Eastern Collared Lizard
Photo by Brian Sullivan
**programs**

**Programs**

Programs are held at: Papago Buttes Church of the Brethren, 2450 N 64th Street, Scottsdale, AZ (northwest corner of 64th Street and Oak Street, which is between Thomas Road and McDowell). Come and join us, and bring a friend!

### September 1, 2015

**Plants, Puddles, and Ponds for Birds With Paul Holdeman**

A migratory bird soars high over the Valley, looking for respite during its long journey. A native bird seeks food, water, shelter, and a nesting site. Do you want your yard to attract these exquisite creatures? Do you want to see orioles, cardinals, warblers, and Cactus Wrens right outside your window? Whether you’re a wildlife-watcher, photographer, or just enjoy living in harmony with nature, this program will show you how to create your very own urban wildlife habitat.

Paul Holdeman, co-owner of The Pond Gnome, is a third-generation Arizona native. Growing up in Arizona, he has an intimate understanding of the Sonoran Desert’s microclimates. An avid hiker, backpacker, camper, and wildlife enthusiast, he spends as much time as possible enjoying the outdoors with his teenage son. He attended Cortez High School and received his Bachelor of Science degree from Arizona State University. Paul specializes in replenishing the desert’s natural oases by creating backyard urban wildlife habitats and riparian landscape systems. His passion for organic water features and native wildlife habitats is apparent in the company’s award-winning work.

**Summer Exhibition: “Birds of a Feather”**

**June 19-September 19, 2015**

**Gallery at Tempe Center for the Arts**

Free admission

This summer exhibition at the Tempe Center for the Arts celebrates the birds that make Arizona home or a migration stop to some exotic location. The exhibition focuses on contemporary artists from around Arizona and the US working with a variety of media ranging from nature photography to abstract sculpture. This is a great opportunity for families to avoid the heat and enjoy some art and art making in a relaxed atmosphere. The exhibition also includes artwork by students at Rover Elementary School and St. Thomas School. Arizona State University professor of art and avid bird lover, Mary Erickson, is the curriculum developer for the Gallery’s education website which features free lessons based on exhibition themes (see [www.tempe.gov/TCAEducation](http://www.tempe.gov/TCAEducation)).

On Friday June 26, 6:00-7:00 pm, MAS President Mark Larson will give a presentation about the extraordinary beauty and diversity of birdlife in Maricopa County. Other special programs include: ongoing hands-on art projects in the Gallery; free Saturday Family art workshops with staff and artists; special ornithology presentations by Arizona State University faculty; live bird presentations from Liberty Wildlife; and an adult lecture series called “Lifelong Learning”.

An opening reception will be held on Friday, June 19, 6:00-9:00 pm.

### Committees/Support

**Arizona Audubon Council Rep**

Emerson Stiles

[estiles2@hotmail.com](mailto:estiles2@hotmail.com)

**Bookstore**

Mel Bramley

480 969-9893

**Hospitality**

David Chorlton

602 253-5055

**Web Page**

Michell Peppers

480 968-5141

[burge@burgenv.com](mailto:burge@burgenv.com)

**Maricopa Audubon Website**

[http://www.maricopaaudubon.org](http://www.maricopaaudubon.org)

**“In nature nothing exists alone.”**

*Rachel Carson, Silent Spring*

**An Investment in the Future**

Bequests are an important source of support for the Maricopa Audubon Society. Your chapter has dedicated itself to the protection of the natural world through public education and advocacy for the wiser use and preservation of our land, water, air and other irreplaceable natural resources.

You can invest in the future of our natural world by making a bequest in your will to the Maricopa Audubon Society. Talk to your attorney for more information on how this can be accomplished.

For more information, keep checking the MAS Facebook page ([https://www.facebook.com/MaricopaAudubonSociety](https://www.facebook.com/MaricopaAudubonSociety)) and MAS website ([http://www.maricopaaudubon.org/default.html](http://www.maricopaaudubon.org/default.html)) or the Tempe Center for the Arts website ([http://www.tempe.gov/city-hall/community-services/tempe-center-for-the-arts](http://www.tempe.gov/city-hall/community-services/tempe-center-for-the-arts)).

**Explore with Audubon Arizona**

**Urban Naturalist Program**

**Saturday, May 16**

**Agua Fria National Monument.**

Spot pronghorns and perhaps even a Golden Eagle! $100 (limit 10 people)

**Friday-Sunday, June 26-28**

**Camp Colley and the Snowmelt Drainages.**

Beat the heat in Northern Arizona! $225/adult, $95/child

**Saturday, August 16**

**Night Hike in Cave Creek Ecosystem.**

A Witch’s Dream…explore and search for owls, toads, and snakes! $100 (limit: 10 people)

For more information, contact Amber Huston at [ahuston@audubon.org](mailto:ahuston@audubon.org)

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**On the Cover:** Eastern Collared Lizard

Focal length: 250 mm, 1/400 sec, f/7.1, ISO 100

Babbitt Ranch, north of Flagstaff on SR 89, Coconino County, June 2, 2013 by Brian Sullivan

**Brian says:** These brightly colored lizard-eating lizards are common in the relatively barren grasslands of the Painted Desert, north and northeast of Flagstaff. While surveying for the much smaller Pa Striped Whiptails, my sons (Daniel, Keith, and Justin) and I always looked forward to finding these collared lizards basking on small rocks adjacent to the dirt tracks of the Babbitt Ranches. One summer morning after the rains had started, we counted a dozen along 100 meters of roadway—perhaps like us, they knew the rain would bring out the whiptails, a nice meal if they could run one down.

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**Paul Holdeman**

Gila Woodpecker, serigraph, 18.5”x18.5”, © Jake Early
I am writing this in late March and it is 95 degrees outside. That would be the dog days of summer in most parts of the country, but for us it is only a few degrees above our normal high spring temperatures. It also means that some of you will soon be leaving the Valley of the Sun for cooler climes this summer, so safe travels to you!

In the past you have heard quite a lot about the proposed land swap and mine at Oak Flat on the Tonto National Forest east of Superior, Arizona. Even though that battle may have been lost in Congress, at least for the time being, our friends the San Carlos Apaches continue to occupy the campground and vow to keep fighting to keep their ancestral worship and acorn gathering sites unmined. We should be inspired by their dedication and redouble our efforts, too.

The closely related issue that has flown largely under the radar is where Resolution Copper will dump the huge volume of waste rock and tailings removed from the mine under Oak Flat. Today, Laurie Nessel, Lisa Fitzner, and I toured many miles of the proposed dump site on rough, four-wheel drive roads. We saw a dazzling show of wildflowers and butterflies, some of which I had rarely seen in such numbers, especially Mariposa Lilies. Laurie photographed a life butterfly species, a Texan Crescent and we found Zone-tailed Hawks that appeared to have a nest under construction. The nest is in a cottonwood tree deep in a rocky canyon.

