



# The Cactus Wren·dition

Volume LXVI, No. 2

Summer 2013



***Dull Firetip***

*Photo by Marceline VandeWater*



# Outgoing Editor's Message



Emily Morris

It is with very mixed emotions that I say goodbye to my time as Editor for Maricopa Audubon's *The Cactus Wren•dition*. I have loved being on the Board for over two years and am immensely grateful for being welcomed into the world of a chapter with such a rich history. I cannot tell you how much I have learned and how willing all of you have been to teach!

I am not leaving the Chapter, though, so don't worry! Things are just too busy with my job at the Desert Botanical Garden and working towards my Master's in Environmental Education and Interpretation.

Have no fear, though, you are now in the capable hands of Gillian Rice! You will recognize her as the most faithful contributor to *The Cactus Wren•dition* of any non-board member during the past couple years,

and I am so pleased that she agreed to take over from me. She has already thrown herself into the publication with great gusto. I'm looking forward to seeing what she produces with all of your help! So, that means I expect other people to step up and help her with photographs, articles, and poems as you did for me; even ideas for articles and announcements are very helpful. You will all make a great team, I'm sure.

I hope to keep seeing many of you at the monthly meetings!

Yours in the love of birds,  
Emily Morris

## 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

Michelle Peppers  
480-968-5141  
[burge@burgenv.com](mailto:burge@burgenv.com)

### Maricopa Audubon Website

<http://www.maricopaaudubon.org>

### Maricopa Audubon Phone

480-829-8209

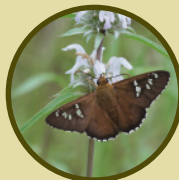
**In wildness is the preservation of the world.**

*Henry David Thoreau*

## 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.



On the Cover: Dull Firetip

Focal length: 400mm, 1/320 sec, f/5.6, ISO-400, August 11 2012  
along Harshaw Road, south of Patagonia by Marceline VandeWater.  
The butterfly is nectaring on *Monarda citriodora* var. *austromontana*.

Marceline says: "The Dull Firetip is a butterfly sought after by many people from out of state. It occurs in the U.S. only in southeast Arizona. They can be quite numerous some years and 2012 was definitely one of them. However, by the time the big North American Butterfly Association conference came around in September at Sierra Vista, we (fieldtrip leaders) had to work hard to show the group this large spectacular skipper. Everyone wanted to see it as NABA had used it in the logo on t-shirts for the meeting!"

# President's Message

by Mark W. Larson



Mark W. Larson

**T**he four inches of rain that fell at my house in a little more than the first two months of 2013 exceed the total for all of 2012 by almost half an inch. The fairly plentiful winter precipitation throughout the state bodes well for water supplies through the coming summer, but does this signal the end to the state's long period of drought? Only time will tell the answer, but the likely answer is no.

Living in a desert carries with it certain responsibilities; among these is being ever mindful of one's water use and preventing waste wherever and whenever possible. Have you converted your grass lawn to a xeriscape? Have you asked your church, synagogue, stake center, or temple to do

the same? Are you teaching your children or grandchildren to conserve water?

I hope that each of you took the opportunity this spring to introduce a child to Nature. Sure, you can give them toys, but you can also give them the gift of opening their eyes to the wonders of the natural world, a gift that will last their entire lives. People I have known who are trained to see the miracles all around us when we experience Nature are never bored, and never without something interesting happening in their lives.

When our monthly MAS meetings resume in September, bring along an insight about Nature that you have experienced over the summer. Share it with your Audubon friends and share it with your family, especially the young ones. It might be a bird you've added to your life list, it could be some new knowledge about butterflies or the growth habit of a common plant. Whatever it is, make note of it, create an image, or write a poem, but share it! 🐦

## Letter from the Editor

by Gillian Rice



Gillian Rice

**S**ummer is my favorite season in the low desert. I love getting up at dawn, practicing Tai Chi before the sun rises, and watching hummingbirds forage in my city backyard. The warm air feels good after the chill of the air conditioned house. As I tend my garden, I find native bees, lizards, assassin bugs, ants, and spiders among the eggplants, basil, chives, melons, and cucumbers.

