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Conservation News and Notes
**PRESIDENT’S MESSAGE**

Krys Hammers

**DRAS Season Begins!**

We are ready to start our birding season at Desert Rivers. We have an interesting series of speakers all lined up for our monthly programs. The monthly birdwalks and owl walks are all lined up. Most importantly our biggest fall event, the Tour de Bird is almost all planned. Actually, the Tour de Bird is our biggest event of the year and our only fund-raising event. We were fortunate this year because our best donor, the Ebery and Hazel Meyer Charitable Fund helped to pay for many of our expenses for this event, allowing more of the proceeds to go to fund our other walks and programs.

The Tour is also one of my favorite events. I have long held that you can have a lush desert landscape that is attractive, colorful, easy to maintain, and has the added dimension of attracting birds to your yard. So not only is your landscape visually appealing, the audio track is also stimulating. The tour is intended to demonstrate this, with landscapes that you can tour, talk to the experts and homeowners, and see what others have planted. It’s meant to give you ideas about what you can do with your own landscape.

When we started our Bird Habitat Recognition Program I had high hopes that whole neighborhoods would want to change from grassy lawns to desert xeriscapes. I always have been an optimist. It was very difficult to find good examples of lush desert landscapes for the tour this year. It seems that many homeowners associations are not very enlightened and insist on grass and non-native plant species. I’ve even heard of people removing xeriscapes and putting in grass recently. In our sustained drought I find that hard to believe.

Do you know who I think does a great job of landscaping? The Arizona Department of Transportation does. There are lots of native Palo Verdes, Mesquites, and Yellow Bells; and low water-use Red Birds of Paradise planted beside the freeways in the valley. You know what else they do well? They leave them alone. They don’t over-water them, which means that they aren’t as prone to breaking in storms. They don’t prune them, so they are allowed to bloom and look great. So many public spaces and even private residences select blooming plants and then prune them into funny little shapes and never allow them to bloom. I will never understand why anyone thinks that is attractive. It is also not healthy for the plant. They get very spindly when they’re over-pruned. Personally, I would rather relax and enjoy the blooms than spend my time pruning anyway.

Many who do have desert landscapes have a lot of gravel and throw a cactus or two in it and call it good. Maybe that’s why the desert landscape isn’t very appealing to some. With a little thought, you can plant in stories, so that you have plants of varying heights. Desert plants also have a variety of shapes. So you can have round, bushy plants and sharp, spiky plants. You can also have color year-round. Some desert plants are deciduous, but if you plan well, other plants will be in bloom while those are bare.

So an attractive, colorful desert landscape is very enjoyable and it’s easy on your water bill. The only thing better is that you can spend more time enjoying it and the birds it will attract, and less time maintaining it. I did manage to find some great examples of this type of landscape for the tour. I hope that you’ll join us and see what I mean.

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**AUDUBON AT HOME**

Russell Haughey

**Tips for Attracting Wildlife to your Landscape**

For people who appreciate birds and other wild things, the old Victorian standard for landscaping is something we scoff at. A neat and tidy lawn, desert shrubs tightly pruned into pom-poms by the landscape maintenance company are a sterile place for all but pigeons and grackles.

No, we want habitat! We want cover! We want structure! We want diversity! We want birds and lizards insects and even mammals!

Here are some tips to encourage a diversity of wildlife at our home.

**Set Objectives:** What style do you want? Do you want native desert plants, or do you want to create a xeri-riparian area? Are you going to have a “plants of the Sonoran desert area”, or will it also have lots of your favorite African aloees? Do you want to attract birds, butterflies, hummingbirds, or maybe reptiles and amphibians?

**Have a Plan:** Sit down with some graph paper and draw your lot to scale with your house, driveway and all the plants that you wish to keep. Then brainstorm what you want. Divide your landscape into “rooms”; barbecue area, play area, vegetable garden, shaded sitting area, pond, butterfly garden, hummingbird garden; whatever. Then prioritize and put it to paper. You can do anything with the right plan.

**Riparian Habitat:** Don’t fall into the trap of sticking only to the most drought hardy desert plants because 80% of Arizona’s wildlife uses riparian areas. A birder should believe that creating bird habitat is a beneficial use of water. There is plenty of desert landscape out there, but riparian vegetation and its wildlife is declining rapidly. If you plant cottonwoods, walnuts, native mulberries, Mountain Hackberries and other xeririparian plants your bird list will reflect this important component of a landscape. You will have Bell’s Vireo, many warblers, Yellow-treasted Chat, Ruby-crowned Kinglets, Western Tanagers and more.

**Plant Species Diversity = bird diversity.** The more different kinds of plants you have, the more species of birds will be able to find what they want.

**Native plant species diversity = bird diversity.** Many native birds will be looking for the native plants they depend on. Use these plants; Blue Palo Verde, Velvet Mesquite, Creosote Bush, Fremont Cottonwood, Mountain Hackberry, Texas Mulberry.

