Gray Fox
by Jerry Rowlette
It is probably no secret that spring is my favorite time of year, and it may be yours too. Birds are returning from the tropics, wildflowers are blooming in the desert, and temperatures are comfortably mild. It is also the time of year that I teach an Introduction to Birding class at the Appaloosa Library in Scottsdale. I thoroughly enjoy interacting with beginning birders, sharing some of the knowledge I’ve acquired over a lifetime of fascination with the natural world.

As always, our natural world here in beautiful Arizona is under threat from numerous forces. We live in the fastest growing county in the country, but that fact should not mean that we must destroy the most biologically diverse and lovely desert in the world. My late father used to remind me that everybody has to live someplace, but does everyone need to live in a single-family house on a quarter acre lot?

Fortunately, the trend nowadays is going to smaller homes on smaller lots and more people are moving to multi-story condos and other high-density housing in or close to downtown Phoenix, Tempe, Chandler or other Valley cities. Forty years ago, a famous city planner called Phoenix a “loosely textured city.” Were he still alive today he would marvel at all the urban infill projects and the light rail system that are now tightening up our urban environment.

I hope that you, the members of the Maricopa Audubon Society, will take advantage of the weather this spring to see the returning birds and our busily nesting resident birds by joining a Maricopa Audubon field trip. Our field trips are led by experienced people with wide experience and knowledge.

In addition to field trips, we will have a slate of exciting programs at our meetings and for our Annual Banquet in May.

Mark W. Larson
President

Djuna Barnes’ novel, Nightwood, contains a remarkable chapter in which the night is examined in great depth through the voice of a Dr. Matthew O’Conner, who proclaims, “The very constitution of twilight is a fabulous reconstruction of fear, fear bottom-out and wrong side up.” Historically, creatures that come out at night have often been feared and maligned for no good reason. If bats could speak, they would surely protest the way they are represented at Halloween and in some of Goya’s more threatening etchings, for example.

I find twilight to be anything but a moment of impending fear. As daylight fades and the first stars appear, depending on the time of year, we experience a mysterious world opening up even in the city. Living in Ahwatukee, close to South Mountain, I’m aware that the coyotes will be running along the wash behind our house, and stepping outside later on I might even hear a distant

Mark W. Larson
President
chorus of them. A neighbor recently photographed a group of seven javelina in her back yard. We might see a Great Horned Owl contoured on a roof during a late walk, or hear its call. And in summer, the nighthawks sweep by, perhaps noticed just as I’m looking for bats snapping the twilight to shreds!

Night is easily associated with the unknown, and the unknown with something to be frightened of. I feel more afraid of poisons sprayed unnecessarily than with anything that flies or crawls in darkness or in daylight. Asking What of the Night? may serve as a metaphor for asking about all we don’t readily know or understand.

Fear comes of not-knowing, and surfaces in our current issue by way of the information on pesticide use in Scottsdale, a measure inspired by not-knowing. Whether from being unaware or simply not caring, the consequences for birds and other urban wildlife are severe. The Spring 2018 issue of *The Cactus Wren* edition (still available online) featured an article by Paul and Gloria Halesworth about the unintended consequences of using rat poisons. Cautionary words about all forms of pesticides are always important as we note that once in the environment pesticides cannot be controlled. Pesticide history shows that many associated problems become apparent later on, hence the sense of them as an invisible threat. Even in small doses, chemicals can be dangerous to susceptible people, especially the elderly or anyone with pre-existing conditions, and sometimes a specific chemical might become dangerous when it combines with another, perhaps one in our food.

Good advice is to think twice before using pesticides in the yard, look into non-poisonous solutions to weed control etc., and give thought to the impact of too much insect control. Mockingbirds and Say’s Phoebes are among our best insect controllers, and they need insects to live.

Thanks in advance on behalf of the wildlife for giving thought to what you spray or how you deal with your domestic environment. Meanwhile, in our News for Now and Later column you can find information on Scottsdale Believe, and how to help by signing their petition.

Maricopa Audubon Society is teaming up with Changing Hands Bookstore (6428 S McClintock Dr, Tempe) on Saturday morning, February 8th, to engage children and present information they, and their parents of course, should find to be a help in enjoying and helping the natural world. We see it as important to place people on the side of birds and animals and we hope to encourage their advocates for years to come.

We make slight changes as we go with the Wren edition, and owe thanks to Brad at Ben Franklin Press for his careful work. Please pay special attention to our meetings, because these are the occasions to meet others who share our interests and passions, and to learn from the monthly presentations.
February 4th
Antarctica with Cindy Marple
Photographer Cindy Marple will take us on a visit to the icy southern continent of Antarctica. We’ll explore the wildlife and birds along with the spectacular scenery, and a bit of the history of human involvement with the continent. Penguins, of course, will be featured!

Cindy Marple is a Nature Photographer whose favorite subject is birds. Her interest in birding has grown as she spent time observing and learning more about her subjects. She now teaches birding skills and bird photography classes through the City of Chandler Recreation department and at Hassayampa River Preserve.

March 3rd
David and Diane Reesor: Dominican Republic
Join the Reesors for a photographic journey into the birds and culture of the little travelled Dominican Republic. David’s photography elegantly captures the fauna and people of locales that he and his wife Diane visit around the world. Their programs always entertain and educate.

