennie MacFarland; Shady nest of an Anna's Hummingbird, Jim Culp

OPPOSITE: Scaled Quail, Richard Fray

BEATING THE HEAT WITH ADAPTATIONS

Our native desert birds have many physiological adaptations to help them deal with high temperatures. Increased respiration, similar to panting in mammals, and blood vessels near the surface of bare skin on the legs and face help many of our bird species to survive the hottest times. Similar to humans seeking shade for our cars, birds alter their behavior when temperatures rise. Birds spend more time in the shade of thick vegetation during the hottest part of the day, and take a cooling bath or puff out their feathers to release heat from their bodies. Raptors soar especially high to enjoy cooler air at higher altitudes, escaping the heat of the lowlands.



NESTING

Nesting is an especially vulnerable time for birds, and placement plays a key role in the eventual success or failure of that nest. It seems obvious that a well-placed nest has a reduced chance of being found and destroyed by a predator, but temperature is also a very important factor for parent birds to consider. A study of Scaled Quail found that the micro-climate of temperature

and humidity right at the nest site was an important predictor of nest success. Nests placed at the base of large yuccas that created a cooler micro-climate were more likely to hatch chicks. The nests of grassland birds have been found to be very sensitive to temperature, especially when the patch size of their grassland habitat is smaller. Nests in smaller patches of grassland were more likely to fail during periods of high temperature than nests in larger grassland areas. The implications of this are very important, considering that grassland habitat is increasingly fragmented by agriculture and natural gas extraction all over the West.



URBAN HEAT ISLANDS

One of the largest causes of habitat loss and fragmentation is urbanization. Urban areas can provide amazing opportunities for native birds as patches of lush, irrigated landscaping offer food and shelter, especially if native plants are incorporated. However, these areas can also act as a dead end for many birds, which utilize areas that seem suitable, but contain dangers such as outdoor cats, shiny windows, and pesticides. Excessive heat can also be a danger that urban nesting birds may not be expecting.

During the warmest months, a “heat island effect” is created in densely urban areas by impervious surfaces such as pavement, concrete, and buildings retaining heat from the day, and radiating that heat through the night. Large cities such as Phoenix can endure night temperatures up to 22°F higher than the surrounding non-urban areas. Tucson’s annual average temperature has risen four degrees since 1970, making it the third-fastest warming city in the US. This increase, which is higher than across the whole state of Arizona, is mostly attributed to the urban heat island effect.

THE PROMISE OF TREES

A large-scale study of nest success in urban birds found that nests were most vulnerable to high heat at the young nestling stage. The data, over three years and 371 nests, showed that the presence of canopy cover—trees shading the nest site—was a critical factor in nestlings surviving to the fledgling stage. The probability of nest survival increased by 3% for every 10% increase in canopy cover. These findings demonstrate how special and important urban green spaces and patches of natural habitat are: in our case those adjacent to urban Tucson, such as the Tanque Verde Wash Important Bird Area. Green places act as safe harbor for nesting birds, and their shade and canopy are vital to the birds’ reproductive success.

Humans also need green spaces for our health, both physical and emotional. Many studies have shown that increased tree cover and green spaces in urban areas can reduce heat stress, create a healthier heart rate, and improve attention, mood, and physical activity. The cooling shade of green spaces is important for all residents of the city, be they human or avian.

Shade and Nestboxes



*Olya Phillips,
Citizen Science Coordinator*

Cavity nesting birds in southeast Arizona consider temperature when they seek cool nesting places to avoid overheating their eggs. Some of our local species solve that problem by nesting early in the season, some seek out higher elevations, and others nest in Saguaros, which have water in their tissues that make the interior cooler.

For a long time there has been an erroneous notion that nestboxes are not suitable for the desert environment, but in fact, all we need is shade.

In 2014 we conducted a study comparing nestbox placement in full sun, light dappled mesquite shade, heavy dappled mesquite shade, and full shade. Heavily dappled shade showed the biggest temperature difference of approximately 10°F when compared to full sun. Natural transpiration of the tree provides cooler air and allows the hot air to escape through the canopy. The aspect of the nestbox placement also plays a role. Placing it on the north or east side of the tree offers protection from the harsh afternoon sun during the hottest part of the day. Finally, each of our boxes comes equipped with ventilation holes for warm air to rise out of the box and keep the air moving.

A combination of correct placement and proper ventilation is the responsible way to provide safe nesting opportunities for our local cavity-nesting birds.

Visit tucsonaudubon.org/nestbox to learn more.

Shade Tucson: A Community Effort



Nicole Gillett, Conservation Advocate

How can we build a city prepared for rising temperatures and more extreme weather events? How can we address the needs of people as well as the environment and wildlife we share and depend on? How can we do this equitably?

Shade Tucson knows trees can play a large part in addressing these needs and has created a coalition of organizations seeking to grow Tucson's tree canopy. It includes Tucson Clean and Beautiful, Tucson Botanical Gardens, Tucson 2030 District, Sustainable Tucson, Trees Please, the LEAF Network, Mission Garden, The University of Arizona, City of Tucson, Tucson Audubon Society, and others. Tucson's average canopy is currently 8%. Shade Tucson is aiming for 15% canopy cover for Tucson.

Why shade? Trees bring all kinds of benefits to cities, including human health, environmental, and financial. For every \$1 invested in urban trees, an average of \$3.50 of goods and services is provided to the municipality. More examples of these values received can be found on page 3.

Meet Shade Tucson: Your community at work!



Trees for Tucson, the Urban Forestry Program of Tucson Clean & Beautiful

Plant the Future! *Katie Gannon, Executive Director*

Anyone can plant a tree. With good planning and careful thought, your water-harvesting landscapes can be self-replenishing and minimally managed and you'll be basking in the shade of your new trees in a short time. Trees for Tucson has been providing low-cost shade tree planting for homes, neighborhoods, and businesses since 1989. Over 160,000 trees have been planted to date, growing to an estimated 1,400 acres of new tree canopy resulting in over \$16 million in energy savings, over 7 billion gallons of stormwater interception, and over 200 million lbs. of carbon dioxide reduction. Learn more at treesfortucson.org.

The LEAF Network

Growing Edible Arizona Forests, *Ann Audrey, Chair, Leaf Network Steering Committee*

The Linking Edible Arizona Forests (LEAF) Network encourages the planting, care, harvest, and celebration of edible trees—native and nonnative trees that produce fruits, nuts, seeds, and pods that suit human tastes, provide forage for wildlife, and enhance our environment. The LEAF Network helps you get acquainted with edible trees through our colorful guidebook: *Growing Edible Arizona Forests*. This lively book helps you LEARN the benefits of edible trees, CHOOSE the right trees for your site, PLANT trees in good growing locations, CARE for trees year round, and HARVEST their bounty. Find the guidebook, Edible Tree Directory, and more at leafnetworkkaz.org.