Verdins flit among the herbs and vegetables preying on tiny insects. Sunflowers nod their heads as the seeds become heavy; a Cardinal discovers them. Curve-billed Thrashers appear weary as they feed hungry youngsters. Starlings, Gila Woodpeckers, and House Finches gorge on my figs – but there's plenty to share. The afternoons are for naps. Summer has its own sounds: the tireless call of the White-winged Dove and the crescendo of cicadas' high-pitched buzzing in the heat of the day. At sunset, I venture out to watch the distinctive flight of the Lesser Nighthawks. Sometimes, clouds assemble around the Valley and steal closer and closer. When they darken and gather directly overhead, I feel tension and empathy with the flora and fauna in my backyard as we anticipate a storm.

A retired academic, I grew up loving nature in my native England. Now, I spend my time painting, writing, editing, and

volunteering as a docent at the Desert Botanical Garden. In this Summer issue of *The Cactus Wren•dition*, I join you as editor. The Board has welcomed me warmly and Emily has kindly supported me with advice and detailed guidance on the process of producing your publication.

Take pleasure in this hot but busy wildlife season. Join one of Laurie Nessel's field trips and become acquainted with dragonflies, damselflies, butterflies, or desert tortoises. Check out Mary Rose's progress as she trains for her ocean race in support of bird conservation. Add the colorful Rosy-faced Lovebird to your life list, and when you watch birds, consider what their colors might signify. In this issue we learn how to begin a bird study and how to distinguish between Zone-tailed Hawks and Turkey Vultures.

A new feature of the *Wren•dition* will be "Tales from the Field." I invite you to submit a short essay (no more than 300 words) about something special you have experienced in nature - it could be something you saw on a field trip, a hike, or even in your backyard. For example, in my backyard, I watched a male Gambel's Quail defending his family against a Western Screech Owl as the chicks huddled under the female. I will include at least one essay in each issue of the *Wren•dition*. If you have a tale to tell, send it to [editor.wrendition@yahoo.com](mailto:editor.wrendition@yahoo.com). I particularly encourage essays from our younger readers – a summer project for one of the youngsters in your life, perhaps?

This is your newsletter and I want you to be involved! I hope you enjoy reading this newsletter as much as I have enjoyed putting it together. Have fun watching wildlife this summer! 🐦

# Notes & Announcements

## Have you signed up for the e-newsletter yet?

If you would like to receive updates and supplements to *The Cactus Wren•dition*, sign up for the monthly (September to May) e-newsletter. It includes meeting and field trip reminders, special events, and citizen science projects. To subscribe, contact [laurienessel@gmail.com](mailto:laurienessel@gmail.com). Note: We do not use the email list for anything other than the described purpose.

## Birding Community E-Bulletin

The E-Bulletin is a monthly bulletin with rare bird sightings and other birding information. If you would like to be put on the monthly emailing list please contact either Wayne Petersen (Director of the Massachusetts Important Bird Areas Program) at 718-259-2178 or [wpetersen@massaudubon.org](mailto:wpetersen@massaudubon.org) or Paul Baicich at 410-992-9736 or [paul.baicich@verizon.net](mailto:paul.baicich@verizon.net). They never sell the recipient list and you will receive a lot of interesting information.

## Call to Get Involved

Do you love birds, teaching about birds, and/or protecting birds and their habitats? Then it's time you stepped up to help board members and other MAS members take a stand for birds in Arizona. Contact Mark Larson if you are interested in finding out more about what the board does and how you can get involved.

## Submissions

Do you have an interesting story to tell about birding? Please forward your submissions to the Editor – Gillian Rice at [editor.wrendition@yahoo.com](mailto:editor.wrendition@yahoo.com). Please send any pictures to complement your article directly to me as well. Remember, all articles may not be published the first month after receipt.

## Sky Islands Butterfly Blitz

Southeast AZ Butterfly Association (SEABA), a chapter of North American Butterfly Association (NABA), invites you to join the August 2013 special Sky Islands Butterfly Blitz.

It includes the Ramsey Canyon Butterfly Count in the Huachuca Mountains on Saturday, August 3, 2013 and the Patagonia, AZ Butterfly Count on Saturday, August 10, 2013. Special field trips to Sky Island mountain ranges and borderlands will be offered each day between the butterfly counts. Possible locations to be visited include Chiricahua Mountains, Huachuca Mountains, Pinaleno Mountains, Coronado National Memorial, San Pedro River, Santa Rita Mountains, Baboquivari Mountains, Atascosa Mountains and

Pajarito Mountains. Note: All field trip locations are subject to change at the last minute due to weather, road and habitat conditions. All participants are responsible for their own transportation, food, and lodging.

For details and trip reservations contact Mary Kinkel [munchita@msn.com](mailto:munchita@msn.com).