We saw landscapes of profound beauty wholly inappropriate for a mine dump site, a site chosen by Resolution Copper solely for its proximity to the mine to reduce hauling costs and maximize use of free, to them, public land that belongs to you and me. In short, just the idea of it is an outrageous affront to the American people and our elected officials are allowing it to happen!

On a more positive note, I hope that you will join us on May 5th for our Annual Banquet. It promises to be a lively and informative event and a great way to cap off an eventful year.

Something else positive to report to you is that the Maricopa Audubon Society partnered with the other two Valley chapters this spring to hold a two-part training session for field trip leaders. We expect to build on this success and hold more such trainings so that we can offer a greater number of rewarding field trips in the future to enhance your Audubon experience.

Letter from the Editor
by Gillian Rice

What signs of summer have you seen or heard? Yesterday a Western Kingbird sporting a flash of yellow called loudly and wheeled over my neighbor’s tall pine. Change is in the air. For nature and for me. Following doctor’s orders, my husband must now walk at least one hour each day. We have chosen to hike together in the mountain preserve. This is a boon for me because I get to nature-watch every day!

Black-chinned hummingbirds perform their pendulum displays. Common Side-blotched Lizards sunbathe on rocks. Ash-throated Flycatchers whistle around desert washes. And today at North Mountain Visitor Center, I was thrilled to see a Say’s Phoebe feeding a Sleepy Orange butterfly to its young. As the phoebe paused on its customary perch grasping its prey, this was the first time I have observed the black edges of this butterfly’s wings. They rarely settle with wings open.

I’ve heard some disparage our desert environment, saying: “I much prefer to experience real seasons up north.” To people who love nature and are attuned to animal and plant behavior, our change of seasons is clear. And, I can boast: “We have five seasons in the Sonoran Desert!” Our early dry summer precedes the wet monsoon summer season. In both our summers, nature provides all manner of delights for us to observe – all the more for those of us who can cope with rising temperatures or get up for very early morning walks. “The early bird catches the worm,” is an English proverb I often heard while growing up. But, as the morning matures, we can delight in the butterflies, dragonflies, damselflies, squirrels, and reptiles that are not “early birds.” And for those whose body clocks protest a pre-dawn disturbance of slumber, the evening stroll awaits. Even around suburban neighborhoods, we can see snakes, hawk moths, Lesser Nighthawks, and Great Horned Owls. Or, we lucky desert-dwellers can quickly and easily escape to the cool pines of our very own “north.”

This summer issue contains a cornucopia of topics, as well as art, poetry, photography, and Tales from the Field for you to enjoy. Tom Gatz considers the rapid colonization of North America by Eurasian Collared-Doves. Vicki Hire reports on a European Starling nestling that found a loving home. Read about the young students who enjoyed a MAS-sponsored field trip to the Phoenix Herpetological Society. Lisa Fitzner writes about birding in Hawai’i, a unique destination for natural history enthusiasts. A Bald Eagle encounter led Matt VanWallene to research this magnificent bird; he shares his learning with us in Science Corner.

A huge thank you to all our dedicated contributors. I couldn’t put The Cactus Wren•dition together without you!

Gillian Rice
Maricopa Audubon Society Field Trips

Car Pooling: Please make every effort to organize your own car pool, consolidate vehicles at meeting places and/or contact leaders for car pooling assistance. Be courteous to the trip leaders and help cover their gas costs. We recommend that passengers reimburse drivers 10 cents per mile each.

Reminders:
• Avoid wearing bright colors. Wear neutral-colored clothing and sturdy walking shoes.
• Bring sunscreen, sunglasses, head protection, and water.
• Always bring your binoculars. Bring a scope if recommended.
• Submit trip and leader suggestions to the field trip chair, Larry Langstaff.
• Unless stated otherwise, reservations are required.

Day Passes: Many locations in the National Forests require Day Use Passes. For details, see http://www.fs.usda.gov/main/tonto/passes-permits

Third Sundays, May-October (May 17, June 21, July 19, August 16, September 20, October 18)

Beginning Butterflies and Dragonflies at Gilbert Water Ranch
This area is outstanding for beautiful butterflies, dragonflies, and damselflies. Learn to identify local butterflies including Painted Lady, Queen, and Fiery Skipper as well as common dragonflies and damselflies such as Western Pondhawk, Flame Skimmer, Blue-ringed Dancer, and Familiar Bluets. Suggested $5.00 donation to support the Gilbert Riparian Preserve. Bring binoculars (close-focus preferred), water, and hat. Common Dragonflies of the Southwest by Kathy Biggs is on sale for $10.00. No reservations. Easy. Meet 7:00 am May-September, 7:30 am October at the Dragonfly Ramada just south of the parking lot, east of Greenfield Rd., off Guadalupe Rd., just east of the Gilbert Public Library in Gilbert.

Leaders: Janet Witzeman and Laurie Nessel

Thursday-Friday, May 28-29

Globe/Pinal Mountains
Get organized soon for this leisurely foray to Globe and Pinal Peak. Stay overnight at Noftsger Hill Inn B&B, written up as one of the top 10 B&Bs in an old schoolhouse in the country ($135 double occupancy). Rosalie, our hostess, absolutely gets the birding schedule and will likely send us off early with coffee, fruit and a muffin, and expect us back about 10:00 am for a scrumptious meal. The plan is to bird Boyce Thompson Arboretum or another site on Thursday afternoon, have dinner in Globe and spend the evening at the B&B. If anyone is interested in an evening birding class, we can probably arrange that. I’ll work with those who express interest about what topic you prefer. Friday morning, we’ll enjoy the lower portion of Pinal Peak up one road early in the morning, and the higher portion of Pinal Peak up another road after brunch. This trip should get us a nice collection of desert to mountaintop birds during the busy nesting season—warblers, vireos, tanagers, woodpeckers, nuthatches and more. Difficulty: Easy. Start from the Gilbert area about 1:30 pm Thursday afternoon and return about 5:00 pm on Friday afternoon. Limit: 8.
Leader: Kathe Anderson, kathe.coot@cox.net