Trees Please

Creating a Sense of Ownership, *Amanda Bickel, President, Garden Manager*

Since 2009, Trees Please has been performing habitat restoration projects in Tucson and other southern Arizona cities. The majority of our projects occur in urban locations, including over twenty parks and washes throughout Tucson. We strive to include surrounding neighbors and nearby schools in the education and process of restoring natural areas, thus creating a sense of ownership and long-term care of the natural sites. Our other program consists of setting up free community gardens, which also become sites to hold free workshops and art classes. Our main garden in Barrio Hollywood currently provides free plots for many low-income and refugee families, youth groups, and disabled individuals to grow their own organic food. It's great to experience a variety of cultures sharing their ways of gardening and cooking styles! Visit aztreesplease.org to learn more.



Sandra Page

Community Food Bank of Southern Arizona

Shade and Climate Justice: Building the Green Workforce, *Raye Winch, Water Harvesting Coordinator, Community Food Bank of Southern Arizona*

The Community Food Bank of Southern Arizona (CFB) and Tucson Water's pilot program, Green Jobs in Water Harvesting, was developed to assist a cohort of small-scale landscapers with business support and with teaching the technical skills of rainwater harvesting. By meeting the requirements of being licensed, bonded, and insured to levels required for city contracts, these currently low-income landscapers will be able to have more reliable income while contributing to building a more climate resilient Tucson. This program, along with the Sonora Environmental Research Institute's low-income grant and loan program, is part of Tucson Water's commitment to ensuring equitable access, distribution, and implementation of its rainwater harvesting rebate program.

Another essential component of building an equitable, climate-resilient Tucson is ensuring that people who live in low-income communities can stay in their homes to enjoy the trees, shade, and green space being installed. As movement builds in Tucson around planting trees and increasing green space, both of which are correlated with increasing property values, we are researching strategies to ensure that people of all incomes and backgrounds are able to enjoy these assets.

Mission Garden

Trees for the Anthropocene, *Kendall Kroesen, Community Outreach Coordinator, Mission Garden*

While the words "desert" and "tree" may not seem to go together, longtime residents of our region know we live in an arboreal desert—one full of trees that adapt well to suburban yards. Even if we can drastically cut carbon emissions, we still need to adapt to warmer weather with hotter heatwaves. Trees are the most cost-effective way to adapt. Properly placed, they shade homes, patios, streets, and parks, and reduce electricity use.

We can also make our communities more resilient by converting suburban food deserts into food forests. Part of the Garden's mission is to teach about how 4,000 years of Native American and successive cultures introduced great desert-adapted crop diversity here, which we now mostly ignore. Our city can be full of the native and cultivated trees that helped make Tucson the United States' first City of Gastronomy.

Tucson's millennia-deep arboreal heritage will be part of how Tucson copes with the Anthropocene, our human-dominated geological era. Planting a tree is the first step.

L to R: Shade at Work, Katie Gannon; Jesus Garcia holds a bountiful harvest of quince fruits at Mission Garden; Dena Cowan; Trees Please, Amanda Bickel; Community Food Bank of Southern Arizona; Mission Garden, Kendall Kroesen.



SHADE STORIES

How is Shade Important to You?

Spend any time in the Sonoran Desert and it's not long before you curse the sun. It's all-powerful and it usually hurts. Incongruously, the shining sun also creates shade. You quickly learn that shade is one of your best friends, a character you might seek out even in the middle of winter! It can foster a sense of community: a connection to nature, history, and family.



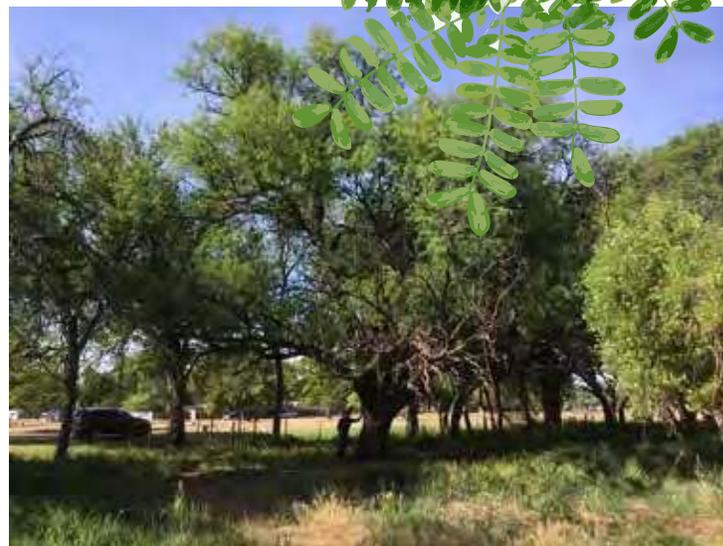
The Gift of Shade

Matt Griffiths

When we bought our house 14 years ago, the front and back yards were barren, rock-filled landscapes, devoid of vegetation and other life forms. Not particularly good for the immediate future, but a great blank slate for my budding landscaping skills! Of course, I went nuts with it, and over the next two winters I planted hundreds of plants and built a ramada out of mesquite, pine, and ocotillo.

What was once a brutal sun spectacle of hot rock, is now an inviting, shady oasis that is a home to insects, lizards, birds, rabbits, and even the occasional ground squirrel! The yard has also become an extension of my family's home—we spend a lot of time outside. This is the true gift of shade in the Sonoran Desert. It's hot out there and the sun is deadly. Our shade gives us the opportunity to actually enjoy time outside, to linger longer, and appreciate a connection to nature in the place we live. I don't have to travel somewhere to hear birds singing, watch lizards dueling, or even just meditate on the beauty of an ironwood tree. I love "my" shade and wish more people had their own to use as a way to love the desert we all share. Let's work to make that happen.

*Walk down into the riverbed, and down into Tucson's past.
Stand in the small, shady tangles at river's edge...*



Santa Cruz River Underground

Kendall Kroesen, Community Outreach Coordinator at Mission Garden

Archaeology Southwest’s recent reprint of *Tucson Underground* provides a metaphor for the Santa Cruz River. For most of history the river was a lazy creek on the surface of a wide, fertile floodplain. It began eroding into its current deep channel around 1890 when a new canal captured floodwaters and formed a headcut.

