

Desert Rivers

Audubon

Magazine

*Homebuilding
Avian Style*

SUMMER 2019

Plus

The Curve-billed Thrasher Life • The Costa Rica - Arizona Connection

President's Message

By Kryss Hammers, President

Birds are everywhere and almost always doing something worth watching. When I lead birdwalks, my favorite moment is when I see someone light up as I point out a bird and its behavior. After seeing a Vermillion Flycatcher or a Green Heron, a person who had never paid attention to birds before is suddenly noticing fascinating birds wherever he goes. The reason is obvious to us: birds are charismatic!

Desert Rivers Audubon Society is committed to creating more of those eye-opening moments. The singular purpose to everything we do is to educate and inspire our community to preserve and protect birds, wildlife and their habitats. Fulfilling that mission keeps us busy. Our field trips, the Speaker Series, the birdwalks, our Young Birders Club, and certainly this magazine, are laser-focused to share our passion for birds and nature.



As a local chapter of the National Audubon Society, we define our community as Casa Grande, Chandler, Mesa, Gilbert, Apache Junction, and Superior. Our territory is predominantly urban, but it is still a desert, although much of it has been landscaped to look like the Midwest. Many new developments set a minimum amount of grass that homeowners must maintain. Grass needs 105 inches

of water annually, but the average annual rainfall in Phoenix is about 7 inches. Educating the community about our authentic Sonoran Desert and the need to conserve water is at the heart of our mission. Our annual Tour de Bird, scheduled for November 2 this year, is a crash course in landscaping desert-style—which does not include grass. The public and private landscapes featured on the tour are planted with mostly native plants that welcome birds and butterflies. Let us prove that you really don't need grass to fulfill the desire for green. Tickets at \$20 (\$15 if purchased in advance) will be available August 30 and sold on our website, at our events, and at the Wild Birds Unlimited store at Baseline and Gilbert Roads.

Yes, we work tirelessly to get our message out on the grassroots level, but we also care what happens in our state, country and the world. At our speaker meetings, in our monthly email newsletters and in this magazine, we keep our members up to date about issues and events that threaten birds or habitat.

We hope that if you are not already a member, you will join us in this important endeavor. And if you are a member, please renew. Help us open more eyes to our charismatic birds and the unique habitat where they live by taking advantage of our educational activities and volunteering!

Are you a budding bird watcher? Do you notice the birds in your back yard and wish you could name them? Do you hear birds singing and wonder who is making that sound? Do you enjoy being outside and finding things that other people don't even notice? Then the Early Birds Club is definitely for you.

The club meets once a month from October to April at the Gilbert Riparian Preserve (next to the library on Guadalupe and Greenfield) usually on the third Saturday of the month. As our name implies we start before the bird walks begin, as soon as the sun comes up and we can see the birds.

Each month we try to concentrate on a different aspect of birding skills that children can use in the future. Each member is given a notebook and we explore ways of using them. All levels of expertise are welcome, we hope to help each other. We didn't originally mean to include parents but a lot of them are getting just as interested as the children and enjoying the time as well so parents are welcome.

Each month a small home project can be undertaken to keep the focus going at home.

There is no cost for this and if you need to borrow binoculars for the walks we can arrange this. If you need more information or would like your child to take part contact Anne Leight at birdannabelle@hotmail.com or phone 602-524-4173.



Desert Rivers Audubon Magazine

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

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Conservation Commentary

Mike Evans

How High's the Water?



Woodbury Fire

I sure hope you enjoyed the rain we received this winter and spring. We had one of the wettest winter rainy seasons in over a decade: February was one of the coolest and wettest months since record keeping began in the late 19th century. May was also one of our coolest ever, with measurable rain on multiple days. It even snowed in Flagstaff over Memorial Day weekend! Typically, May is one of our two driest months.

So, what does all this mean? Well, our extreme drought is over. The United States Drought Monitor in May, reported no significant drought was reported in the lower 48 states for the first time in 20 years. All of Arizona emerged from severe or exceptional drought—good news in the short and medium term for fire conditions and lake water levels.

But if all the rain means reduced fire hazard, why does fire engulf 100,000 acres in the Superstition Mountains as I write this article? The abundant rain was extremely beneficial for medium and high elevation wooded areas. Down here in the desert, however, abundant rain means abundant grasses, many of them invasive. The Woodbury Fire started in Sonoran Desert habitat, running quickly through the grasses and annual flowers that had baked dry in 100 degree temperatures. It ran into an Oak-Juniper habitat on the east end of the wilderness area that hadn't burned since the 1960's. It will likely burn until monsoon rains put it out. What a loss for all the hikers among us!

So, as Johnny Cash used to sing, "How high's the water, Papa?" Local reservoirs have filled to a little over three-quarters capacity. The Colorado River reservoirs, where we get about 40 percent of our water supply, also increased water levels. Lake Powell rose 16 feet in May, and at the beginning of June, inflow into the lake was 128 percent of normal. This sounds great until one realizes that the lake was 140 feet below full at the beginning of the year. By June 24, the lake was 92.57 feet below full. The last time Lake Powell was essentially full was 1999.

Down river at Lake Mead, water levels are also up. Snowpack feeding the Virgin River was 180 percent of normal. Water levels are expected to remain above the level that would trigger a water emergency. But, the last time Lake Mead was full was 1983. I don't expect to see it full again during my remaining lifetime.

Ah, climate change. Overall higher temperatures, but with higher highs and lower lows; greater overall variability, but constantly trending upward with ever warmer average temperatures. More intense storms with more rain, and less snow and snowpack. Wetter, but more rapid runoff not captured by groundwater aquifers.

Fortunately, we passed the Drought Contingency Plan in our state legislature. It was signed by our governor and approved by all the Lower Basin states. Congress managed to work together and pass it at the federal level, and it was signed into law by the president. Sounds good right? Well, one of the California water districts still objects and there is a court fight left to adjudicate. It's no wonder western water law attorneys live a plush life!

In other water news, developers of the massive project on the San Pedro River outside of Benson have hired Lanny Davis, the epitome of Washington insiders, as their new attorney, to fight the lawsuit that our fellow Audubon groups have filed to stop the project. Davis was President Bill Clinton's attorney during his impeachment proceedings and most recently has worked as Michael Cohen's attorney, representing him in his testimony before the U.S. Congress.

As I write this column, things are looking up for the Santa Cruz River as Tucson launched its new project, putting reclaimed water back in the river channel in a new location. The birding should be great just west of downtown. And, farther south, Congressman Raul Grijalva sponsored new legislation to repair the sewage treatment system for the twin cities of Nogales that will put reclaimed water back in the river north of the border. That will surely enhance the birding along that stretch of the river.