**It’s not a Plant Collection, it’s about Habitat:** Many Mother Nature’s Sons have one of each plant they like. One of these, one of those. NO. Plant multiples of your plants in natural settings. Create structure with your favorite plants. It’s not a stamp collection.

*Continued on page 9*
When last we were all together for the summer edition, I suggested that we pray for a wet monsoon. I guess we would have to say that prayer was answered. We will probably end September as the wettest September ever on record for the Phoenix area. So, does that have anything to say about climate change? The professors would most likely say no. Variations in weather are most likely just that. However, the science of climate change suggests that greater and more frequent fluctuations in weather will be common in the future. But, before we look at that, there was a topic we were to return to and one piece of election news that has come up that we need to address. Let’s deal with the election news first.

On this fall’s General Election ballot is Prop 122. This is the Tea Party and right-wing legislators attempt to poke the federal government in the nose. To quote from the State of Arizona Publicity Pamphlet, regarding Prop 122, “(t)he state, counties, cities, towns and other political subdivisions of the state would be prohibited from using any personnel or financial resources to enforce, administer or cooperate with a federal action or program if the people or their representatives have exercised their authority to restrict such action or use.” To cut to the chase, this is an attempt to ignore the supremacy clause of the United States Constitution and allow ultra-conservative members of the state legislature to ignore whatever actions of the federal government that are opposed by conservative members of the legislature. Of particular interest, according to discussions held at the state legislature when this proposition was referred to the ballot, are those actions by the EPA, U.S. Fish and Wildlife Service, U.S. Forest Service, and the BLM. Enhanced air quality requirements and the wolf reintroduction program are the initial targets. The Board of Directors of the Desert River Audubon Society has voted to oppose this proposition and we urge a no vote on Prop 122. This is just one more way for our state to end up on Comedy Central as the butt of a joke. This is also a great way for full employment for a whole host of lawyers as this has lawsuit city written all over it. The voters in Arizona can give this turkey (actually, that is an insult to turkeys!) an early death by defeating it on November 4.

Have you seen any of the publicity about the National Audubon Society Climate Report? Here is a link to the report: http://climate.audubon.org/. In the report NAS reports that 314 species of birds are imperiled by climate change in the USA alone. That is nearly half the species in the country. “Audubon scientists have used hundreds of thousands of citizen science observations and sophisticated climate models to predict how birds in the U.S. and Canada will react to climate change.” http://climate.audubon.org/). If you haven’t had the time to take a look at the report, I urge you to do so. You will see that many of the bird species that we all love to watch here in central Arizona are on the list. Hopefully this report will help you to gird your loins and prepare to advocate for those policy changes necessary to change our fate it nothing is done about human caused climate change.

Ahh, human caused climate change, just what have we been talking about in several past Conservation News columns. We have one of the dirtiest coal burning power plants in the western United States: the Navajo Generating Station near Page, Arizona. This power plant is a significant source for carbon dioxide pollution as well as a regional source of haze producing chemicals, principally nitrogen oxide compounds. It is also a significant employer for the Navajo Nation, a major revenue source for the Navajo Nation, and the source of electric power for the Central Arizona Project. So, threats to close some or all of the units at the NGS would affect Navajo employment, both at the plant and in the mining and transporting of the coal to the plant. It would also affect the price of water delivered to the Phoenix and Tucson metropolitan areas. Some scare mongers would even have you believe that curtailing pollution from the NGS could affect the availability of water in Phoenix metro area and in Tucson.

So, where does the truth hide among all of the claims and counterclaims? In the summer edition I gave you a link to the CAP spin on this issue. Here it is again if you missed it the first time: www.cap-az.com/documents/public-information/ngs/NGS_Comments.pdf. For another point of view, here is the EPA press release regarding its proposals for changes at NGS:

http://yosemite.epa.gov/opa/admpress.nsf/2dd7f669225439b78525735900406c31/9b5d48c5d1849985257f1007a3c391opendocument.

Here is the EPA press release from July when it issued the final rule for NGS requiring NGS to cut emissions:

http://yosemite.epa.gov/opa/admpress.nsf/ff6618525a9efb85257359003f
b60a26905c557e820e48257d230464d4faopendocument.

Here is the press release from SRPNet on the issuing of the final rule:


Here is the news article from the Arizona Republic on the final rule:


Finally, here is a link to a piece Horizon did on the final rule for the NGS:

http://www.azpbs.org/arizonahorizon/detail.php?id=2481

Still to come are EPA rules to limit carbon dioxide production from power plants. So there will be plenty more to write about for future columns. Please let me know if you find my compiling sources of information on these complex topics useful to you. If you are like me, you are busy and not always able to find the detailed information that you would like to have on various topics. I hope that my doing the digging for you is useful. Should you have questions, concerns, criticisms, or comments, please tell me at one of our meetings or bird walks, or, should you prefer, contact me by email at maskalce@cox.net. My cell phone number is 480-330-0655.