Today, where the scarred floodplain flows again with cleaned wastewater, it hides in that deep channel. Covert, shady places under bridges, below banks—underground, in a sense—are glimpsed and immediately forgotten by drivers or cyclists who never dismount. The occulted shade of today’s river is experienced mostly by the homeless and a few adventurous birders.

Historical research and the Antiquities Act have brought up discoveries even as the river has receded deeper. They are summarized in publications like *Requiem for the Santa Cruz* and *Tucson Underground*. Four thousand years of continuous cultivation. Oldest irrigation canals in the U.S. Astounding Hohokam population density. Birds species long since disappeared. Miles-wide mesquite forest gone up through chimneys.

Dismount. *Walk down* into the riverbed, and down into Tucson’s past. Stand in the small, shady tangles at river’s edge, and mourn for the wildlife that no longer fits.

Big Shade

Howard Buchanan

Patagonia’s remnant riparian mesquite bosque may soon be recognized as the home of a new Champion on the National Register of Big Trees. I had recently had the chance to see this very big velvet mesquite (*Prosopis velutina*; 31° 32.227’ N, 110° 45.507’ W) on the Nature Conservancy’s Patagonia-Sonoita Creek Preserve with Ken Morrow, Patagonia resident and former Arizona state coordinator for the National Big Tree Program. He believes this mesquite is ready to take the crown from the current holder, another giant local mesquite that is believed to be over 200 years old.

Ken measured the upstart mesquite this past May. With a girth of 150", height of 57', and a crown spread of 70', it scored 255 points. This puts it in a statistical dead-heat with the venerable champ, which when last measured scored 257. Ken estimates the age of the Patagonia contender at 150–200 years, in good company with well-known old-timers like the “Jail Tree of Wickenburg” and the “Great Mesquite of Agua Caliente” in Tucson. All of these trees are old enough to have witnessed our civilization growing up around them and are still kind enough to let us bask under their shady canopies for an afternoon.

L to R: Matt’s shady oasis, Matt Griffiths; Santa Cruz River under El Camino del Cerro Bridge, Kendall Kroesen; The big tree and Ken Morrow, Howard Buchanan

Guide to Tucson Trees



Kim Matsushino,
Habitat at Home Coordinator

Birds need trees. High atop the canopy of large trees you may spot hawks or owls scanning the perimeter below for prey. A level down, songbirds find refuge in the tree's dense foliage and branches; flycatchers dart back and forth capturing the insects that the tree has attracted; and in its shade below, cottontail rabbits rest, and towhees, thrashers, and quail forage for insects and seeds. Each level of a tree's structure has the ability to provide an essential habitat component; all it needs is to be planted.

Tucson Audubon's Habitat at Home program promotes, celebrates, and encourages all outdoor spaces to be bird and wildlife friendly—ones that provide wildlife with the food, water, nesting opportunities,

and protection they need. Many of these components can be fulfilled by trees, as they are a vital part of our ecosystem. They are the combaters of climate change, cleaners of the air, providers of oxygen, preventers of soil erosion, food producers, and they facilitate a connection with nature. Trees provide the shade that cools our homes and cities in the summer and keeps them warm in the winter.

When picking the ideal tree for your space, native is always better. Native species are more resistant to disease and drought conditions and are less likely to uproot in monsoon storms. They will also create a healthy ecosystem in your yard while preserving the natural heritage and biodiversity of our region.



BLUE PALO VERDE

(*Parkinsonia florida*)

Sun: Full sun

Water-use: Low once established

Size & Structure: Tree, 20-ft tall with 25-ft canopy

Flower: Yellow; blooms March–April

Ecology: Found along washes, plains, and canyons

Wildlife Benefit: Butterfly and moth larval host; highly utilized by nesting birds



DESERT IRONWOOD (*Olneya tesota*)

Sun: Full sun

Water-use: Low

Size & Structure: Slow growing, 20–50 ft tall and 20–50 ft wide. The ironwood is the tallest growing tree in the Sonoran Desert.

Flower: Lavender flowers in April–May; flowers and seeds are edible

Ecology: Found in desert washes and on low hills often in gravelly to silty soil; serves as a nurse-plant for many desert species; very sensitive to freezes

Wildlife Benefit: Seeds eaten by wildlife; flowers attract hummingbirds



DESERT WILLOW

(*Chilopsis linearis* var. *arcuata*)

Sun: Full sun/Partial shade

Water-use: Low, although it does appreciate supplemental watering during the summer for dense foliage.

Size & Structure: Tree, 15–30 ft

Flower: Large, pink, slightly fragrant

Ecology: Found along dry washes and on the high terraces of river floodplains in the low deserts and foothills, below 5,500 ft

Wildlife Benefit: Pollinated by hummingbirds; moth larval host

Habitat at Home Plant Profile: Scarlet Sage Lynn Hassler, Nature Shop Garden Volunteer Captain

Scientific name: *Salvia coccinea*

Family: Lamiaceae (Mint)

Native range: Coastal South Carolina to Florida, west to Texas, south into Mexico and tropical Americas

Wildlife value: Flower nectar attracts hummingbirds, bees, and other insects. Seeds relished by Lesser Goldfinches.

This showy plant is made for the shade in our area! Scarlet sage is extremely versatile and in its native range grows in a diversity of habitats: in sandy soils in coastal thickets, in chaparral, in open woods and edges in Texas, and among pines and oaks in eastern coastal states of Mexico. It adapts well to our region's poor soils and dry shady areas.

Hummingbirds hover at the whorls of red flowers that form on square stems. Plants bloom repeatedly if temperatures are warm enough, and nearly continually from spring through fall. Scarlet sage is a perennial, but acts like an annual in colder areas; it's hardy to 30 degrees.

Plants are fast growing to 1–3 feet high/wide, and are medium water users. They are quite resilient: even after wilting down and looking nearly dead, they can be revived with water. Cut back stems often to encourage bushiness. Dead heading will promote more blooms, but leave the prolific seeds for Lesser Goldfinches. They alight on the flower stalks, nibbling on the seeds like corn on the cob. Foliage is pungent, which helps keep unwanted critters at bay. Plants reseed easily, which makes the hummers and goldfinches happy.



NETLEAF HACKBERRY

(*Celtis reticulata*)

Sun: Full sun/Partial shade

Water-use: Medium-low; likes infrequent, but regular deep waterings during the summer; grows fastest with frequent regular water, good for graywater systems

Size & Structure: 20–50 ft tall and 20–50 ft wide; slow–moderate growth; excellent shade tree

Flower: Insignificant in spring but followed by orange-red fruits that birds adore

Ecology: Found in riparian and woodland scrub habitats across much of the western United States into northern Mexico, between 2,000–5,000 ft.

