

Desert Rivers

Audubon

Magazine



*Birds and
Habitat*

FALL 2018

Plus Native Plants Mean Survival • A Cooper's Hawk Menu • A Galapagos Adventure

Presidents Message

By Kryz Hammers, President

Our new season is underway, and we think it's going to be another great year. Our educational speaker programs promise to be entertaining, and we're offering a full schedule of field trips that will take you to birding hotspots around the state led by knowledgeable and personable leaders. Our monthly birdwalks at the Gilbert Riparian Preserve and at Veterans Oasis Park are off to a great start, as well as the owl walks we offer all year at Zanjero Park. Beginning and Intermediate Birding classes are scheduled once again at the Environmental Education Center. And, we will offer walks in Spanish at the October Gilbert birdwalks.

But, my favorite event is our annual Tour de Bird, on November 3. It's a lot of fun for homeowners, volunteers and participants. But that's not why it is my favorite. I love it because it's so important to demonstrate that lush desert landscapes satisfy your desire for green surroundings without resorting to non-native grass. Desert shrubs provide blooms year-round. Desert trees also bloom, and their shade – full or filtered – is respite from the sun. More importantly, native insects rely on native plants, and those insects are a major food source for most birds. And, both resident and migrating birds also rely on native seeds for their food.

There are a couple of reasons why I feel it's so important to use native plants in our landscape. First, habitat loss is a major threat to birds. As our population grows and urban areas spread, using native plants helps to mitigate that loss of habitat. And, our population is growing at an unsustainable rate relative to the available water. The least we can do is landscape the property we control so that we use the least water possible.

I live in an area where there is no homeowners' association, which has its advantages. Many associations require residents to devote a percentage their property to grass, essentially requiring people to waste precious water. It's not sustainable, and I think it's time to start fighting this practice. Often it was the homebuilder that made grass mandatory, because grass was cheap and they didn't concern themselves with the long-term consequences. They could lay sod and slap up a tree, often non-native, which frequently required the same amount of water as the grass. The result: yards that out-of-state buyers found familiar. Then homeowners' associations made these unnatural landscapes law, binding us to backyards that are unsustainable and inappropriate for our climate.

Laziness was my initial motivation. I was mowing a lawn that was more dirt than grass. I had Oleanders, which I hated. I had a Mulberry tree that poofed pollen every spring, triggering maddening allergies. Finally, I had enough and started to convert. Initially I didn't have a grand design but I like the results and the birds do too! And once my plants were established, my water use dropped substantially.

So, visit my yard on the Tour de Bird and see for yourself what I mean.



Desert Rivers Audubon Magazine

**Educating and inspiring our community
to protect and preserve birds, wildlife,**

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Photo : Montezuma Castle, Camp Verde

Conservation Commentary

Mike Evans

Update: Water, water everywhere?

Hoover Dam, Lake Mead

In August, leaders of local Audubon chapters from across Arizona gathered in Cottonwood for the biennial meeting of the Arizona Audubon Council. The council has been around for decades, but it has not always been active. Recently, however, we have realized we need to meet and work together on topics that are a concern to all.

The first presenter was Brian Trusty, the national Audubon Society's vice president for the Central Flyway, our region. On the national level we are mostly playing defense, Trusty said. Defenses have been concentrated around Alaska public lands, the Bedrock Environmental Laws (the Endangered Species Act, Migratory Bird Treaty Act, etc.), and the Sage Grouse.

The national office has also focused on broadcasting some research that Audubon published in the summer of 2017 on the vital relationship between water and birds in eight western states: those in the Colorado River Basin, plus California, Oregon, and Wyoming. The report, *Water and Birds in the Arid West: Habitats in Decline*, (<https://bit.ly/2ptWp0w>), is a must-read for those that want to be knowledgeable in the public policy debates about water in our state and region.

Before lunch we also met one of the new staffers at Audubon Arizona, Haley Paul, formerly of the Town of Gilbert Water Conservation Department. She brought us up to speed on the Drought Contingency Plan, which Arizona must finalize to avoid cuts to our allotment of Central Arizona Project water from the Colorado River. One of Paul's eye-popping statistics staggered me. The Phoenix-Tucson corridor has been named the Arizona Sun Corridor. This new region is the size of the state of Indiana and is projected to grow 117% by 2050 to a population of some 12 million. Where will the water come from to support that many people and keep the natural environment alive? Surely agriculture will be a thing of the past between the Phoenix and Tucson metro regions. What else will be gone? Jimmy Buffet's riff, "only time will tell" goes through my mind yet again!

Water, or lack of it, and climate change, continue to be of prime importance for the conservation of birds. The Arizona Republic published a series of articles in August and September that are quite informative if you want to understand the severity of the water crisis.

The first is good for comic relief, if you are a fan of the theater of the absurd: "Central New Mexico Project? How a 50-year-old rule could let New Mexico use Arizona Water" (<https://bit.ly/2PIR7K9>). A plan exists to divert water out of the Gila River and its tributary, the San Francisco River, to benefit 60-odd ranching and farming families in southwestern New Mexico. As Charlie Brown would say, "Good Grief!"

Next up: "At water-starved Lake Mead and Lake Powell, 'the crisis is already real,' scientists say" (<https://bit.ly/2LxHEIV>). Republic reporter Joshua Bowling reports that we haven't hit the low water mark necessary on Lake Mead to trigger mandatory cuts to water allotments for the CAP because we have been bleeding water from Lake Powell. Lake Powell is only 48 percent full; Lake Mead is at 38 percent. We need years of rain and winters of heavy snow to fill them. I'm not betting on it happening anytime soon.

A third great read is another from reporter Ian James: "Scientists: Warmer temps shrink Colorado River" (<https://bit.ly/2xCWfYc>). The Colorado River isn't shrinking from less rain or snow but rather by increased temperatures brought on by global warming. I'm at a loss for something snarky to say. What do we have to do to get the rest of the climate change doubters to understand that man-made global warming is for real?