Finally, don’t forget to vote and to vote no on Prop 122! Until our winter edition, I wish you Good Birding.
Kestrel, Party of Five

Article and Photos: Jim Burns

As many of you probably already knew, and I know now, American Kestrels do nest in the Valley and are secondary cavity nesters often utilizing Gila Woodpecker and Gilded Flicker excavations in Saguaroos (my next photo project, please call if you find one). There is an influx of migratory kestrels into the deserts in winter, but non-migratory resident pairs may stay together through the desert winter and may, as do many desert species, nest throughout the calendar year here. And for sure these efficient little killing machines, opportunistic as all birds of prey, will supplement their diet of insects and rodents with small birds whenever the chance occurs.

Do some research and expand your knowledge of all our avian desert neighbors. You may be surprised, as I was, at how much you don’t know.

There have been 981 avian species recorded in North America. That’s a boatload of birds, way too many for even the most obsessed lister to know thoroughly. We all have favorite species, neighborhood specialties, and nemesis birds that we have researched and made the subject of our limited expertise, but even professional birders have gaps in their field experience and some species that just hold no special interest for them. For the casual birder, some rather common species can often fall into these gaps. How about American Kestrel?

This past summer I discovered how little I knew about this most numerous, widespread, and well-studied North American falcon. If you’ve taken any long driving trips, you know kestrels as nifty little hawks that hunt from utility wires in open country. Other than that I only knew kestrels primarily from two separate photographic incidents, one frustrating, one unexpected. I had tried unsuccessfully for years before getting images of kestrels hover hunting, hanging in the air over field or marsh, peering down intently for their next meal of mouse or grasshopper. And then one day, completely unanticipated, I witnessed kestrel copulation—on top of a Saguaro, in the low desert, in early October!

Because I had always assumed Arizona’s kestrels bred in the spring and at slightly higher elevations somewhat farther north, I puzzled over this record for years, but never enough to do any research. I had a lot to learn. In late May I was hanging out early one evening near the fountain in our front yard hoping to catch one of our local Anna’s Hummingbirds coming in for that last drink or bath of the day. Catching movement above our roof atop the utility pole in the back alley, I was shocked to see an American Kestrel on the crossbeams. I had never seen a kestrel in the Valley in summer. It’s 6:00pm, over 100 degrees. They’re all up in the foothills or mountains on breeding territory, right?

Within the next minute four more kestrels, an adult female, two juvenile females, and a juvenile male, joined the adult male on the pole where they were immediately strafed by a hummingbird. Moving through the house to the backyard, I heard a “killy, killy, killy” and realized at once all my assumptions about American Kestrels in the desert had been faulty. At 6:00am the next morning, hearing the family’s vocalizations again, I stepped into the backyard and learned a lot more.

I witnessed the adult pair copulate in a palm tree down the alley as the juveniles watched from our utility pole. Then I had a front row seat as the utility pole became the family’s splendid table. First the adult male flew in with a House Sparrow which he reluctantly (or maybe he was trying to teach the young to be aggressive around food) shared with the offspring. The next item up was a House Finch, followed by thirty minutes of male and kids attempting, several times successfully, to capture and eat the flies attracted to the blood and guts remaining on the crossbeams from the main avian breakfast course.
Fountain Hills Lake is a popular spot. On any given morning in the fall and winter, you’ll encounter numerous people strolling along the paved path around the lake; several of them are walking dogs or being walked by dogs. Thankfully, the birds seem oblivious to most of the activity. Waterfowl are the most obvious draw for birders, but there are often surprises all along the avian taxonomic spectrum that make each visit worthwhile.

One Christmas Bird Count at Fountain Hills Lake tallied 800 American Coots, and perhaps 300 American Wigeons. They populate both the water and the expansive lawns around the lake. Mallards and Mutt Mallards (Mallard/Domestic Duck hybrids) leave the water as well, mostly to be fed by toddlers with stale bread. (They mean well.) Afloat, you’ll see other ducks, mostly Ruddy Ducks, Northern Shovelers and Lesser Scaup, as well as Common and Hooded Mergansers. Common Goldeneyes have also been reported. At least three kinds of grebes are possible: Pied-billed and Eared Grebes are common. Western Grebes is a treat.

Usually, Killdeer will make themselves known either by their namesake screeches, or by exhibiting the classic scurry-and-stop behavior of plovers. Look for Spotted Sandpipers bobbing along the edge the most likely representative of the shorebird family. Black-necked Stills, Least Sandpipers and Greater Yellowlegs also show up regularly. In the wader family, Great Blue and Green Herons are the most likely sightings. Great Egrets show up occasionally and stand on the fountain superstructure until it shoots its plume 300 or more feet into the sky. Go on St. Patrick’s Day the fountain’s waters have been dyed green in the past. Cormorants, most likely Neotropic, also visit.