## Audubon Convention July 12-15, 2013

### Taking Flight Together

Skamania Lodge, Stevenson, WA, in the heart of the spectacular Columbia Gorge, conveniently located 45 minutes from Portland International airport.

For details and registration information visit [convention@audubon.org](http://convention@audubon.org).

## Lawsuit Launched to Save Endangered Southwestern Songbird from Habitat Destruction Caused by Invasive Beetles

The Center for Biological Diversity and Maricopa Audubon on March 7, 2013 filed a notice of intent to sue the U.S. Department of Agriculture and APHIS, the USDA's Animal and Plant Health Inspection Service, over their failure to safeguard an endangered native songbird from the impacts of the agency's deliberate release of an exotic beetle that is destroying the bird's habitat in parts of Utah, Arizona and Nevada.

In 2005, despite songbird biologists' concern for the safety of endangered Southwestern Willow Flycatchers, APHIS released imported Asian beetles into the western United States outside of flycatcher range to help control invasive streamside tamarisk trees.

The tamarisk-defoliating leaf beetle is now invading the nesting areas of southwestern willow flycatchers in southern Utah, Nevada, and northern and western Arizona. If the beetle spreads farther without mitigation, it could seriously threaten the flycatchers' survival. APHIS promised mitigation if its release of the beetles went awry, but has not taken the steps necessary – including planting native willows and cottonwoods to replace dying tamarisk – to help the endangered flycatchers.

"APHIS refuses to clean up its own mess now that its introduction of an exotic, invasive biocontrol agent has gone haywire," said the Center's Dr. Robin Silver. The U.S. Fish and Wildlife Service was also included in the notice of intent to sue for failing to protect the flycatcher as required by the Endangered Species Act; another federal agency, the Bureau of Reclamation, was included because its plans to protect the flycatcher in western Arizona are no longer sufficient due to the spread of the beetles. The notice clears the way for litigation against these agencies if they fail to initiate protective actions within 60 days.

Flycatchers frequently nest where tamarisk has displaced native cottonwood and willow trees. A quarter of the birds' territories are found in areas dominated by tamarisk, and about half are found in areas of mixed tamarisk and native trees. "APHIS needs to consult with the Fish and Wildlife Service to develop and pay for an emergent plan to ensure that native species provide alternative habitat for the highly endangered flycatcher," said Maricopa Audubon President Mark Larson.

APHIS released the tamarisk-defoliating leaf beetle with an agreement that no beetles would be released within 200 miles of flycatcher habitat or within 300 miles of documented flycatcher breeding areas, and that the beetles could not become established within the range of the flycatcher. Both of these agreements were broken.

In July 2006 APHIS introduced the beetles directly into flycatcher-nesting areas along the Virgin River in southern Utah. The beetles have now spread into nesting areas in southern Utah, Nevada, and northern and western Arizona. Attorney Eric Glitzenstein of Meyer Glitzenstein & Crystal represents the Center and Maricopa Audubon in this matter.

The Center for Biological Diversity is a national, nonprofit conservation organization with 500,000 members and online activists dedicated to the protection of endangered species and wild places. 🐦



# Maricopa Audubon Society Field Trips

## Various dates

### Veterans Oasis Park, Chandler

Explore the plants, insects, birds, and animals of the park's desert and wetland habitats. Bring binoculars (close-focus preferred), water, walking shoes, and hat. No reservations taken. Suggested \$5 donation to the Chandler Environmental Education Center. Dragonfly guidebooks available for sale for \$10 and dragonfly coloring books for \$6. Meet at Red-tailed Hawk Pavilion, just north of the west end of the parking lot. VOP is on the northeast corner of Chandler Heights and Lindsey Roads. Dates and times as follows:  
Saturday, June 1. Meet 8:00 am, done by 9:30 am.

Sunday, July 14. Meet 7:30 am, done by 8:30 am.

Saturday, August 3. Meet 7:30 am, done by 9:00 am.

**Leader:** Laurie Nessel

## Monday, June 3

### Page Springs, Yavapai County

Leave the Scottsdale area at 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. It should be a colorful time of year with summer residents such as Summer Tanagers, a variety of warblers, vireos and flycatchers, and the hoped-for Common Black-Hawks. Early lunch at a nearby restaurant. Return to Scottsdale about 2:00 pm. Limit 8. Reservations required. Difficulty 1. Meeting place and carpooling logistics will be determined a few days before the trip.