The last great read from our hometown newspaper is: "Climate Change could alter AZ forests, deserts" (<https://bit.ly/2wl6f1W>). This is the only one that comes close to a "well, duh!" response. Joshua Bowling, another of the Republic's environment reporters, brings to light research published in a scientific journal that most daily news consumers wouldn't otherwise see. Keep your eyes open for more reporting from these two fine writers: Ian James and Joshua Bowling.

So, how do we respond? We can keep ourselves informed and speak out. And, join us for our 8th annual Tour du Bird and learn how to replace your lawn-based landscaping with something good for the birds, butterflies, and bees.

I hope to see you in the field. Good Birding!



Lake Powell

Making the Desert Your Home

Birds rely on habitat to thrive. That means your yard or business property should be bird-friendly: a native landscape rather than a desperate attempt to duplicate Chicago. Supporting our struggling song birds is a powerful incentive to bring some authenticity to our landscapes, but very soon there will be another: financial. Arizona is far behind in planning to deal with the impact of global drought, and in a few years, keeping your grass and exotic trees alive is going to be very expensive. The time has come to start transitioning your yard to native plants.

Recreating your outdoor environment is a daunting task. Think about how taxing it is to remodel your kitchen or bath. Your yard is even more complicated: the materials you would use indoors are inert, but not plants. Living things are dynamic. So where do you begin?

Landscape Architect Jack Gilcrest, who spoke at our October 9 meeting, says to start with a plan. The first thing you will need is a scale drawing of your yard that will be your base map. If you need to, get help making accurate measurements. Then plot your existing plantings and note which ones will stay and which will be replaced.

Don't think you must do the entire yard at once. In fact, you are probably better off tackling it in stages. Gilcrest recommends



planning your hardscaping – patios, paths, fire features – and siting your trees first. Then, if possible, wait a couple years for the trees to grow. "Trees will create microclimates of shade," he explains. When they are small, sun loving plants will thrive near them, but as the trees mature shade plants will

do better. If you fill in around your trees with sun lovers, be ready to replace them with shade plants as the canopy develops.

The staged approach can be applied throughout your yard. "A yard can transition in stages to fully native plantings if done in sections," says Natalie Hakim of All Terrain Landscaping, who consults on Tour de Bird. Addressing areas of your yard in sequence will allow you to maintain the old, non-native areas without over watering your desert plants.

The best approach is to tackle one valve or irrigation zone at a time, Gilcrest says, so that you do not impact high water use plants as you add desert specimens. And if you are not knowledgeable about irrigation systems, get a contractor, because retrofits can get complicated. "Existing trees are hardest to transition into a lower water landscape," Gilcrest says. "It can take a couple years."

It's also a good idea to replant according to orientation. For example, replace plantings in the southeast sections of your yard at the same time. These are fundamental decisions that must be made at the very beginning of the project.

Killing off the Bermuda is one of the toughest problems you'll face, starting with your very first decision: use chemicals or go natural.

"Grass removal can be



AUDUBON AT HOME

Elizabeth Farquhar



very hard to do without using chemicals," says Hakim. "Organic methods such as solarization have proven to be successful but can take a very long time and still may not kill roots that have made it deep in the soil."

Glypsophate, the broad-spectrum herbicide in Round-Up, is often used to kill grass, and the manufacturer states that the chemical breaks down quickly into non-toxic components. That's controversial, however. In either case, go to war on your grass in the summer, when the sun is hot and the growing plants are susceptible.

Speaking of timing, Gilcrest says to plant cactus in the spring so that they can get established during the hot months they prefer. Trees and bushes can be planted in the fall. Planting smaller cactus and bushes can be a DIY project, Hakim advises, but get professional help for larger specimens. "Matured cactus can be a financial investment and a professional can help make sure they are planted properly and give you instruction on how to water them," she points out.

How do you decide what to plant? The East Valley is part of the Lower Colorado River Valley Subdivision of the Sonoran Desert; Apache Junction and Superior are in the Arizona Uplands Subdivision. These biomes determine what plants will thrive. Gilcrest will have plant lists at the October 9 meeting, or you may download them from the Desert Rivers Audubon website. These lists will give you a choice of more than 100 plants, including a handful native to the other Southwestern deserts that do well in the Sonoran.

Gilcrest recommends paying attention to diversity in choosing plants, as well as creating niches and vertical layering. "Design for change," he adds, and be aware of the most common mistake in residential landscaping: jamming in too many plants for the available space.

Plan to attend our October 9 meeting to hear Gilcrest's comprehensive presentation on native plants. And look for Hakim at Tour de Bird on November 3. Purchase tickets online at desertriversaudubon.org.

Above all, start now developing a new vision for your yard.



Jerry Lang

In early May of this year, my wife and I celebrated our 50th wedding anniversary by traveling to the Galapagos Islands with Lindblad Expeditions. As a biologist, I always wanted to see this mysterious Pacific archipelago of 13 major islands 600 miles off the coast of Ecuador. This is the place that greatly influenced Darwin in developing his theory of evolution. What makes the Galapagos unique?

The volcanic islands comprising the Galapagos archipelago formed over a geologic hotspot under the Nazca tectonic plate. As the Nazca plate moves southeastward at approximately 36 miles per million years, volcanic islands and seamounts have risen through the hotspot. This has resulted in the more southerly and eastern islands being older and more eroded than the still-forming western islands.

The climate of the islands is greatly influenced by the convergence of several ocean currents influencing water temperature, and, in turn, air temperature. The most important of these currents include the cold,



nutrient-enriched Humboldt Current originating near Antarctica; the deep, cold Cromwell Current flowing eastward toward the islands where it upwells with more nutrients; and

finally, the Panama or Nino Current that flows from the northeast toward the islands.

There are generally two seasons in the Galapagos. The warm/wet season lasts from January – June when the Nino Current is stronger. There is more sunshine, but periods of heavy rainfall occur sporadically. The Humboldt Current predominates during the cool/dry season when surface waters are cooler and there is more high cloudiness but little rain except in the higher elevations, where garua (misty rain) is common.