April 7th
Larry Jones: Venomous Animals of the Sonoran Desert
Larry Jones will share fascinating stories from his new book, Venomous Animals of North America: The Vertebrates and Invertebrates of Land and Sea from the United States and Canada. He will also sign copies of the book which can be purchased at the meeting.

Larry got his B.S. and M.S. in Biology from California State University, Long Beach. He spent over 40 years studying a variety of animals, including invertebrates, fishes, amphibians, reptiles, birds, and mammals. For thirty of those years he worked as a Wildlife Biologist for both the research and management branches of a federal land management agency in California, Oregon, Washington, and Arizona. His previous publications include the book, Lizards of the American Southwest. Larry continues a long-term lizard monitoring project and just finished a three year study of scorpion ecology.

May 5th
Harriet and Andrew Smith: The Astonishing, Astounding, Amazing Sonoran Desert
The Sonoran Desert ecosystem extends from the southwestern United States into northern Mexico, and is an ecological hotspot of biodiversity due to its vast array of habitats. Authors Harriet and Andrew Smith will introduce us to the wonders of this ecosystem as well as the importance of environmental education outreach and conservation. They will sign copies of their book, available for sale at the meeting. All proceeds from their book will fund projects of Friends of the Sonoran Desert, a nonprofit (501(c)3) organization whose mission is to preserve and protect the Sonoran Desert.

MAY BANQUET

MAY 5TH

66th Annual MAS Banquet and Meeting
Franciscan Renewal Center
5802 East Lincoln Drive, Scottsdale, AZ 85252-4124
6:00 pm: BYOB social hour, raffle, and silent auction.
7:00 pm: Buffet Dinner (includes vegetarian option).
Cost: $30.00 per person ($28.00 for Friends of Maricopa Audubon. To become a Friend, please see back page of this issue). Reservations required. No-shows will be billed. You may pay at the door (cash, or check or credit card) or mail checks (due April 28th, 2020) payable to Maricopa Audubon Society to MAS Banquet, c/o Vicki Hire, PO Box 603, Chandler, AZ 85244. Consider joining or renewing your membership at the banquet.

Our agenda will include induction of our new Board and presentation of the Eleventh Annual Herb Fibel Award for Distinguished Service to Maricopa Audubon Society.

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Blue Magpie by David Reesor
Harriet Smith, Managing Director, Friends of the Sonoran Desert, is a retired clinical psychologist who grew up in Tucson, Arizona. As a child, she awoke to the coos of Mourning Doves, hiked on trails where the vibrant colors of cactus blooms plus the sound of rattlesnakes caught her attention, and swam in natural desert pools that filled after monsoon rains. Her desire to contribute to conserving the Sonoran Desert motivated her to write this book. She authored Parenting for Primates, 2005, Harvard University Press.

Andrew Smith, Director, Friends of the Sonoran Desert, is President’s Professor Emeritus in the School of Life Sciences at Arizona State University. Since 1991 he has served as Chair of the IUCN Species Survival Commission Lagomorph Specialist Group. Books include A Guide to the Mammals of China, 2008, Princeton University Press, and Lagomorphs: Pikas, Rabbits, and Hares of the World, 2018, Johns Hopkins University Press. In 2015 he received the Aldo Leopold Conservation Award from the American Society of Mammalogists.

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

SUNDAY, MARCH 22ND

Lower Salt River
This close-to-the-city field trip involves a drive along the Bush Highway between Mesa and Saguaro Lake, with stops in recreation areas along the Salt River. Spring migration could bring Lucy’s Warblers, Ash-throated Flycatchers, and Violet-green Swallows. We could spot an Eared Grebe, and Ruby-crowned Kinglets, Bald Eagles, Ladder-backed Woodpeckers, and Phainopeplas. This area is within Tonto National Forest and requires a day-use parking pass for all drivers. Bring a lunch and a scope if available.

Leader: Richard Kaiser
Difficulty: 1 Limit: 15
To register: rkaiseriniz@aol.com 602-276-3312.

MONDAY-TUESDAY, MARCH 23RD AND 24TH

Rio Rico area (near Nogales)
This trip includes two days of birding around Rio Rico, with a night in Nogales at a standard hotel. Destinations include the de Anza Trail around Tubac and Pena Blanca Lake in the Atascosa Mountains, with likely stops at Sweetwater Wetlands, Canoa Ranch, and along Ruby Road. Expect wintering waterfowl, sparrows, Red-naped Sapsuckers, Bushtits, jays, nuthatches and possible Montezuma Quail. Expenses include a night in a hotel, a couple of meals in restaurants, and a gas donation to your driver.

No entrance fees at this time.

Leader: Kathe Anderson
Difficulty: 2-3 Limit: 8
Meeting place and carpooling logistics will be determined a few days before the trip.
To register: kathe.coot@cox.net

FRIDAY MARCH 27TH

Birding by Boat on Lake Pleasant
We will be birding the waters of Lake Pleasant on a 24ft. Pontoon boat with the opportunity to see water birds up close. Possibilities include mergansers, several grebes (including Red-necked), loons (a Red-throated was spotted in March one year), Snow Geese, gulls, terns, and ducks, plus swallows, Common Poorwill, Peregrine Falcons, and Ospreys. Bird from 8 am to 1 pm, with lunch at Scorpion Bay Marina restaurant afterwards. This open water lake may affect those susceptible to motion sickness. There is a Maricopa County Parks fee of $6 per vehicle. If you have an annual Maricopa County pass there is no vehicle fee. A donation of $5 per person is requested for fueling the boat.