Driving Directions: From Phoenix take Shea Blvd east to North Saguaro Blvd in Fountain Hills and turn left. Take Saguaro north to E. El Lago Blvd and turn right. Parking lots are available around the loop road around the lake. Look for birds from different vantage points, and take a scope if possible to see birds out on the lake. At times there are rafts of ducks out near the fountain.

Continued on page 8.
Why do black-tailed jackrabbits have huge ears while snowshoe hares have much smaller ones? Why are most Inuits short and stocky while Maasai of East Africa are taller with long arms and legs? Enter Joel Asaph Allen in 1877 who postulated Allen’s Rule (what else?). The Rule states that body shapes and proportions of warm-blooded animals will reflect the climate in which they evolved. Animals in cold climates will tend to have shorter ears, tails, and limbs to decrease body area and conserve heat. Conversely, animals in hot environments will tend to have longer versions of these body parts to dissipate heat.

While the evolution of bird beaks has been closely associated with feeding preferences, e.g. Darwin’s finches on the Galapagos Islands, recent research has focused on the potential role of bird beaks in thermoregulation. Thermal imaging studies have shown that bird beaks are highly vascularized beneath the skin thereby giving them an important role in heat regulation. Studies on toucans (obviously an extreme case) show that the birds can dissipate up to 60 percent of body heat through their bills.

Besides body temperature regulation, the ability to dissipate heat with your mouth (beak) shut conserves water. Birds don’t sweat, but they do pant with mouths open in hot conditions. Water loss increases sharply during panting. These facts encouraged researchers at the Smithsonian Conservation Biology Institute and at Deakin University in Australia to look more closely at the relationship between beak size and climate — specifically temperature and water availability.

Russell Greenberg of the Smithsonian wanted to know if birds with beaks much less assuming than those of toucans might also play a role in thermal regulation and water conservation. So he compared two subspecies of Song Sparrows, Melospiza melodia – the Atlantic and the Eastern. Both subspecies have about the same body size, but the Atlantic subspecies has about 17 percent more beak area than does the Eastern subspecies. Greenberg used thermal imaging and determined that the Atlantic subspecies loses 33 percent more heat through its larger beak. He further calculated that the Atlantic subspecies saves about 8 percent more water because of its larger beak. This may be related to the fact that the Atlantic subspecies lives in a coastal environment having fewer freshwater sources.

Greenberg then took his studies to California and checked beak sizes of 1,488 Song Sparrow museum specimens that were collected up and down the coast. Again, temperature explained over 40 percent of the variation in beak size with larger beaks corresponding to warmer climatic conditions. However, this relationship weakened as microclimate temperatures increased over about 99 degrees Fahrenheit. This makes sense since the sparrows’ body temperature is about 105 degrees Fahrenheit, which means that larger beaks at these high temperatures could start to absorb rather than dissipate heat.

The Australian researchers also continued studies of bird beak size and thermoregulation. They performed a comparative analysis of 214 bird species comprised of eight taxonomic groups – toucans, African barbets, Australian parrots, estrildid finches, Canadian galliforms, penguins, gulls, and terns. In all cases there was a strongly significant relationship between bill length and both latitude and/or altitude and corresponding environmental temperature. Species in colder climates generally had shorter bills. This relationship was strongest in parrots, galliforms, penguins and gulls. Interestingly, these patterns supporting Allen’s Rule held for all the groups except finches!
While the evolutionary field biologists were busy measuring bird beaks to see if Allen’s Rule really ruled, evolutionary molecular biologists were taking another look at those most famous of bird beaks – Darwin’s finches on the Galapagos. Darwin’s finches comprise 14 closely related species that are differentiated primarily by the size and shape of their beaks. Darwin first noted that the type of beak correlated with the food sources most exploited by each species. Ground finches have deep and wide beaks for cracking seeds while cactus finches have long pointed beaks to reach nectar and pollen sources deep within cactus tree flowers. Warbler finches have delicate and slender beaks suitable for feeding on insects.

A 2004 study showed that a single gene, Bmp4, coded for a bone-growing protein, and is responsible for producing heavy, wide beaks and other cranial bone growth in Darwin’s finches. (See the Fall 2013 DRAS newsletter for other morphological features this gene can code for). The more Bmp4 present during embryonic development of the finches, the wider and deeper was development of the beak. Further research in 2006 discovered a second gene that functions with Bmp4 in a complementary manner. This second gene makes the protein calmodulin (CaM). CaM apparently has no effect on beak width and depth, but does control beak length. Experiments showed that CaM is highly active in cactus finch embryos and is responsible for the elongated beaks of this species used in probing cactus flowers and fruit. Much less of this protein is present in ground finches that have short beaks.

Modulation between Bmp4 and CaM yields a wide variety of beak types. Since so few genes are involved in finches developing these traits, these birds have the genetic ability to quickly (that is on an evolutionary scale!) change beak size and shape in rapidly changing environments. To even further confuse the issue of beak size and shape, there has been other research on Darwin’s finches that indicate different beak sizes and shapes influence vocalization. These changes in bird song resulting from varying beak morphology, may further speed speciation among these closely related finches.