Like all islands, every plant and animal must somehow arrive from somewhere else, gain an ecological foothold, adapt, and be able reproduce under local conditions. Although 600 miles is a long distance, it's not overwhelming for many land birds and is basically nothing for pelagic bird species. This is what you see on the Galapagos: a mixture of endemics very specific to the islands (or maybe just one island, as is the case with some of Darwin's finches) and other migrants and sea birds common many other places around the globe.

Most of the Galapagos Islands are managed as national park land by the Ecuadoran government. No one is permitted to roam any of the park-designated islands without an approved government guide, and island visitation by cruise ships is tightly controlled to minimize impacts.

The experience.

Our introduction to the Galapagos was San Cristobal Island where our plane from mainland Ecuador landed. San Cristobal is the easternmost island, the governmental center for the islands and home to about 8,000 people.

A GALAPAGOS EXPEDITION

Jerry Lang

As we started our first hike on San Cristobal, sea lions lounged along the waterfront, and Sally Lightfoot Crabs scampered over the rocks. We hiked up Frigatebird Hill for a look at Puerto Grande, where the Beagle (Darwin's ship) first landed in the Galapagos. On the trail we got a first look at a Galapagos Mockingbird. Four endemic species of mockingbirds populate the Galapagos. These were the first birds that Darwin noted as unusually different from island to island. He didn't pay much attention to the finches or where he had collected them, but luckily Captain Fitzroy did. The finches weren't sorted out as different species until John Gould, the British ornithologist, studied them and informed a surprised Darwin that he identified 12 new species. We did see one of Darwin's finches on our hike; unfortunately, we couldn't identify which one it was. A Great Frigatebird glided overhead, and a couple of Yellow Warblers (same species as in Arizona) flitted through the brush.

Espanola was our next day's stop – the only home on earth of the Espanola mockingbird. Unlike the other three Galapagos mockingbirds, the Espanola is carnivorous and has a hooked beak somewhat reminiscent of a curved-bill thrasher. The most thrilling experience for me on Espanola was standing on the beach at Gardner Bay and watching squadrons of 20-30 Blue-footed Boobies plunge, diving in unison, from 80 or more feet above the water surface. They looked like arrows simultaneously hitting the water. These birds are well equipped for powerful plunge diving. They have a light, long tail along with short upper arms that give them excellent ability to dive and maneuver in shallow waters. They have air sacs between their skin and muscles, and in the skull, which inflate to function as shock absorbers cushioning impact. Their nostrils are also closed to prevent any water from being forced into their noses.



All Photos: Cindy Marple

On the other side of Espanola, we were privileged to see a few of the Waved Albatrosses performing their complex courtship dances that include bill circling, bill clacking, head nodding, a waddle and a cow-like moo. Nearly the entire world population (25,000 – 30,000) of these birds breeds on this island. Familiar birds like Brown Pelicans and Oystercatchers were mixed in with the more exotic Nasca Boobies and Swallow-tailed Gulls that we also saw on the island.

Floreana was our third island visited in the archipelago. Here we got a view of 30 or 40 flamingos feeding in a shallow brackish lagoon. There are about 350 of these non-migratory birds in the Galapagos. As we explored the island, we also encountered a Striated Heron, which looks a lot like a Green Heron although duller colored; a Galapagos Flycatcher; White-cheeked Pintail Ducks; Red-billed Tropicbirds; Nasca Boobies and Brown Noddy Terns. A Frigatebird hovered over the beach looking for Sea Turtle hatchlings.

The next stop on Santa Cruz Island mostly focused on the Charles Darwin Research Station with their captive breeding program for Galapagos tortoises. We also saw free-roaming tortoises in the higher elevations of the island. We did not see any finches, which have developed a mutualistic relationship with the Galapagos tortoises by feeding on ticks and other parasites infesting the giant reptiles.



As we cruised in a Zodiac near the islet of Santiago, we spotted a small group of endangered Galapagos Penguins – the second smallest Penguin species and the only Penguin found in the Northern Hemisphere (granted at about 1 degree north!). These birds owe their existence on the Galapagos to the cold Humboldt and Cromwell ocean currents that keep water temperatures down and create fish-rich waters where upwelling occurs, especially along the western and northern islands. The Penguins feed in flocks and swim beneath schools of fish, forcing them to the surface. This benefits not only the Penguins, but also other fish-eating birds like Shearwaters, Flightless Cormorants, and Brown Pelicans.



The Penguins' dependence on these cold-water currents is problematic for their survival, since when El Nino events occur, these currents greatly weaken and fish prey become scarce. When this happens, the Penguins do not breed, and adults may starve. With climate change and increasing frequencies of El Nino events, the Penguins are given a 30 percent chance of going extinct within the next 100 years.

The final expedition stop was on Genovesa where birdlife was overwhelming, with mating and nesting Frigatebirds, Red-footed Boobies, and Swallow-tailed Gulls.

Here the male Great Frigatebirds, with their inflated red gular sacs the size of soccer balls, sat around in low brush making whooping calls and holding their heads and wings to best show themselves off to overflying females. Frigatebirds are quite imposing in the air with their large size, hooked beaks and deeply forked tails. They are known for "pirating" food from other birds and preying on nestlings. While on Genovesa we saw a Frigatebird knock a low-flying Red-billed Tropicbird to the ground in an attempt to steal a fish. Red-footed Boobies also nest in large numbers on Genovesa making flimsy nests in the low trees and brush, which is unlike other booby species that nest on the ground. This species also feeds far out at sea, unlike the Blue-footed and Nasca Boobies that feed much closer to shore.

The Swallow-tailed Gulls are beautifully textured black, gray and white birds having red feet and crimson eye rings. These gulls apparently have excellent night vision and feed far out at sea after dark. They remain close to their nesting areas during daylight. This may be an adaptation to protect young from Frigatebirds and other potential predators. These gulls feed mainly on squid and fish near the ocean surface, and they return during the night to feed their chicks. The adults have a white mark on their bills, which is visible to the chicks at night, and the chicks themselves are mottled white, making them more visible in darkness. The behaviors of this species have been well studied and are much different in many other ways from other gull species.

Later in the day, we kayaked along the cliffs of Genovesa and watched Red-billed Tropicbirds entering and exiting their nest sites in cliff rocks. With their very weak legs, these birds were almost comical as they would try to land on the vertical surfaces near their nest entrances only to lose their grip and have to try again.