Wildlife Benefit: Butterfly and moth larval host; attracts many bird species for foraging and nesting opportunities



VELVET MESQUITE

(*Prosopis velutina*)

Sun: Full sun

Water-use: Low once established. but grows well when attached to a greywater system, too

Size & Structure: 20–50 ft tall and 20–50 ft wide; moderate growth rate; excellent shade tree

Flower: Greenish-yellow, bloom mid-spring

Ecology: Common along washes, in bottomlands, slopes, and mesas

Wildlife Benefit: Butterfly and moth larval host plant; attracts birds; pulp of pods is edible (the most ubiquitously eaten fruits of any local tree); “the tree” for Lucy’s Warblers. Velvet mesquite is the single most valuable habitat tree for the Tucson Basin

NOTE: when purchasing, ensure that the tree you’re buying is a genetically pure velvet mesquite and not a hybrid; many trees sold as velvet mesquites are 50% hybrids at best

Let Habitat at Home Be Your Guide

See a comprehensive list of native plants and learn how to make your landscapes wildlife-friendly at tucsonaudubon.org/habitat. Join our Habitat at Home program today!

For help selecting the right tree for your needs, and where to buy, contact habitat@tucsonaudubon.org.

Working with Shade at the Paton Center



Tina Hall,
Paton Center Coordinator

While the Paton Center sits at 4,000 feet and is noticeably cooler than Tucson, shade is still a valuable commodity here. In fact, shade is a resource Tucson Audubon consistently strives to maximize for the property. Consider the important role of shade in these three popular spots at the Paton Center.



Images by Tina Hall

THE FRAKER STREAMSIDE REST

As patches of shade shift with the moving sun, Paton visitors often rotate through a number of seating areas in the course of a day—from the Richard Grand Meadow to the Backyard Pavilion to the front yard. However, a special, “hidden” gem is sometimes overlooked. In the southeast corner of the property, along Sonoita Creek, a set of stairs descends to a cool, shady nook. An inviting bench here is canopied by a large cottonwood and surrounded by ash tree saplings, native grasses, penstemon, and other flowering plants. A seed feeder, bird bath, and hummingbird feeder offer birds an extra incentive to visit.

This special nook was developed with funds from Matt Fraker and his wife Sherri Thornton in memory of Matt’s mother, Carol V. Fraker. Matt, a veterinarian and American Birding Association board member, wished to honor his mom with a quiet, unique bird-viewing area. He has worked closely with Tucson Audubon to create this little sanctuary. Paton docents have noted that, especially during migration, shyer birds frequent the feeder here—especially Calliope and Costa’s Hummingbirds that don’t seem to venture often into the back yard.

THE PAUL BAIRD TRAIL

On Sunday, April 7, the shady trail leading from the Paton Center onto the Patagonia-Sonoita Creek Preserve was officially named the Paul Baird Trail. The trail was built in 2015 by Patagonia’s volunteer trail-building crew, the Dirtbags, with support of both The Nature Conservancy (TNC) and Tucson Audubon staff. The trail takes the visitor from the densely treed, cottonwood-willow riparian area around the Paton house to the more open, drier, less shady mesquite shrub-land. The trail then intersects the existing Nature Conservancy Geoffrey Platts trail.

Paul Baird was a Green Valley resident and avid birder. He held a special interest in the Patagonia Sonoita-Creek Preserve and, together with his wife, Virginia (Gini), was a major supporter of TNC’s work in Patagonia. When Tucson Audubon began stewardship of the Paton Center, Paul and Gini were delighted to hear that the two organizations were working together. Paul was particularly eager to see the development of the trail connecting the Preserve to the Paton Center. Paul passed away in 2015, just a few months before the trail was completed.



Logan Havens

The Paton Center Pavilion: Designed to Disappear

Jesús Robles and Cade Hayes of D U S T[®] designed the Paton Center for Hummingbirds Backyard Pavilion.

We approached our design for the Pavilion in two distinct ways. In one respect we looked to the existing built and natural environments, and looked to Tucson Audubon with regard to use and function of the site. We wanted to work in alliance with the mission to restore the riparian edge of Sonoita Creek with native vegetation. Secondly, we wanted to create a natural feeling within the space, creating a structure that would blend into its surroundings.

Our initial reaction was to try and connect the space to the forest and the floodplain to the south. Through the property's close proximity to the Patagonia-Sonoita Creek Preserve, we felt there was an opportunity for a larger connection to place and wildlife. Our second impulse was to create a structure that would blend into the surroundings and visually get out of the way.

The pavilion rises on three central steel columns, allowing it to all but disappear as you sit below, the panoramic theater for wildlife observation unfolding just beyond. The dynamic roof structure provides shade and distributes rain to catch basins. Rock-lined basins beneath bring flora closer to visitors, and provide a natural food source for the hummingbirds and pollinating insects. Material choice was crucial to achieve a less commercial feel and tie into the existing natural and cultural contexts. Individual steel ribbons twist apart, trees peer through the gaps, and in instances the roof seems to vanish. White oak rafters gently twist, capturing the lightness of the hummingbird's flight. The wood is a celebration of the high desert environment, made to age and wear the marks of time, through the history written in its rings and the natural patina of its life cycle.

In 2018, the Paton Center Backyard Pavilion won the following awards from the American Institute of Architects:

- 2018 AIA Arizona Merit Award—Component Design
- 2018 AIA Southern Arizona Honor Award—Component Design
- 2018 AIA Western Mountain Region Citation Award—Design Excellence

Learn more: aia.org and dustdb.com

Paton Bird Profile: Western Yellow-billed Cuckoo

Keith Kamper, Paton Center Volunteer and Board Member

Western Yellow-billed Cuckoos are a common breeder in the Sonoita Creek watershed. This threatened species usually arrives in Patagonia in mid-June and remains through September. Yellow-billed Cuckoos have a relatively brief nesting cycle; from the start of incubation to fledging can take as few as 17 days. Both parents incubate and brood the nestlings during the day. The male takes the overnight shift, bringing with it nest material as an “offering,” which the female usually works into the nest. The deciduous forest that shades the Paton Center in summer also provides ample food—caterpillars, cicadas, and grasshoppers—for nesting cuckoos. Cuckoos are one of only a few bird species able to eat hairy caterpillars, sometimes devouring over 100 in one feeding!

Colloquially referred to as the “rain crow,” Yellow-billed Cuckoos often respond to loud noises like thunder by giving its peculiar croaking call, hence the name. Others say they are so named because they call frequently on high-humidity days, seemingly calling for the rain to fall.

