FALL 2017

Desert Rivers Audubon Magazine

Transfixed by the Eclipse

Man and Birds experience celestial wonder

Plus Future of the California Condor • Trinidad's spooky Oilbirds

WELCOME

By Krys Hammers, President

Presidents Message

Step Out with Audubon

As our season begins, my thoughts turn to all the activities and events that we have lined up for you for this year. I hope you will find something that piques your interest and makes you want to participate.

First, we have a great lineup for our monthly Speakers Series, on the second Tuesday of the month at 7 p.m. at the Southeast Regional Library in Gilbert. The speakers are experts and I hope that you will find the topics interesting. More importantly, I hope that you will attend, so that we can get to know each other. We all share an interest in nature, conservation or birds.

Then we have our monthly bird walks, one at the Gilbert Riparian Preserve from October through March, and the other at the Chandler Veterans Oasis Park from November through April. Both start at 8 a.m. and go to noon. These walks are appropriate for children, as well as adults, beginners as well as more experienced birders. It's an opportunity to introduce the public to the great variety of bird species that we find right here in our urban wetlands. Our partner, Liberty Wildlife, is also on hand with their education birds, allowing you to see hawks, owls or even eagles up close! We also lead an Owl Walk & Talk at Zanjero Park in Gilbert year-round. We've never once missed seeing the Burrowing Owls at the burrows that we created for them at this habitat.

For the more adventurous, our field trips explore a variety of birding hot spots around the state. Some are morning trips and others are weekends, but you can always count on seeing a good list of birds. Visit our website for the details and how to sign up.

Our annual garden tour, Tour de Bird , is coming up on November 4 from 9 a.m. to 4 p.m. Tickets are available in advance for $15 (plus $1 for mailing) on our website, or save the mailing cost and pick up yours from our partner and sponsor, Wild Birds Unlimited at the northeast corner of Baseline and Gilbert Roads. On the day of the tour tickets will be $20.

Tour de Bird features backyard habitats – including my own home – that have been carefully chosen to demonstrate lush desert landscapes that are attractive to people and to birds. You may start the tour at any of the host gardens, but be sure to swing by Wild Birds Unlimited to hear a talk (at 9 and 10 a.m. and again at 2 and 3 p.m.) about how you can attract birds to your yard by feeding them. They will also have refreshments and a wonderful gift for you.

I look forward to meeting you (or seeing you once again) at one or more of our events!

Desert Rivers Audubon Magazine

Educating and inspiring our community to protect and preserve birds, wildlife, and their habitats.

Editorial / Photography

Editor : Elizabeth Farquhar liz.farquhar51@gmail.com
Creative Director : Michael Rupp mikerupp6@gmail.com
Contributing Photographers : Cindy Marple, Jim Burns, Denny Green , Michael Rupp
Contributing Writers : Kathe Anderson, Jim Burns, Krys Hammers, Jerry Lang, Cindy Marple, David Despain, Rebecca Stephenson , Elizabeth Farquhar

Monthly Programs

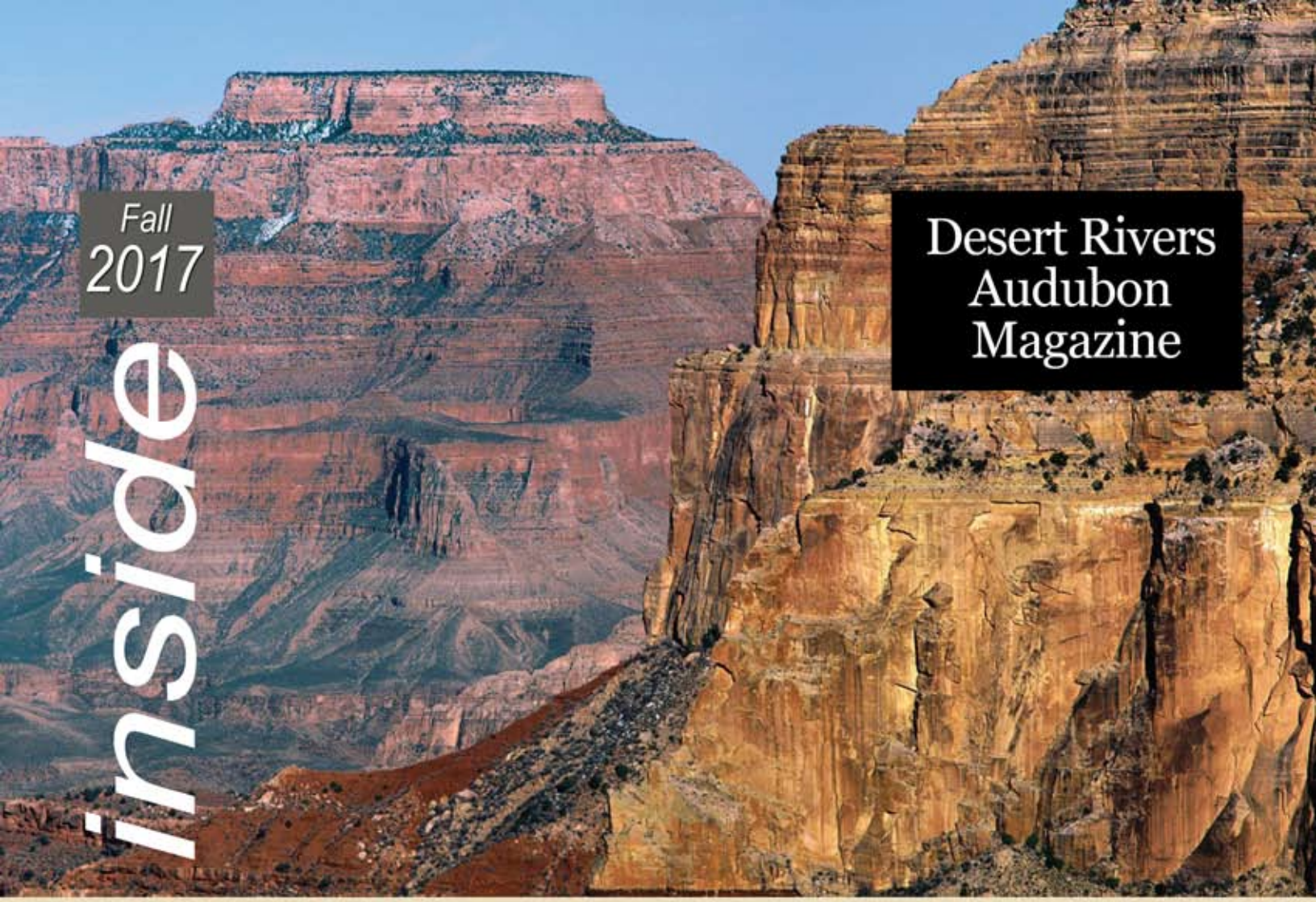
Our very popular Family Birdwalks are held at two locations each month. Binoculars and experienced guides are provided, and Liberty Wildlife has live raptors in attendance. The ***Gilbert Family Birdwalks*** are held on the third Saturday, October through March, at the Gilbert Riparian Preserve, 2757 E. Guadalupe Rd. just east of the regional library, at 8:00 a.m. The ***Chandler Family Birdwalks*** are held on first Saturdays, November through April, at 8:00 a.m. at the Veterans Oasis Park, 4050 E. Chandler Heights Rd, Chandler. No reservations are needed and there is no cost. Our monthly ***Owl Walk and Talk*** is held on fourth Saturdays at Zanjero Park, located on the southeast corner of Lindsay Rd. and the Santan Freeway, Gilbert, at one hour before sunset. It is led by an expert owl person.