Leader: Mary McSparen
Difficulty: 2-3 Limit: 8
Pilot: Cris McSparen, US Coast Guard Certified, 35+ years piloting on Lake Powell and Lake Pleasant
To register: marymacdanes@q.com or 602-790-0110

FRIDAY, MARCH 27TH

Lower Salt River: Granite Reef
This well-known area along the Salt River allows for birding the first recreation site called Granite Reef, located where Power Rd meets the Salt River and then becomes Bush Highway. We may see Lucy’s Warblers, Ash-throated Flycatchers, Phainopepla, several woodpeckers, an active Bald Eagle nest, Yellow-rumped Warblers, Lesser Goldfinches, and Ruby-crowned Kinglets. Tonto National Forest requires a day-use parking pass for all drivers. Bring a snack and a scope, if you have one.

continued on next page
**SUNDAY, MARCH 28TH**

**Northsight Park, north Scottsdale**

This daybreak birding trip will explore a lush desert habitat, avoiding the weekend human activities by the early start. The paths are level and an easy walk, about one mile total distance and 2-3 hours of birding. Typically, wintering sparrows and resident species can be seen, and some early migrants should be around, such as Lucy's Warbler and Ash-throated Flycatcher.

Leader: Brian Ison  
Difficulty: 2(one mile walk)  Limit: 12  
To register, send name and cell phone number to:  lwrkenai@cox.net

**SATURDAY, APRIL 4TH**

**Hassayampa Preserve**

Join HP’s Interpretive Ranger, Eric Hough, for a two-hour guided morning bird walk. Focus will be wintering and resident desert riparian bird identification by sight and sound, as well as discussion of their ecology. The variety of species is due to the year-round water available to cottonwoods, willows, walnut, mesquite, and ash trees. Wear warm clothes and good walking shoes and bring water.

Cost: $7 Maricopa County outreach fee and $5 adult entrance fee(unless you have a Maricopa County Parks annual pass or carpool with someone who does)  
Difficulty: 2 Limit: 12  
To register, email name and cell phone number to  larrylangstaff1@gmail.com

**THURSDAY, APRIL 9TH**

**Salt River**

We should visit sites northeast of Mesa, looking for the usual desert denizens, possible Bald Eagles, some lingering waterfowl, as well as orioles, Vermilion Flycatchers and other colorful avian migrants.

6 am to ca. 9:30 am  
Leader: Kathe Anderson  
Difficulty: 1-2 Limit: 8  
To register:  kathc.coot@cox.net

**MONDAY APRIL, 20TH**

**Horseshoe Mesquite Campground**

Horseshoe Mesquite Campground is on the Verde River, just below Horseshoe Reservoir dam. The Verde provides a major riparian corridor for migrating birds. We look for lowland riparian breeders including Lucy’s and Yellow Warblers, Bullock’s and Hooded Orioles, Ash-throated and Brown Crested Flycatchers, Bell’s Vireos and Yellow-breasted Chats, as well as other warblers, tanagers, grosbeaks, Bronzed Cowbirds, Green-tailed Towhees, and Lazuli Buntings.

Leader: Dara Vazquez  
Difficulty: 2. Limit: 8  
Meetup at 5am in Carefree. Carpool will be assigned based on 4 wheel drive vehicle availability.  
To reserve: dara.cv@gmail.com

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**SATURDAY, MAY 2**

**Sunflower-Mt.Ord**

We will see many returning nesting species like Gray Vireo, Black-chinned Sparrow, Hooded and Scott’s Orioles and Black and Zone-tailed Hawks. Going up Mr. Ord we will look for the six “Arizona Warblers” as well as migrating Hermit and Townsend’s Warblers.  
Bring Lunch.  
Leader: Charles Babbitt  
Difficulty : 2-3  Limit: 8  
To register: 602-840-1772 or cjbabbitt@cox.net

**SATURDAY, MAY 2ND & WEDNESDAY, MAY 13TH**

**Stewart Mountain Desert Tortoise Quest**

Hardy souls willing to trek in the early morning heat of May with a slight chance of finding a desert tortoise can traverse steep, rocky hillsides to search for tortoises emerging during the arid fore-summer. But some tortoises, notably females and juveniles, will emerge in late spring, or even during winter rain days, to feed and bask. Just about all tortoises surface to replenish their water reserves after an iconic monsoon storm.  
Leader: Laurie Nessel  
Difficulty: 4 (steep, rocky terrain, and hot weather). Bring snacks, sun protection, hat, sturdy hiking shoes, a high power flashlight or mirror and plenty of water. Start near daybreak and return by noon. No limit.  
To register: laurienessel@gmail.com or 602-391-4303 for information on carpooling and meeting location.

**MONDAY, MAY 4TH**

**Bushnell Tanks**

The area is along the intermittent stream of Sycamore Creek and hosts a sycamore-dominant riparian corridor nestled between two juniper-chaparral hillsides. Target birds for the area include Zone-tailed and Common Black Hawks. Other likely sightings include Black-throated and Rufous-crowned Sparrows, Juniper and Bridled Titmice, kingbirds, flycatchers, hummingbirds, and orioles.

Leader: Dara Vazquez  
Difficulty: 2. Limit: 10  
Meetup 4:30 am in Fountain Hills.  
To reserve: dara.cv@gmail.com

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Be Social! Find MAS on Facebook

facebook.com/MaricopaAudubonSociety
Salt River Horses

The feral horses along the Salt River now number more than 500. Maricopa Audubon Society and others have argued for years that the horses destroy critical riparian habitat and should be removed. State legislation and effective advocacy by horse lovers have prevented their removal. Overgrazing has damaged the habitat and the vegetation the horses need to survive.