Friday, June 5

Jail Trail in Cottonwood
This is a new trail to me, but is a destination for some bird walks at the Verde Valley Birding and Nature Festival. Common Black Hawks reputedly nest in the area, and other birds should include kingfishers, tanagers, Southwestern Willow Flycatcher and swallows. Cottonwoods line the trail and offer shade; about 2 miles round trip. Difficulty: easy to moderate. Start about 5:00 am from Scottsdale and look for an early lunch (around 11:00 am) in Old Town Cottonwood, before heading back south to arrive about 2:30 pm in the Phoenix area. Limit: 8.
Leader: Kathe Anderson, kathe.coot@cox.net

Saturday-Sunday, June 13-14

Cool birding in the Pine area
If you want to discover birds that are not found in the Phoenix area, escape the hot Valley, and join Mel, and his wife Ann, in and around Pine for one and a half days of exploring. Sightings will include hummingbirds, warblers, wrens, jays, and other nesting species that find the cool pine country just to their liking. Visit the wildlife-rich area near the Arizona Game and Fish Department’s Tonto Creek Hatchery on Saturday morning. After lunch at Mel’s cabin, join his neighbors on their porch for a hummingbird extravaganza, with the chance of an unusual Magnificent Hummingbird in this below the Mogollon Rim location. Supper will be potluck, with birders supplying salad, dessert, or fruit salad. After an evening watching for other upper-elevation birds, retire in your sleeping bag on a soft bed! Sunday’s adventure is to the riparian habitat along the East Verde Bridge before heading home. Driving up Friday night or Saturday morning is possible. Bring food for yourself, and to share at the Saturday supper. Limit 6.
Leader: Mel Bramley, melbramley@cox.net

Friday, July 10

Kachina Wetlands
A beautiful destination, just south of Flagstaff. Start about 5:00 am from Scottsdale to arrive on site a little before 8:00 am. It will likely be cool, but warm up quickly. Explore the wetlands, looking for Western Bluebirds, swallows, high elevation species such as nuthatches and Steller’s Jays, and see what waterfowl and raptors show up. In the past, we’ve seen ibis, Sora, Virginia Rail, truly ruddy Ruddy Ducks, phalaropes, Osprey, and kestrels, among others. We’ll eat a picnic lunch in the park just south of the wetlands. Difficulty: mostly even footing, and lots of walking. Return to Scottsdale about 2:00 pm. Limit 8.
Leader: Kathe Anderson, kathe.coot@cox.net

Thursday-Saturday, August 27-29

White Mountains
Leave early on Thursday morning, bird on the way to the White Mountains, check out multiple areas highlighted in Arizona Game and Fish Department’s Wildlife Viewing Guide, and head back to arrive by dinner on Saturday. Key sites are likely to include Tonto Creek Hatchery, Christopher Creek, Woodland Lake, Luna Lake, Nelson Reservoir, Greer area and Sipe White Mountain Wildlife Area. Expect warblers, tanagers, nuthatches, woodpeckers, and jays mixed in with waterfowl at the lakes. Difficulty: while previous experience indicates this trip does not include strenuous hikes, the elevations can top 9000 feet. Cost will include two nights of lodging at moderate hotels, meals, and gas. Limit 8.
Leader: Kathe Anderson, kathe.coot@cox.net

Friday, September 11

Page Springs
Leave the Scottsdale area quite early (5:00 am) to arrive at Page Springs about 7:00 am. Explore both the fish hatchery area along Oak Creek and the woods at nearby Bubbling Ponds. This should still be a colorful time of year with summer residents such as Summer Tanager, grosbeaks, vireos, and kingbirds, and the hoped-for Common Black Hawk. Early lunch at a nearby restaurant. Return to Scottsdale about 2:30 pm. Difficulty: Easy, with plenty of walking. Limit 8.
Leader: Kathe Anderson, kathe.coot@cox.net

Field trips
New Musical Album Celebrates Endangered Birds

A Guide to the Birdsong of South America is a non-profit, crowd-funded album of music presented by Rhythm and Roots. The album aims to raise awareness about the plight of endangered birds and to raise funds for those working to protect them. All proceeds are being donated to two Ecuadorian birding organizations, Aves y Conservación (http://www.avesconservacion.org) and Fundación Jocotoco (http://fjocotoco.org).

The project challenged some of South America’s most talented young musicians to create music inspired by the song of an endangered species from their country. Some took inspiration from the song itself, others from the bird’s colorful plumage, while some like Lulacruza found a deeper connection, going back to the band’s ancestral roots and fusing its modern folklore with birdsong and the local indigenous language. Some musicians used the song as a sample throughout, others incorporated it into the background, while some even transformed the birds’ songs using a synthesizer. The bird species include Hooded Grebe, Cherry-throated Tanager, and Marsh Seedeater.

Rhythm and Roots worked with illustrator Scott Partridge who created a series of unique interpretations of each bird species. These became a series of limited edition prints and a set of 11 postcards, one for each of the featured birds.

The album not only celebrates great music but also the majesty of the endangered species and the need to protect them. Art can be an effective vehicle to transmit a message and, in this case, remind us of the need to protect our planet and the species we share it with.

For more information, please see: www.rhythmandrootsblog.com/label/birdsong

MAS Secretary Mary Rose to Row 2400 Miles Solo

Fueled by her passion for avian conservation, awareness, and education, our Secretary, Australian Mary Rose, will row 2400 nautical miles solo from San Diego to Honolulu. On May 16, she will launch her boat Dippers from San Diego’s Mission Bay Harbor, and row for three months across dangerous ocean waters. This is Mary’s second attempt; this year, she will be doing an independent row with her own support yacht.

Named Project Flightplan, Rose’s journey is to raise funds and awareness for conservation projects sponsored by Chirping Central Conservation Foundation, a 501(c)3 non-profit foundation dedicated to avian-related projects.

“I am determined to succeed,” said Rose. “Our winged friends can teach us so many things about living in harmony with nature. I am confident the awareness raised by this test of my willpower and strength will help ensure that beautiful, majestic birds from across the globe will be there for future generations to enjoy.” In order to prep for Project Flightplan, Rose has trained both her body and mind with the support of a dedicated team—all while maintaining a fulltime job as an accountant!

Stay updated with the latest information from Mary’s journey on Twitter and Instagram by following @ChirpingCentral and by liking the Project Flightplan Facebook page.

Nature

A Poem by Lindsey Duran, aged 12, composed during a writing workshop at North Mountain Visitor Center, Phoenix.

Nature.

People say there is no way to describe nature. Yes there is I thought to myself the human race has thousands of words to describe things. For example cactus a large green plant with spikes. But that’s not all you have to look deeper. In all the words we have nothing will truly describe nature. You can try all you want but you will never succeed.
The Owl Is Back!
By Jacklyn Anderson

“The owl is back!” My friend’s voice sings out over voice mail. Immediately I know which owl she means. Once again, the nest on Hawk’s Nest trail is filled with life. This is the third year that I have watched this female Great Horned Owl come back to the same nest in the Phoenix Sonoran Preserve. For the next month she will be stationed in the same spot, keeping the eggs warm. The male is on guard nearby, bringing her food in the early mornings and evenings.