As always, pray for a wet monsoon, because despite all that rain it's dry out there. I hope it rains soon, and I hope to see you in the field. Good birding everyone!



Santa Cruz River



San Pedro River

SPREADING THE LOVE: EXOTIC ROSY-FACED LOVEBIRDS PROSPER IN PHOENIX

Rebecca Stephenson



Years ago, while strolling through The Riparian Preserve at Water Ranch in Gilbert, Arizona, I stopped in my tracks at the unmistakable sight of a tiny green parrot dangling from the branches of a creosote bush. It seemed unbelievable, yet the tiny hookbill did not appear concerned as a lost pet bird might. In fact, it acted completely nonchalant and positively at home in the desert environment, briefly nibbling at the furry creosote fruits before issuing a loud screech and flying off to join an entire flock of its cohorts.

As it turns out, my sighting was hardly an anomaly. Reports of Rosy-faced Lovebirds occur all over the Phoenix metropolitan area, from the East Valley to North Scottsdale, begging the question: where did these exotic birds come from?

The short answer points us to a literal perfect storm of fortuitous events.

The story begins in Africa, where wild Rosy-faced Lovebirds struck the fancy of exotic pet collectors. Their small size coupled with their large personalities and flashy coloration instantly captivated hobbyists, and wild lovebirds were captured and imported to the United States by the thousands at the height of the exotic bird craze in the 1960's and 1970's. By the time the Wild Bird Conservation Act was passed to regulate mass import in 1992, lovebirds were available at nearly every pet store in the United States. In fact, the caged birds that set off the infamous avian attacks in Alfred Hitchcock's 1963 horror film "The Birds" were none other than a pair of Rosy-faced Lovebirds.

In captivity, the birds proved to be plucky, intelligent, adaptable, and, unlike most captive parrots, prolific breeders. This made them

both more affordable and much easier to keep than larger parrot species, and many local aviaries began breeding birds for the pet industry. According to local Arizonan and Wild at Heart conservationist Greg Clark, the origin of all Phoenix lovebirds can most likely be traced back to two separate release events that took place in the mid-1980's: one accidental and one intentional. An Apache Junction aviary was destroyed during a particularly violent summer monsoon, setting around 100 birds free. Around the same time, a North Valley aviary owner decided to quit the business and released all birds in the facility including, among other species, a handful of lovebirds.

But the desert is a notoriously harsh place, and most exotic birds don't stand a fighting chance at survival, let alone possess the ability to flourish. According to Arizona's Game and Fish Department, it takes around fifteen to twenty individuals of a parrot species to initiate a breeding population. This is why isolated releases and an escaped pet here or there rarely results in a proliferation. For example, there have been similar mass releases of the more commonly kept cockatiels and budgerigars over the years, yet these birds fail to prevail here. Our Rosy-faced friends, on the other hand, found themselves oddly at home.

Lovebirds are native to the arid regions of Southwest Africa, including the Namib Desert. Unlike the majority of parrots which hail from tropical regions, lovebirds are perfectly suited to hot, dry environments, so long as there is water and food available. Lucky for this band of tiny green nomads, they found themselves in the perfect environment – and with a lot of friends. The first report of lovebirds breeding in the wild came in 1987, where parents with young were seen feeding on saguaro fruits near the border of Apache Junction and Mesa. A single lovebird pair is able to rear up to three broods of four to five young per year. This prolificacy combined with their average individual lifespan of fifteen years allowed them to quickly increase their range across metropolitan Phoenix, nesting in palm trees, roof tiles, and even in saguaro holes.



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Wolf Whistle, the Curve-billed Lifestyle

Article and photos by Jim Burns



I suspect, for many birders, the signature sound of the Sonoran Desert is the soft, mournful cooing of the Greater Roadrunner or the raspy, incessant ratcheting of the Cactus Wren. For me, however, it's the sharp, exclamatory call of the Curve-billed Thrasher. Whew-WHEET! The "wolf whistle." Like the other two it is often heard before the singer is seen, though all three are typically broadcast from a high point in the habitat. Unlike the other two, the thrasher's call cleaves the desert air, awakening all within earshot to the possibilities of the coming day.

Thus it was on a past March morning that I heard paired Curve-billeds calling (both male and female use the wolf whistle) and followed them visually from separate Saguaros downward to the same Chain Fruit Cholla. Knowing this is one of the species' favorite nest sites and suspecting housekeeping, I hurried over, kept a respectful distance, and waited.

Nest disturbance aside, I always keep a respectful distance from this lethal cactus. Chain Fruit Chollas are known as Jumping Chollas for a reason. I once inadvertently brushed one and had a large segment attach itself to the inside of my entire forearm, from wrist to elbow.

I can't describe the pain or how long it took to get it detached, but my entire arm was black and blue for a week. This is also the reason, of course, that Curve-billeds prefer it for nesting.

It didn't take long to determine that this pair was, indeed, nesting in this cholla, and when one of them left bearing a fecal sac, I knew they were feeding nestlings. Curve-billeds are by far the most common of Arizona's five breeding thrashers, the consequence being they are often seen but not often truly observed because of their "low value" to listers and even casual birders. On the spot I decided it was time to rectify this situation in my own case, and I set up tripod and camera hoping to see and record things I didn't know about one of our stereotypical Sonoran Desert species.



What do Curve-billeds actually eat? The literature indicates this species is primarily a bugs and berries specialist. We've had a pair feed in our yard for years, but they have never nested with us. We've seen them pick up Russian Olives off the ground, and we frequently see them on our suet feeder. We also see evidence that they dig up the dirt in the cracks of our driveway and walkways because we have to sweep up after them, but we've never seen them extract anything in their digging. Exactly what insects are they taking?

After three mornings observing an average of seventy trips in four hours, and several hundred digital images, I can only say I still can't tell you for sure because I'm not a trained entomologist. I can tell you a lot of things you probably didn't know about Curve-billed Thrashers, but much of the stuff they were bringing to the nest, the insect material to feed nestlings, was beyond my bug expertise to identify.

Identification was complicated by two things: thrasher bills are large and strong whereas insects are small and fragile; thrashers capture multiple items on many of their foraging trips.

The first of these meant that many of the prey items were mangled beyond recognition. The second meant that rather than the camera capturing individual items, what I often saw on the computer screen was simply a mass of protein looking like it had been run through a blender. Better for the kids no doubt, but not so good for identification purposes outside a biology lab.