So, are beak shapes selected for based on habitat temperature and water availability, type of food available, or, usefulness in mate selection? The answer is yes! All of these factors and probably some additional ones that have yet to be recognized can play a role in the evolution of beak size and shape. Which factors are dominant depends on what is most important for a species to survive and successfully reproduce in its habitat/s. The bottom line is always production of offspring to carry on the species to the next generation.
The Whereabouts of Wilson’s Warblers

David Despain

An energetic, little songbird adding to the splash of vibrant yellow that descends upon The Valley during the fall is the Wilson’s Warbler. It’s an easily recognizable bird with its bright yellow face and black button eyes, akin to that of the yellow warbler, yet famously offset by a distinctive, velvety black or dusky cap.

It’s also an easy bird to spot, as these warblers tend to forage at eye level or lower in bushes and shrubs. But fleeting glances are all most people are able to achieve when looking for these neotropical migrants. Again, energetic is the best way to describe them, as they actively go about their business. There’s little hope—just ask any bird photographer—of telling what direction they’re headed next.

How anyone manages to follow these little characters around in hopes of studying them scientifically is something of a curiosity. Surely ornithologists have figured out ways to do it, right? As it turns out, attempts by researchers at tracking Wilson’s Warblers haven’t boded well in the past. To date, there have been too few data recorded for mapping out their migration patterns reliably and accurately.

Conservation Challenges

Without precise knowledge about where these warblers are at all times of their life cycle, it becomes difficult to protect them. Where are they coming from, where are they stopping to rest and eat, and where will they end up? These are the mysteries that we’ve yet to solve and the consequence is that full life-cycle conservation is impossible without the facts.

There lies one of the reasons responsible for our current reality. Unfortunately, over half of neotropical migrant bird species that breed in North America have declined over the last few decades. The waning populations are thought to be due to stress encountered at different stages of the lifecycle of these birds.

For instance, birds can come across a number of challenges during their lives: while at their breeding grounds, as they travel, at their stopover points, or at their wintering grounds. Any number of disturbances could happen at any point of this cycle whether it be habitat loss, wind turbines or cell phone towers, predation by cats, and exposure to disease. The problem looks to only get worse with an increasingly changing climate.

Trouble with Tracking

The trouble with tracking Wilson’s Warblers has been limitations of technology, but there have been a few successes. Banding birds has been helpful, but for it to work, the birds have to be found again later, and so few are ever found for recording purposes.

Recapture rates are generally very low—less than 1 in 10,000—and that has led to limited success in mapping migratory pathways.

Other options used with larger birds are just not suitable for the smaller ones. For example, satellite trackers weighing upwards of 4 grams are much too heavy for a 5- to 10-gram bird. The smaller trackers, called geo-locators, have indeed helped improve our knowledge of migratory pathways, but are costly, still too heavy for the tiny birds to carry on their long journeys, and impractical because of the need to recover them to collect data.

More success has come from the collection of genetic and isotopic markers from bird feathers. These help to connect the dots of migration based on regional differences in birds’ mitochondrial DNA or based on ratios of elements that the birds have ingested matched with ratios in food available in summer and winter regions. But while these methods are popular and cost effective, they are plagued by problems of low resolution and methodology.

Molecular Tagging

There has existed a need for a better tracking method to help inform conservation efforts for stopping the decline of populations of Wilson’s Warblers and other small neotropical migratory species. Now a multidisciplinary research team reports that the technology of tracking bird populations is on the verge of a revolution and it’s one that they hope will modernize mapping of migratory songbird pathways.

Writing in the journal Molecular Ecology, the researchers state that the new technology of genomic sequencing has been able to identify “hundreds of thousands of genetic markers that are useful for distinguishing populations.” These genetic markers include Single Nucleotide Polymorphisms, or SNPs, which are mutations that can be used to identify variations in DNA of specific populations even when available in only small quantities, such as from a single feather.

What’s more is that the team has made Wilson’s Warblers the focus of their initial research. Why the Wilson’s? They write that it’s because of their long-distance journeys with a cross-continent breeding distribution. And already they’ve come up with some surprises about how different populations of Wilson’s migrate.

Specifically, the team selected 22 Wilson’s Warbler individuals to study. They included five individuals from five different regions where Wilson’s Warblers are regularly found, with exception of the Southwestern region that was limited to only two individuals. The strongest genetic differences were found between the eastern and western groups, as expected, but what was thought to only be two recognized Wilson’s Warbler populations were actually six distinct populations.
The eastern birds were basically all the same genetically, but the western warblers actually consist of five distinct breeding populations: one in the Southern Rockies and Colorado Plateau, one in Coastal California, another in the Sierra Nevada, a fourth in the Pacific Northwest, and a fifth in Alaska and Alberta.

**Modernized Mapping**

What of their migration patterns? The researchers report that the East Coast breeders send their winters in the Yucatan and southern Costa Rica and migrate north through eastern Texas and New York, while the Southern Rockies and Colorado Plateau breeders winter from El Salvador to Costa Rica and migrate north through the central states.