Programs are held at the Southeast Regional Library, 775 N. Greenfield Rd, Gilbert on second Tuesdays from 7:00 p.m. to 9:00 p.m., September through April. Doors open at 6:30pm and everyone is welcome. The library is located on the southeast corner of Greenfield and Guadalupe Rds. See the "Events" page on the DRAS website for a list of topics and speakers. Light refreshments are served. An annual picnic is held in May.

The Desert Rivers Audubon Society is a 501(c)(3) non-profit organization incorporated in Arizona to provide environmental education and conservation opportunities to valley residents, and to advocate for our environment. For information on donations, planned giving and bequests, see desertriversaudubon.org/giving-support. Join Desert Rivers Audubon Society at desertriversaudubon.org/membership
What is the difference between a Desert Rivers chapter membership and National Audubon membership? National Audubon Society and chapters are separate entities. All dues and gifts to Desert Rivers are used for local programs. You can be a member of both Desert Rivers and National Audubon Society, or become a member of Desert Rivers without joining National Audubon. You can even be a member of more than one Audubon chapter at the same time, regardless of your home address. If you are a National member, you can assist this chapter by designating Desert Rivers as your "assigned chapter".
Contact audubon@emailcustomerservice.com and request that they "hard-code" your membership to Chapter B08, Desert Rivers Audubon Society.

Stay in Touch!

Website	desertriversaudubon.org
Facebook	Facebook.com/DesertRivers
Twitter	@DesertRiversAud



Fall
2017

inside

Desert Rivers Audubon Magazine

▲ Above: Grand Canyon

DEPARTMENTS

1 Presidents Message

3 Conservation News

11 Audubon at Home

12 Arizona Sightings

13 Announcements

14 Young Birders

FEATURES

4 California Condors
Jerry Lang

5 Treed
Jim Burns

6 Burrowing Owls
Elizabeth Farquhar

7-8 Sharing the shadow of the Moon with Stellar's Jays
Rebecca Stephenson

10 Oilbirds
Kathe Anderson

Do you know how to attract birds to your yard?
See page 11!

Conservation News from Audubon

How Do Hurricanes Affect Birds?

When severe weather hits, humans hunker down. But what about the feathered among us?

The week after Hurricane Harvey battered the Texas coast, tearing up the cities of Port Aransas and Rockport and subjecting Houston to record amounts of flooding, Terry Rossignol and his colleagues at the Attwater Prairie Chicken National Wildlife Refuge went out looking for their chickens. An endangered ground bird found only on the vanishing prairies south of Houston, the prairie chicken's numbers have been in steep decline for decades, kept from a complete crash only through an intense program of captive breeding.

Prior to Harvey, Rossignol says they'd been tracking some 29 hens on the refuge, part of a total wild population of around 42 birds. Now, wading through the bedraggled grassland, they could only confirm the survival of five hens. For Rossignol, who manages the refuge, the worst had come to pass. "We spent the better part of last week and a half picking up dead prairie chickens," he says.

The Gulf Coast of Texas hosts 380 species of birds, an ornithological richness that makes it a favored destination for birders and ecotourists. Endangered species such as the Aplomado Falcon, Brown Pelican, and Least Tern breed there; every year, a multitude of migrants pass through. Weeks after Harvey, and with the fall migration beginning to pick up steam, ecologists and conservation groups are reckoning with the effects of the winds, waves, and floods.

The most direct effects of the storm fell immediately on the birds caught in it. "I've personally seen a lot of dead terns and gulls," says Owen Fitzsimmons, conservation biologist with the Coastal Bend Bays and Estuaries Program. "People are reporting pelican [deaths]. And I'm sure there are a lot of songbirds that were too small and have already been scavenged before anyone could see them . . . My impression is that a lot of birds got killed, but we have no way of ever knowing how many, and of which species."

Other birds will be returning to landscapes that have been badly scarred. Rookery islands such as Sundown Island—used by thousands of Brown Pelicans, herons, and egrets to nest—have been hit particularly hard, says Iliana Peña, Director of Conservation with Audubon Texas. "Erosion has been a problem for these habitat types for a while," she says. "They're critical for our colonial waterbirds because they're nesting sites."

According to an Audubon field assessment, Sundown lost close to four acres of valuable land, the Second Chain Islands saw damage that will further exacerbate erosion, and several of the rookery islands experienced a complete loss of shrubbery valuable to nesting birds like herons and egrets.

The coastal forests took a hit as well. Around Rockport, the storm toppled a number of live oaks, stripped others of vegetation, and destroyed the leaf litter. While Audubon Texas hasn't had a chance to do a broader assessment outside of the coasts, Peña says, it's likely that some of this damage is going to affect bird species that are migrating through. Migrating hummingbirds, for example, have found flowers thin on the ground, and have taken to queuing around bird feeders (including Fitzsimmons') to bulk up for their flight across the Gulf.

According to an Audubon field assessment, Sundown lost close to four acres of valuable land, the Second Chain Islands saw damage that will further exacerbate erosion, and several of the rookery islands experienced a complete loss of shrubbery valuable to nesting birds like herons and egrets.

Victoria Vazquez, coastal conservation program manager for Audubon Texas, right, and warden Dennis Jones, center, dig out a prickly pear cactus from the mound of shells left on the beach by Hurricane Harvey. Photo: Julia Robinson

California Condors *in Arizona*

Jerry Lang

A number of years ago, my wife and I took a trip with other Desert Rivers Audubon Society members to Vermillion Cliffs National Monument north of the Grand Canyon. The purpose of the trip was to see the ongoing work of Peregrine Fund personnel who were involved in re-establishing free-flying California Condors into their historic ranges within present-day Arizona and Utah.

California Condors are the largest land birds in North America weighing up to 25 pounds, having a wingspan of 9 ½ feet, capable of soaring at speeds up to 50 mph and covering up to 150 miles of territory a day. They are long-lived birds – living up to 60 years – that do not sexually mature until they are 6 or 7 years old at which time they pair for life. Condors have a very low reproductive rate resulting from females laying only one egg every other year. The birds do not build nests, but lay eggs directly on rock ledges, in caves, and tree cavities. Incubation is normally 50-60 days, young fledge after 5-6 months, but remain near their parents for up to a year.

Condors are carrion eaters of medium-sized to large land and marine animals. They locate food sources by sight and the presence of other scavengers. Condors are very leery of humans, and so are never seen feeding on roadkill.

Adult Condors can store up to 3 pounds of food in their crops and only need to locate new food sources every 2-3 days. Parent birds feed their young by regurgitation.