The next morning I hurry to see her. She follows my movement with her head, her ear feathers bending in the morning breeze. I stop to look at her with my binoculars, searching the sturdy nest for any signs that the eggs have hatched. Last year, my friend and I returned often, as if we were expectant grandparents waiting for our first look at the newborn chicks. Finally, three fuzzy white chicks peeked out, and each week we watched them get bigger and change colors from white puffballs with oversized heads to majestic gray teenagers with glowing eyes.

Once again we will be privileged to watch this miracle of nature unfold. My hiking group has dubbed this “our owl,” and we make special trips to see her with friends and out-of-town guests. We tread lightly as we pass and reverently lock eyes. This is her home and we treat it with respect.

Bald Eagle takes coot
By Lindsay Story

On December 28, 2014, my family did a leisurely birding run to Tortilla Flat. At Canyon Lake’s Acacia Recreation Site we watched an adult Bald Eagle dive time and time again at an American Coot that was a short distance offshore. Finally, the eagle held the coot underwater until the coot quit struggling. The eagle flattened out partially on the water, like a moored boat. After this, the eagle lifted its prey into the air and headed down the canyon. Three Ring-billed Gulls were in hot pursuit, no doubt thinking they were chasing off the eagle when in fact the larger bird was simply looking for a good place to eat its catch.
The Games They Play

By Mary Martin.

There is just nothing about a Turkey Vulture’s appearance or demeanor that would have tempted me to apply the adjective, “fun loving” to this species, prior to witnessing the following:

I had just climbed back into the boat after a water-skiing run up Saguaro Lake from ramp one to the upper lake. Once on board with the rope retrieved and coiled, I asked my husband to motor the short distance over to my favorite cliff to watch the sunrise.

This cliff is composed of volcanic tuff, set with bread-loaf sized, charcoal-gray volcanic bombs. The bluff appears quite pinkish orange with the addition of the early-morning rays of the sun. Four Peaks watches from the east over the greens of the reeds and mesquites ringing the shore. It is really an awe-inspiring sight.

It had been a pre-dawn run in quiet waters. The egrets, Great Blue Herons, and Turkey Vultures outnumbered other visible species, except for the dozens of yellow-headed blackbirds yammering in the reeds in the shallow water rounding the turn to the campground dock.

The Turkey Vultures were spaced about in ones, twos, and occasionally threes. Their dark, drab wings were hunched up around their necks, setting off the wrinkly dark foreheads giving way, in all but the juveniles, to the red skin around the eyes and on down to the ivory-colored beak. The clumps of yellowish tubercles beneath the brown eyes do not add much beauty. Not the most attractive of birds, unless you are another Turkey Vulture perhaps!

A breeze rippled across the lake and this seemed to prompt movement among the vultures. Several flew up on my favorite cliff, until we noticed at least 14.

The breeze increased.

At first, two vultures lifted off, with little obvious effort, to float above the cliff and the others of their group. They were soon joined by two more birds lifting effortlessly from their group perch. Then the show began.

One of the two which had just taken wing, soared under the others and flipped upside down, to our surprise, and seemingly to the delight of all the birds. This appeared to be the stimulus. We watched as other small groups flew up only to have one or two join them in inverted flight. The numbers of Turkey Vultures increased, over and on, the cliff, and the games continued with the stiff breeze.

They didn’t appear to interlock feet, or have any contact; it just seemed to be fun to fly together upside down.

As the wind slackened, the vultures gradually returned earthward to space themselves out, once again, around the shoreline, assuming their former sober, solemn postures. We observed this same behavior on another windy morning another time, in the same location, a couple of years after this first time.

So, now we know a secret of these fun-loving rascals...
Fast becoming one of the most widely distributed birds in North America, you might wonder why you may not have heard of this species, at least until fairly recently. It’s understandable; this species of dove wasn’t even observed in Arizona until 2000. They are expanding their range so fast that even the distribution maps in the most recent bird field guides are out of date as soon as they go to press.

If you have a good ear for birdcalls, you may detect them first by hearing their distinctive call, ‘coo-COOO-cup’. Bigger than our native Mourning and White-winged Doves, they are about the same size as common pigeons (technically now referred to as ‘Rock Pigeons’), but they are slimmer with a longer, broad tail and are very pale. Adults have a distinctive half-collar on the back of the neck.

Where did they come from? Originally found only on the Indian subcontinent, starting in the early 1900s, for reasons still not completely understood, this non-migratory species rapidly expanded all the way to Great Britain by 1953 and the most remote of the British Isles by the 1970s. A local breeder released a cage-full of about 50 Collared-Doves in the Bahamas in the mid-1970s and they apparently island-hopped to Florida by the early 1980s. From there they colonized North America faster than any previous non-native bird species, even faster than the now ubiquitous European Starling, House Sparrow, and Cattle Egret. They are reportedly found as far north as Alaska and Nova Scotia, as far west as California, and as far south as Oaxaca, Mexico, Belize, and Costa Rica.

They colonize new areas by what ornithologists refer to as ‘jump’ dispersal, where individuals ‘leap-frog’ far beyond the current species range and then the population backfills into the gaps. It is not clear why this previously sedentary species became such a robust colonizer in the past one hundred years. The eminent ornithologist Ernst Mayr suggested that possibly a behavioral adaptation that gave them greater incentive to populate new areas may even have a genetic basis, perhaps resulting from a dispersal mutation favored by natural selection.

They seem to be restricted to habitats associated with people such as urban and agricultural areas. Studies have shown that, so far, they have not had any negative impact on the populations of any of our native dove species. In fact, where this new species was present, the other dove species have actually (and inexplicably) increased.

Tom Gatz has been a MAS member since 1981.

(reprinted from Gatherings, the newsletter for volunteers at the Desert Botanical Garden)
The Conservation Committee addressed three issues this spring: herbicides in five Arizona National Forests, pronghorns in the Eagletail Wilderness Area, and Resolution Copper. We are feeling our way and still learning the odd procedures of federal agencies, reacting to others’ plans rather than pushing our own, and hamstrung by the fact that we have only three people to do what Bob Witzeman used to do himself.

**Herbicides:** APS, SRP, and the US Forest Service propose to use herbicides to clear rights of way along utility lines. To date, weeds and other vegetation under power lines been removed mechanically. Herbicides have not been used. If the Forest Service authorizes the change, aerial spraying will be prohibited. However, USDA-approved herbicides will be applied using sprayers and other ground equipment.