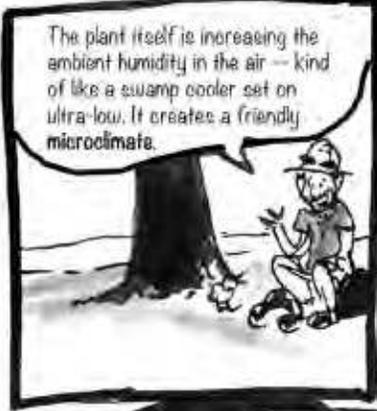
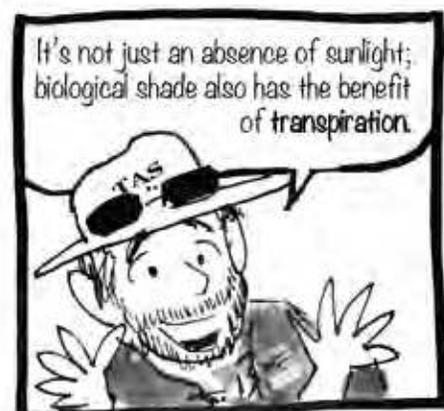
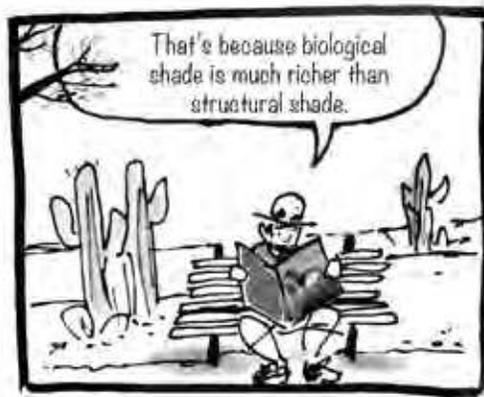
Tucson Audubon, in collaboration with the US Forest Service, has utilized the Paton Center as a training site for volunteers and professionals engaged in seasonal cuckoo population monitoring. Each year, participants gather and spend the day learning the techniques necessary for identifying and locating Yellow-billed Cuckoos. In addition to human monitoring, Tucson Audubon utilizes acoustic recording devices and special software to help detect cuckoo activity in remote areas.

To learn more about Tucson Audubon's cuckoo monitoring efforts, visit: tucsonaudubon.org/cuckoos.



Yellow-billed Cuckoo, Shawn Taylor

Ask a TUCSON AUDUBON ECOLOGIST! "shade is cool"



Art by Chase Gregory

Advocacy Updates

Rosemont Mine: Save the Scenic Santa Ritas filed a request for a Preliminary Injunction in Federal court in Tucson. Along with the two current lawsuits, we are fighting back against this destructive effort.

Outdoor Recreation Along Arizona's Waterways is a \$13.5 Billion Industry. A 2019 Audubon Arizona Report offers amazing details on how Arizona's rivers, lakes and streams bring in big bucks to our economy. See more: audubon.org/economic-impact-arizonas-rivers-lakes-and-streams.

I-11: The proposed new highway from Mexico to Canada includes a little portion of highway in Southern Arizona that could mean big consequences for our Sonoran Desert. Join us in opposing any new highway option through the Avra Valley.

To stay informed about Tucson Audubon's conservation advocacy efforts, sign up for periodic action alerts at tucsonaudubon.org/enews. Conservation Advocate, Nicole Gillett can be reached via ngillet@tucsonaudubon.org.



The Avra Valley and Saguaro National Park, Nicole Gillett

Bringing the Environment Center Stage at Mayoral Debate

Tucson will elect a new mayor in 2020 and will face some tough environmental challenges. A coalition of organizations sponsored a Tucson Environmental Mayoral Debate in May to bring these critical issues to the forefront of this election cycle. The near future promises to be an era of creativity and opportunity.



Tucson Environmental Mayoral Forum at Changemaker High School, May 2019

Vocabulary and Terms

Rosemont Mine: A proposed open pit mine in the Santa Rita Mountains owned by HudBay Minerals

Preliminary Injunction: A PI halts any immediate action until the conclusion of a legal case

I-11: A new federal interstate highway proposed from Mexico to Canada.

Becoming an Advocate 101

Quick tips for meeting with decision makers:

- 1 Be courteous and remember decision makers are people too. This can help take the edge off a meeting.
- 2 Bring notes to leave—a simple, one-page, easy reference for later!
- 3 Keep it short, make a single ask, and remember to say thank you.
- 4 Follow up and keep regular contact. Keep that conversation going!

Catalina— Crown Jewel of the State Parks

Bob Bowers



W.R. Sircy

Living in Arizona comes with many advantages, not the least of which is our first class state park system, which two years ago received a gold medal for the best managed system in the nation. For birders, these 35 parks showcase some of the best birding sites in the state with native habitat ranging from desert scrub to mountain forests. In most cases, they are also represented by eBird Hotspots and many offer free weekly bird walks.

park, and mentions it numerous times, including as one of the six top sites for anyone with limited birding time. The park is also referred to specifically for finding eleven species, including Elf Owl, Bell's Vireo, and Blue Grosbeak.



Rufous-backed Robin, Lois Manowitz; Blue Grosbeak, Lois Manowitz

Eight trails give birders good opportunities to sample three habitats: desert scrub, mesquite bosque, and riparian vegetation (expect wet wash crossings during rainy seasons). The best trails for birders include the Birding Trail (one mile loop), Canyon Loop (2.3 miles), and the Sutherland Trail, which can also take you to the high elevation forests of Mt. Lemmon, but is easily shortened. A little-known

Fortunately for Tucson area residents, the crown jewel of these parks, Catalina, lies right within our metro area. The entrance to this beautiful wild haven is on Oracle Road, directly across from Oro Valley Marketplace. In stark contrast to the bustle of the Marketplace, Catalina State Park offers 5,500 acres of saguaros, solitude, and sanctuary, with miles of trails, canyons, and treed washes as well as direct access to the Coronado National Forest and Mt. Lemmon.

fourth trail begins at a gate next to Spirit Dog Ranch on Bowman Road north of the park entrance, where you can follow the Canada del Oro Wash south about five miles—a great birding shuttle hike.

As an eBird Hotspot, the state park shows 192 species, including rarities like Rufous-backed Robin, White-throated Sparrow, and Indigo Bunting. It's also a reliable site for Rufous-winged Sparrow, Crissal Thrasher, Lucy's Warbler, and Lawrence's Goldfinch, and records show all four Arizona towhees, seven species of hummingbird, and fourteen warblers. Rufous-backed Robin was first reported at the park on December 26, 2007, drawing large crowds to the hackberry trees it frequented near the main trailhead parking area. The species was then absent from the park for 8 years, until another single Rufous-backed Robin was sighted on December 7, 2015, sticking around nearly four months. Tucson Audubon's *Finding Birds in Southeast Arizona* includes a two-page overview of the

As Tucson area birders, we're lucky to have such a gem so conveniently located. Easy access, natural beauty, and an impressive year-round bird list should make this park one of your top birding destinations.