In contrast, the Coastal California, Sierra Nevada and Pacific Northwest breeders all winter in southern Baja and western Mexico, and migrate north along the Pacific Flyway. And, perhaps most interestingly, the Alaska and Alberta populations were identified in all but one of the migratory stopover sites and wintered in all areas, apart from western Mexico and southern Baja.

Additionally, as nature writer Chris Clarke reports, the western populations appeared to migrate on a “staggered timetable” as confirmed by one of the co-authors, Kristina Paxton, while spending two migration seasons in the stopover site of Cibola, Arizona, along the Lower Colorado River.

According to material Paxton collected, the genomic sequencing revealed that the Coastal California breeders migrated during the week of March 22, followed by the Pacific Northwest breeders the next week, the Sierra Nevada breeders during the week of April 15, and finally the Alaska birds the week of April 26.

Now, with a schedule of sorts for when specific Wilson’s populations come through a stopover site, is this information useful to conservation of these birds? Certainly. It allows for preparation on a annual basis for more careful study of migrating birds, and it can lead to the greater preservation of habitat and avoidance of building structures (e.g. solar panels) that might impede their long journeys.

The hope from the researchers, ultimately, is that new tracking technology will help improve “full life cycle conservation” of the Wilson’s warbler, and perhaps more neotropical songbirds in the future, specifically endangered species.

Besides being an efficient, high-resolution tracking technology that can be applied broadly across species, another benefit is simply that it’s cheap. The cost of analysis nears 300 birds a day for less than $10. With that price tag, there’s no doubt that we can expect more of these kinds of studies in the future, along with greater information of how we can better protect our tiny yellow-feathered friends.

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**Fountain Hills Lake, continued**

What you might not expect is the variety of song and other birds that may be sharing the park. Check out the houses that overlook the lake, especially on the south side where one feeder attracts reliable House Finches and Lesser Goldfinches. Watch for swallows over the water. Be alert to Cactus Wrens and Curve-billed Thrashers that may lurk in the native vegetation at the edge of the park. Most surely a Gila Woodpecker will fly by scolding. Ravens sit imperiously on nearly commercial buildings. A scattering of Red-winged Blackbirds and Brown-headed Cowbirds may call from the trees near the restrooms. If you hang around the yucca garden, also near the restrooms, you might see the Costa’s Hummingbird that frequents that area.

Nice surprises have included kestrels, Say’s Phoebes, a small flock of Western Meadowlarks, a handful of American Pipits and a Ring-billed Gull. So, maybe, there’s nothing too exotic yet. But for a lake so popular with our species, its nice to see how popular it is with birds as well.

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**Book Review**

We have two books in the nature store by two local birders. One is Desert Fables: *Bedtime Stories for the Child Within* by Ann McDermott of Buckeye Arizona. It has 125 stories written in fable style like how Gila Monster got his colors, Black-throated Sparrow Confronts Chaos and How Owl Proved His Wisdom. These fables aren’t just for children. The book sells for $15.

Previously published Haiku author, Barbara (Babs) Buck recently published a 263-page book, *SUN MOON SKY Book of Haiku*, that will be available in the DRAS book store for $20. This classical three-line haiku poetry thrives on the interplay of nature and humanity. Anyone who enjoys poetry of any kind or who enjoys the out-of-doors will find sensations to savor in each brief verse, some more delectable than others. Babs discovered the haiku art form when she lived in Japan for three years in the early 1960s. Combining her passion for nature, birding and haiku resulted in her winning first place in a haiku contest at the Southwest Wings Birding Festival in 2013.

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**CHRISTMAS BIRD COUNTS 2014-2015**

The National Audubon Society has conducted Christmas bird counts since 1900. Volunteers from across North America and beyond take to the field during one calendar day between December 14 and January 5 to record every bird species and individual bird encountered within a designated 15-mile diameter circle. These records now comprise an extensive ornithological database that enables monitoring of winter bird populations and the overall health of the environment. These counts are a great opportunity to improve your birding skills and contribute to this important tally, you can see a schedule and contacts for each count on the Tucson Audubon website: tucsonaudubon.org

Contact the compiler of the count you want to participate in to register and insure your place on a count team now!

www.desertriversaudubon.org
Structural Diversity: Birds will use structure that fits their niche. Some birds will enjoy feeding on seeds of weedy annuals on the ground where they can see predators coming. Some will forage for insects on native desert trees such as Velvet Mesquite or palo verdes. Some will only be present if you have cottonwoods. Some like the structure low, so don’t prune up the trees. Some like the top of the tallest cottonwoods, so plant your cottonwoods early so they grow big fast.