The Forest Service’s preliminary environmental assessment did not compare the public benefits, in fires prevented, with the private benefit to the utilities of expense avoided; did not provide for public oversight of the utilities’ spraying work; and did not limit the areas around utility poles which may be sprayed. The Forest Service also proposed that, as new herbicides obtain general USDA approval, they can be added to the program. The risk that new herbicides may be added without further review is particularly disturbing given the World Health Organization’s finding in March 2015 that glyphosate, the world’s most-used herbicide, “probably causes cancer.”

MAS wrote the Forest Service, identifying these and other deficiencies, by the deadline necessary to preserve our right to object as the Forest Service’s plan advances. Tom Danielsen heads MAS oversight of this issue.

**Pronghorns:** The BLM and Arizona Game and Fish plan to establish a new herd of Pronghorn antelope in the Eagletail Mountain Wilderness. Lisa Fitzner, retired field biologist, will lead MAS’s investigation. The Yuma Audubon Society has the issue on its radar, and we plan to coordinate responses. Formal comments are due May 15.

**Resolution Copper Mine:** The Forest Service has published a preliminary environmental assessment of a plan to drill test wells near Queen Valley. If the mine goes forward, this area would remain in the National Forest. Waste tailings from the mine would be trucked or piped in and left.

The Forest Service appears to be dividing its involvement up into several small bites. If the project involved the entire tailings pile, “significant federal action” triggering a need for a full Environmental Impact Statement should be apparent. By slicing off this preliminary drilling, the Forest Service may slip through with a simpler environmental assessment.

Desert tortoises and Bighorn Sheep occur near Queen Valley. The Forest Service proposed mitigation measures to compensate for lost habitat of the desert tortoise but ignored the loss of bighorn habitat.

This and other issues appear in MAS’s formal comments submitted in April.

Mark Horlings is MAS Conservation Chair.

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**Broad-billed Hummingbird**
By Jasper Robinson

Shimmering incandescently
Moving with great alacrity
Taking his role so gallantly
Feathering acrobatically
Such small and speedy birds
Flitting and flying with such speed
Obtaining nectar as they need
Relying on their honey mead
Appearing as blurs

Flying up, down, from side to side
Effortlessly seeming to glide
Pollinating plants far and wide
Beautiful southern bummies
Staying still for mere seconds
Absorbing the flower’s essence
A glorious garden presence
These broad billed bummies
On a Sunday afternoon early in May 2013, David Chorlton watched out his window as a family stood staring at the pavement beneath a Mexican fan palm tree in his front yard. After they left, David’s curiosity got the better of him and he walked outside to see what it was that must have been so interesting.

There on the ground lay a newly hatched European Starling (*Sturnus vulgaris*) that had fallen from its nest high in the palm. Having no way to put the tiny nestling back into its nest, David gently picked it up and carried it inside to his home.

Enlisting the aid of his wife, Roberta, he placed the baby bird in a small cat carrier in their screened back porch. Carefully inspecting their new ward, David noticed that its head was twisted in an unusual way. He would later surmise that there was probably some nerve damage as the result of the fall, while he watched the bird walking backwards.

For the first two days, the parent starlings flew near the screened porch as if they knew their baby was inside, while David and Roberta tube-fed the young starling. Researching online how to rehabilitate starlings, including their dietary requirements, David found the website [www.starlingtalk.com](http://www.starlingtalk.com), which was started by former Federal and State permitted wildlife rehabilitator, Jackie Collins, when she realized many wildlife rehabilitators were refusing to take in starlings.

David spoke to the young bird that day and said: “If you learn to feed yourself, you can stay.” He named his new charge Amadeus after Wolfgang Amadeus Mozart. Thus began the story of the poet and his starling inspiration.

Much like Mozart, who had purchased his pet starling in May 1784, David quickly grew fond of Amadeus and delighted at his intelligence and vocal abilities. According to Meredith West and Andrew King, writing in *American Scientist* (March-April 1990), starlings copy the sounds of other birds and animals, weaving themes into long soliloquies that, in captive birds, can contain fragments of human speech. David says, “People are not as good at being people, as birds are at being birds”.

Today, Amadeus continues to thrive while living with the Chorltons. He gives a three note musical call out to greet David, which makes David proud. Amadeus’s beak goes through the seasonal change from black to yellow, which coincides with breeding plumage changes. Because the top mandible grows out faster than the lower one, David and Roberta must occasionally trim it.

Amadeus’s diet consists mostly of moistened monkey chow purchased from a local pet shop, supplemented with dried meal worms, and an occasional fig, broccoli, or grated carrots.

While visiting, I smiled as I watched a delighted Amadeus take a bath in a dish of water dipping his head and shaking his feathers repeatedly, oblivious to me. However, he would have no part of me offering him dried mealworms, instead preferring that David feed him.

His daily routine consists of mornings flying freely throughout his room in the back, where he has free rein to also explore the bedroom safely out of sight of the cats. His afternoons are spent rearranging his cage, and playing with numerous “toys,” such as a water bottle filled with beans. He has been known to watch soccer on television – sitting by David’s side as Italy and Uruguay played in the 2014 World Cup.

European Starlings were first released in the US in the
late 1890s, by members of the American Acclimatization Society. Their goal was to establish European flora and fauna mentioned in the works of Shakespeare, in North America. Considered a non-native invasive species, European Starlings are not protected by the Migratory Bird Treaty Act, and they are one of the few species the public is allowed to keep as a pet, or destroy (including adults, nests, eggs, and young).

Growing up in Manchester, England, David left in 1971 to live in Vienna, Austria to work as a graphic artist and to paint. In 1976 he married his wife Roberta, an American from Phoenix studying music in Vienna. In 1978 they decided they would move to America, and little by little writing replaced art as David’s passion.

His many writings include the book The Taste of Fog published by Rain Mountain Press in 2011, and two poems inspired by Amadeus, In Captivity and My Starling. Select poems and artwork can be viewed on his website: http://www.davidchorlton.mysite.com/

David Chorlton serves as the Hospitality Committee Chairman for MAS, and shares his poetry at the monthly membership meetings.

Vicki Hire is an accountant at Amkor Technology and serves as MAS Publicity Chair.

Two friends. Photo by Roberta Chorlton

Starling Murmurations — Fun Or Survival?