Looking through the viewfinder as a parent returned with food, I was often reminded of puffin photos in which the bird has multiple small fish lined up perpendicularly to its bill. How do they do that? Try it at home. See if you can pick up a food item with your lips or teeth without dropping a food item already in your lips or teeth. Puffins are able to do this because they have flexible, hinged beaks, strong, rough tongues, and backward facing spines inside the upper mandible. If thrashers have any of these adaptations, I could not find any reference to it in the literature.

I did get two images with cactus fruit, two with grasshoppers, one with a moth, and one with a soldier beetle I was able to identify as *Podabrus pruinosus*. Many times a parent returned, like a little brown puffin, with caterpillars, worms, and grubs lined up perpendicularly. The majority of times when the returnee brought items intact I could only guess—springtails, earwings—things that live in the soil or under rocks. There were several trips with flat, waxy objects, perhaps scale insects, and YES, one lizard.

I can tell you foraging begins at sun up, picks up as the sun warms up the insects, peaks at mid-morning, then drops off before noon. Male and female Curve-billeds are the same size, both feed the nestlings, but the male seems to lose interest first as the day progresses. Though I was able to distinguish between my pair because one had a small aggregation of darker spots on one side of its breast, I must admit I can only guess "she" was the female because the other bird seemed to come less often as the morning became warmer, beginning to spend more time retiring to "his" singing post to proclaim his territory and family.

Seldom did the pair coincide at the nest with prey. Often they would head out in opposite directions, but just as often they went the same way. Sometimes one or the other or both would go out to the same area several times in a row and return with the same type of item. Every now and then the female would just drop to the ground under the nest cholla and forage almost to my feet. At other times they would foray out 100 yards or more from the nest.

Did I mention the nest was in Papago Park in east Phoenix, which is my "home patch." On two occasions (out of 20 I witnessed in three days), the parent removing a fecal sac flew directly from the nest to a trash barrel at a nearby picnic ramada (forty yards) and dropped it in! Coincidence? From behind me to the south I sometimes heard another wolf whistle, and twice a third Curve-billed strayed into the territory. Both male and female immediately accosted the interloper and drove it away. Once I saw the female thrasher harass and drive to the ground

a Round-tailed Ground Squirrel that had climbed up into the branches of a nearby Rabbitbrush bush. Presumably Ground Squirrels could be nest predators.

My mornings at the Curved-billed nest were part of my ongoing attempt to learn more about the common species all around us that we take for granted, and I'd like to convince other birders to do the same. There are fascinating things to be observed, even in the lives of our most common avian neighbors, and fascination is what got us all hooked on birding in the beginning.



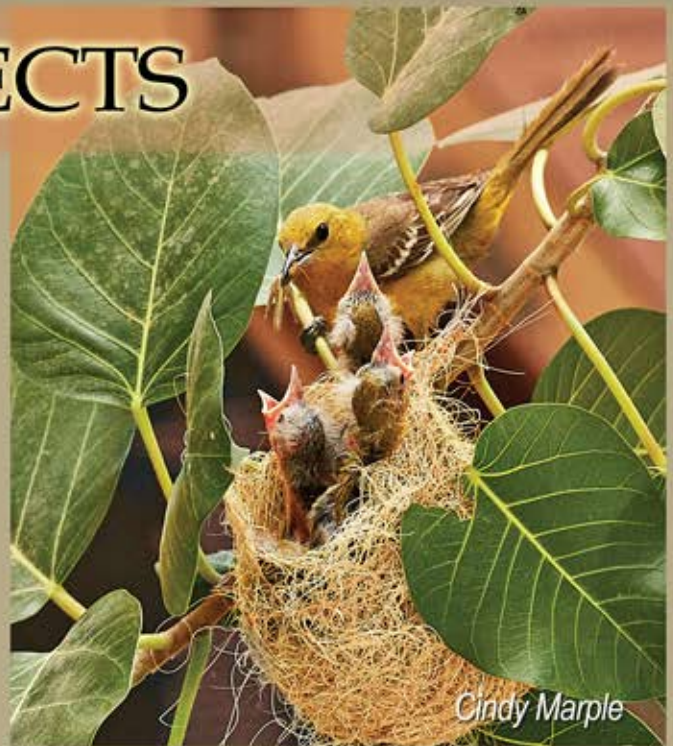
AVIAN ARCHITECTS

Jerry Lang

Photos by Cindy Marple and Jim Burns

Although they don't watch HGTV, many birds are home construction/renovation experts. The need for temporary housing in the form of nests varies tremendously by bird species. A lot depends on whether the young hatchlings are precocial or altricial. Precocial young—those of many waterfowl and ground-nesting species such as quail—hit the road running almost as soon as they hatch. They don't require much in the way of nest structure for protection. In contrast, the young of altricial species (most songbirds) are generally, naked, blind and helpless when first hatched and spend a considerable amount of time in the nest.

Bird nests in many people's minds are the open cup type built by many common songbirds. However, nests can also be simple scrapes in gravel or sand, lined burrows or cavities, huge stick platforms, enclosed spheres, intricately woven pendants, and numerous other shapes.



Cindy Marple



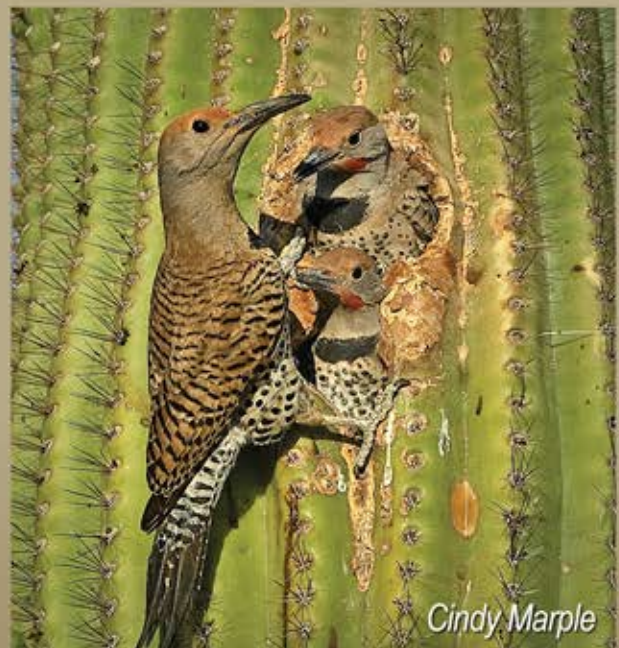
Cindy Marple

Anna's Hummingbirds, which are very common in the Phoenix area year-round, build a cup nest fairly typical of all hummingbirds. The tiny (1 by 1.5 inches), perfectly round nests are usually 6-20 feet off the ground near a nectar source. Initial construction materials selected by the female include plant down and spider webs that sit in the middle of the nest while she builds up the sides.