We wrapped up the day by climbing onto a plateau of rough lava rock to find Galapagos Short-eared Owls. These owls hunt during daylight among Storm Petrel colonies. They have evolved a hunting strategy of waiting near the entrance of Storm Petrel nesting burrows for the return of unsuspecting prey.

Genovesa was the last stop on our expedition through the Galapagos. The trip made us more aware of how even such remote places on earth are susceptible to many human-related threats to the environment – especially climate change – and the importance of doing whatever we can as individuals and as societies to protect these last best places.

KIDS MENU



Female Cooper's Hawk



Juvenile Cooper's Hawk with ground squirrel

There were years early in my birding life when I despaired of ever seeing a Cooper's Hawk, let alone correctly identifying one. I'd been told they were reclusive, fast and shift on the wing, and looked pretty much like Sharp-shinned Hawks anyway, so good luck finding one and being able to rapidly assess obscure field marks, especially if unaccompanied by an accipiter expert.

*Article and
Photos by
Jim Burns*



*Juvenile Cooper's Hawk
plucking Gila Woodpecker*

My lovely wife, however, had hit the Coop jackpot on her very first organized field trip. In a park in Seattle, with new binoculars and in a group that included veteran birders and an experienced leader, her initial foray into her birding life recorded a Cooper's Hawk snatching a starling out of the air a few feet above the ground! That was in the winter of 1975. I had been busy and had not accompanied her that day.

It would be three years before I could, in good conscience, say that I had seen a Cooper's Hawk. On a field trip along Sycamore Creek south of the Mazatzal Mountains in central Arizona, our expert and long since deceased leader, Bob Bradley, identified a Cooper's Hawk that had teed up in a dead snag thirty yards away. I was elated to record this verified life sighting.

As seems often the case with long sought lifers, things became easier after that, but of course I was probably deluding myself about my ability to distinguish between the three North American accipiters. My birding log now indicates I've seen Coops in eleven states and two Canadian provinces, and I've seen what I believed to be Cooper's plucking three different species of bird prey, but I have yet to record an actual prey capture as Deva did on her first time out in her birding life that has waxed and waned over the past half century.

Coops are bird specialists. A Cooper's Hawk encounter is typically a fleeting glance at an efficient and beautiful predator exquisitely evolved to capture birds on the wing within the tight confines of woods and forests. Like their prey species, however, they have

evolved to survive, and they ply their raptorial trade now in close proximity to urban areas with birders and more open spaces. This fact led, in a convoluted way, to my so-called career as a bird photographer.

One morning in the early '80s on my daily run along a canal bank I was surprised to see a hawk fly into a Sycamore tree fifty yards ahead, even more surprised when it did not flush as I ran under it, falling down trying to look up, and saw it was probably a Cooper's Hawk. Hours later, guide book in hand, I realized this encounter had been with a juvenile, and years later I would come to know juveniles to be much more approachable, "confiding" in birding's lexicon, than adults.

Being a very visual person, always fascinated by the splotchy, dappled appearance of Sycamore bark, and ecstatic over this close encounter, I decided on a whim and with zero training or prior experience to paint the picture that was stuck in my head of the Cooper's Hawk in the Sycamore tree. Of course it soon became apparent I was also on zero with artistic aptitude or talent, and I decided taking a picture rather than painting one might be a more feasible and rewarding way to capture the unique moments in my birding life. That's when I began to consider pointing my camera's lens at birds in addition to wildflowers and landscapes. It also marked the beginning of many frustrating years, two decades really, of trying to capture good images of our most frequently seen (in Arizona at least) accipiter species, and coming to realize Cooper's Hawks are one of the more difficult North American raptors to find, see diagnostically well, and record with the camera.

I've gotten lucky a few times. One winter day, without my camera, I came across an injured adult Cooper's Hawk in a neighborhood alley, captured it literally in my jacket, and transported it to a rehab center. On another winter

But it's been only in the last couple years, after I became aware of a nesting pair, that I have been able with the camera to lift the curtain and see into the secret life of this ferocious, voracious, quintessential avian predator.

I had heard the nest was in a tall Sycamore (of course) near an old wooden shed, and young of the year had been seen in the area. Arriving just after sunrise, I checked the spot and, seeing nothing, spent an hour wandering through the desert shooting lizards, flowers, bugs, everything but birds which were apparently all hunkered down somewhere in shady respite from the dog days of June in the desert's stifling, pre-monsoon oven heat. As it turned out, perhaps they were lying low for a far more compelling reason.

I began hearing the sound as I again neared the vicinity of the shed, a low, incessant chittering, so soft I had to stop walking to be sure I was actually hearing something and to attempt to locate the source. Following only my ears because I still had no visuals nor any idea what bird might be making the calls, several times I had to turn this way and that to reorient my steps toward the sounds. The calls seemed to be ventriloquial, at first emanating from ground level. Peripheral movement from above, however, caught my eye, and I looked up to see two juvenile Cooper's Hawk close together in a tall tree, a Eucalyptus, behind the shed.

As it occurred to me that I had never before heard young Coops calling, whining really, I studied the scene through the binoculars and finally realized what was happening. One was clutching a prey item in one talon, the other, ten feet away and lower, was staring and scolding with the calls I had heard. Sibling fledgling raptors don't share! This was my first insight, something I should have known from the literature but had never encountered. The juvie with prey, finally tiring of the intrusion into its breakfast, flapped upwards several branches and settled in again to work on whatever it had caught.

Whatever it had caught flashed a black and white pattern, and I assumed Zebra-tailed Lizard as I moved quickly to a spot that put the sun behind me and afforded a more open, unobstructed view of the breakfast branch. The first few shots, blown up on the back of the camera, revealed the true identity of the prey, and I found myself toggling between elation at getting a clear image of the action and sadness over the demise of a Gila Woodpecker, its black and white barred tail feathers flipping about as the Coop plucked its breast.

At some point in my enthrallment with the scene above me I realized the soft whining had begun again, and the second juvie ascended to the breakfast branch.