A Forest Service survey concluded that the entire area can sustainably support twenty horses per year. The Rocky Mountain Research Station calculated that the area can sustainably support twenty-eight to forty-four horses. Based on these studies, the current herd numbers at least ten times a sustainable population.

For the past two summers, the 500 horses have been fed artificially in order to prevent mass starvation. As a result, horses along the Salt now approach human visitors hoping to be fed.

During 2019, MAS Vice President Robin Silver joined other parties in a mediation to seek solutions. The management plan which resulted suggested the Forest Service should designate a range of more than 14,000 acres for the horses, including an eight-mile stretch of riverbank. The plan also suggested fencing the area to prevent more horses from joining the herd and to keep the horses from crossing the Bush Highway. Fencing would reduce accidents in which more than twenty-four horses have been killed since 2017.

The Forest Service recently began fencing the area, generating protests from horse enthusiasts. MAS will support the Forest Service’s efforts to implement the compromise Management Plan, despite our conviction that the horses must eventually be removed for the Salt River habitat to recover.

Oak Flat and Resolution Copper

During a January, 2020 meeting, the Tonto National Forest predicted that its final Environmental Impact Statement would be released next winter. The Forest Service is reviewing more than 30,000 comments received in response to the draft Environmental Impact Statement. That review will determine what further studies are necessary. Forest Service officers also said that the effort to appraise Oak Flat is not going smoothly, and they anticipate further delays.

ADEX Wetland Permit Program

In December, the Arizona Department of Environmental Quality (ADEQ) dropped its plan to issue dredge and fill permits under the Clean Water Act. That responsibility will remain with the U.S. Corps of Engineers. Environmental groups applauded ADEQ’s decision.

Section 404(b) of the Clean Water Act requires that industries and developers seeking to dredge or fill waterways and wetlands obtain permits. The Corps of Engineers, assisted by U.S. Fish and Wildlife, runs the program. Because of the federal involvement, MAS and other environmental groups regularly challenge permits under the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA).

ADEQ hoped to take over the permit program, promising quicker action on permit applications and local oversight. The change would have ended NEPA and ESA oversight, undoubtedly an incentive for industry and developers. ADEQ organized several stakeholder committees to assess problems in making the transition to state control. Industry, local governments, tribes, and conservation groups sent members to the committees.

In the Endangered Species committee, on which I served, the different interests quickly realized everyone foresaw problems. Developers and local governments disliked the higher fees ADEQ would charge. Industry feared the loss of immunity that Section 10 of the ESA provides to projects with a federal permit. Conservation groups feared local political influence, high costs, and lost oversight by the federal courts. The Endangered Species Committee eventually voted, 5 to 3, against ADEQ’s plan. Other committees reported similar concerns. The upshot was that ADEQ abandoned the effort. The U.S. Corps of Engineers will continue to administer the wetlands permit process.
Call to Action from Scottsdale Believe!

Another study links pesticides to the demise of bird populations. This isn’t just another bleak story, but an opportunity to take positive action. A grassroots Scottsdale group is working to flip municipal pest management on its head. The group advocates for a “Least Hazardous First” paradigm in which toxic chemicals are put at the bottom of the toolbox. As illustrated in their “Pest Control Strategies Hierarchy,” (available on the Petition page at the website) non-chemical strategies are employed first, least toxic chemicals second, and higher toxicity chemicals are used only when necessary to preserve public health and safety. The group will ask the Scottsdale City Council to adopt a pest management policy to curtail the use of herbicides and other pesticides on municipal properties such as parks and athletic fields. The hope is that this policy will then spread to school districts, HOAs, and other Valley cities.

You can help make this happen, even if you don’t live in Scottsdale. The group urges the following action:

If you are a Scottsdale resident, sign the “Least Hazardous First” petition to let your elected officials know you care about reducing pesticide use! Download a blank petition at www.scottsdalebelieve.com/petition. Invite friends, family, neighbors and co-workers to join you to fill a page or as many pages as you can.

See www.scottsdalebelieve.com/how-to-sign for mail and drop-off instructions.

Email contact@scottsdalebelieve.com to arrange a pick-up or with any questions.

More information is available at www.scottsdalebelieve.com

Bird of Prey

Stunning cinematography brings to life a journey to the rare Great Philippine Eagle and the inspiring effort to save it from extinction. Produced by Cornell Lab’s Multimedia Productions.

Free Screening Sponsored by Maricopa Audubon Society and the 2019 Big Sit. All are welcome.

Saturday, March 14th, 6:30pm (Please check our online events page or subscribe to the free MAS E-Newsletter to confirm date and details)

Papago Buttes Church of the Brethren
2450 N 64th St.
Scottsdale, AZ 85257

Podcast for Young Birders

If you have young birders, you may enjoy this podcast, recorded late last year with Pamela Rogers and featuring your editor along with Maxi, who is ever present during editing duties here. http://buttonsandfigs.com/2019/11/05/42-audubon-poetry-play-with-david-chorlton

Photographs Wanted

Mike Warner (mwarner2543@gmail.com) is looking for exceptional bird photographs from Arizona for his GreatBirdPics.com

Future Field Trips

Wednesday, May 13
**Prescott**
Leader: Kathe Anderson kathecoot@cox.net

Sunday-Tuesday, June 14th-16th
**Portal**
Leader: Kathe Anderson kathecoot@cox.net
CREEPING AROUND IN THE DESERT!