Spider web thread secures the nest to a branch or other object. The soft floor and elastic sides of the nest expand as nestlings grow. It takes females about a week to place the finishing touches like pieces of lichens, moss, bark, etc. on the exterior of the nests. Meanwhile, Anna's females will often lay eggs and begin incubating them before final construction is finished. Young hummingbirds will spend 18-28 days in their soft downy nests before fledging.

While open cup nests like those of hummingbirds are fine, some birds prefer a roof over their heads. One of these birds is our tiny yellow-headed Verdin. Spherical or ovoid Verdin nests are built for both breeding and roosting. Most Verdin nests are in thorny, scrubby habitat where males construct the outer shell of sticks, and females line the interior. Males may begin construction on several nests with females determining the one to use for raising the young. A walk through the Gilbert Riparian Preserve provides many opportunities to see Verdin nests.

Another local bird that prefers an enclosed home (but with a lakeside view) is the Marsh Wren. Seeing one of these architectural masterpieces is not very likely, even though a number of nests may be tucked into the cattails relatively close together. Male wrens spend 8-10 hours constructing each dome-shaped nest measuring about 7 inches tall and 5 inches wide with a top entrance and a bottom bowl.



Cindy Marple

A single male will construct numerous dummy nests (up to 20 or more have been documented) out of cattail leaf strips and the occasional snakeskin. Females select one of the nests for breeding and line it with strips of grass, sedge, cattail down, feathers, etc.

Orioles are also known for their weaving ability. Both Bullock's and Hooded Orioles breed in Maricopa County, where they construct pendant-like nests of plant fiber strips. Females are the lead construction engineers, although male Bullock's may sometimes work on the outside while the female works inside. Nest construction may take over two weeks to complete. The gourd-shaped nests are made from hair, twine, grasses, wool, and spider webbing. Feathers and plant down from cottonwoods or willows make the soft lining. The birds may sit in the nest during construction to stretch it downward, and when completed, adult birds sleep there.

Unlike extravagant nest builders, other local birds including the Burrowing Owls make use of existing underground retreats. The owls will use burrows made by prairie dogs, ground squirrels, skunks, etc., enlarging and customizing their tunnels and nests by digging with their beaks and kicking dirt out with their feet. Selected burrows are rarely more than three feet deep. Occasionally the owls will dig their own underground abodes, preferring locations where there are numerous burrows besides their own that may be used to cache food and as escapes routes for young owls. Burrows may be lined with livestock manure, feathers, grass and other materials.



Cindy Marple

Zanjero Park in Gilbert (where 202 crosses Lindsay) is a great spot to see burrowing owls. They sit near the entrance to artificial burrows installed a number of years ago through the cooperative efforts of Desert Rivers Audubon, Wild at Heart, Salt River Project, Arizona Game and Fish and the City of Gilbert. Apparently, the owls are relatively happy with their PVC pipe burrows, since young are reported each year at the Zanjero site.

Like Burrowing Owls, Northern Rough-winged Swallows are colony nesters that use burrows made by other animals or else dig their own into vertical embankments. In Maricopa County, where Northern Rough-wings are common throughout much of the year, they may opt for pipes, crevices under bridges, holes in buildings, etc. instead of burrows for nesting. They line their bulky nests with twigs, grass, weeds, bark fibers and sometimes horse manure.

The use of manure in the nests of both burrowing owls and northern rough-winged swallows is unusual and has been the subject of research. Scientists think this behavior has nothing to do with camouflaging nests from predators as once thought. Instead, it seems that the dried manure may increase the number of arthropods available for "snacking" in the vicinity of the nests.

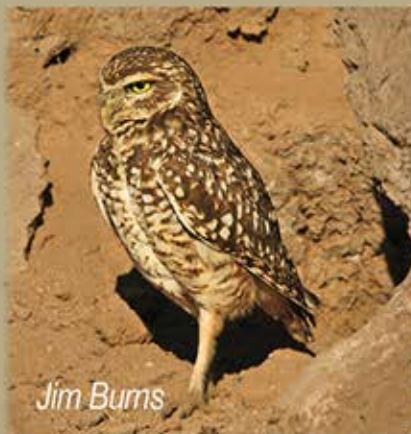
While these birds may be snacking in the basement, other species work on high-rise construction.

Cavity nesters, particularly woodpeckers, depend on large trees or cacti to excavate nest holes. In the Phoenix area, Gila Woodpeckers and Northern Flickers (and/or Gilded Flickers for the taxonomic splitters among you) are the primary construction engineers of cavity nest sites. Large cottonwood, willow, or mesquite trees may be used, but large saguaros are often home to local woodpeckers. Males and females excavate nest holes usually 8 – 30 feet above ground. Saguaros damaged by woodpeckers and flickers secrete a resinous substance to seal off the wound. This material eventually hardens to form a woody callus or dry boot. Since this healing process takes time, the birds cannot use newly formed cavities and, instead, utilize cavities formed in previous years. Cavities are unlined for nesting. Abandoned woodpecker and flicker nest holes are used by a number of other opportunists ranging from owls and kestrels to European starlings.

Other high-rise nesters include raptors such as eagles, Osprey and many species of hawks. The Gilbert Riparian Preserve has artificial platforms to encourage osprey nesting, but I've never seen one used for the purpose. Ospreys build stick nests lined with bark, grasses, vines, etc. The male usually brings the construction materials to the female who actually builds the nest. Ospreys may reuse nests, piling more material on top of what was left from the previous year. Older nests can be 10-13 feet deep and 3-6 feet in diameter. Bald eagles build the largest nests, called aeries. An average eagle nest is about 6-10 feet wide and 6 – 10 feet deep with a central nest cavity a foot or more wide and about 4 inches deep. Nests are often reused for years and with the accumulation of material added each year can weigh up to several tons.

Finally, getting back to ground level, birds like Killdeer, avocets, gulls, and quail are nest-building minimalists, doing little more than scraping a shallow excavation into sand, gravel, or soil. In some cases, small amounts of grasses or other plant material is added to the scrape. The young of these birds are precocial and leave home almost as soon as they hatch.

Regardless of species, whether a tiny hummingbird nest or a 3 ton eagle aerie, bird nest construction is fine-tuned evolutionarily to provide for the protection of eggs and the wellbeing of hatchlings. The diversity of nests and, in many cases, the intricacy of construction are true marvels of the natural world.



Jim Burns

Instead of nesting in a hollow high up in a tree, it nests in an underground burrow. But it doesn't dig the hole itself! Burrowing owls take over holes and tunnels dug by ground squirrels, prairie dogs, armadillos, tortoises, and skunks.