Ten thousand years ago, these magnificent birds soared over most of North America, but their range contracted drastically with the Pleistocene Extinction of megafauna such as mammoths, mastodons and saber-toothed cats.

At the time of European settlement, Condors were still common along the West Coast. However, they were reduced to near extinction by the early 1980s as a result of habitat change, shooting, egg collection and lead poisoning. The last wild Condor seen in Arizona prior to reintroduction efforts was an individual bird near Williams in 1924.

California Condors were teetering on the brink of extinction by the early 1980s. At that time, California Fish and Wildlife in cooperation with San Diego Wild Animal Park and the Los Angeles Zoo obtained a waiver under the Endangered Species Act to begin a captive breeding program. In 1987, the U.S. Fish and Wildlife Service gave the go-ahead to capture all 22 known remaining wild Condors for use in captive breeding. From 1987 to 1992, there were no Condors flying in the wild.

Continued on page 9

Vermilion Cliffs, Arizona

Treed

Article and Photos
Jim Burns

One of my biggest regrets in life is that I never learned Spanish. Certainly, in hindsight, if I had known I was to spend much of my adult life in the Southwest, I would have done so. Four years of high school Latin, one year each of Spanish, Russian, and French in college, and now all these years later it's all Greek to me, though I pride myself on speaking English correctly. A birding incident over 20 years ago, unbelievably funny in retrospect though not so much at the time, highlighted my inability to speak or understand Spanish.

Back in the early '90s a highly respected Arizona birder discovered a pair of Streak-backed Orioles nesting on private property in the southeastern part of the state. It was the first nesting record for this species in Arizona, but there was no lister stampede to see these birds because the discoverer, quite rightly given the Orioles' location, suppressed the sighting.

As often happens, however, word of the orioles and their location somehow leaked out when the birds returned to the same general area the following summer. The nest itself was again on private property, but now there was access to an observation point along a supposed public riparian corridor. Birders knew not to cross fence lines, else all access to the area could be withdrawn.

Even at this very early stage of carrying my camera everywhere, I had learned two things essential to successful rarity photography: the first was to wait until all the listers had already flocked to see the bird; the second was to dress in camouflage. So, dressed in full camo, carrying a zoom lens, and without a tripod, I walked down the river along the fence line, not another person or birder in sight.

Having followed the directions to the letter, I was surprised when I encountered a corner fencepost. The river beyond was unfenced, and no mention of this fencepost appeared in my directions. Puzzled, I hesitated, then saw an oriole fly into a tree fifty yards down the fence line perpendicular to the river, just inside an enclosed mesquite bosque. I raised the glasses, saw the hanging basket nest, and made my way down the outside of the fence festooned with "No Trespassing" signs.

I stopped behind a huge old mesquite just outside the fence, some twenty yards from the oriole tree inside the fence. Within minutes the male Streak-backed appeared and chased off a Brown-crested Flycatcher he deemed too close to his territory. Then he deposited a strip of cottonwood bark and strands of river grass near the entrance hole at the top of the basket and began weaving them intricately into its lattice work.

The nest was perhaps 30 feet off the ground, and those with camera experience know how futile it is to shoot upward and expect everything in the vertical plane to be sharply focused.

Unencumbered by a tripod, lens around my neck, I immediately began climbing "my" mesquite, one branch to another, until I was just about even with the nest.

A large bole in my tree provided camouflage and good support for hand-holding the lens. Perfect! I glanced at my watch. Nine a.m.

I was elated with the ingenuity of my photographic solution. Without a thought to any potential problems with my position in the crotch of a tree 20 feet off the ground in a strange place, I happily shot the comings and goings of both oriole parents until the female came in one last time at 9:45 and never left. Apparently there were eggs in the basket, and she was keeping them cool as the heat of the July day approached. Without lunch or water, I figured I had been there long enough and had plenty of shots.

You're figuring the humor is going to somehow involve the difficulty of descending from my little photo aerie. You would be right, but not for the reason you'd suspect or I could have foreseen.

Ten o'clock now, getting hot, and my legs starting to cramp, I uncurled myself to begin my descent. Suddenly I heard voices! A couple, presumably the property owners, were walking through the bosque toward me with their teenage daughter. Yes, they were conversing in Spanish and no, I didn't have time to get down before they would see/hear me. Trespassing, which I was pretty sure I technically and legally wasn't, was the smallest of my issues. The biggest was imagining how I would explain to them what I was doing up in a tree, in camouflage, with a camera, looking into their property. If they even spoke English.

My spur of the moment decision—not a good one as it turned out—was to stay put and hope, pray actually, they didn't see me. This seemed a viable plan until I noticed the blanket and picnic

Continued to right

basket they were carrying. As you've guessed by now, their picnic took place under the next big mesquite inside the fence, between my tree and the orioles. Talk and laughter followed, until burritos, chips and dip came out at 11:00. Desert, some kind of decadent looking cake, was around noon. I never heard a word of English. I assure you, in my physical and emotional discomfort, I had completely forgotten about camera and birds and no, neither the orioles nor the picnickers ever saw me.

At 12:45 the father began packing things up but, to my consternation, he left without them, mother and daughter staying behind for a heart-to-heart. There were tears, there were hugs, handkerchiefs and cold drinks were passed, and I recognized just enough Spanish words to contextualize angst and know a boy was involved: probably best that I didn't understand Spanish. They finally left at 1:45, almost five hours if you've been keeping time with me! Definitely best that I had not brought any water with me.

Typical hanging nest of the Streak-backed, Altamira, and Hooded Oriole. Scott's and Bullock's Oriole's nest are shorter in height.

"A birder all his adult life, Jim Burns has been photographing nature for thirty years and writes a birding column, "Bird is a Verb," which began on the Environmental Page of the Arizona Republic and subsequently migrated to his website, www.jimburnsphotos.com every other Thursday."

Tour de Bird:

Learn How to Create Your Own Bird Sanctuary

Nancy Tossell

Whether you just like birds, landscaping, or seek ideas to make your yard a bird magnet, check out our "Tour de Bird" event on November 4. Now in its sixth year, Tour de Bird has drawn hundreds of people who enjoy and want to learn more about our avian friends.

The surprising range of habitats has something for everyone. You'll find locations with a Garden of Eden style atmosphere - complete with lush plants and running water. You'll also visit classic Sonoran desertscape yards specializing in plants native to the area.

No matter what your personal approach to supporting our winged wildlife, this tour provides ideas to create habitat-friendly islands throughout our sprawling urban community.

From the avian student to the casual bird watcher, see what home owners do to draw birds to their personal locations. As a self-guided tour, you travel at your own pace and can linger at the locations that pull you in. It's a delightful way to spend a Saturday.
Best of all, you'll see how supporting the local wildlife doesn't have to be a chore. By questioning the volunteers and home owners at each location, you can pick up ideas to make your yard, whether it's large or compact, work for you.