Southwest Wildlife Conservation Center

Who are the creepers of the desert? It may help to know that creeping is done near dusk and dawn. Animals who are most active at this time are known as crepuscular rather than nocturnal (those that are active in the dark of night). Even Great Horned Owls are more crepuscular than nocturnal. While an animal may be listed as nocturnal, most can be found ready for patrol during the twilight times of the day.

What is this cast of creepy characters? Coyotes, of course, which are clearly out in the middle of the night as evidenced by their howls. The vocalizations of coyotes are made up of howls, yips, barks, and whines or a combination of several sounds. They are a means of communication between family members and to identify territorial boundaries. What the howls are not is an invitation to share the food they just caught. Eating mice (25 a day for a coyote), packrats, kangaroo rats, small snakes and lizards, mesquite beans, prickly pear tuñas, and anything else even close to edible it is gone in an instant and no announcement needs to take place!

Kit foxes, the smallest of the southwest foxes, are rarely seen, coming out of their burrows only to feast on the mice running across the desert in very low light. If you should be rewarded with a glimpse of this sly little fellow consider yourself lucky. They are so fast and shy that most of us miss them. Javelina, badgers, coatimundis, and bobcats are also classified as crepuscular, but chances are you will see them “creeping” around before the darkness sets in and just before first light. While hawks depend on their eyes to locate their prey by day, owls rely on their keen hearing to follow the scratching and chewing sounds made by rodents and rabbits. That is why owls can begin the hunt when hawks have retired for the night.

At Southwest Wildlife Conservation Center in northern Scottsdale, near the open desert of Rio Verde, our sanctuary cares for all types of wildlife. They are fortunate to have a place to live because they are unable to be returned to the wild. Our monthly Full Moon tours are great opportunities to see and hear these creatures of little light. But, should you visit during the bright light of day, you will still see them because we bring along a little treat! SWCC has been rescuing and rehabilitating wildlife since 1994 and though thousands have been returned to the wild, we have almost a hundred animals in our sanctuary, including mountain lions, black bears, Mexican gray wolves and a jaguar hybrid. Come visit us as we love sharing what we do!

Contact us at southwestwildlife.org and check our tour calendar for tour availability.

Diane A. Vaszily is a SWCC docent, and a retired environmental educator.
By the Santa Cruz at Winter’s Edge
David Chorlton

Three deer are chewing silence in a mesquite bosque while the sun dissolves and the grey Mount Wrightson sky parts for the granite wind to pass through.

In the wake of a mile-long rumble and the horn’s mechanical wail a skunk lifts its tail to brush an owl’s call from the air.

Tracks in the Santa Gertrudis mud show the who and the where they were going the time morning rain washed all light away. Silver flows down to the river that flashes with life and debris and an egret flying low at the speed of a broken bough.

A cottonwood holds the sky in its broken, winter arms. A Northern harrier comes down to pluck its shadow from the sleeping grass in sunlight.

In its grey season the river flows past a cold metal gate that opens to let low cloud go through, and a phoebe makes loops around the mountain peak revealed as it picks another insect from the snowline.

In a mesquite at the corral fence, a Vermilion flycatcher: a drop of winter’s blood.

The Elf Owl (Micrathene whitneyi)
Jeredith Merrin
(From OWLING by Jeredith Merrin, Grayson Books, 2016)

We love what we like to think like ourselves:

familiar round, flattish face
and large, front-facing eyes

on a bird small enough for a full-sized owl’s doll.

(This one would fit in a zip-lock for a check-in.) Bewitched, you forgot to note feathers – and razors! The darling you fell for’s a raptor.
A bright moon is a signal to the little pocket mouse to be extra cautious as it scurries around, usually under the protection of desert shrubs. Researchers have found that rodents are much less active on these nights, most likely to avoid detection by predators. Among the most efficient nocturnal mouse hunters here are the Desert Botanical Garden’s resident population of Western Screech-Owls. Screech-Owls were found to take advantage of this extra light and perch higher up in trees on these bright evenings, presumably to better scan for prey to eat.

Like miniature stealth bombers, these eight inch-tall predatory gnomes fly silently. The forward edge of the first flight feather on each wing is serrated, rather than smooth, which disrupts the flow of air over the wing in flight and eliminates the noise created by airflow over a smooth surface. This muffles the sound of flapping wings that would otherwise alert their potential prey that include rodents, insects, scorpions and other arthropods, as well as lizards, snakes, frogs, toads, birds and even small fish. No group of birds exceeds owls in their ability to see under dim-light conditions or to localize sound sources with such deadly accuracy. The heads of owls are little more than brains, beaks and super-sized eyes and “ears.”

Their human-like forward-facing eyes that make them appear so endearing to us, actually evolved to make them into efficient little killing machines. In fact, the eyes of a Screech-Owl, relative to its body weight, are greater than the total relative weight of the brain in an adult human. Some species of owls have eyes that are up to six times better at light gathering than those of humans. Their eyes are so large that they are immobile in their sockets. Fortunately, their flexible necks allow them turn their heads and peer directly over their backs to watch for even larger predators. The little Screech-Owl is not at the top of the food chain here at the Garden and must literally “watch its back” for the almost 2 foot-tall Great Horned Owl that, if given the chance, will capture and feed the Screech-Owl to its own hungry young.