The sparrow weavers live in family units that employ cooperative breeding. Most species weave nests that have narrow entrances, facing downward. Many weaver species are gregarious and breed colonially. The birds build their nests together for protection, often several to a branch.



Weaver nest

Listening for Owls: Citizen Science in the Desert Night

Kathe Anderson

May 28, 2019 was another exceptionally lovely day and evening in an extraordinary string of perfect spring weather. I arrived at the Granite Mountain Trailhead in the McDowell Sonoran Preserve, located in northeast Scottsdale, at the appointed hour of 6:45pm. The trailhead is two miles north of Dynamite Boulevard and is currently undergoing construction to expand the parking lot and add restrooms. Yellow tape outlines off-limits building areas and heavy equipment. Despite the evidence of human activity, the trails immediately immerse hikers into the Sonoran Desert, particularly lush after this year's rains.

I met Tiffany Sprague, Parsons Field Institute manager at the McDowell Sonoran Conservancy, Debbie Langenfeld, citizen science chair of the conservancy, and steward Tara Deck in the parking lot. They came equipped with information about the official time of dusk (about 7:55 p.m. that evening), owl sound recordings and a small speaker, a GPS, a clipboard with pre-printed data sheets, writing tools and water. Why I came with just binoculars became less and less clear to me the darker it got.

Our survey was part of official research conducted by the McDowell Sonoran Conservancy. The preserve is closed after sunset, but our special permits from Scottsdale allowed us to conduct this research after-hours. Our mission was to find owls, particularly Elf, Western Screech, Barn and Great Horned Owls, and to make notes about when, where and what species we discovered, along with any additional information that could be useful about their populations. The protocol was straight-forward:

We hiked about a kilometer (six-tenths of a mile) along Bootlegger Trail to start at the farthest point of the survey at dusk, and worked our way back to our cars. We recorded the weather conditions: about 70 degrees, only the hint of a breeze and 50 percent cloud cover.

At each of eight points, 160 meters apart, we started by listening quietly for two minutes. If we heard no owls, we played an Elf Owl recording for 15 seconds and listened for any response for one minute. Repeat.

Then we played a Western Screech-Owl recording for 15 seconds and listened for any response for two minutes. Repeat.

If we heard no little owls, we repeated the process for a Great Horned Owl, and at every other survey point, for a Barn Owl.

We quickly settled into our roles. Tiffany got us to the right stop per GPS and kept us apprised of when to start and stop listening. Tara played the owl calls, rotating the speaker to project them in different directions. Debbie, with her red-filtered headlamp, kept detailed notes. I drank in the night and tried to hear what others were hearing—a pretty useless adjunct



thrilled to experience the perfect evening in a remote part of the preserve.

We heard no owls at our first four stops, in slightly elevated habitat characterized by huge worn granite boulders and saguaros. But Common Poorwills called almost constantly—poor-WILL, poor-WILL. At one point the low trill of the Lesser Nighthawk interrupted the ever-present chirp of crickets. It was getting darker but the city glow to the west was enough to silhouette the rock formations and sentinel cacti in watchful repose.

At the fourth stop, where the habitat changed to a flatter profile with a few more trees, we heard our first owl, the soft chuckle of an Elf Owl. We tried to estimate its distance for the survey—50 meters? 100 meters? Using the sapphire glow of the city lights and the North Star, we noted the direction the sound was coming from, to help us determine whether subsequent owls were the same ones we'd heard or likely to be additional individuals. Since we never saw an owl, they could be flying around to trick us, but we assumed they weren't!

At the fifth stop, we heard a Western Screech-Owl: the distinctive hoo-hoo-hoo, followed by a quick descending staccato often described as a bouncing ball. Imagine dropping a ping-pong ball on a plate glass table and watching and listening to it bounce with ever lower, faster arcs. Some sparrow songs also mimic this cadence.

If we heard one of the diminutive owls, the Elf or Screech Owl, we dared not play the calls of the Barn or Great Horned Owl, for fear of attracting those predators. Although Barn Owls eat other birds, we didn't know whether they hunted small owls. The Great Horned Owls are definitely known to prey on smaller owls (along with larger animals, like skunks). Imagining the unbearably cute Elf Owl, or even the little grumpy-old-man look of the Screech Owl, we didn't call the bigger owls for any of our last stops where we heard one or both of the small owls.

Our final survey point, established on-trail by last year's survey, was now in the middle of the brand-new parking lot, near the port-a-potty and taped-off construction materials. Whispered rustling seemed to come from the construction pile, but it was probably the tape flapping in the wind. Tiffany heard a far-off Great Horned Owl. I heard nothing.

We wrapped up about 10:15 p.m. We noted the time and noticed the wind had picked up a bit, perhaps responsible for blowing away most of the clouds. The stars were numerous and clear. Even without the moon, there was faint ambient light. The desert remained stalwart and vigilant. It seemed an insult to the quietude and beauty of the nighttime desert to start our engines and shoot glaring headlights into the landscape. It had been a magical evening and I thank Tiffany, Tara and Debbie for allowing me to share the experience.



The Familiar within the Exotic: Similarities Between Different Worlds

Adam C. Stein

One can hardly imagine a place more different from the dry rocky canyons of Arizona than the lush tropical mountain slopes of Central America. With consistent mist dancing along the tops of the trees and the near daily doses of rain showers, it is constantly wet and muddy. This moisture and warmth fuels plant growth and everywhere you look it is green, with plants even growing on other plants.

As you would expect, this environment hosts a suite of avifauna that is equally as exotic. Even the names of these birds are so alluring and different they might be mistaken for characters in a Dr. Seuss story: Golden-browed Chlorophonia, Bare-necked Umbrellabird, and Great Curassow.

It remains no mystery why intrepid birders from across the globe make the pilgrimage to catch glimpses of these rainbowed beauties. I too was lured to the tropics by the song of the proverbial sirens some 20 years ago, and for the most part I've never left. As a biologist working in Costa Rica, I know intimately many of these unique tropical bird species. For the first few years, I focused my attention on those species that remain tied to the rainforests. The White-collared Manakin and its intense mating rituals was the focus of my dissertation work. My research eventually landed me a position teaching tropical ecology to U.S. students.

I have formed new roots in this exotic locale, but like many bird species, I make regular migrations back to my home state of Arizona. The abrupt transitions of environments can be tough: one moment you are battling mold growing over all of your perpetually wet possessions and the next you are savoring any bit of moisture as the sun bakes your surroundings. What is surprising given this stark contrast in ecosystems is the amount of bird species shared between these two regions. Roughly half of the birds recorded in Arizona have also been seen in Costa Rica, and on the flip, roughly 30 percent of Costa Rica's bird diversity can be appreciated here in Arizona!