Plan your day to include a stop at Wild Birds Unlimited, 2110 E Baseline Rd.#2, Mesa. You will learn how to prepare and turn your yard into the best backyard bird feeding experience possible. The staff takes pride in sharing the most accurate information and knowledge about our local birds. Learn how to bring song, color and life to your home while joining Desert Rivers Audubon in our goal to benefit our wild birds and the environment we share with them.

Last year I took the tour for the first time. Along with enjoyable chats to explore new ideas, I came away with a complimentary copy of the Beginner's Field Guide to BIRDS OF PHOENIX. By referring to it, I've been able to identify "my" Curved-billed Thrasher and Gila Woodpecker, who periodically de-bug the front yard.

Purchase tickets in advance $15.00 each at www.desertriversaudubon.org, at Wild Birds Unlimited (2110 E. Baseline Road, Mesa), or at the monthly Desert Rivers Audubon programs on September 12 or October 10 (7 p.m. at the Southeast Regional Library, 775 N Greenfield Road, Gilbert). Tickets will also be available on the day of the event for $20 at any garden location on the tour. (480) 227-8332

Sharing the Shadow of the Moon with Steller

My travel plans for 2017's Great American Eclipse began in the 1990's, when my forested childhood backyard was thrown into sudden twilight. There, in the western Washington state of my youth, among vivid memories of two of the century's most spectacular naked-eye comets, is the memory of my first solar eclipse. Although it was only a partial eclipse of the sun, its effect on the natural world was profound. As I moved through the midday forest observing the lighting rapidly shift from bright sunny day to an otherworldly amber to a supernatural dusk in a matter of mere minutes, what I remember most were the animals — specifically, the birds.

The late-spring songs and calls had all ceased and the woods were suddenly — unnaturally — silent, as if in a thrall. A single Spotted Towhee (back then the Rufous-tailed Towhee) broke the hush with a clipped, uncharacteristic call that could only translate to bewilderment, and the frantic flutter of wings against leaves could be heard as birds fumbled to find their roosts in the unexpected semi-darkness. What stands out in hindsight was that brief feeling of complete unity with the natural world. For a moment in time, all creatures of the forest, myself included, suddenly found ourselves faced with an alternate reality in which that most basic truth of our Earth-bound existence, day and night, was completely negated by something greater in the universe. And this gave all of us, human and animal alike, pause.

Now, 21 years wiser, I found myself once again in a Pacific Northwest forest, this time in Oregon, awaiting the first North American total solar eclipse since 1979. Planning for an eclipse is much like "twitching," that is, when birders travel great distances to view a rare bird. While you may have longer to prepare, celestial proceedings are much less forgiving of misfortune and tardiness. While aboard the plane, I was struck by the number of events that must quite literally align to allow for a proper viewing of what amounts to no more than a few hundred seconds of daytime darkness.

Knowing all this gets you there, but does not your mind prepare. To witness a total solar eclipse is to see the cogs of the universe's gears interact, and in so doing to realize that you yourself are but a blip in geologic time, as infinitesimally small and ephemeral as the moment of totality itself. As I sat in the woods near the coast of Otter Rock, Oregon on the mercifully cloudless morning of August 21, 2017, I with my equations, was no better equipped to handle the anomalous affair than the many lives around me.

At 9:05 am, things started to change. Through our eclipse glasses, a few pixels of darkness were visible at the rightmost edge of the sun's disk as the moon made "first contact." As the minutes progressed, those few pixels grew into a tiny crescent which gradually, but visibly, ate into the sun's disk. Yet, removing the glasses during this revealed the same sunny day, full of nature's activity. The sun, it turns out, is so bright that even partially eclipsed, only the astronomically aware would know anything out of the ordinary was happening. Our human eyes could not discern such subtle changes in light levels, but perhaps the world around us could.

The bird's eye viewpoint

Shockingly, little research has been done on how solar eclipses affect animal behavior. As South Carolina scientist Adam Hartstone-Rose adroitly put it, "There are more scientific papers about Sasquatch than about animal behavior during an eclipse." Perhaps it is due to the infrequency with which they occur, or perhaps, as author and eclipse chaser Anthony Aveni writes, "Being an astronomer, I cannot imagine the willpower it takes to focus your attention on an animal during a total eclipse rather than on the sun." As highly active and visual creatures, some of which use the stars and the Earth's magnetic field to navigate, one would expect some sort of reaction from the birds.

Over the many years that humanity has marveled at eclipses, only a few fragmented accounts have accumulated. In the earliest record, 1544, astrologer Cyprianus Leovitius noted that the birds "became mute" during totality. In 1560, birds were observed falling to the ground. Someone's canary abruptly stopped singing during an 1851 eclipse and stayed still on its perch. A Portugal eclipse in 1900 saw a flock of pigeons stop feeding and crane their necks upwards as if waiting for an aerial predator to appear. But how can such observations be quantified?

A wide-reaching 1932 study, to this day probably still the most comprehensive of its kind, conducted by entomologist William Morton Wheeler examined behavioral responses in 21 animal species. Half of the species examined seemed unperturbed by the sudden disappearance of the sun, while others reacted strongly. For instance, bees returned to their hives and some did not return afield until the next morning. Birds, however, provided some particularly surprising data: some individuals responded dramatically, others were nonplussed. Some gulls, for example, "went screaming into the air and flew aimlessly about" during totality, while others in the flock continued resting calmly on the water. Certain chickens became nervous and headed to the coop as darkness fell, while others froze in place. And so, a study on eclipse behavior took a twist and became one of the first studies to suggest that animals, up to this point regarded as identical and mechanical beings, had personalities.

A stellar reaction

Anecdotal evidence over the years suggests that birds, when they do react, don't seem to notice anything is amiss until 95 percent of the sun is occluded. But I saw something else. When the moon covered about 40 percent of the sun, the Steller's Jays began to act strangely. One jay perched high in an alder tree and began issuing a series of calls that had a hysterical quality, markedly different than the calls I had heard all morning. One by one, jays began flying in from the surrounding forest to join the caller in the tree. The calls continued as the moon progressed, but ceased during totality and for several minutes after. Perhaps this behavior was completely unrelated to the eclipse, or perhaps the jays, as members of the highly intelligent Corvidae family, were questioning the odd disturbance in their day. Jays are notoriously vocal and are often the first to comment on anything in their environment. As legendary bird aficionado Kenn Kaufman says of the Corvids: "Anyone who watches these birds for long may get the impression that they are crafty and cunning creatures."

At around 70 percent occlusion, more than the jays were aware something was off. The temperature became discernibly cooler. Although the sun still shone, goosebumps inexplicably cropped up on my arms. Minutes later, as the wedge of the sun became a waning crescent, the lighting took on an eerie quality on the edge of dim. Colors faded to more washed out hues while the features of leaves and stones became sharper. "The bees are gone," I heard someone say. A breeze had started out of nowhere, and wispy clouds from the sea, held at bay by the radiative heat of the sun, began to string inland across the sky as they typically do at night.