I have only viewed a starling murmuration in a video, but it’s nonetheless still amazing to see how thousands of birds can fly in synchronized format creating what could best be described as a ballet. Typically seen throughout Europe in the winter evening hours, if you haven’t experienced one I recommend viewing, “A Bird Ballet” online at https://www.youtube.com/watch?v=XY9VOtqOQ0

Why and how do they do it? How are they capable of such displays without flying into each other? And is there a reason for their murmurations? It seems that it may be a defense tactic when the flock attempts to escape a predator, as there is almost always a hawk or falcon at the edge. http://blog.allaboutbirds.org/2013/02/21/how-do-starling-flocks-create-those-mesmerizing-murmurations/

The starlings are simply trying to distract and flee their predator. Their safety is in numbers, so the individual starlings do not scatter, but rather move together as a flock and change direction simultaneously. Called “scale-free correlation” by scientists, every shift of the murmuration is a critical transition where the velocity of one bird affects the velocity of the rest. The birds are consistently coordinating their movements with their seven nearest neighbors.

If you find a baby bird or an injured bird, please call Liberty Wildlife at 480-998-5550.
Throughout the third quarter at Larry C. Kennedy School, our class learned about the desert environment. We read books and articles, watched documentaries, and discussed our discoveries. This exploration led to completing a research project in which the students were required to choose and research a desert animal and a desert plant. Many of the students chose various desert reptiles to research and they became fascinated with learning more about them. By conducting this research, we learned that many desert animals are endangered. Taken aback by their new knowledge, the students wondered why nothing was being done to help these animals.

As the class was eager to learn more about their Arizona desert, we made a decision to take a field trip in order to gain a better understanding of the desert environment. In researching a place to take our field trip, we stumbled across the Phoenix Herpetological Society (http://www.phoenixherp.com). This organization focuses on protecting many desert reptiles. With help from the Maricopa Audubon Society, our class was able to visit this reptile sanctuary.

Upon arrival, we were introduced to our charismatic and knowledgeable tour guide who informed us that the two and a half acres of desert terrain was home to more than 1,000 reptiles. Our first stop was visiting the turtle and tortoise exhibits, where the students were able to touch and hold the smaller tortoises and turtles. The larger tortoises were found in the next exhibit and many of the students were given a chance to walk around inside of the exhibit, take photos, and feed these friendly giant creatures.

From there we visited the homes of many iguanas, Gila Monsters, and other desert lizards. We learned about their habitats, food sources, and life spans. Next on the tour was the venomous snake collection. Needless to say, some of our students were intrigued by the idea, while others needed to take deep breaths and hear pep talks before entering the room. The room housed hundreds of venomous snakes and baby crocodiles too! Finally, our tour ended with the crocodile exhibit. We saw many crocodiles of various species, sizes, and colors.

Overall, this field trip exceeded our expectations! We learned so much about the desert wildlife and what efforts we can make to conserve its beauty. Thank you, Maricopa Audubon Society and Phoenix Herpetological Society, for providing us with this opportunity.

If you would like to make an application to the MAS Education Committee for funding for a school natural history field trip, please contact Carol Langdon at clangdon2@cox.net. Please note that funds are limited.
For most people, Hawai‘i conjures up images of beautiful beaches, palm trees, and crystal clear tropical waters. Although I enjoy these aspects of a Hawaiian vacation, I also love exploring, and learning about, native ecosystems and wildlife. Sadly for wildlife enthusiasts, many of the species that originally occurred on Hawai‘i were extirpated long before the first Eurasian stepped foot on the islands.

The destruction of Hawai‘i’s native habitats began approximately 1500 years ago when the first humans arrived from Polynesia. Savvy agriculturalists, the Polynesians brought 30 or so food plants and numerous non-native vertebrate species such as pigs, goats, and rats. Lowland forests, which supported many native species, were repeatedly burned in order to open up areas for farming and human habitation. Archaeological explorations reveal that at least 50 species of Hawaiian birds went extinct following Polynesian settlement. Fast forward to 1778 when Captain James Cook first sailed into the Sandwich Islands. If you have been to Hawai‘i, you are all too familiar with what has happened to native ecosystems following settlement by Eurasians.

Before humans inhabited Hawai‘i, a single finch-like ancestor made its way to the islands. Through adaptive radiation (see glossary, page 15), this species gave rise to approximately 51 species of honeycreepers. Fewer than half of Hawai‘i’s previously existing species of honeycreepers remain. Current threats to these species include habitat loss, avian malaria (transmitted by introduced mosquitos), predation by non-native mammals, and competition from non-native birds.

Fortunately, there are still places in Hawai‘i where you can view native flora and see endemic avifauna. Although this list is far from being exhaustive I will tell you about a few of my favorite places to see honeycreepers and other species.

Maui

HALEAKALĀ NATIONAL PARK:
The Haleakalā Crater is a beautiful, stark place that surprisingly supports native plant species such as the agave-like Silver Sword. If you are really lucky, you might catch a glimpse of the endangered Hawaiian Petrel (summer only), which nests in crevices within the Haleakalā Crater. On the way up (or down) to the crater, scan the open country for Pueo (Hawaiian Owl) and Nene (endangered Hawaiian Goose).

My favorite free guided tour on Haleakalā is given every couple of weeks by National Park Service rangers. This is the best deal on Maui so space is very limited. Contact Haleakalā National Park (http://www.nps.gov/hale/index.htm) for reservations. Park rangers provide insight into the history of the Hosmer Grove and point out native forest species including Oh‘i’a and Koa trees. This is a natural history trip (not strictly birding) but you will have ample opportunity to observe native honeycreepers such as I‘iwi, Alauahio, and ‘Apapane. Make sure to take the longer hike as this is the one that descends into native forest.
The Big Island

HAWEI'!

VOLCANOES NATIONAL PARK:
If hazardous fumes from Kilauea haven’t closed it, the Kipukapuaulu Trail is an easy stroll with terrific birding opportunities. The 1.2-mile hike traverses a 4000 year old closed canopy forest providing an opportunity to see several species of honeycreepers. The Civilian Conservation Corps built the original trail in the 1930s. If the trees are blooming, you will see honeycreepers right outside the lodge near the O'hia Building. These trails are free with the entrance fee into the National Park.

SADDLE ROAD AREA:
If you are staying in the Waikaloa area you might want to check out a trail, which traverses a small island of habitat off of Saddle Road (Daniel Inouye Highway). Although once a primitive track, Saddle Road is now fully paved and easy to access from Waikoloa or Hilo. A parking lot at the Hunter Check Station directly across from the road to the Observatory is a good location to see ‘Amakihi, ‘Apapane, and possibly ‘Elepaio. The Old Saddle Road (Highway 200), that splits off from the Daniel Inouye Highway near the Ka’ohe Game Management Area, is a beautiful drive and a great place to see Pueo and introduced upland and grassland birds.