Although there are ten times more kinds of moths than there are of butterflies, it is the rare person who has ever bought a field guide to the moths. They have a mostly negative image often associated with acrid-smelling mothballs and ruined woolen sweaters. When we think of insects that pollinate flowering plants, beautiful butterflies and industrious bees usually come to mind. Moths actually pollinate many plants, including the sacred datura, all of the yuccas, as well as several species of night-blooming cacti.

In spite of the large number of cultivated yuccas at the Desert Botanical Garden, only three of them have ever been known to be pollinated, producing a total of only four seed-bearing fruits according to Chad Davis, former Agave and Yucca Horticulturist. How could this be with all the birds, bees, butterflies and other pollinators around? It turns out that yuccas have a very specific and almost unique relationship with yucca moths, a species not currently present in the Phoenix area.

Unlike many other flowering plants that attract a variety of pollinators, every species of yucca is totally dependent upon one or more species of yucca moths for pollination, and the moths need the developing yucca seeds to feed their larvae, a tongue-twisting arrangement known as “obligate pollination mutualism”. This tight relationship is very rare in nature (only about one percent of all flowering plants have a single obligate pollinator species) since there is an obvious peril to such exclusive matchmaking if one of the partners fails to show up. The yucca moth is one of the few known pollinators (the senita moth on the senita cactus is another recently discovered example) that intentionally pollinates a flower for the sole purpose of creating a seed-bearing fruit for its larvae to feed upon.

Tom Gatz has been a Maricopa Audubon member since 1981. Joe McAuliffe is Director Emeritus and Senior Research Scientist, Desert Botanical Garden.
Big Brown Bat *Eptesicus fuscus* by Shirley Ramaley
One of the reasons Maricopa County has such a high number of bird species (460), is because of the many species found on Mount Ord that are not found in other areas of the county. In the years when Bix Demaree, Liz Hatcher, Anita Van Auken and I participated in Big Day Counts in late April, Mount Ord was always part of, and the best part of, our route.

Along the dirt road up to the summit at 7100 feet, one passes through unique life zones attracting species that nest only in those habitats. One of the most sought-after by visiting birders is Gray Vireo, which nests in the Juniper Woodlands found along the lower area of the road up to the summit. Black-chinned Sparrow also nests only in this habitat.

In the Upper Sonoran Desertsrub surrounding the Juniper Woodlands, one can find other attractive species in spring and summer such as Scott’s Oriole, Spotted Towhee, Woodhouse’s Scrub-Jay (formerly named Western Scrub-Jay), and Rufous-crowned Sparrow.

Farther up, the road reaches the Pine-Oak Zone where the dominant species is Ponderosa Pine. This is my favorite place to bird in the county because of the five species of beautiful warblers that nest here:
Painted Redstart, Olive, Black-throated Gray, Grace’s, and Virginia’s. In addition there are vireos, woodpeckers, titmice, nuthatches, tanagers, grosbeaks and more, that add to the variety found here.

The last 0.75 miles of the road to the summit must be traveled on foot. This more open habitat affords wonderful views of the country below: around Roosevelt Lake. During the nesting season, Virginia’s Warbler and Blue-gray Gnatcatcher are easier to see along this section of the road.

Bob and I used to experience this rich avifauna in the summer by taking our camper so we could spend the night and look for Northern Pygmy-Owl which nests in the pine-oak forest near the summit. Then we were there for the dawn chorus of the other species.

Although fall is quiet and many of the species have migrated south, I always enjoyed driving up the road at that time to see the colorful leaves of a small group of maple trees about half way up the road. In fall and winter, the year-round residents can still be seen in the pine-oak zone: Hairy and Acorn Woodpeckers, White-breasted Nuthatch and Brown Creeper, as well as the less common Steller’s Jay. Both the Oregon and Pink-sided forms of Dark-eyed Juncos (not present in summer) can also be found here at this time of year.

Janet Witzeman is one of the authors of *Birds of Phoenix and Maricopa County, Arizona*, now in a third edition and a vital reference for birders in our region.
The Lesser Long-nosed bat is an elegant pollinator of the desert night. In early spring, keystone species such as saguaro and organ pipe cacti lift luminous blooms towards the stars. Their fragrance attracts Lesser Long-nosed bats winging steadily north on their nocturnal migration. The bats fuel up on the syrupy nectars and protein packed pollens as they fly from distant wintering grounds in central Mexico to breeding grounds in the American Southwest.

Maternal roosting sites, where hundreds or even thousands of pregnant females gather to give birth and raise their young are fascinating places, eerie and awe inspiring. Usually in caves, abandoned mines or even rocky crevices, the bats find dark and quiet space for maternal and daytime roosts.

Unfortunately, once the large numbers of bats hanging out in caves were discovered, people could not leave them alone. Humans traipsing through delicate conditions of humidity and temperatures commonly led to the abandonment of these sites, and ultimately the failure of generations of baby bats. At one time it appeared that this flying mammal, so crucial to the desert ecosystem might fade to oblivion.

By the mid 1980s fewer than one thousand Lesser Long-nosed bats remained in only forty known roosting sites. The bat was declared protected under the Endangered Species Act in 1988. The Lesser Long-nosed bat Recovery Plan was drafted by U.S. Fish and Wildlife and enacted in 1994. The bats' roosts and forage sites came under the protection of federal agencies and local law enforcement. Scientists identified hundreds of plants that are pollinated by or have seeds dispersed by Lesser Long-nosed bats. These identified plants were integrated into land use and resource management plans so protections could be put in place.