"Rebecca Stephenson holds a Bachelor of Science in Ecology & Evolutionary Biology and a minor in Plant Sciences. She travels for birds, music, and celestial events."

r's Jays: Questioning Totality with the Birds

Rebecca Stephenson

The temperature plummeted further as an ethereal dusk crept over the land at 95 percent occlusion. The jays and chickadees had fallen silent, but I heard the plaintive evening calls of Swainson's Thrushes drifting down from the hillside. No stranger to the night, these nocturnal migrants are often sighted as silhouettes against the moon as they head from the Pacific Northwest to their South American wintering grounds, producing aerial choruses as they call back and forth on the wing.

Totality

Looking at the ground, I saw what appeared to be undulating bands of light and dark, like the negative image of what you would see at the bottom of a swimming pool. As the seconds passed, these wavering flickers became more and more pronounced, and as I glanced around I noticed that they covered everything: the driveway, the flowers, the road, the vertical walls of the house. "There must be a cloud passing over but I can't see it," someone mused, having no framework in which to place the unexplainable. Later, I would learn that these were shadow bands, unique to the moments just before and just after totality, and still largely mysterious – although they are most likely caused by the light of the reduced sun rays collimating as they pass through the Earth's atmosphere.

The intricacies of the lunar surface's craters and peaks made themselves known as the moon crept towards the last edge of the sun in the form of Baily's Beads, and then, at 10:15 a.m., came the Diamond Ring Effect, in which the outline of the moon is limned with a faint ring of light, the last bit of the sun setting into it like a bright diamond. And then, it was upon us. 10:16 am. Totality. One minute and 56 seconds of daytime-night. High-pitched howls pierced the stunned silence, and I heard myself ask, "Are those humans or coyotes?" I never got an answer, and at some point, it didn't matter: man and beast alike were transfixed. As we sat shivering in a temporary reminder of ice age, the sun had become a black hole. Its corona shone green for me, although it seems to manifest differently for everyone, and its streamers danced across half the sky. Mercury, always too close to the sun to be visible, shone down to the left and stars glimmered in the sky that only moments before had been blue as, well, day. Taking a moment to glance around I saw a green sunset sky that occurred at all horizons, no longer confined to the west. I also noticed that I could see. This sudden night vision was due to the unnaturally high levels of gamma aminobutyric acid (GABA), a neurotransmitter only produced in the eyes during daytime, which temporarily gifted me with a nocturnal creature's night sight.

Then, all too quickly, it was over: the diamond appeared on the opposite side as the moon continued its path across the sky and shadow bands briefly returned. The sun re-emerged as if the dimmer on a giant spotlight had been dialed up. In stunned silence, we sat for another hour watching the eclipse reverse itself. Gradually, the wind died down and the light clouds vanished as the sun began warming the Earth again. It was humbling to behold how even the briefest two minutes without the sun had completely altered the microcosm around me, and I understood what James Fenimore Cooper meant in 1869 when he wrote: "Never have I beheld any spectacle which so forcibly taught the lesson of humility to man as the total eclipse of the sun."

Near my feet, a Painted Lady butterfly, grounded by the sudden temperature drop, slowly fanned its wings to revive its muscles for flight. Bees returned to the flowers and bird activity tentatively resumed. By the time the last few pixels of the moon had vanished in "last contact," the world was completely back to normal and the whole incident seemed imagined. The moon shadow then hurtled west to east across the continental United States at a breakneck 2,288 miles per hour – sweeping across millions of eyes – before completing its journey from coast to coast in an enviable 93 minutes.

New sight for the unseeing

Regardless of who is viewing them, eclipses change lives. "I sense a feeling of communal unity in the presence of the glory of nature," writes Anthony Aveni, "a sudden pause in the rapid pulse of urban life." Aveni also describes them as "pauses in history's narrative," as every culture from the Ancient Babylonians to the Aztecs have made mention of them, however ominously, in their records. They have also contributed to science in unexpected ways: data taken during one eclipse led to the discovery of helium and the uncharacteristic darkness afforded during another eclipse confirmed Einstein's Theory of Relativity. With our advanced modern technology and the ability to compile enormous amounts of data through citizen science, we are now able to turn our gaze to the world around us during an eclipse.

Although it just happened, the August 21st eclipse has already led to some riveting discoveries about how flora and fauna respond to totality. Examining data from around 8,000 bird checklists submitted during the eclipse through the eBird app, the Cornell Lab of Ornithology has noticed a few trends, some of which I also witnessed. Aerial insectivores, like swallows, flew at lower altitudes as the eclipse progressed. Owls, nighthawks, and other nocturnal birds became active. Roosting confusion abounded. And nocturnal migrants, like warblers and my Swainson's Thrushes, begin calling as if it were time to begin their journey south. Researchers have only just now learned about GABA and night vision, and are still investigating to what extent circadian rhythms are affected by even the briefest interruption in daylight. In this most widely viewed solar eclipse of our technological age, countless studies were conducted in those brief few minutes of totality and more findings will surely emerge.

Lest you think you have already lost your chance to bear witness to one of the universe's finest shows while assisting with pioneering studies of bird behavior, North America will host another total solar eclipse in the not too distant future on April 8, 2024. It will be visible across Texas and the eastern states, and I can assure you it will be worth the trip. When I look back, just as in childhood, the eclipse itself is only part of the experience. It is the sudden chill, the unexpected shadow bands, the superhuman night vision, the mysterious howls that came from neither man nor beast, and, above all else, the reactions of birds that I remember the most. It is so easy in adulthood to forget what it is to encounter novelty, and so often we take the wonders of this existence for granted as a result. But if you still don't take my word for it, perhaps you'll listen to Rachel Carson: "For most of us, knowledge of our world comes largely through sight, yet we look about with such unseeing eyes that we are partially blind. One way to open your eyes to unnoticed beauty is to ask yourself, 'What if I had never seen this before? What if I knew I would never see it again?'" A total solar eclipse makes this easy for humans and jays alike.

California Condors continued

Because of their very low reproductive rate, scientists involved in the initial captive breeding program removed eggs laid by females and placed them in incubators. This induced female Condors to lay a second egg, and sometimes a third. Hatchlings from incubators were initially raised using large hand puppets to prevent imprinting on humans. This increased the potential number of young birds that could be released back into the wild.

In 1996, six captive-bred California Condors were released in the Vermillion Cliffs area of Arizona. Arizona Game and Fish (AZGF) and Utah Department of Natural Resources partnered with the Peregrine Fund in Boise, Idaho to begin captive-breeding for the Arizona-Utah region.

The Peregrine Fund currently maintains more than 50 Condors in captivity including about 18 breeding pairs at their facility in Boise, Idaho. Each year Peregrine Fund personnel release about a dozen Condors in California, Arizona and Utah.

After 5-6 months with their parents, young captive-bred Condors are placed in a large pen with other young condors until they are ready to be taken to the Vermillion Cliffs release site where they are held for some additional time to acclimate to their surroundings. Each Condor is fitted with a radio transmitter prior to their release. Wildlife biologists monitor the location and activities of each bird that is released. After their release, young Condors continue to return to the release site for food, but gradually travel further away and live on their own. Just feeding captive birds is expensive with the Peregrine Fund spending about $90,000 per year on this one expense.