Serious birding enthusiasts might want to take a guided hike with Jack Jeffrey (or others; see the Refuge website) into the Hakalau Forest National Wildlife Refuge (http://www.fws.gov/refuge/hakalau_forest/). These are full day, guided trips that traverse an easy, but sometimes wet trail. The cost is $175.00 per person with a two-person minimum. Be prepared to take a long drive (driven by the guide) over rough roads through forests into an off-limits part of the refuge. You will have the opportunity to see native forest and rare plants, several honeycreepers as well as Hawaiian Hawk (we saw two on our last trip).

Kauai

It’s been a while since I’ve been birding in Kauai, but I still remember my first experience of seeing an ‘I’iwi perched about 20 feet away. I was in the Koke’e State Park on my way to the nearby Alaka’i Swamp. If you are up for a moderately strenuous hike, check out the four...
mile Pihea Trail (from the Pu‘u o Kila Lookout) located at the end of Highway 552/550. After viewing the incredible vista, and taking a short downhill walk, you will meet up with a boardwalk that takes you into native forest (Ohi‘a, Koa, and incredibly huge ferns). There you will see native honeycreepers including ‘Elepaio and several other species. Watch the weather here; you will be close to one of the rainiest places on earth!

Another of my favorite spots on Kauai is the Kilauea National Wildlife Refuge. Expect to see Nene, tropicbirds, frigatebirds, boobies, shearwaters and albatross, plus a beautiful view.

You can also see the highly endangered endemic races of some wetland birds like Koloa (Hawaiian Mallard), Alae‘ula (Hawaiian Common Moorhen), Hawaiian Coot, and Ae‘o (Hawaiian Stilt) in the nearby taro fields and wetlands.

In addition to native species, a veritable plethora of interesting non-native birds reside on the Hawaiian Islands. Many of these birds are from Indonesia (and elsewhere). Do not stress about bringing bird books. Hawai‘i’s Birds, a small inexpensive field guide, is sold all over the place and has decent photos of many species, both native and alien. In addition, numerous websites can help you plan your search for Hawaiian avifauna. Of course, check the Hawai‘i Audubon website (http://www.hawaiiaudubon.org) for directions to birding spots and upcoming field trips. Have a great time and happy birding!

Jack Jeffrey kindly gave permission for us to use his images to accompany this article about Hawaiian birding. Wildlife biologist, award-winning photographer, and birder, Jack leads birding and photography tours to Hakalau Forest National Wildlife Refuge on the Big Island, where six Hawaiian honeycreeper species and several other native bird species, can be seen. For more information, and to see more of Jack’s photographs, visit http://www.jackjeffreyphoto.com/index.html

Listen to Jack talk about Hakalau Forest and hear some Hawaiian birds at: http://birdnote.org/show/hakalau-forest-national-refuge-jack-jeffrey

Glossary

Adapative radiation: In evolutionary biology, adaptive radiation is a process in which organisms diversify rapidly into a multitude of new forms, particularly when a change in the environment makes new resources available, creates new challenges, and opens environmental niches.

Endemic: An endemic bird is one that is native in, prevalent in, or restricted to a certain region.

Extirpation: Local extinction, or extirpation, refers to the status of a species that no longer exists in a certain geographic area, although the species still exists elsewhere.

Lisa Fitzner is a retired biologist and former MAS Board member. She serves on the MAS Conservation Committee.
A couple of weeks ago I walked Tempe Town Lake park and came across a pair of Bald Eagles. As on every occasion I encounter this species, I immediately celebrated and took time to take in the sight. Sadly, I recalled the flood we had in 1983 and realized that the tree the eagles were resting in, along with all the vegetation I saw, would be swept away during the next major SRP water release. Their talon hold of this tree under the Loop 101 & 202 interchange was tenuous. With this obvious risk, I remembered that Maricopa Audubon Society, the Center for Biological Diversity, and Arizona Audubon Council petitioned the government to recognize the southwestern desert nesting Bald Eagle as a distinct population segment of eagles and to classify it as an endangered species. This effort failed.

I revisited that event by reading a finding by the US Fish and Wildlife Service (USFWS). Let’s see what you remember of the following the next time you interact with the national bird and the national animal, the Bald Eagle.

Before the colonization of North America, over 250,000 Bald Eagles lived here. In 1963, only 417 nesting pairs remained. It took until 1967 before the bird was listed as endangered and another five years before DDT, the chemical that caused thin eggshells, was banned as a pesticide. Ranchers also used strychnine and other poisons on carrion to kill livestock predators thus also killing eagles. Locally, in our Sonoran Desert Area (defined as all Sonoran Desert bald eagle territories within Arizona, the Copper Basin breeding area along the Colorado River just into California, and the territories of interior Sonora, Mexico that occur within the Sonoran Desert and adjacent transitional communities), there were no hatchlings in 1972 and only three nesting pairs. At the same time, the Colorado Division of Wildlife reported only one nesting pair in its territory.

In 1995 the USFWS changed the Bald Eagle status from endangered to threatened. The Sonoran Desert population was managed as a separate population until 1999 when USFWS combined the population with all other eagles in the US. This occurred in spite of a recommendation to continue the distinct population grouping by a panel of seven scientists convened by the USFWS.

Bald Eagles are limited to North America and found in each of the lower 48 states. They nest from sea level to 10,000 feet elevation. Their aridity range goes from the wettest to the driest areas of the US. They construct the largest nest of any North American bird and the largest tree nests ever recorded for any animal species, up to 13 feet deep, 8.2 feet wide, and weighing just over one ton.

Bald Eagles can reach 50 years of age in captivity and a female at Alamo Lake, west of Phoenix, turned 30 in 2009. Bonding is long term. It is very rare for a nestling to...
mature and mate outside of its nesting area. During the intensive management of the Sonoran Desert eagle, 337 nestlings were banded in areas surrounding the Sonoran area. Twenty-five of them were subsequently seen breeding, but none within the study zone. Conversely, of the 42 nestlings raised in the Sonoran Desert that survived to maturity, 41 were found nesting within the Sonoran range. This was corroborated by testimony from Western Apache informants who stated that Arizona eagles do not leave. This creates a marked separation of breeding populations. Across the US, the average dispersal distance of Bald Eagle nestlings when they reach maturity and find their own nesting site is 43 miles. The territory surrounding the Sonoran Desert Area exceeds that distance, thus making the desert-dwelling eagle population closed. In effect, the Sonoran Desert Area is like an island. It is too far away for eagles that are hatched outside of it to reach the Sonoran Desert Area when building their own nests. And eagles hatched within the Sonoran Desert Area do not disperse further than the Area’s limits.