Bob Bowers writes a birding column for an Arizona newspaper, and he and his wife, Prudy, travel and bird worldwide, as well as lead Tucson Audubon field trips.

FIESTA DE AVES

Saturday, August 10, 2019
DoubleTree Hotel by Hilton – Reid Park
445 S Alvernon Way, Tucson, AZ 85711

Tucson Audubon would like to thank **TEP** for sponsoring the *Fiesta De Aves* Banquet and Reception for the 9th Annual Southeast Arizona Birding Festival.



TEP safeguards our raptors through its Raptor Protection Program, working with wildlife experts to protect birds and other animals from electrical hazards. Active raptor nests and areas of high raptor activity are studied to determine safety solutions, including the installation of protective insulation and nesting platforms. For more information, including ways you can help, visit tep.com/news/raptor.

Tucson Audubon Welcomes **Splendido** as a Premiere Level Sponsor of our Volunteer Program



Splendido is an all-inclusive Life Plan Community in Oro Valley for those age 55 and better—and it is much more than meets the eye. Splendido is investment protection, financial security, and health care services that you may not need today, but will take comfort in knowing will be there.

Their amenities include a creative arts studio, library, movie theater, billiards room, and a 10,000-square-foot fitness center complete with an indoor lap pool, cardio and strength-training equipment, and a variety of fitness classes. In addition, there is an outdoor pool, an 18-hole putting course, and walking paths. Located in a wonderful area for birding and enjoying the great outdoors, Splendido offers many opportunities for pursuing a favorite pastime or trying new things.

Birding Travel from our Business Partners

Solipaso Tours solipaso.com

YUCATAN BIRDS AND RUINS

Dates: January 10–20, 2020

Price: \$4,050

Leader: David MacKay

Bird highlights include Yucatan Flycatcher, Cozumel and Yucatan Vireos, Woodpecker, Bobwhite, Jay, White-bellied Wren, Orange Oriole, Ruddy Crane, Rose-throated Tanager, Mexican Sheartail, and Gray-throated Chat. We'll also visit some of the magnificent archeological ruins (Tulum, Calakmul, and Uxmal), enjoy unique regional cuisine, and explore the world of the Mayan culture.

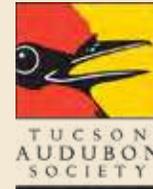
MONARCH BUTTERFLIES AND BIRDS

Dates: February 9–16, 2020

Price: \$3,050

Leader: David MacKay

Over 20 million monarch butterflies make their amazing migration of more than 2,000 miles from Canada to a small area in the mountains of Michoacan and the Estado de Mexico. It's a marvel of nature that is not to be missed! In addition, we'll visit the Lerma marshes, where we seek the beautiful Black-pollled Yellowthroat, then make our way to Valle del Bravo and Lake Patzcuaro.



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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, including links to websites, visit tucsonaudubon.org/alliance.

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Cornell Lab of Ornithology

SUSTAINING (\$1,000)

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and Visitors Bureau
Birding Ecotours
Crown Community Development-Arizona
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Dr. Miguel A. Arenas, MD
Green Valley Pecan Company
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TUCSONAUDUBON.ORG/FESTIVAL

SOUTHEAST ARIZONA BIRDING FESTIVAL

AUGUST 7-11, 2019

Come visit us at the **FREE COMMUNITY NATURE EXPO**

DOUBLETREE BY HILTON HOTEL TUCSON-REID PARK (445 S. ALVERNON WAY)

Thursday, August 8: 12-6 pm

Friday, August 9: 12-6 pm

Saturday, August 10: 10 am-6 pm

Sunday, August 11: 10 am-2 pm

Choose from over 40 Workshops and Free Talks, have fun at evening celebrations, and walk through the expansive exhibitor room.

Don't miss the Kid's Zone on Saturday (10 am-2 pm)

- Exciting animals from the Reid Park Zoo (10 am-12 pm)
- Raptors from Wildlife Rehabilitation of Northwest Tucson (12 pm-2 pm)
 - Visit from Poncho, the Vermilion Flycatcher
 - Face painting, owl pellet dissection, and other hands-on fun
- Special Guest, Jennifer Ward, author of *I Love Birds! 52 Ways to Wonder, Wander, and Explore Birds with Kids*, from 12 pm-1 pm

PRESENTED BY



Welcome our FEATURED SPEAKERS:

KEVIN KARLSON



Kevin is an accomplished birder, author, professional tour leader, and wildlife photographer/instructor. Featured presentation: “Birds of Prey: Hawks, Eagles, Falcons, and Vultures of North America.”
Friday, August 9, 4 pm–5:30 pm

LAURA ERICKSON



Laura has been a scientist, teacher, writer, wildlife rehabilitator, professional blogger, public speaker, photographer, and Science Editor at the Cornell Lab of Ornithology. Featured presentation: “Best Bird EVER! I went looking for birds, and found joy, love, redemption, and more.”
Saturday, August 10, 6:30 pm–8:30 pm



FIESTA DE AVES

Don't miss Saturday night's
Festival Reception and Banquet

5:30 Mariachi & Local Art Reception

6:30 Evening Program, Gourmet Dinner

Special Guest: Regina Romero

Keynote Speaker: Laura Erickson

It's time to develop your PHOTOGRAPHY SKILLS!

Perfect Workshops for Beginners:

Thursday, 9:30 am–11 am “Easy Digiscoping with Carl Zeiss Sports Optics” at Reid Park with Richard Moncrief

Friday, 2:30 pm–4 pm, “An Artistic Photographer Lies in All of Us” with Lisa Langell

Saturday, 10:00 am–11:30 am, “Birding Photography” with Henry Johnson

Sunday, 12:30 pm–1:30 pm, “Editing in Adobe Lightroom” with Ben Knoot

Innovative Workshops/Field Work for the Experienced:

Thursday, 9 am–12 pm, “Hummingbird Videography Workshop” with Steve Siegel

Friday, 12:30 pm–2 pm, “Action Photography: Advanced Techniques for Nature Photographers” with Steve Gettle

Saturday, 12 pm–2:30 pm, “Advanced Photography Workshop” with Kevin Karlson

Sunday, 5 am–11 am, “Pond at Elephant Head Photography” with Brian Zwiebel



Images by Joanna Strohn

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zeiss.com/victoryharpia



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Vermilion Flycatcher by Bryan Calk/Macaulay Library

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Powerful performance that exceeds your imagination



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Second Spring Birding and

With monsoon season upon us, the desert has sprung back to life making this “second spring” the perfect time to get out birding! Now is the best time of year to find many species, from Yellow-billed Cuckoos along riparian areas to a variety of sparrows in the grasslands and canyons. It’s also when we see the peak of hummingbird diversity. Take advantage of this great time to join one of our field trips or take a class to increase your knowledge about a particular group of birds. Check out all of our offerings below.