This statistic should be good news for birdwatchers itching to enjoy tropical birds but unable or unwilling to make an international journey. And, for those interested in the biology of birds, it opens up a myriad of interesting questions. How different is Arizona from the tropics ecologically? How can certain species be adapted or equipped to deal with such varying environments? What characteristics do these birds share with each other that have allowed them to span such large geographical areas? What limits the other 70 percent of birds from making it to Arizona and vice versa? How do these species change physically or behaviorally in these different environments? And, as the effects of the Anthropocene become more evident, how will that change the current distribution of bird species?

Cohorts like shorebirds and human commensals are easy to explain. Their habitat requirements are found over large geographic scales. Additionally, many forest niches on the east coast of the U.S. used by migrant warblers, orioles and thrushes during the summer are surprisingly similar to the forests of Costa Rica.

But there are species that retain resident populations in both places. For instance, Black Hawks are common along the shores and mangrove forests on the coasts in Costa Rica while in Arizona they prefer wooded riparian zones in deserts—both areas home to the semi aquatic prey they seek. Other birds of prey, like Red-tailed Hawks,



are generalists, and feel just as at home hunting in the pastures adjacent to Costa Rica's cloud forest as they do in the dry fields adjacent to suburban Gilbert. Rarities in Arizona like the Ferruginous Pygmy Owl that have restricted habitat requirements in the northern limits of their range, are more generalists in Costa Rica. I have even seen them in large city parks in the heavily urbanized central valley!

In higher elevations within Costa Rica, the forests take on a more temperate feel: temperature fluctuations are larger and the forests are dominated primarily by one tree species, an oak. Here one can find quintessential birds of the Arizona forests like the Hairy and Acorn Woodpeckers.

Still other species look radically different than the familiar versions we encounter here. The rare Slate-collared Redstarts in Arizona need a second look to tease them apart from the Painted, because both have a bright red belly. But the Costa Rican population of Slate-collared Redstarts have distinctive orange breasts. An even wilder difference exists between the migratory Yellow Warblers that come to Arizona and the resident population of Yellow Warblers in Costa Rica, which are restricted to mangrove forests. The males of these "mangrove" warblers have a nearly-all red head and a very different vocal dialect. Surely future studies will separate them as different species. This recently occurred with another species – the Magnificent Hummingbird. Populations in Costa Rica and Arizona were once considered the same species but have recently been split into the Rivoli's and Talamancan Hummingbird.

Despite all the similarities or differences in either habitat and/or morphology, each population found in Costa Rica and Arizona interact with different cohorts of species. This reminds us of the fluidity of biological communities and that those biological associations we are most familiar with (like finding trogons along streams with Arizona Sycamores) can change through space and time.

After many years of observing the truly exotic in Costa Rica, my attention has now turned to the species familiar from growing up in Arizona. I have learned a lot more about these species by observing them in different environments. For many species where Arizona represents their northernmost range, observing them in other locations is the only way to truly appreciate their ecological role, putting your Arizona sightings into a larger context.

For those planning relatively short trips to Costa Rica or similar locations, finding or observing the familiar may not be a high priority. But when you do, your experience will be just as rewarding if not more. As an "ex-pat", it is these overlapping species that serve as a bridge between two disparate lives.

Continued to right

ROSY-FACED LOVEBIRDS

Continued from page 4

and even in saguaro holes. By the mid-1990's, flocks were reported in downtown Phoenix, Tempe, and North Scottsdale in addition to the East Valley.

A 2010 census estimated a Phoenix lovebird population of around 2,500 birds, and current numbers are expected to show continued population growth. Like all introduced parrots, lovebirds flourish in urban environments where exotic plants provide flowers and fruit as a food source year-round, and water is continually available. The bright colored birds delight Arizona residents with their antics, and can regularly be seen bathing in fountains, peeking out of saguaro holes, raiding backyard bird feeders, and flying in large squawking flocks around city parks. Highly intelligent and adaptable, they have learned to feed on native plants like cactus fruit and mesquite pods, and their flocking nature protects them from hawks, falcons, and cats. It seems the little desert parrots are here to stay.

While introduced parrots occur across the United States, the thriving Phoenix lovebird population is currently the only one of its kind. By happenstance, the desert metropolis proved to be the perfect habitat for the African natives and Rosy-faced Lovebird populations of this magnitude have yet to be observed in other cities. The population is especially unique since it originated completely from captive bred rather than wild caught birds, and as a result birdwatchers can catch them all Pokémon style: the most commonly viewed is the wild type green-bodied, blue-rumped, and pink-faced bird, but sixteen color morphs are possible, including white, yellow, blue, and nearly every combination in between. If you've yet to get lucky, look (and listen) for these little beauties in city parks, and enjoy the free entertainment by observing their host of unique behaviors, such as their namesake sleeping style of perching side by side and appearing to kiss, as well as the female nest-building ritual of tucking strips of material into her back feathers, forming a skirt, and flying in hula regalia to her chosen nest site.



As with all successful exotic introductions, the impact on native wildlife must be considered. Thus far, the Phoenix lovebirds have not posed a serious threat to native birds, especially since they only inhabit urban areas. Still, this is a relatively new conundrum, ecologically speaking – and Phoenix is far from alone in facing it. While we currently have the monopoly on lovebirds, the wild city parrot phenomenon is becoming increasingly common. According to a recent study conducted by Cornell Lab of Ornithology's Jennifer Uehling, there are 56 species of parrot currently living in the wild across 43 states. Of these 56, 25 species are actively breeding. Warmer states like Florida, Texas, and California boast the most, but exceptionally hardy parrots like the Monk Parakeet have been documented as far north as Chicago and New York, and the Cherry-crowned Conure population of San Francisco even got its own documentary in 2003. In some cases, there are now more birds in the introduced population than remain in the wild, as is seen with the endangered Red-crowned Amazon. Such urban populations could prove useful for conservation efforts, and new legislation is in the works to protect the nonnative birds in these bizarre cases. It is certainly a most ironic twist of fate that the United States drove its only endemic parrot, the Carolina Parakeet, to extinction in the early 1900's, and extirpated the native Thick-billed Parrot from the mountains of Southeast Arizona in 1938, only to fill its cities with parrots from all over the world.

Note: Arizona birders can also keep their eyes peeled for "wild" Monk Parakeets and Nanday Parakeets, whose populations are on the rise.