Following Bergmann’s Rule, which holds that animal size increases with increasing latitude due to changes in climate, our eagles are smaller than those nesting north of Arizona. Bald Eagles are sexually dimorphic, with the female being 25 percent bigger than the male. Wing span starts at six and a half feet and for the more northern birds can reach eight feet. Weight ranges from 6.5 to 13.5 pounds and length ranges from 28 to 38 inches.

They start mating after their fourth year with the mating season starting in November. Nests are typically within a mile of water and although our eagles have a preference for cliff nests, many of our nesting pairs have built both cliff and tree nests. They typically lay two eggs per year. A study noted that the pores in Sonoran eggs are one to two orders of magnitude smaller than those in California Bald Eagle eggs. Researchers believe that the smaller pores help minimize moisture loss. In general, Bald Eagles in the Sonoran Desert have lower fledging success than Bald Eagles elsewhere. Eaglets can gain up to six ounces per day, the highest rate of any North American bird.

In Indian cultures, eagles have equal or greater status compared to humans and were afforded the same burial practices. Bald Eagle burials are found at archaeological sites ancestral to the O’odham culture. Yet by 2008, Bald Eagles were no longer found in four out of seven locations with Apache names that reference Bald Eagles.

Having come so close to losing these majestic birds, the flight over my home that gave me another yardbird, is that much more special. I can picture very clearly what the extended Salt River basin looked like 200 years ago.

Matt VanWallene is MAS Treasurer.

References:


If you want to see the 1983 flood in the Salt River, check out this video: https://www.youtube.com/watch?v=TVntfR_74Kp0
Elliot Everson has lived in Arizona for most of his life. The landscape, plants, and animals of the southwestern desert inspire much of his art. His medium of choice to capture the appearance and brilliance of these subjects is colored pencils. They are well suited to exploring the variety of textures of parched crusty bark, dried leaves, and the waxy smooth flesh of the prickly pear cactus or the shiny scales and dry folds of skin on reptiles. Each drawing consists of layer upon layer of color, to bring out the many subtle hues that nature provides.

Though most of his drawings are on paper or illustration board, one of the unique twists of Elliot’s work is his colored pencil drawings on travertine stone. He depicts lizards, tortoises, snakes, Gila Monsters and other critters living among the rocks in drawings that harmonize the drawing surface and subjects with their natural habitat.

Elliot graduated from Arizona State University with a Bachelor’s degree in Art Education. He has won numerous awards in local, state, and national exhibitions, and is a Signature Member and Five-Year Merit Award recipient of the Colored Pencil Society of America (CPSA). He shares his knowledge of colored pencil materials and techniques by teaching art classes and workshops around Arizona and nationally.

You can see more of Elliot’s artwork at: http://www.elliotteverson.com

Desert Gargoyle
14”x9” Colored Pencil on Travertine Stone
My first stone piece was inspired as I was watching a large, colorful Chuckwalla looking out over the top of a boulder in my yard. I was reminded of gargoyles perched on ledges of stone buildings. To capture that feeling with colored pencil I felt that bringing out the lizard’s image on rock would be natural and fitting.

Lynette’s Fox
16”x16” Colored Pencil on Travertine Stone
This fox was visiting my brother’s yard and was very cooperative sitting for reference photos. I thought that drawing him on the ground with some wildflowers would be more appealing than the tool shed roof he was sitting on so I did make some adjustments.
Long Gone
18”x12” Colored Pencil on Paper
Inspired by a road trip in southern Arizona, this drawing combines elements from various locations to suggest the history and abandoned places we found.

Box Lunch
16”x20” Colored Pencil on Paper
I enjoyed this piece, working on the specimens, pins, and shadows creating a bit of a trompe l’oeil effect. With apologies to scientists, I did take some liberties with a few of the names on the labels. The finished drawing is mounted in a two inch deep shadowbox type frame to resemble a bug collection.

Transition
12”x18” Colored Pencil on Paper
Every spring I get to watch the prickly pear cactus in my yard go through its flowering ritual. Here I wanted to record the bud, blossom, and fruit in one drawing or triptych.

Desert Beadwork
16”x16” Colored Pencil on Travertine Stone
Gila Monsters and other reptiles like snakes and tortoises are some my favorites to depict on stone.
Monthly Meeting
First Tuesday of the month, unless otherwise announced, September through April, 7:30 p.m. Our meeting place is Papago Buttes Church of the Brethren, 2450 N 64th Street, Scottsdale, AZ (northwest corner of 64th Street and Oak Street, which is between Thomas Road and McDowell).

Please contact a board member if you have any questions, or check out our web site at www.maricopaaudubon.org. Pre-meeting dinners (September through April) are held at Rolling Hills 19th Tee Restaurant, 1405 N. Mill Avenue, starting at 6:00 p.m.

Membership Information
There are two ways to become a Maricopa Audubon member and to receive The Cactus Wren®dition by mail:
1. By joining the National Audubon Society. If you live in the Phoenix metro area generally east of 43rd Avenue, or in the East Valley other than in Gilbert, Chandler or most of Mesa, when National Audubon Society receives your check made payable to National Audubon Society and your membership application, you will be assigned to Maricopa Audubon Society, or you can send your check payable to National Audubon Society and your National Audubon Society membership application to Scott Burge, membership chair, and he will send it on in to National Audubon for you, or
2. By becoming a “Friend of Maricopa Audubon”. In this case you will become a member of Maricopa Audubon Society only, and you will not receive the Audubon magazine or any of the other “benefits” of National Audubon membership, but you will receive a one-year subscription to The Cactus Wren®dition. “Friends” contribution categories are: Anna’s Hummingbird-$20; Verdin-$35-$99; LeConte’s Thrasher-$100-$249; Cactus Wren-$250-$999; Harri’s Hawk-$1,000-$9,999 and California Condor-$10,000+. Mail your Friends membership application and your check made payable to Maricopa Audubon to Scott Burge, membership chair. All “Friends” members receive certain designated discounts. (If you reside outside the above-indicated geographical area, the only way to receive a subscription to The Cactus Wren®dition is to become a “Friend”). For National Audubon membership address changes or other questions call (800) 274-4201 or email chadd@audubon.org. For all other membership questions call or email Scott Burge.

Submissions
Copy for The Cactus Wren®dition must be received by the editor by e-mail, by January 15, April 1, July 1, and October 1. Articles not received by the deadlines may not appear in the upcoming issue. Email to: The Cactus Wren®dition Editor, Gillian Rice; editor.wrendition@yahoo.com

Opinions
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