Continued on page 9



*Juv. Cooper's Hawk with
Clark's Spiny Lizard*

day in a later year, camera luckily at hand and at the ready, I finally got perhaps the best action photos of my life when I chanced upon an adult female (judging by her large size) Coop bathing in a canal and, amazingly, she didn't spook.



*Juv. Cooper's Hawk with
ground squirrel*



Juvenile Cooper's Hawk calling

The moment it hit the branch, again perhaps ten feet away from its feeding sibling, the latter bird stopped and mantled the prey, wings and tail fully outstretched, shielding its meal from the second bird and my camera. Read about many times in the literature but never seen in the wild, I had my second insight of the morning.

My lasting impression of the drama playing out in the Eucalyptus was how long it took for the Coop to consume its meal. These fledglings were several days, perhaps over a week, out of the nest and already fully as big as the parents. From my vantage point it appeared the Coop was three times the size of the prey, yet breakfast lasted at least half an hour. The ideal branch, or table if you will, for a feeding raptor apparently needs to be both thick and wide enough for it to securely pin the carcass down while dismantling it.



Juv. Cooper's wing stretch

This young Cooper's had chosen a good table, but seemed inexperienced at the plucking and dismantling part. Several times as it worked, the bird lost its balance, lifting one or the other foot to reposition, and then appeared flummoxed when the carcass, stuck on the talons of one of the feet, would end up in the air, elevated over the table, making it impossible to pluck.

The hungry sibling finally left, still whining, and shortly thereafter I noticed an adult bird, probably the parent male judging by its small size, take off from above the grove of trees, circle higher and higher, catch a mid-morning thermal, and disappear downwind. I assume at this stage of raising young a parent's work is never done.

Eventually the juvenile finished with the woodpecker carcass and dropped into the grove out of sight. I walked down the path and found a shady spot to peruse my images, process my admiration for these young birds already adept at their predatory craft, and decide whether to wait for more action or head for home. The soft whining calls of the juveniles again filled the air, though there were no birds that I could see and my feeble brain, overloaded with camera settings and light angles from shooting the woodpecker feast, had still not stumbled onto the third insight of the morning, the one that should have been most obvious.

I was just off the path, my back against another large tree, part of the perimeter of a small circular clearing, perhaps ten yards across, behind me, and shielded from my view by the girth of the tree trunk. Hearing a commotion in the clearing behind me, I took two slow, soft steps around the trunk. Unbelievably I found myself face to face with Mrs. Cooper, ten yards away on the lowest branch of a brush pile! No way of knowing which of us was more surprised, but we both froze, staring, me because I knew I'd never be this close to a live, wild, adult Cooper's Hawk again in my lifetime, she because . . . why? The answer dropped suddenly into our midst.

One of the juvies, unannounced, came from the trees above, landing on the ground between us, ten feet from me, too close for me to focus. The light bulb finally came on. The young were NOT capable yet of catching their own food, hence the nearly constant calls which I now recognized

as begging. The female, looming so fierce and feral right front of me, had flown into the clearing with prey but with no idea I was right behind the tree, and she had dropped something off in the leaves for whichever of her "babies" could get to it first.

Before the ball opened I had time for two frames, one a portrait of the female, the other, after frantically ratcheting the zoom lens in, a close-up of the juvenile in the leaves on the ground. And then they were gone, scattering in opposite directions, leaving me shaking and light headed from the adrenaline rush and the tension in my shoulders trying to squeeze blood from the camera and lens to stabilize them. I leaned back against the Sycamore to steady myself and watched the kid flap scramble onto a limb ten feet up, twenty yards out.

I gasped out loud with astonishment. As the young Cooper's landed above me I saw, dangling now from his talons, what the mother had dropped off for him. In the momentary chaos of the fraught encounter in the crowded clearing I hadn't the time, the thought, or the visual acuity to see the prey item lying amongst the brown, dappled leaves between us, but the young bird had seen it and instantly stooped on it. It was carrying a Golden-mantled Ground Squirrel. Headless.

I had an immediate but brief pang of remorse at the fate of the hawk's prey. Ground squirrels are sooooo cute. But I've been doing this for a long time and have become somewhat inured now to the occasional glimpses of violence and blood. Predators have to prey, kids have to eat. As I snapped away the kid with the ground squirrel scrambled higher and into the next tree. As it disappeared in a thicket of branches and settled in to eat, I realized that it had gone home. That was the nest tree, and it was eating in a place it knew to be safe. And, accordingly, a place impossible to photograph well from any angle.

I sat down under the Sycamore to collect my thoughts, scrolling through the images on the back of the camera, coming back again and again to two—Mrs. Cooper, the assassin with blood on her beak and talons, and the second juvenile with prey, an image at once exquisite and excruciating, defiance on its face, the decapitated squirrel dangling from its talons only a piece of meat, a stark reminder that nature is a marketplace.

Just as I thought the show probably over in the mid-day heat, I saw the female flash through an opening across a dry creek bed, the incessant begging stopped for a moment, and a different juvenile dropped to the ground, picked something up and carried it first to the roof of the shed and then on into another tree farther from the nest. Following discreetly but with no concern for the sun angle now at straight-up noon, I discovered the latest item on the Coop kids menu to be a Desert Iguana. So, juvenile accipiters as large as their parents are not quite ready to hunt on their own, still beg incessantly, do not share with one another, and have an eclectic diet. I had just completed an advanced course on the breeding ecology of Cooper's Hawks, the camera my notebook.



Arizona Sightings

More detailed information can be found on the Documentation page of the Arizona Field Ornithologists at : azfo.org



Wood Stork (*Mycteria americana*), San Pedro River near St. David, Cochise County. This Wood Stork was found and photographed by Laura Stewart on 08 September 2018. The last Wood Stork record from Arizona was in 2009. At the turn of the 20th century, the Wood Stork was a regular post-breeding visitor to the Lower Colorado River and to the Salton Sea in California, but populations in Mexico have declined dramatically over the last fifty years and continue to shrink.