Eric Scheuring,
Education Programs Manager



Classes

Wondrous World of Warblers

Thursday, August 15, and Saturday, August 17

Warblers are some of North America’s smallest birds, and are known for their wide variety of colors and long migrations from South America to northern Canada and back. Their rapid movements from branch to branch and behind leaves can make identification challenging. Learn how to distinguish among the fall warblers of southeast Arizona. This workshop will cover key structural characteristics, comparisons with similar species, and vocalizations.

INSTRUCTOR: Homer Hansen

FEE: Tucson Audubon Members \$125; Non-members \$160

Flycatchers of Southeast Arizona

Thursday, September 5, and Saturday, September 7

Ready to leap into the identification of *Empidonax* and *Myiarchus* flycatchers? This workshop introduces you to the diverse family Tyrannidae and highlights the ways to separate the kingbirds, pewees, empids, and flycatchers of southeastern Arizona. The workshop will focus on generic and species-specific structural and plumage characteristics with a brief introduction to vocalizations.

INSTRUCTOR: Homer Hansen

FEE: Tucson Audubon Members \$125; Non-members \$160

See tucsonaudubon.org/education for more info, including additional classes, and to register.



Lark Sparrow, John Hoffman

Report from the Field

From Scott Crabtree

Our May 2 trip through the Santa Rita Mountains via Box Canyon Road began by crossing the rangelands of the Santa Rita Experimental Station, where we found some of the usual grassland birds like Black-throated Sparrow and Cassin’s Kingbird. While we missed out on the Five-striped Sparrow in Box Canyon, great views of Scott’s and Hooded Orioles were had by all. We really enjoyed the Rock Wren family group and a Golden Eagle that perched on the canyon wall for us. Farther along, a flying Gray Hawk took us to its nest, while Townsend’s and Black-throated Gray Warblers were seen by some. Ash-throated Flycatcher and many Lark Sparrows were highlights from the grasslands along Greaterville Road.



Nashville Warbler, Alan Schmierer; Ash-throated Flycatcher, Dan Weisz



Learning are Second to None



Ridgway's Rail, Becky Matsubara; Sandhill Cranes, Cathy Wasson

Birding Excursions

Sonoita Grasslands & Vineyards, Arizona

September 28, 2019

In sharp contrast to the cactus-filled Sonoran Desert, this unique high-desert grassland provides habitat for many avian species, including up to 14 species of sparrow. Here we can find Cassin's, Botteri's, and Grasshopper Sparrows, "Lilian's" Eastern Meadowlark, Loggerhead Shrike, and White-tailed Kite, as well as riparian-associated species, including Gray and Zone-tailed Hawks. We'll make a stop for lunch and a wine tasting, both included in the fee.

LEADERS: Luke Safford and Eric Scheuering

FEE: Tucson Audubon Members \$150; Non-members \$185

Salton Sea, California

October 18–20, 2019

This modern sea is an otherworldly landscape that is a haven for a wide variety of birds, including waterfowl, waterbirds, and shorebirds, and supports one of the most diverse avian compositions in the United States. On this three-day trip we'll search for Ridgway's Rail, American and Least Bittern, Sandhill Crane, and other numerous herons and egrets. Shorebirds include Marbled Godwit, Long-billed Curlew, sandpipers, and dowitchers, and with some luck, Mountain Plover. Another unique species found here is the Yellow-footed Gull, as well as possible Black Skimmers.

LEADERS: Luke Safford and Eric Scheuering

FEE: Tucson Audubon Members \$595; Non-members \$795

Bosque del Apache, New Mexico

December 5–8, 2019

Experience the spectacle of flocks of tens of thousands of wintering geese, ducks, and cranes, as well as numerous raptors looking to take advantage of the abundant prey, including Ferruginous Hawks, Golden and Bald Eagles, Prairie Falcons, and Merlins. A visit to a roost at dusk will provide a chance to watch the Sandhill Cranes spiraling in to spend the night roosting in the shallow wetlands. We'll also explore cottonwood riparian forests and areas of Chihuahuan Desert scrub, where we'll look for Scaled Quail, Red-naped Sapsucker, Woodhouse's Scrub-Jay, Juniper Titmouse, and all three bluebirds.

LEADERS: Luke Safford and Eric Scheuering

FEE: Tucson Audubon Members \$750; Non-members \$950

Visit tucsonaudubon.org/excursions for more info and to register.

Field Trips

Sweetwater Wetlands

Every Wednesday; 6 am July & August,
7 am September & October

NOTE: The Sweetwater walk will not take place the week of the Southeast Arizona Birding Festival. Try one of these fun events instead!

Bird with eBird at Sweetwater Wetlands

with Kathi Borgmann

Thursday, August 8, 6:30–9 am

\$20/person

Youth Birding Outing at Sweetwater

Wetlands presented by Carl Zeiss

Sports Optics

Saturday, August 10, 7–9:30 am, FREE

Register at tucsonaudubon.org/festival

Mission Garden

2nd Thursday of the month in August &
September, 7 am

WOW Arizona!

Friday, August 30

This property, the Wild Outdoor World of Arizona, enhanced with amazing plants over years of work, is nestled in the foothills of the Santa Catalina Mountains near Oro Valley. By special arrangement, we are able to visit in a small group to take advantage of the height of hummingbird migration. Last year at this time it was estimated that over 150 hummingbirds visited the feeders daily. There are also other avian visitors, including Northern Beardless-Tyrannulets, Pyrrhuloxia, and other common desert species.

See tucsonaudubon.org/fieldtrips for more info and to register for these trips.

Remembering Mary Jo Ballator Thanks to Tony Battiste for this great tribute.