2019 Tour de Bird

Desert Rivers Audubon Society
presents the
The 8th Annual
Tour de Bird
Saturday, November 2nd, 2019 9am-4pm



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Learn about native
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From Arizona Field Ornithologists



First State Record

White-throated Thrush
(*Turdus assimilis*), Madera
Canyon, Pima County

This White-throated Thrush was found and photographed by Linda Grant on 09 January 2019 and also photographed by Andrew Core and Chris McCreedy on the same date, by Stuart Healy on 12 January, and Mark Stratton, Brendan Galvin, and Ryan P. O'Donnell on 20 January.

If accepted by the ABC would be a first state record. This species is a regular mid to high elevation breeder in Sonora north to the Yécora area and an altitudinal migrant with the species regularly moving to lower elevations in search of food in winter.

This thrush is uniformly a cold brown with a white throat that is striped in dark brown. This individual also shows a thin yellow eye ring. Though thrushes are often kept in captivity, this species is often shy and this individual appears typical of the subspecies found in northwest Mexico. Based on the very pointed tail feathers, it also appears to be a second-year bird, which further supports it being a wild vagrant.

Confessions of an Accidental Wildlife Gardener



Let's be honest: I didn't plant for the birds. I didn't even think about birds back then. Ten years ago, I could barely tell a crow from a cardinal and, as a New Englander in Arizona, I didn't know a whole lot more about the plants.

When I moved into my husband's house in 2009, it was an ordinary suburban home on an ordinary suburban lot. He had planted a pair of Palo Brea trees in the gravel front yard, but the backyard was all dirt and weeds. It was—frankly—not a place we wanted to be.



But I'm no landscaper. I'd rather be out adventuring than pruning, weeding, or mowing. So, when I looked around at my neighbors' citrus trees and sprinkler-soaked lawns, I knew I didn't want that either. I shook my head and laced up my hiking boots.

I explored South Mountain and the Superstitions and all around the McDowell. And everywhere I went, I'd see plants that looked interesting. Plants that obviously didn't need my help to survive in the Sonoran Desert. Hmm, I thought. Why not use those?

Of course, I didn't know what those interesting plants were, so after every outing, I'd search through a guidebook for the right name to put on my list. Fairy duster. Brittlebush. Chuparosa. Creosote. Soon we started shopping.

We added mesquite trees for shade. Then some shrubs for privacy—hop seed bush and jojoba and Arizona Rosewood. Penstemon for spring color. How about a vine? Maybe a cactus? Sure, why not?

Some things died. Others thrived. I had no irrigation and no master plan. I just planted natives, sprayed them with a hose, and hoped for the best.

After about two years of this haphazard horticulture, we suddenly noticed the birds in our yard. Or, rather: we noticed that suddenly there were birds in our yard. At first it was just little brown chirpy things that I called "finches-and-sparrows," since I couldn't tell them apart. But then other birds came, and still others. Eventually, we bought a book and began to identify our new visitors. Abert's Towhees. Curve-billed Thrashers. Black-chinned Hummingbirds.

Audubon at Home



I noticed something else. Not only did my yard look different from my neighbors, but so did the birds. While grackles, starlings, and pigeons squabbled on the lawn across the street, Inca Doves toddled around my yard. Gila Woodpeckers clambered up and down our mesquites. Verdins built round nests in the Catclaw acacia. Cactus Wrens snatched bugs off the ground. The same sorts of birds that I now recognized when I was out hiking were also appearing at my house.

They had found their way across miles of concrete and Bermuda grass to land on our erratically landscaped patch of ground. And not just birds. The bees came, too, and the butterflies. These days, we have goldfinches in the trees, lizards on the walls, and spiders all over the place. In return, I keep adding plants. It's still not a proper garden design, and it still looks nothing like my neighbors' yards. But for me and my wild friends, this "native plants" thing has worked out pretty well. Except that I do still have to weed once in a while.



Editor's note: Andrea Gaylean is a freelance writer and editor. Her bird-friendly yard is one of the stops on the Tour de Bird on November 2. Information and tickets at deserttriversaudubon



ACTIVITIES

Monthly Speaker Series

Our Speaker Series is the second Tuesday of the month, September through April at the Southeast Library, Greenfield and Baseline Roads, Gilbert. Doors open at 6:30 p.m.; program from 7-9 p.m.

See desertiversaudubon.org for the full schedule.

September 10 – Birds of Central Arizona. Jim Ripley, retired editor of the East Valley Tribune and accomplished bird photographer, shares his beautiful photos of the birds close to home.

October 8 – Landscaping for Birds. Renowned local horticulturalist Kirti Mathura talks about the vital connection between birds and plants, and how you can make your yard bird friendly.

November 12 – Best Birding Spots in Arizona, with Charles Babbitt

December 10 – Birds Bringing Reluctant Neighbors Together: Gila River Indian Community, with Professor David Pearson

January 14 – Arizona's Pygmy Owls, with Dr Stephen Vaughan

February 11 – Birding the Tropics, with Cindy Marple

March 10 – Live Raptor Show, with Liberty Wildlife

April 14 – Dragonflies, with Professor Pierre Deviche

Join Us in the Field!

Field Trips Expand your knowledge of birds and make new friends by going along on a field trip sponsored by Desert Rivers Audubon Society. For dates, check the calendar on our homepage at desertiversaudubon.org, to sign-up for our monthly e-newsletter. We also organize informal pop-up birdwalks. If you are interested, contact our Field Trip Director, Gwen Grace, at gwenellen@gmail.com.

Owl Walk and Talk. Learn about Burrowing Owls on our guided walk the fourth Saturday of the month year round. Join a guide at the ramada at Zanjero Park on Lindsay Road south of the 202 one hour before sunset.

Family Birdwalks. Desert Rivers Audubon offers free public birdwalks led by our expert members. We even provide loaner binoculars! Join us on the third Saturday of the month, October – March, at the Gilbert Riparian Preserve, and on the first Saturday of the month, November – April, at Veterans Oasis Park in Chandler. Hours are 8 a.m. to 12 noon.

Explore

Birding during the monsoon season

Southern Arizona offers spectacular birding during the monsoon. Here are some great spots to look for trophy birds, according to Jennie McFarland, coordinator of the Arizona Important Bird Areas (IBA) Program.

Mount Lemon is birdy all the way to its 9,000 foot summit, but McFarland recommends these three stops. At mile 5.5 turn in at Molino Basin picnic area and campground. Walk past the campers and look for Hooded Orioles, Lucy's Warblers and Montezuma Quail amidst the open oak woodland and chaparral. Then get back on the road and climb to Rose Canyon Lake at mile 17.1. This is a private road and there is a fee, but McFarland said chances are good of seeing "tons of birds," including Greater Peewees, Buff-breasted Flycatchers, Pygmy Nuthatches and more. At mile 19.3, look for Incinerator Ridge Road on the right. Drive slowly to the end and park. Look for Red-faced Warblers, Painted Redstarts and Black-Throated Gray Warblers.