Laura Stewart

Baltimore Oriole (*Icterus galbula*), Meteor Crater, Coconino County. This Baltimore Oriole was found by Chuck LaRue and photographed by Jason Wilder on 01 September 2018. A rare migrant in the state but possibly increasing, and removed from the review list in 2015. Adult male with completely black head and orange tail corners is unmistakable.



Jason Wilder



Ovenbird (*Seiurus aurocapilla*), Meteor Crater, Coconino County. This Ovenbird was found and photographed by Jason Wilder on 01 September 2018. Rare but nearly annual visitor to Arizona primarily as a migrant. Records in Northern Arizona are more frequent in spring than fall migration. A unique thrush-like warbler with olive-green upperparts and a short tail.

Jason Wilder

Underparts are white with bold black streaks. Orange-striped crown and large-eyed appearance is distinctive.

Heermann's Gull (*Larus heermanni*), Solar Power & Water Ponds, Yuma County. This Heermann's Gull was found and photographed by Brian Johnson on 25 May 2018. Heermann's Gull is a casual visitor to Arizona from the Gulf of California and occurs nearly year round, but most records from late fall. Although there are more than 40 records of Heermann's Gull in Arizona.



Brian Johnson



Brian Johnson

Red Knot (*Calidris canutus*), Paloma Ranch, Maricopa County. This Red Knot was found and photographed by Brian Johnson on 31 August 2018. The Red Knot is a casual fall transient in Arizona. Its worldwide population is seriously declining.

This is a juvenile Red Knot, which is aged by the scaly pattern on the bird's scapulars, coverts, and tertials. Juvenile and non-breeding Red Knots are mostly gray with a white lower belly, barred flanks, and dull yellow-grayish legs. Red Knot is a chunky but long-winged shorebird and its shape is quite distinctive. It has short legs, a rather short but medium-length bill, and a horizontal stance.

Whimbrel (*Numenius phaeopus*), Paloma Ranch, Maricopa County. This Whimbrel was found and photographed by Brian Johnson on 03 August 2018.

Rare migrant (mainly spring) away from Yuma County. Distinguished from Long-billed Curlew by striped head, gray-brown plumage and shorter bill.



Brian Johnson



Chris Harbard

Sinaloa Wren (*Thryothorus sinaloa*), Upper Huachuca Canyon, Cochise County. This Sinaloa Wren was found by Ken Blankenship on 04 August 2018 and was photographed by Chris Harbard on 05 August 2018. This is a presumed returning bird and the first report for this location since early May 2016. This species is essentially a west Mexican endemic. It is regular in central

Sonora and is reported to be expanding its range northward so that it now can be found within 30 miles of the US border.



Dave Stejskal

Eastern Kingbird (*Tyrannus tyrannus*), Ganado Lake, Apache County. This Eastern Kingbird was found and photographed by Dave Stejskal on 17 August 2018. Eastern Kingbird is a casual migrant in the state, being reported most frequently in the early fall months (July-September). Distinctive with dark cap, dark gray upperparts, nearly pure white underparts, and white-tipped tail.

Lesser Black-backed Gull (*Larus fuscus*), Glendale Recharge Ponds, Maricopa County. This Lesser Black-backed Gull was found and photographed by Jeff Ritz on 08 December 2016. Currently nine accepted records for the state with another one pending. This species is increasing with the first state record occurring in 2006, and nearly annual records in the past five years.



Jeff Ritz



Jason Wilder

Reddish Egret (*Egretta rufescens*), Odell Lake, Coconino County. This Reddish Egret was found by Tom Hedwall on 07 August 2018 and photographed by Jason Wilder on the same date. Casual fall visitor in Arizona. Nearly all records pertain to juveniles and likely from nesting areas along the Sea of Cortez (Gulf of California) in Mexico. This is the first for Coconino County and northern Arizona.

Native Plants Are for the Birds: Sharing the Land with Our Feathered Friends

Rebecca Stephenson

In our culture, deserts have become synonymous with wastelands. Stereotyped images of desolation such as the cow skull and tumbleweed roll through our minds, along with associations of dehydration and death. Yet, this is not the true desert but a desert that humanity has created through habitat alteration, as neither cows nor tumbleweeds are native to the Sonoran Desert. In its pure form, our desert is actually a land teeming with life and biological diversity stretching unadulterated for 100,000 square miles – or it once was.

Large metropolitan areas like Phoenix break up the natural landscape and are considered ecological “dead zones” in that there are not many resources available to native wildlife. We have done as Joni Mitchell sings and “paved paradise to put up a parking lot.” While still considered the Sonoran Desert biome, to a desert bird Phoenix and its surrounding areas look like a concrete void. This is why you will not see too many Black-Throated Sparrows, Blue-Gray Gnatcatchers, or even Cactus Wrens on a walk in downtown Phoenix. Instead, you will see only Pigeons, House Sparrows, and Great-Tailed Grackles: a region home to around 350 bird species has had its biodiversity reduced to three. Ecologically speaking, our cities are the real wastelands.

For the most part, this is a lost cause: urbanization has altered the landscape irrevocably and the human population continues to grow each year. Yet, there are things we can do to help our native birds adapt! People as well as birds enjoy green-spaces, even among the strip malls and skyscrapers. There is something therapeutic about a park stroll or even a single shady tree in a median. Yet when it comes to landscaping, we tend to gravitate towards plants and trees that are lush, full of flowers, or otherwise aesthetically pleasing. However, such plants are typically not native, with many having evolved in temperate Europe – ill-suited for desert life. The very qualities that make these plants attractive to us render them out of place and impractical in the Sonoran Desert.

Consider areas like the Superstition Mountains, South Mountain, or Saguaro National Park. This is the Sonoran Desert biome proper, in its unaltered state. While not lush by anyone’s standards, the Sonoran Desert is the wettest desert, with two monsoon seasons, and as a result is the most biodiverse with more than 2,000 native plants unique to the region alone. Desert plants are easily overlooked, as many initially appear drab and unattractive. Most people are familiar with the saguaro, the hallmark of the Sonoran Desert. But there are also many species of tree legumes, such as the Blue Palo Verde and Velvet Mesquite, countless other cacti, as well as hundreds of small flowering annuals. All have evolved to suit themselves to the harsh environment, where water is scarce most of the year, and the birds have evolved with them.