Mary Jo Ballator, Kaew Boon

Mary Jo Ballator, creator and steward of Ash Canyon Bird Sanctuary passed away surrounded by her family on May 25, 2019. She created a garden especially for the birds, but the banquet that she served daily drew every other kind of living thing: raccoons, ring-tailed cats, fox, javelina, deer, and pesky black bears that often destroyed her feeders. Mary Jo became instantly famous back in 2003 when a Plain-capped Starthroat Hummingbird showed up in her garden. Soon it was discovered that Lucifer Hummingbirds could be seen here like nowhere else in southeast Arizona. Mary Jo opened her unique garden to the general public from dawn to dusk from that time to her passing, graciously sharing her birds and her knowledge to all that visited. Mary Jo will be missed, but her legacy will live on through the avian garden bird sanctuary she poured her life and soul into creating. The MARY JO BALLATOR BIRD SANCTUARY, formerly known as the Ash Canyon Bird Sanctuary, will be closed at least until July 1. Presently, we are working with the family to find a way to re-open the garden until such time a buyer can be found willing to preserve what Mary Jo has created. We are also looking for volunteers willing to maintain feeders and garden and act as docents to assist visiting birders. A memorial is being tentatively planned to coincide with Mary Jo's 75th birthday in September. Please take a moment to reflect on your own personal connection with this remarkable lady!

My goal is to create a small garden in my yard called "MJ's garden" after she introduced me to all the plants around her yard. She and I shared a love, maybe an obsession, for the Salvia genus (sage). I think of her now whenever I see a sage plant. Another funny memory was if you were at her place and not many other people were there she could get her hose out and say "watch this" and spray water up into the air. Within a minute hummers would be zooming back and forth through the vertical shower.

—Tina Hall, Paton Center Coordinator

I first met Mary Jo in 2003 and over the years we became firm friends. I introduced my family and friends from England to Ash Canyon, and Mary Jo always asked after them with her customary warmth and kindness. I started guiding full time in 2010, and began taking clients to Ash Canyon. Mary Jo was always welcoming, taking time and care to point out birds and make sparkling conversation. We'd always sit together and talk, but also by email and phone, and occasionally over dinner, discussing business, and helping each other through personal matters. Since Mary Jo's passing I've been inundated with comments of sympathy and grief from all over the world, visitors who instantly struck up a bond with this unique, colorful lady. I'm so grateful that I knew Mary Jo, I loved her dearly, and I already miss her terribly.

—Richard Fray, Fun Birding Tours

Mary Jo became one of my very best friends in Cochise County over the decades of knowing her. It's hard to imagine visiting that wonderful bird sanctuary without seeing and talking with her.

—Tricia Gerrodette, Tucson Audubon Board

Mary Jo's family is collecting remembrances at bit.ly/RememberingMJB. Please add yours and keep in touch about memorial services, the future of the property, and ways to help.

Volunteer News

In 2018 more than 75 volunteers gave over 800 hours to help with planning, registration, packing food, greeting, driving vans, playing with kids, setting up audio/visual equipment, and so much more at the Southeast Arizona Birding Festival. This year's dates are August 7-11 and we'll need your help! If you are interested in volunteering at the 2019 Southeast Arizona Birding Festival please contact Luke Safford, Volunteer Coordinator, by email (lsafford@tucsonaudubon.org) or phone at 520-209-1811.

Gifts in Honor or Memory Of

In memory of Marian Kozachik from Cindy Baird

In memory of Virginia Lee Caldwell from Patti Caldwell

To Bill Foster from James Cook

In honor of Pattie Espensen from Scott Duncan

In honor of Stephanie DiStefano from Beth Gutierrez

In memory of Edna St. Clair from Carolyn Lake

In memory of Ruth S. Hileman from Karen Matsushino

In memory of Phillip Francis Richards from Jacob Richards

TUCSON AUDUBON SOCIETY

MASON MAGIC

2019 Summer Matching Gift Challenge



One of the Sonoran Desert's greatest shade stories is that of the Desert Ironwood Tree (*Olneya tesota*)—and one of Tucson Audubon's greatest treasures is the **Orpha Mason Center for Ironwood Tree Preservation & Environmental Education**. The two are linked in more ways than one....

The Ironwood Tree is a desert marvel in many ways, but particularly because of its role as a “nurse plant” that shades and protects new generations of desert vegetation. By casting invaluable shade and cooling the ground temperature as much as 27° F, Ironwoods make it possible for an entire suite of desert plants—including the majestic saguaro—to germinate, survive their tender youth, and grow into integral parts of our desert's web of life. As many as 500 species, including many birds, are thought to depend on the Ironwood Tree, and some individual trees cast their powerful, protective shade for as long as 800 years.

When Orpha Mason donated her property at Thornydale and Hardy to the Tucson Audubon Society in 1998, she was both planting and protecting seeds for our community's future. Orpha knew the value of her beloved Ironwood Trees and the 20 acres of pristine thornscrub on which they thrived. She also knew the value of education—especially when it comes to nursing the knowledge that will help protect the Sonoran Desert, its rich birdlife and biodiversity, for generations to come.

In mid-July of this summer Tucson Audubon is introducing our **Mason Magic: Summer Matching Gift Challenge Campaign** with a goal of raising \$40,000—\$16,000 of which will be dedicated to establishing a Mason Center Reserve Fund. The rest will serve Tucson Audubon's programs and operations, including those at the Mason Center.

In the months to come, we envision the Mason Center living up to its namesake as a venue for environmental education. We plan to headquarter here a future education series in the spirit of the Institute of Desert Ecology multi-day experiential learning programs for families and adults.

Like the invaluable desert resource of shade, and the nurse plants that cast their protective influence over other living and growing things, you and your contributions are key to the flourishing of Tucson Audubon, our Mason Center, and its educational outreach in service of our mission to enjoy and protect the birds of Southeast Arizona.



Orpha Mason



Saguaros under ironwood, Doris Evans



Keith Ashley
Development Director

At Tucson Audubon's Mason Center, youth, families, educators, and others can appreciate the beauty of our local landscape, enjoy native wildlife, and learn about sustainable living in the Sonoran Desert.

PLEASE GIVE TODAY! tucsonaudubon.org/appeal



300 E University Blvd, #120
Tucson, AZ 85705

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Vermilion Flycatcher

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(corner of University & 5th Ave.)

AGUA CALIENTE PARK SHOP

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

520-760-7881

12325 E Roger Road, Tucson 85749

**Please call to confirm hours. The shop opens earlier and closes later during certain months. Nature Shop space generously provided by Pima County Natural Resources, Parks & Recreation*

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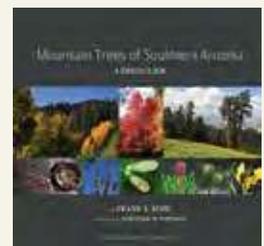
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The Nature Shop is Made in the Shade

We've got you covered for the summer at the Nature Shop. Stay hydrated with a new insulated water bottle and remember to be sun smart when you're outside by wearing a hat, sun protective shirt, and sunscreen. Stop by for more tips on surviving the Arizona temperatures and check out our summer specials.