The success of the captive release program is evident in the most recent (2016) population numbers. The Arizona-Utah population was 83 birds with several wild-born. The California population was 166, also with some wild born; and there were 34 individuals in a Baja Mexico population. The captive population stood at 170.

The fly in the ointment or rather the lead in the meat is a continual and costly component of the California Condor recovery program. Researchers have discovered that lead bullets shatter into surrounding tissues of game shot by hunters. Lead in gut piles or in downed but not retrieved animals is ingested by Condors and accumulates to the point of causing lead poisoning. Each year, most of the released Condors are recaptured and checked for lead levels. In a significant number of cases, birds must undergo chelation treatment to reduce potentially lethal lead levels in their blood. This lead contamination from ammunition is also a problem for other scavengers and opportunistic feeders including eagles, ravens, and numerous other species.

AZGF with the support of the Heritage Fund, Wildlife Conservation Fund, and Federal Aid has been providing big game hunters with copper

ammunition free of charge since 2005. The copper ammunition does not shatter or create toxic conditions for Condors feeding on gut piles or downed game. AZGF also has a program to encourage hunters still using lead ammunition to remove gut piles from the field. The Department claims 80-90% cooperation from hunters. However, even with reduced amounts of lead exposure, researchers see a continuing threat to long-term Condor survival as a species unless lead is totally banned from all ammunition within the California Condor's extensive range.

If you have an interest in seeing California Condors in Arizona, you have several options. Visit the observation kiosk near the Vermillion Cliffs, where captive-bred Condors are released once a year. The date for the 2018 release and directions to the site will be announced at peregrinefund.org or Facebook.com/ThePeregrineFund/. And, watch for them along the Colorado River near Marble Canyon via Highway 89A. Finally, Condors frequent the Grand Canyon in the summer, often near the Bright Angel Trail, where they soar over Indian Gardens.

Seeing these spectacular birds in flight is worth the effort.

Jerry Lang is a native Ohioan with a PhD in entomology from The Ohio State University. Married for almost 50 years and have two children and two grandsons. Served in USAF as a medical entomologist for 21 years before working as an environmental scientist for an architectural, engineering and planning firm in Dayton, OH for 16 years. Now retired and living in Muskegon, MI near family and have done free-lance writing over the past 10 years. Also have family in Gilbert, AZ where my wife and I spend winters. Involved in local Audubon activities both in Michigan and in Arizona. besides birding, fly fishing and gardening.

Kathe is an avid birder, having led hundreds of field trips and taught dozens of hands-on birding-related classes for individuals, conservation organizations, festivals, private groups, and life-long learning programs. She loves sharing her passion with others.

Oilbirds

Screaming Specters

Kathe Anderson

My first encounter with oilbirds, in Colombia, came close to my vision of hell. It started with a march across an open field, in baking hot sun. We dodged cows who seemed unconcerned with us but were also not quite benign, instilling in us a vague disquiet. We entered the forest, a welcome respite from the glare and heat, and continued to hike until we reached the entrance to a tall cave from which a shallow, cool stream flowed.

There was no alternate route to the interior, so we started to slosh inside. It got darker quickly. The footing was slick. Should you lose your balance, you'd want to thrust out a hand to steady yourself, even if the gloomy wall was slimy—except for the fish-eating spiders, whose outstretched legs matched the span of my fingers. Once deep enough inside the cave to approach the oilbirds, with just enough dim light to see their shapes and shadows, we had already disturbed these nocturnal creatures. They flew chaotically above our heads, uttering distressed growls and shrieks-spine-chilling and demonic. In Spanish, the nickname is Guacharo, meaning wailer. Indeed. However, oilbirds also navigate by echo-location, like bats, and emit clicks.

Like many things that are frightening, the oilbirds were also fascinating. We were torn between trying to see these screaming specters, and removing ourselves as quickly as possible from their presence and out of their shadowy, haunting cavern populated by who-knows-what other beasts. The hot, airless field of cows somehow seemed more inviting now.

Slightly larger than crows, oilbirds are sizeable. They measure about 19 inches from the tip of their heavy hooked bills to the end of their long stiff tails. Their wingspan is 42 inches. They are most closely related to nightjars (nighthawks and poorwills), but occupy a unique family and genus. They are the world's only nocturnal fruit-eating birds, generally choosing palm fruit which they pluck in flight and swallow whole. Why they have long facial bristles, usually found on insect-eaters, is unknown.

I picked up an oilbird feather from the floor of the cave. It was coppery-colored and finely patterned, reflecting the overall plumage of this unique bird. My Colombia field guide describes oilbirds as cinnamon, with tiny white spots and narrow black barring on their wings and tail.

In Trinidad, near the Asa Wright Lodge, the oilbird experience was not so immersive. The hike was downhill, in the shade, although more humid and very drippy on our return. At the bottom of the trail, we stood on a boardwalk at the edge of the oilbird grotto and peered in while the guide shone a light on the birds. I wasn't surprised to see that their dark brown eyes glowed devilishly blood-red in the darkness. I couldn't see their eyes in my previous experience, but that characteristic completed my nightmare image of these odd birds. It's no wonder that in Trinidad, oilbirds are called Diablotin, French for little devil. Why, in English, are they called oilbirds? Their unfortunate history includes the capture of young oilbirds, which before they leave the cave, weigh half again as much as adults. They were boiled for their oil, for flavoring food and for fueling torches.

Perhaps we humans are the oilbirds' vision of hell.

Four Tips to lure migrating birds to your yard!

By Lynnette Allison

October, November and December are three of the busiest months for birders. School activities are going strong and winter gardening calls to us, while cooler weather allows us to enjoy Arizona's vivid sunsets, cooler afternoon breezes and barbecues with family and friends.

These busy months also include extensive animal migrations, with birds usually earning the long-distance awards. Arizona is fortunate to have several major flight migration pathways, from Alaska and Canada through to Mexico and South America. These months bring amazing opportunities to see these birds as they travel through our areas. You may discover them in your back yard or during one of Desert Rivers Audubon's Saturday Birdwalks, or you may enjoy watching and hearing massive flocks pass majestically overhead, often in their unique V-formation.

Here are some ideas that should entice a few migrating birds to stop awhile at your backyard! Just remember, birds just want healthy food, fresh water to drink or to swim in, and shelters for a rest and to hide from local predators. You can make this happen!

1 Birds will search for food close to the ground, higher up or on tree trunks or within tree branches. Large flat saucers, wire-mesh platforms, hanging baskets and containers that hinder larger birds usually prove to be good seed-holder choices. Arrange your feeder groups in various yard areas at various heights. Put portions of food out, but not too much! It takes several days or weeks for the food to be discovered, and after a few days the seed may not be good to eat. Shelled raw peanuts, apple slices, raisins, raw shelled sunflower seeds are usually much in demand. Do NOT put out crackers, cereals, dry dog foods or bread bits and such. They are not nourishing natural bird foods and will make them weak or ill and unable to fly with their flock.