Native plants take many forms, but there are few main adaptations common to all of them. Desert trees and shrubs display a marked reduction in leaf size, giving them a skeletal appearance. This is because leaves, while important for taking in the light needed for photosynthesis, also lose water to the environment as they open their stomata, or pores, to take in carbon dioxide.

Because light is not limited in the open desert, mesquite,



Saguaro Cactus



Creosote Bush



Cholla Cactus



Palo Verde Tree

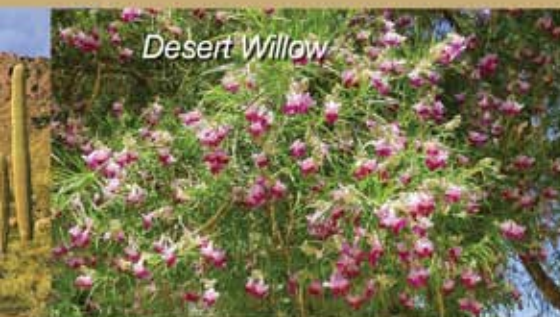


Prickly Pear Cactus

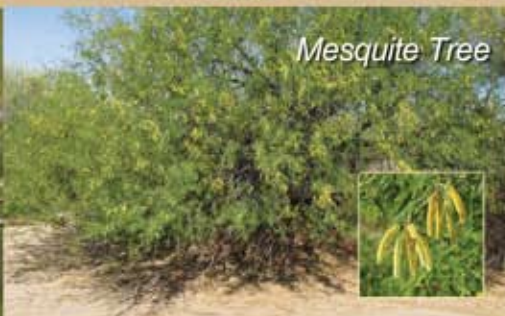


Red Penstemon





Desert Willow



Mesquite Tree



Cactus



Ocotillo



Barrel Cactus



Desert Wildflowers

creosote, and Palo Verdes all have small leaves that avoid water loss and can be folded into themselves during the heat of the day. Palo Verdes take this one step further by performing photosynthesis through their green trunks, where there are fewer stomata through which to lose water.

Cacti employ a similar strategy with a slight twist. Like the Palo Verde, they perform photosynthesis through their "skin," which is stem tissue, and leaves have evolved into tough spines. A daunting physical barrier, spines create a wind-break around the cactus body, further reducing water loss. All cacti are succulent, which means they store large volumes of water in their cells. Pleated cacti like the Barrel Cactus and Saguaro expand and contract with the seasons, using their shallow root systems to harvest as much surface water as possible during the rains. The ocotillo, resembling a Dr. Seuss creation with its long stems, is drought deciduous, meaning that it quickly grows leaves in response to rain, only to drop the expensive accessories once the rains end to enter a dormant period. Some plants, like the wealth of wildflowers that explode in spring, have solved the drought problem by simply not being alive – they germinate, grow, bloom, and produce seeds in one season.

It is no secret that desert plants are vital to desert birds. When you remove native cacti and shrubs from an environment, most desert birds disappear, even with the availability of water and cultivated plants. But the reasons may not be obvious. Curve-Billed Thrashers and Cactus Wrens, with their long legs adapted to perching on cacti, nest nearly exclusively in cholla cactus or other dense, thorny shrubs. Such plants are considered "weedy" and are often eradicated from cityscapes, eliminating thrashers and our state bird from much of the state. The tiny Verdin creates elaborate woven nests which it uses to raise young as well as for warmth on cold winter nights. However, Verdins prefer to build their nests in native trees like the Palo Verde, and due to habitat loss their populations have declined by 2 percent each year. The White-Winged Dove migrates to the Sonoran Desert to breed, powered by the fruit of Prickly Pear and Saguaro cacti. There are also more nuanced intricacies, such as how birds rely on the thousands of insect species, many still undescribed, that desert plants host. Ecosystems are a delicate balance, and the removal of even one element alters the flora and fauna in drastic ways. It is all too easy to annihilate an entire world before realizing its fragility or importance. Cue more Joni Mitchell: "Don't it always seem to go that you don't know what you've got til it's gone."

Luckily, nature is often resilient. Given something to work with, many desert birds can adapt to life alongside humans so long as we provide a few comforts of their home. Planting Velvet Mesquites and Palo Verdes instead of Italian Cypress and European Olive gives Verdins places to nest and feed. Planting even a lone cholla will surely invite a Curve-Billed Thrasher pair to raise a family. A Prickly Pear patch provides a fruit buffet for White-Winged Doves all summer. Throw down a packet of native wildflower seeds and observe Anna's and Black-Chinned Hummingbirds sipping on the tubular, red Penstemon flowers they have evolved to seek out. The fragrant, orchid-like flowers of the Desert Willow attract insects, and therefore an abundance of insectivorous birds like migrating warblers, verdins, and gnatcatchers.

When neighborhoods band together to plant native, desert birds eagerly venture from the outreaches into urban areas. When practiced city-wide, hundreds of acres become usable habitat for native birds again. Come along on the Tour de Bird on November 3 and learn how.

ANNOUNCEMENTS

See DRAS 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 p.m. and the program starts at 7 p.m. Watch the DRAS calendar on our website for announcements of future speakers

November 13: The Crested Caracara in Arizona - Rich Glinski

The Crested Caracara is readily visible in the agricultural fields of the Santa Cruz Flats south of Casa Grande during the winter months. With over 100 birds commonly observed daily in December and January, Rich Glinski has studied raptors in Arizona and the West for the past 50 years, publishing several books and numerous scientific and popular articles on raptors and their environs.

December 11: A Love Affair with Vultures - Dave Manning

Dave Manning, a birder for over 50 years, fell in love with vultures at age 65 when he stumbled upon a small Turkey Vulture chick peeking from its nest cave. He will talk about the three vultures of North America, and his Turkey Vulture book will be available for signing. A native of British Columbia, Canada, Dave says he has been "Mother Nature's Son" for all his life and a naturalist for 50 years.