Bat Conservation International helped by designing “bat gates” that allow entrance to the caves and mines to bats but not humans. Citizen scientists also played a crucial role. Nature enthusiasts in Pima County discovered bats frequenting their hummingbird feeders under the cover of darkness. Feeder owners began counting the bat visitations and eventually teamed with biologists who outfitted some bats with radio transmitters. The mysterious habits of the Lesser Long-nosed bat became more transparent. Bat watchers were able to track the timing of migrations and the locations of roosting sites. They learned that these bats will fly forty miles from their daytime roosting sites to foraging grounds on any given night. This small furry creature that weighs around a half an ounce and measures just two and a half inches in length logs some serious mileage in a lifetime.

In 2018, after a review of the population of the species, the U.S. Fish and Wildlife Service delisted the Lesser Long-nosed bat. Today the estimated population is 200,000 bats with seventy-five known roosting sites in the southwestern United States and Mexico. The conservation plan worked. In addition to helping this species, the desert habitats along their migratory route will continue to be enriched by the interactions between plants and bats, from the very soils to the wide range of biodiversity found in those ecosystems.

Over the past few decades Mexico has also engaged in extensive bat conservation measures to protect habitat and forage plants in the wintering grounds. Commercial growers of agave for tequila customarily clip the plants’ flower buds before bloom to send sugars to the heart of the plant. There was no thought for the bats which were considered dangerous vampires. A dynamic education campaign changed the perception of bats among residents of the area and the Lesser Long-nosed bats are better understood as valuable agricultural partners. Agave growers now allow about ten percent of their crop to flower and even market bat-friendly tequila. The Mexican conservation efforts were so successful that the Lesser Long-nosed bat was delisted in that country in 2015.

Gail Cochrane has lived in the Sonoran Desert for more than twenty years and is a frequent contributor to The Cactus Wren•dition.
I first saw some of Frank Gonzales’ work at Mesa Arts Center, and it immediately stood out for the bold depictions of the birds and the imaginative way they are set off by accompanying decoration. To see a large selection, check Frank’s website: https://frankgonzales.net/home.html

(Editor’s note)

CW: What drew you to nature and birds in particular for your painting?

FG: It was an evolution to be honest. I was trained classically, working primarily with the figure. It wasn’t until after college, where I was trying to find my own voice in art, that eventually the figure subsided and I was experimenting with lots of elements from nature. As my interest grew so did my love for nature. It became almost an obsession. I wanted to learn and study as much as I could. I’m still on that path.

CW: What was the first subject matter in your earliest paintings?

FG: My first introduction into art as a teen was through writing graffiti. I was heavy into Hip Hop culture and Skateboarding culture, seeing graphics on skateboards. It wasn’t until college that I got my first taste of drawing from the figure. I was hooked and exhausted every class I could take at Mesa Community College. I was encouraged to apply to art school and continued my studies in Drawing and Painting with an emphasis on the figure at the Laguna College of Art and Design. I graduated with a BA in 2003.

CW: Has painting affected the way you see birds now?

FG: Yes, definitely. When I first started painting birds they were very generic and stylistic. Eventually through studying books and looking on the internet, I saw the various species I was painting much more specifically. There’s something magical about seeing a bird in real life that you’ve only observed in books. It changes your perspective completely.

CW: How do you see visual art like yours helping the public’s awareness of wildlife?

FG: We live in amazing times right now where there is a collective consciousness of artists painting wildlife and raising awareness. Social media alone allow us to observe artists from across the planet. That blows my mind! There are galleries that show contemporary art that is specific to wildlife. It is a beautiful thing. Somewhere along the line we humans have seen ourselves as separate from nature. I hope we can eventually raise awareness that it is all connected.
**Dauntless**
48x60 inches, Acrylic on Canvas, 2013

**Makeshift**
16x20 inches, Acrylic on Panel, 2013

**Night Breed II**
48x48 inches, Acrylic on Panel, 2018
**Did you know** nocturnal animals are usually awake and active during the night? Diurnal animals are the opposite and are usually awake and active during the day. In Arizona, some animals are both because they want to avoid extremely hot daytime temperature in the summer. Some Arizona animals that enjoy night life are packrats, Bark Scorpions, tarantulas, Pallid Bats, Spotted Bats, jackrabbits, javelina, Gray Fox, Bobcats, Diamondback Rattlesnakes, Kangaroo Rats, and Great Horned Owls.¹

**Did you know** nocturnal animals sleep during the day? They also have special adaptations that help them survive in the dark, such as sensitive ears, whiskers that sense nearby objects, and a highly developed sense of smell. Their eyes are bigger with wider pupils to help let in more light. Some snakes have sensory receptors that are heat-sensitive and help them find prey in the dark. Bats use echolocation, sending high pitched sounds to echo off objects and prey to determine how far away they are.

**Did you know** Western Banded Geckos, found only in the southwestern United States and Northern Mexico, are a secretive and nocturnal species of gecko? They are terrestrial lizards, which means they live on land, and are different from other geckos because of their prominent eyes with vertical pupils and with movable lids. They are very delicate looking lizards with a kind of translucent skin whose tiny scales give it a silky texture. Western Banded Geckos forage at night for small insects and spiders, as well as hunting in rodent burrows looking for insects, spiders, termites, and baby scorpions. They are among the few reptiles that help control scorpion populations.