2 Water is essential and simply adding a few more sources — generally in shallow containers of 3 inches or so — in safe locations will help increase the number of birds that stop by. A larger container, perhaps that now-unused portable summer wading pool, might be used to entice water birds down for a quick dip in your "duck pond"! I remember Canada Geese arriving each winter to stay a few days and swim in the rainwater pool that formed after most winter storms in the low spot of my mother's backyard. Their unique honk honking was an exciting early alarm clock.

3 Purchase and play one of the specialty birdsong CD's! Businesses selling bird seed usually have them. These specialty discs are recorded in home birding areas. Some are bird songs only while others mix calm music with the bird calls. It all becomes part of the experience as the recording becomes a pleasant background sound during your relaxation break on the patio or back yard. You may be a skeptic now, but migrating birds DO show up - though it may take time for them to locate your specific backyard! I know this works - I managed to attract large groups of bluebirds to my California backyard this way. Previously, bluebirds were only found at the waterway ten miles away. They were there for only a week or so, but the birds were so interesting to watch splashing in the birdbath - I discovered they were a bit competitive, too! – and that special memory is mine forever.

4 And finally, don't forget to keep your camera handy! With so many different bird groups migrating, endless photo opportunities can just flitter away, although you might just click that perfect photograph of a new bird to add to Arizona's bird sightings list!

Good luck with your autumn bird-watching!

Arizona Sightings

From the Arizona Field Ornithologists Photo Documentation Webpage

Rare bird information for Arizona is best obtained from AZNMBirds, the birding listserv run by theUniversity of Arizona. To join the list, send an email to list@list.arizona.edu Put the command Subscribe AZNMBirds in the subject line and leave the message section blank. You can elect to receive daily reports on rare birds and other announcements.

Buff-collared Nightjar (Antrostomus ridgway) Warsaw Canyon California Gulch, Santa Cruz County. This Buff-collared Nightjar was photographed by Andrew Core on 30 August 2017.This species is a rare and irregular visitor to desert canyons close to the border, especially in areas with thorn scrub, where it may be more regular than records suggest; however it does appear to be irregular in numbers from year to year and is currently on the review list.

Red Knot (Calidris canutus), Gold-man Dairy Sludge Ponds, Pinal County. This Red Knot was found by Doug Jenness on 28 August 2017 and photographed by him on 01 September 2017.
A casual fall transient in Arizona and apprent first county record if accepted by the ABC. Its worldwide population is seriously declining.

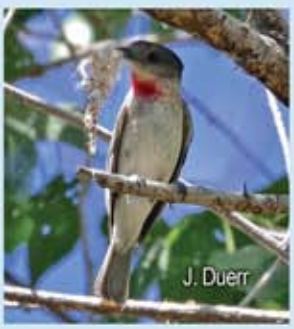
Mourning Warbler (Geothlypis philadelphia), Double Springs near Mormon Lake, Coconino County. This Mourning Warbler was found and photographed by Jason Wilder on 31 August 2017.
Casual visitor with 8 prior accepted records and if accepted this would be a first for Coconino County.

Hooded Warbler (Setophaga citrina), Arivaca Creek, Pima County. This Hooded Warbler was found by Keith Kamper and Patty Tersey on 12 August 2017 and photographed by Keith Kamper the same day. Hooded Warbler is a rare transient and summer visitor with most records in the spring. Records have increased in recent years. Adult male is unmistakable. Bright yellow with black hood and bib.

Ruddy Turnstone (Arenaria interpres), Caballero Dairy Slop Pond, Pinal County. This Ruddy Turnstone was found by Keith Kamper, Jake Mohlman, and Doug Jenness on 09 August 2017 and photographed by Keith Kamper on the same day. One of two Ruddy Turnstones found in Pinal County on this date. If accepted by the ABC these would represent only the 7th/8th records since being placed back on the review list in 2007 and the 2nd/3rd records for Pinal County. Juvenile, center next to Killdeer. Stocky shorebird with black and brown patch on chest, orange legs (not visible here), paler throat, and short, slightly wedge-shaped bill.

Fulvous Whistling-Duck (Dendrocygna bicolor), Glendale Recharge Ponds, Maricopa County. These Fulvous Whistling-Ducks were found and photographed by Steve Hosmer on 14 August 2017. Formerly a regular summer visitor to southern Arizona, this species has declined and is now a casual visitor with most recent reports coming from the winter months. Both singles and small groups (such as these 5) have been found. Similar to Black-bellied Whistling Duck, but overall rich tawny in color, dark gray bill and legs, black wings with cinnamon brown feather edges, white tips of elongated flank feathers which form white lines along the sides of the bird.

Royal Tern (Thalasseus maximus), Sun Lakes, Maricopa County. This Royal Tern was found by Dale Clark on 23 July and photographed by Dale Clark, Andrew Core, and Laurens Halsey on 24 July 2017. If accepted by the ABC, this would represent the second record of Royal Tern in Arizona. Royal and Elegant terns can be difficult to separate. The dark crest is shorter on this bird that on an Elegant Tern, which shows more black on the crown and the nape. The bill of this bird is thicker, straighter, and the gonydeal angle is closer to the tip of the bill.



Rose-throated Becard (Pachyramphus aglaiae), Tumacacori, Santa Cruz County. This Rose-throated Becard pair was found by Diane Touret on 19 May (female) and Dave Stejskal on 20 May (pair) 2017 and photographed by J. Duerr on 23 May 2017. Once a regular breeding species in a few locations, Rose-throated Becard has almost disappeared from Arizona in recent years, with just a few recent records in southeast Arizona. These are very likely the same pair present at this location in January and February.

White Ibis (Eudocimus albus), Sweetwater Wetlands, Pima County. This White Ibis was found on a Tucson Audubon Society field trip and photographed by Dan Weisz on 05 July 2017. 10 prior records for the state with two pending from earlier this summer. If this record is accepted it would be a first for Pima County. Pink legs, bill, and facial skin, white underparts with brown chest, forward edge of the wing and remiges indicate a young bird.

Little Bunting (Emberiza pusilla), Slaughter Ranch, Cochise County. This Little Bunting was found by Richard Webster on 27 May 2017 and photographed by Chris Benesh and Narca Moore-Craig on 27 May 2017. First state record of this Asian species. In North America this is a rare fall visitor to Bering Sea islands in Alaska and casual in fall south of there along the Pacific Coast (Washington to Baja California).

ANNOUNCEMENTS

See Desert Rivers website calendar for ***more comprehensive information.*** *Register for field trips by emailing our Field Trip Director Gwen Grace at gwengellen@gmail.com , or the trip leader.*

Monthly Speaker Series

Monthly Speaker Series programs are held at the Southeast Regional Library at the southeast corner of Greenfield and Guadalupe Roads in Gilbert. Browse our book table for the latest birding guides and more! Doors open at 6:30 PM and the program starts at 7 PM.

October 10: Plants for Birds.
John Rowden will discuss why native plants are more beneficial to birds and to the environment. Audubon has begun a nationwide initiative to encourage everyone to use landscaping plants that are native to their areas.

November 14: The Arctic National Wildlife Refuge is Arizona's Refuge – for Birds and More. Bill Auberle is professor emeritus of physical and environmental engineering at Northern Arizona University. He will talk about the North American lands above the Arctic Circle, which are breeding grounds many iconic species of wildlife.