Seventh Annual Tour de Bird

November 3, 2018, 9 a.m. - 4 p.m.
Learn how to make your yard look like home to Arizona's birds!
A self-guided tour of East Valley homes and parks.
Sponsored by Wild Birds Unlimited and The Perch Pub Brewery
Advance tickets: \$15 at DesertRiversAudubon.org, Wild Birds Unlimited (2136 East Baseline Road, Mesa) or by calling 480-227-8332
Day of event: \$20 at the door

Field Trips

Please check out all field trips on the DRAS Calendar page on the DRAS website: desertiversaudubon.org/calendar

Wednesday, Sep 19, 2018 Timber Camp and Oak Flat Campgrounds with Cindy Marple. We'll head to some higher elevation to look for lingering summer residents and migrants. We'll leave the East Valley early, heading to Oak Flat first, then on to Timber Camp for the late morning and picnic lunch. Return to town mid-afternoon. Difficulty 2, walking on uneven terrain. Limit: 7 Contact Cindy Marple clmarple@cox.net

October 25, 2018 Payson and area with Kathe Anderson

We'll leave Fountain Hills about 6 am to arrive in Payson about 7. We'll explore ponds and parks that have been fruitful in the past for ducks, meadowlarks, bluebirds, woodpeckers, nuthatches, and more. Wrap up about 1:30pm, to return to Fountain Hills about 2:30. No entrance fees at this time. Bring a sack lunch. Limit 8. Difficulty 1. Please register with Kathe Anderson at kathe.coot@cox.net.

November 16, 2018 Neely Ranch/Freestone Park. Neely Ranch, a once-reliable site for all sorts of waterfowl, waders, desert birds and occasional rarity. We'll meet in the Gilbert area about 7:30am, check out the Ranch, then wander over to nearby Freestone Park to see if the lovebirds and winter waterfowl show up. Wrap up about 10ish. Limit 8. Difficulty 1. Please register with Kathe Anderson at kathe.coot@cox.net.

November 28, 2018 Fountain Hills Lake and Botanical Garden with Kathe Anderson. We'll meet about 7:45am in Fountain Hills, to bird at the Botanical Garden, with the hope of catching the common desert birds there before moving onto the lake, where we should get a variety of waterfowl, plus possible waders, shorebirds and surprises. We'll wrap up about 10:30am in Fountain Hills. Limit 8. Difficulty 1-2 (uneven surfaces at the Garden). Please register with Kathe Anderson at kathe.coot@cox.net.

December 6/7 Wilcox/Whitewater Draw/Slaughter Ranch with Kathe Anderson. This trip is designed to take in a few productive spots on the way to Douglas (probably Sweetwater Wetlands, St. David Monastery and Whitewater Draw), overnight in Douglas, then head out early to enjoy the drive into Slaughter Ranch and the various habitats there for a morning of birding. Emphasis on waterfowl and wintering birds, including hawks and sparrows, and desert species. Return to Phoenix 6ish. Limit 8. Difficulty 1-2 (long days!). Please register with Kathe Anderson at kathe.coot@cox.net.

Birding Classes

Introduction to Birding. Instructor: Krys Hammers. Three Consecutive Wednesdays - From Oct. 17-31, 2018. Time: 6:45pm to 7:45pm
Intermediate Birding. Instructor: Cindy Marple. Three Consecutive Wednesdays - From Nov 28 - Dec 12, 2018. Each Wednesday from 6:30pm to 7:30pm.

Rambunctious Raptors. Instructor: Krys Hammers. Thurs Nov. 1, 2018. Time: 6:45pm to 7:45pm

See website for location and fees

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Birding ID Tips for Kids

Anne Leight

There have been specific statements from many birders and ornithologists I have met in my birding life that I still remember today as some excellent tips for bird identification. The one I remember the most is from Michael Rigney, at Hassayampa River Preserve, a Master Bander who taught me how to band birds. His bit of advice always was: "LOOK AT THE BEAK".

LOOK AT THE BEAK. This is where Michael recommended I start my identification, particularly when I encounter LBJs (little brown jobs ... or small brown birds). At first glance, these birds may look very similar to you. But look again – particularly at the beak. This bit of advice, I found, really works! And during August and September when migration brings many juvenile birds, ID can be a challenge!

When you are new to birding, you might be faced with where to start when viewing all these small brownish birds. I suggest you first look at the beak. This is a starting point. It will narrow down your search for the bird's ID.

Take a look at the differences in beak shapes for the following types of birds. The shape has an important purpose for the bird species. Example: A Vireo beak – purpose: picking, probing. There is a small hook on the end.



1. Grosbeak (Blue, female)
2. Bunting (Lazuli, female)
3. Sparrow (Cassin's)
4. Wren (House)
5. Creeper (Brown)
6. Warbler (Northern Waterthrush)

Young Birders'



Foraging deep into mud

Purpose: Gleaning –
picking insects off of
leaves



A drill - it drills into tree bark for
cavity nesting and food storage.



Sparrow

Purpose: foraging in grasses
and cracking small seeds.



Finch

Purpose: Cracking seeds



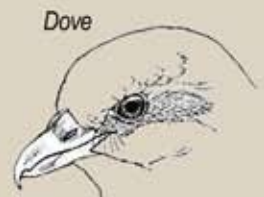
Falcon

A "knife and fork" - it saws and
stabs at meat/food.



Heron

A spear - stabbing fish



Dove

Purpose: foraging in grasses
and dirt for various seeds.



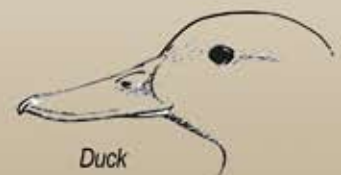
Amakihi

Purpose: Dipping down into
curved flowers for nectar



Brown Creeper

Purpose: Probing into tree bark



Duck

A sieve - water and mud filter
out and intended food (bugs
and crustaceans) are eaten.

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November 3, 2018 , 9 a.m. - 4 p.m.

*Learn how to make your yard look like home
to Arizona's birds! A self-guided tour of East Valley
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|-----------------------|--------|------------|------|
| 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@emailcustomerservice.com

Grand Canyon - Cindy Marple