Lizards: Create appropriate habitat for key lizard species by spreading sand for Zebra-tailed Lizards. Build fences or pile up lumber or firewood for tree lizards, have desert landscape areas for banded geckos. Build rock piles for Chuckwallas. But, lizards may have a harder time finding your rich wildlife landscape in a sea of lawns, rose bushes, and swimming pools than birds. So, with a state hunting license it is legal to collect most reptiles live and introduce them to your yard. Make sure you follow the regulations regarding limits and protected species. But go out and catch a few Zebra-tailed Lizards, or Chuckwallas, or Desert Spiny Lizards to release in your new habitats.

Grow Your Own: Collect seed of your favorite plants in the wild, and propagate it on your own. Germinate the seed and move it up into gallon containers as it grows up. Give it as much light as it can stand and plant it out in fall with a cool winter ahead to acclimate to the heat. Most native plants are only available this way.

Snags: Many birds like to sit on the dead branches of snags, old agave stalks, or tall saguaros to watch for predators or prey. Make these available.

Water: Very important. Place the water in the open away from plants that could hide predators in ambush. Make sure it is running or otherwise treat for mosquitoes with fish or Bacillus thuringiensis (BT, Dunks, Doughnuts; a bacteria that kills mosquitoes and butterflies). Make sure there is an escape ramp for animals that fall in. Dripping, flowing, or splashing water will really attract birds.

Bird Feeders: Set feeders away from plants that cats can use for ambush sites. Birds will like to land on a tree or perch in the vicinity of the feeder to see if it is safe from predators, then fly to the feeder in the open.

Sources of Native Plants:


Wanted: Deaf or Alive!
Kathe Anderson
Field Trip Leaders – Part I

Yes, you read that correctly, Deaf or Alive. Actually, the active part is not optional, but the deaf part certainly is. Of course, the perfect field trip leader is both very much alive and great at identifying bird calls and songs by ear. But really, the latter is merely icing on the cake. In a series of three articles, there will be a dozen reasons to be a field trip leader. Let’s start with the most obvious.

1. You choose the site. Never been to Jewel of the Creek? New River Nature Preserve? Morgan City Wash? Or any number of popular, little-known or waiting-to-be-discovered areas? Lead a field trip there!

2. You choose the date. Couldn’t make the overnight to the San Jacinto Mountains? Your Mom’s birthday is the same date as the Santa Cruz Flats trip? Want to know what Prescott has to offer in January? Pick a date and lead a field trip that works for your schedule.

3. You choose the time—and timing. Remember the field trip that started in the dark? Or the one that began at 8am in July when it was already 97 degrees? How about the leader who didn’t move for 90 minutes waiting for a rarity to appear, or the one who led the forced march uphill? As a field trip leader, you decide the time to gather, the pace that suits you, and when to wrap up.

4. You choose the number of participants. Ever been the last car in a caravan of nine—when you jump out to see what everyone is looking at, the first car is pulling away? Ever been on a narrow path where the first three people see everything, but no one else sees much? As a field trip leader, you can assess the site and decide how many participants will have a positive experience.

A few words about qualifications. Being a great birder isn’t necessary to be a field trip leader! Sure, it’s wonderful to be able to spot birds and call out their names flawlessly. But not even the top professional guides bat 100%—so there’s no need for you to. The birds actually take very good care of themselves. Given your companions, all focused and curious, all looking at the same bird, and the birds almost magically get identified. In any group, there are likely to be at least three different field guides. Those resources, plus good observations and open discussion will benefit everyone in learning their birds—including the field trip leader! And if, at the end of the day, there’s a mystery bird or two (and there often is), well, that just keeps it interesting. The main reason to be a field trip leader—it’s just plain fun. Try it! Still worried? Have questions? I’m happy to help. I’ve got some experience now, perhaps 300+ trips over the years. I’m still eager to explore new sites, revisit old favorites, meet new people, and connect with good friends developed from many, many adventures together. And I still learn something new every time I have the opportunity to lead. Kathe.coot@cox.net.
Dras Events

See DRAS website calendar for more comprehensive list.

Owl Walk & Talk. Sat, October 25, 4:30pm – 5:30pm. Zanjero Park, Gilbert.
The starting time for this event will change as the days grow longer. Event is
held one hour before sunset.

Tour de Bird 2014. Sat, November 1, 9am – 4pm. Various locations around
the East Valley. Join us for our annual Tour de Bird this year. Details of the
gardens on the tour will be available shortly.

Tending the Hummingbird Habitat. Sat, November 8, 7am – 9am.
Hummingbird Habitat at Desert Breeze Park, 660 N. Desert Breeze Parkway,
Chandler. Join us to weed, water & prune the Hummingbird Habitat. Bring
gloves, hat, sunscreen, water & garden tools and enjoy a cool early morning in
our walled bird garden. More here: Photos of our work in the Habitat:
http://www.flickr.com/photos/desertriversaudubon/sets/72157626027704066/
The Hummingbird Habitat @ Desert Breeze Park is a recognized Desert
Rivers Audubon Bird Habitat: http://desertriversaudubon.org/bird-habitat.html
Just drop in or contact our volunteer coordinator, Anne Koch, atredray@gmail.com.