December 12: Mimicry in Birds. Rich Hoyer has been working for WINGS as a professional birding tour leader for the past 19 years. He leads tours to such exciting locations as Brazil, Bolivia, Peru, Costa Rica, Mexico, Belize, and Jamaica, but he also looks forward to his annual tours exploring the beauty and diversity of his home state.

January 9: A Love Affair with Hummingbirds . Conservation Biologist Karen Krebbs will entertain you with hummingbird facts and fun! Karen has been studying hummingbirds for more than 30 years and will share her knowledge on hummingbird identification, entertaining behavior, nesting biology, and ways to attract these tiny jewels to your garden and home.

February 13: The logic of female choice: Why are they in charge of mating? Male birds do some pretty bizarre things to attract the females of their species. Dave Pearson is a professor in the School of Life Sciences at ASU. His research uses the interaction of ecology, conservation, ecotourism and education to develop methods that promote the sustainable use of biodiversity.

March 13: Live Raptor Show. Bring the kids and grandkids and join us for a live raptor presentation by Liberty Wildlife rehab foundation. This special program is visually exciting and enjoyed by all ages. All your questions will be answered about each of the beautiful creatures our Liberty Wildlife handlers bring to us.

DONORS

LPL Financial

Wild Birds Unlimited

Elery & Hazel Meyer Charitable Fund

Bass Pro Shops

Serrano's Mexican Restaurants

Field Trips

Oct 17 – 18, 2017, Cottonwood, Page Springs, Deadman State Park w K. Anderson. Two day trip to Cottonwood and IBA areas Leave Phoenix early to bird on the way to Cottonwood and a handful of sites in the Cottonwood/Sedona area. Expenses will likely include one night at a moderate hotel, 1-2 meals in a restaurants, entrance fees and a gas donation to your driver. One space left. Register with Kathe Anderson at kathe.coot@cox.net

Friday, Oct 27, 2017, Boyce Thompson Arboretum w Cindy West.
Start at 8:30 at Boyce Thompson Arboretum State ,Need entrance fee of $12.50 or have BTA membership or State Park pass.
Car pool can be set up. Register with Cindy at: quetzal@cox.net

Saturday, Oct 28, 2017, Salt River with Krys Hammers.
Early morning meeting TBD to the confluence of the Salt and Verde rivers. Will need a Tonto Pass for each car. Plan to return around 1pm. There will be a variety of duck species, raptors and songbirds. Visit several sites. Beginners to advanced Reservations contact Krys Hammers at Krys.hammers@gmail.com

Wednesday, Nov 8, 2017, Bushnell Tanks (Payson) w K Anderson.
This is an under-birded area off SR87 near Sunflower. Expenses include a gas donation to your driver. Difficulty 1-2. Limited to 7 participants. Please register with Kathe Anderson at kathe.coot@cox.

Friday, Dec 1, 2017, Tempe Lake and Scottsdale Ponds w K. Anderson.
Start about 7:30 at Tempe Town Lake and work our way north to a variety of ponds along Scottsdale's Greenbelt. We'll wrap up about noon and decide closer to the date about lunch. Expenses include a gas donation to your driver. Difficulty 1-2. Limited to 7 participants. Please register with Kathe Anderson at kathe.coot@cox.net.

Tour de Bird

Young Birder's Club

Young Birders Field Trip to the Pinal Mountains

Photo credits: Anne Webster Leight (wildlife and landscape), Ryan Dick

Anne Koch

In April, four members of the Young Birders—the Desert Rivers Audubon Birding Club for young birders—and their parents birded Pinal Mountain with group leader Anne Webster Leight and David Pearson, research professor at ASU's School of Life Sciences and well-known bird expert. The group birded the southern face of the mountains, called Pioneer Pass.

They found 78 species, of which the most unusual was an extremely late Ferruginous Hawk soaring with a Turkey Vulture and Zone-tailed Hawk high over Pioneer Pass. Also at Pioneer Pass were eight Red Crossbills, including two juveniles. As a bonus, a male Red Crossbill flew down to land on our picnic table right after we left it.

Unfortunately, the Pinal Mountains had a major fire shortly after the field trip. The U.S. Forest Service did an excellent job in controlling the fire, particularly in the Kellner Canyon Picnic area, where many homes were saved just 100 yards from the effects of the fire.

Dave Pearson reported that, on a visit about two months after the fire, "...Painted Redstarts, Red-faced Warbler and Virginia's Warbler, all ground nesters that begin nesting here in early May, were completely absent from the burned areas. Other ground nesters or near ground nesters such as Hermit Thrush, Yellow-eyed Junco and Spotted Towhee were common in burned areas as well as unburned areas, apparently because they nest in March and April before the fire started." The Fire Service closed the roads to Pinal Mt. Peak (FS 651) and Pioneer Pass (FS 112) in July and August for public safety reasons. See http://bit.ly/2uuY4CT for more information. https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd551300.pdf

Desert Rivers Audubon Society
1121 N. Terrace Road
Chandler, AZ 85226

NON-PROFIT ORGANIZATION
US Postage
PAID
Phoenix, AZ
Permit No. 1003

Address Service Requested

Membership

When Dave and Mary Anne Covey opened their Wild Birds Unlimited store in Mesa, joining Desert Rivers Audubon Society was an easy decision. It was fortunate for Desert Rivers, too. In addition to corporate dues, the business donates prizes to the monthly raffle, provides a stop that includes a lecture and a gift on Tour de Bird, and sponsors scholarships to Audubon youth summer camps.

The couple had been feeding birds in their backyard for years before they started the business. "My favorites are the Abert's Towhees and the Curve-billed Thrashers," says Dave. Wild Birds Unlimited (at the northeast corner of East Baseline and North Gilbert Roads) supplies high quality seed and feeding equipment to people who love birds. Employees are bird watchers who try out products at home so they can advise customers about what works best. Many of the Covey's customers found their way to Desert Rivers Audubon Society because they stopped in at Wild Birds Unlimited. The reverse is true as well. Dave Covey encourages other businesses to get involved with Audubon. Membership is a good connection with potential customers who share your values, he said. And it helps support conservation education and advocacy for birds, like those towhees and thrashers he enjoys so much.

facebook.com/WBUMesa/ @WBUMesa mesa.wbu.com

Membership in Desert Rivers Audubon Society helps support our chapter's outreach activities and operating costs. Annual membership entitles you to our quarterly magazine, priority status for field trips and events, and discounts on products and services. See desertriversaudubon.org/membership.

Students/Senior (65+)	$25	Individual	$30
Senior Couples	$40	Family	$50
Corporate	$300+		

The National Audubon Society and local Audubon chapters are separate entities. All Desert Rivers Audubon dues are dedicated to local programs. You may hold concurrent memberships in National Audubon and any number of local chapters. If you are a National Audubon member, you may assist this chapter by designating Desert Rivers (Chapter B08) as your assigned chapter by emailing audubon@emailcustomerservce.com

How to Join Desert Rivers