The Tucson Mountains IBA includes Saguaro National Park East, a desert habitat that McFarland says is worth an early morning visit. In August, flowers are resplendent due to summer storms, and a ride through the cactus forest may yield sightings of Desert-nesting Purple Martins.

Santa Rita Mountains

McFarland says visiting Madera Canyon outside the town of Green Valley always means good birding. With offspring out of the nest, the Elegant Trogons are still calling. Drop in at the Santa Rita Lodge feeders to see Hepatic Tanagers, Varied Buntings and lots of hummingbirds. In previous years, a Plain-capped Starthroat Hummingbird has been seen at the lodge – maybe you'll see one! If you want to hike, park at the Proctor Road picnic area and take the trail, watching for Rufous-crowned Sparrows, Western Yellow-billed Cuckoos, and

maybe the rare Black-capped Gnatcatcher. Escape Madera's binocular and camera crowd at Montosa Canyon. Take I-19 to Exit 48 and follow the signs to the Smithsonian Astrophysical Observatory. Go past the base buildings to the graded dirt road and park near the stream crossing. McFarland says visitors will see "a lot of birds" in the area, including Yellow-billed Cuckoos, Hepatic Tanagers and Five-stripe Sparrows.

Atascosa Highlands IBA

Designated an IBA in June of this year, Altacosa Highlands offers the "wildest" birding on McFarland's list. The area includes famous birding spots, some of them best explored with a guide. But McFarland says a few are suitable for the adventurous birder on his own. This area is just a few miles from Mexico, but the border patrol maintains high visibility, she says. Cell reception is scant, however. From I-19, take Ruby Road west, heading for Pena Blanca Lake. Look for Walker Canyon Road (not in the map books but it will show up on Google Maps), where you'll see a ranch house. "It's a good dirt road," McFarland says. Keep right at the Y and park anywhere. At this point you're off-the-beaten-path, and you could see Elegant Trogons, Montezuma Quail, Arizona Woodpeckers and other canyon specialties. Then double back to Ruby Road and continue west to Pena Blanca Lake. You'll see more people there, but the birds are plentiful too! And bring a rain jacket, because what's a monsoon without some rain?

More information in **Finding Birds in Southeast Arizona, Revised Eighth Edition, from the Tucson Audubon Society.** **The Southeast Arizona Birding Festival is happening in these areas August 8-11: more info at www.tucsonaudubon.org/festival**
Many of the events are free.

— Liz Farquhar

THE TINY, BUSY VERDIN

Kathleen Cox

*Hey, who's that little gray bird
with a yellow head drinking
from the hummingbird feeder?*

If you said Verdin you would be correct. Both the adult male and female Verdin have pretty lemon yellow caps and if you are very close you might also see a little chestnut patch on their shoulders. Adult Verdins have black pointed beaks and black legs. Verdins are one of the smallest perching birds in the United States. They are about 3.5 to 4.3 inches long, or half the size of a standard pencil. Weighing only 0.2-0.3 ounces, four Verdins could be mailed in an envelope using one Forever Stamp.

Verdins are hard-working birds. They build multiple nests year-round. One pair of Verdins in Arizona was observed building 11 nests in a single year. Some nests are used for roosting and others for breeding. The roosting nests are smaller than the breeding nests, which must be large enough to accommodate a growing family. The male Verdin constructs the outside of the nest with twigs and spider webs. The female is the interior designer. She creates a soft lining, and during construction sometimes carries feathers to the brooding nest.

The nests are either roundish like a tennis ball or oblong like a football. All nests, however, are closed at the top with the entrance low on one side. Verdins create their own cooling and heating system. The opening of nests built in the summer points toward prevailing winds, which may have a cooling effect. In the winter the roosting nests, which have thicker insulation, may reduce energy needed to keep warm or regulate body temperature.

Building so many nests is hard work, so these active songbirds are selective about where they live, choosing to stay primarily in the southwestern states and northern Mexico. Verdins do not migrate, that is, they stay in the same area for breeding and wintering.

Couples breed in April, laying three to six eggs the size of small jellybeans. The mother incubates the eggs and after about 10 days, the hatchlings arrive naked and helpless. Both parents feed their young, who leave the nest around 21 days after hatching, returning to the nest at night to sleep. While they are young, their bill is pinkish and thicker than the dark bills of their parents. They are totally pale gray until they become adults, when yellow feathers appear on their heads. No matter how old, Verdins are active and continually flicking their tails up.



Young Birders'



Unless Verdins are on a hummingbird feeder or perched on exposed branches or twigs, they will be very difficult to find by sight alone, but their quick movements might attract your attention. You might catch a glimpse of a Verdin flying between shrubs or flitting up the branches toward the middle of a tree. If you hear a tree or bush sounding like a clock, a good chance exists that you will be hearing the "tic tic tic" of a Verdin, one of its most common sounds. High clear chee notes, which might sound like tea for you too, is another clue to finding Verdins, but if you hear Verdins making a lot of noise, look up and you may find that they are signaling that a hawk or other predator is near.



Leaves and twigs rustling in the middle of bushes are also good indicators of the presence of Verdins who are probably darting around looking for food. Verdins enjoy a variety of naturally occurring items which include tiny insects, such as aphids, caterpillars and their larvae and eggs, spiders, berries, and some types of fruit and nectar, but usually not seed.

As permanent residents of Arizona, the adaptable Verdin is quite common. Given their conservation status of Least Concern, you can be sure to enjoy the behavior of these hearty little creatures for years to come.

*Calling all kids! The Young Birders Club
meets monthly October through April at the
Gilbert Riparian Preserve. See [desertriver-
saudubon.org/kids-club](http://desertriver-saudubon.org/kids-club) for details.*

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Join Desert Rivers Audubon and hatch a new friendship!

Gwen Grace and Carlota Thorne didn't know each other before they attended the Basic Birding class offered by Desert Rivers Audubon. They realized they both shared a profession—both are Realtors—as well as a budding fascination with birds. Soon they were going to dinner before the

Rivers speaker meetings and signing up for guided birdwalks together. In 2016 they travelled to the Verde Valley Birding Festival. "We get excited over a new bird we've found, or a photo that turns out well," says Gwen (right).

Join Desert Rivers Audubon today and make a new friend!

How to Join Desert Rivers

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
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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@emailcustomerservice.com

San Pedro River