Field Trip w/ Kathe Anderson - Fountain Hills Lake and Rio Verde Ranch
Mon, November 17, 7am – 11am. With the hope of enjoying the wide variety
of winter waterfowl at the lake (usually including eared grebes, but when we're
really lucky, perhaps a goldeneye, hooded mergansers and western grebes)
before heading over to Rio Verde for an entirely different habitat which usually
promises ladderback woodpeckers, Bewick's wrens, and other desert and
riparian species. Cedar waxwings and robins are unusual there, but sparrows
and vermillion flycatchers are not! We'll start at Fountain Hills about 7am and
end there about 11. Limited to 8 participants. Reservations required. Difficulty
2. Meeting place and carpooling logistics will be determined a few days before
the trip. Contact Kathe Anderson at kathe.coct@cox to register.

Owl Walk & Talk. Sat, November 22, 4:30pm – 5:30pm, Zanjero Park, Gilbert.
The starting time for this event will change as the days grow longer. Event is
held one hour before sunset.

Field Trip w/ Kathe Anderson - Arlington. Mon, December 1, 6:30am –
1:00pm. Thanks to Donna Smith of Sonoran Audubon Society, there’s a great
route around Arlington, west of Phoenix, through agricultural fields that is
relatable for burrowing owls and diurnal raptors, sparrows and common desert
species, plus waterfowl at canals and farm ponds. This is a long morning,
starting at 6:30am in Tempe and wrapping up perhaps 11am. Lunch plans to be
determined. Mostly car birding. Limited to 8 participants. Reservations
required. Difficulty 1. Meeting place and carpooling logistics will be determined
a few days before the trip. Contact Kathe Anderson at kathe.coct@cox to register.

Monthly Speaker Series. Tue, December 9, 7pm – 9pm. 775 N Greenfield
Rd, Gilbert. Held at the Southwest Regional Library in Gilbert, AZ. New
speaker each month, browse our book table for the latest birding guides and
more! Doors open at 6:30pm.

ANNOUNCEMENTS

DONORS AND GIFTS

The Desert Rivers Audubon Society recently received significant contributions
from these companies and individuals in support of our work and mission:

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Our appreciation goes to the following corporate donors who have given to
support a program or overall operating costs of the Desert Rivers Audubon
Society from July through September, 2014.

Bass Pro Shops for use of their meeting room for
monthly Desert Rivers Board meetings in the
Phoenix store, Dobson Road and the AZ 202 Freeway.

Wild Birds Unlimited - David Covey and MaryAnne
Kneeflc for their donations of great raffle items at our
monthly meetings. Please visit their store for your
birding/nature needs at the northeast corner of Baseline
and Gilbert roads in Mesa.

Corporate Members:
Treeland Nurseries, Bass Pro Shops, Wild Birds Unlimited

Welcome New Members:
Mark Brinton Peggy White

VOLUNTEER OPPORTUNITY

Draas is looking for a co-editor for this newsletter to assist in procuring
content and proofreading copy. Contact Michael Rupp at
mikerupp@gmail.com

Tour de Bird

A tour of bird-friendly gardens - both public and private. Nov 1 9 am to 4 pm.
$10 Tickets available at Wild Birds Unlimited at Baseline & Gilbert, at any

Bass Pro Shops

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MONTHLY PROGRAMS

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

GILBERT/CHANDLER BIRDWALKS

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

BIRD LISTSERV/RARE BIRD ALERT

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

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MEMBERSHIP INFORMATION

We welcome your interest in joining the Desert Rivers Audubon Society as a member and participating in Desert Rivers Activities. Your membership dues help support our chapter’s outreach activities and operating costs. You can join National Audubon and Desert Rivers Audubon by signing up on our Members Page online and receive the bi-monthly Audubon magazine. A chapter membership entitles you to our quarterly newsletter, event priorities, and discounts on products and services.

- Students/Senior (65+) Membership..........................$20 annually
- Individual Membership............................................$25 annually
- Senior Couples Membership..................................$35 annually
- Family Membership..............................................$40 annually
- Corporate Membership..........................................$300+ annually

What is the difference between a Desert Rivers chapter membership and National Audubon membership? National Audubon Society and chapters are separate entities. All dues and gifts to Desert Rivers are used for local programs. You can be a member of both Desert Rivers and National Audubon Society, or become a member of Desert Rivers without joining National Audubon. You can even be a member of more than one Audubon chapter at the same time, regardless of your home address. If you are a National member, you can assist this chapter by designating Desert Rivers as your “assigned chapter.” Contact audubon@emailcustomerservice.com and request that they “hard-code” your membership to Chapter 808, Desert Rivers Audubon Society.

The Desert Rivers Audubon Society is a 501(c)(3) non-profit organization incorporated in Arizona, formed to provide environmental education and conservation opportunities to valley residents and advocate for our environment. For information on planned giving or bequests to the chapter, see our Giving/Support page online.

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