**Did you know** If you try to capture a Western Banded Gecko it will probably squeak and may lose its tail? When one feels threatened, it waves its tail over its back. These geckoes also store fat and water in their tails, which help sustain them for months at a time. Western Banded Gecko females lay one or two eggs in the spring, which hatch after six weeks and are only about one inch long. An adult Western Banded Gecko is about three inches in length, excluding its tail.

**Did you know** Desert Sonoran Toads, found only in the southwestern United States and Northern Mexico, are a NOCTURNAL species of toad? They remain in burrows or underground until emerging at night during the monsoon season just prior to the rains starting. They are the largest native toads in the United States and can grow to eight inches in length. Desert Sonoran Toads are able to eat almost anything they can catch, including other amphibians. They can live up to twelve years. Females lay up to 8,000 eggs in chains.

**Did you know** If you try to capture a Desert Sonoran Toad it will probably emit toxins from its parotid glands located on both sides of the back of its head? These toxins are considered hallucinogenic and can make dogs and other animals very ill.

**EXTRA** - What is the difference between toads and frogs? All toads are frogs, but not all frogs are toads. According to allaboutfrogs.org, in general, frogs have two bulging eyes, strong, long, webbed hind feet that are adapted for leaping and swimming, smooth or slimy skin, tend to like moister environments, and lay eggs in clusters. Toads have stubby bodies with short hind legs, warty and dry skin, parotid glands behind the eyes, and tend to lay eggs in long chains. Frogs have teeth; toads don’t.

¹ https://www.desertmuseum.org/kids/oz/long-fact-sheets
GUESS THIS
NOCTURNAL ANIMAL

This nocturnal rodent has large ears and large eyes and is native to the desert regions of western North America. Regardless of their coloring which can be anything from pale gray to cinnamon, their underparts and feet are always white.

A 2020 LOOK AT ARIZONA’S ANIMAL NIGHT LIFE! CROSSWORD

Guess this NOCTURNAL ANIMAL

This nocturnal rodent has large ears and large eyes and is native to the desert regions of western North America. Regardless of their coloring which can be anything from pale gray to cinnamon, their underparts and feet are always white.

Across
2  These nocturnal animals use echolocation to determine location of prey
7  Glands located on both sides of the head of Desert Sonoran toads
8  Some snakes have ______ receptors that are heat-sensitive
10 If captured, a Western Banded Gecko will probably _______
11 Desert Sonoran toads emit ______________ toxins
12 Desert Sonoran toads emerge from underground during the __________ season

Down
1  Animals active during the night are called ___________
3  Western Banded Geckos are _______ lizards, living on land
4  Western Banded Geckos have ___________ skin with tiny scales
5  Female Desert Sonoran toads lay up to 8,000 eggs in __________
6  Nocturnal animals have special ___________ to help them survive in the dark
9  Animals that are awake and active during the day are __________
10 Western Banded Geckos are among the few reptiles that help control __________ populations

Answers on page 22
Answer to GUESS THIS NOCTURNAL ANIMAL

Packrats, also called a Desert Woodrats, feed on beans and leaves of mesquite, on juniper, creosote, and on parts of cacti. They sometimes fortify the entrance of their burrows with sticks and pieces of cholla cacti to defend against their predators.

Answers to A 2020 LOOK AT ARIZONA’S ANIMAL NIGHT LIFE! Crossword

Grocery shopping?

Support Maricopa Audubon when you shop at Fry’s Food Stores.

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Go to https://www.frysfood.com/topic/new-community-rewards-program
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Being a Friend of Maricopa Audubon Society keeps you in touch with fellow birders and brings you four issues of *The Cactus Wren* annually. It costs $20, or more if you choose to give additional support, and you can pick up a form at the book sales table during a monthly meeting. You can also sign up by visiting our website: http://maricopaaudubon.org

There is more! You can contribute in the best way possible by lending your abilities to our board. Interested? Send an email to: larsonwarren@gmail.com
MONTHLY MEETING

Please see meeting information on page four. Contact a board member if you have questions, or check out our website at www.maricopaaudubon.org.

MEMBERSHIP INFORMATION AND HOW TO RECEIVE THE CACTUS WREN-DITION

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To become a member of the NAS please go to: www.audubon.org/audubon-near-you

We send The Cactus Wren•dition to all current members of NAS if you are assigned to or choose MAS as your local chapter. NAS provides MAS $3.00 per year for each member assigned to us.

To become a Friend of MAS, please pick up a form at the book sales table at our monthly meeting or visit our website, http://maricopaaudubon.org

For specific questions please contact our Membership Chair.

SUBMISSIONS

Copy for The Cactus Wren•dition must be received by the editor by email by January 15, April 1, July 1, and October 1. Articles not received by the deadlines may not appear in the upcoming issue. Some issues may feature a specific focus, so please feel free to enquire and take the theme into account. Email to: The Cactus Wren•dition Editor, David Chorlton: chorltondavid3@gmail.com

OPINIONS

The opinions expressed by authors in this newsletter do not necessarily reflect the policy of the National Audubon Society or the Maricopa Audubon Society.

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Unless stated explicitly in the article, material in The Cactus Wren•dition may be reprinted in other newsletters as long as the material is credited to the original author and to The Cactus Wren•dition.

This publication is printed on recycled paper.

Layout and design by Ben Franklin Press Inc., Tempe, AZ

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