**Leader:** To register, email Kathe Anderson at [kathe.coot@cox.net](mailto:kathe.coot@cox.net)

## Saturday, June 15

### Canyon Creek, Gila County

This is one of the many streams

that emerge from the Mogollon Rim, providing a permanent flow through lovely meadows and ponderosa pine forests burned by the huge Rodeo-Chediski fire eleven years ago.

Canyon Creek quickly flows into the White Mountain Apache Reservation. The recently returned and resident breeding birds we may see include Band-tailed Pigeon, Violet-green Swallow, Hairy Woodpecker, Plumbeous Vireo, Grace's Warbler, Western Tanager, and Dark-eyed Junco. An all-day adventure; nearly 200 miles round trip with a very early start time. Please contact the leader at [laronwarren@gmail.com](mailto:laronwarren@gmail.com) for trip details, meeting location, and times. Bring water and a lunch. Limit 6.

**Leader:** Mark Larson

## July and August, date TBA

### Stewart Mountain Desert Tortoise Quest.

Have you ever seen a Sonoran Desert tortoise in the wild? Increase your chances of stumbling upon one of these iconic desert creatures by searching in their preferred habitat after a summer monsoon. For this reason, we are not setting an exact date for this trip near Saguaro Lake until the monsoon has begun and conditions are right. We will collect email addresses and phone numbers and contact you one day before or possibly the morning of the walk. It could be a weekend or weekday. Learn about the behavior, life cycle, and status of this keystone species. Limit 10. Difficulty 3: steep, rocky terrain, and hot, humid weather. Bring snacks, sun protection, hat, sturdy hiking shoes, and plenty of water. We will start near daybreak and be back by noon.

**Leader:** Contact Laurie Nessel at (480)968-5614 or [laurienessel@gmail.com](mailto:laurienessel@gmail.com) to get on the call list.

## City with Birds

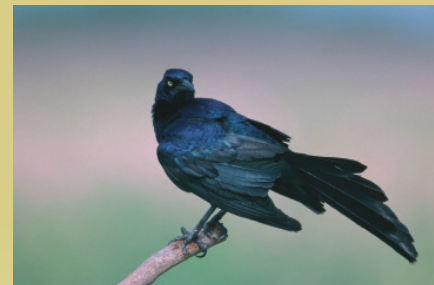
By David Chorlton

*The hawk is a flash of wilderness above Thomas Road. The white band on its rump says it's Harris, while the sun shining through its wings fuses plumage with the sky.*

*In the industrial habitat along Grand Avenue the calls of mourning doves rest softly against the metal noise of freight trains.*

*While we're looking at the pavement on the morning walk when each step is greyer than the one before it a streak of lovebird green passes overhead.*

*Where the evergreens are dark the grackles flock and disappear into daylight's last sound as the bats come from our attics.*



Great-tailed Grackle

# Bird Study 101

By Lisa Fitzner

**L**ike many of you, I have enjoyed birds and wildlife from the time I was a small child. As an adult, I chose a career that would enable me to conduct research on native wildlife.

So, how do you go about studying birds? Even if you don't have a college degree in wildlife biology, there are many small studies you can implement right in your own backyard.

To start, pick out a species or a question you want to ask. For example, which seed types do birds prefer (I bet you already know the answer to this). Or, what is the territory size of the Curve-billed Thrasher? Either way, you should start your research with a literature search, to see what others have studied and learned before you. I bet you will be surprised at the amount of information that is already published. Start reading!

Next, state your hypothesis and design your study. For example: Curve-billed Thrashers have a territory size between 0.5 and 3 hectares (from about 1 to 7 acres). Use the literature to help design your study. How did other researchers study thrashers? What data did they collect?

If you want to handle or band a bird you must apply for permits from both the state wildlife agency (here, the Arizona Game and Fish Department) and the U.S. Fish and Wildlife Service. Although that may sound easy, you need a lot of prior banding experience to get a permit. It's a good idea to start volunteering at a bird banding station. The Nature Conservancy's Hassayampa River Preserve often has a banding station set up during spring migration and, at least on occasion, has allowed volunteers to help.

Depending on your study's design, you may have to buy a few essential items. I have used several types of binoculars but 10 x 42 are what I prefer. Binoculars and a data book may be all that you need. However, for more advanced research projects, get ready to fork over some cash. Here are a few of the items I would utilize: a spotting scope or even a night scope (I used one to study nocturnal predation on California Least Terns); light weight aluminum leg bands (available from the USFWS); colored leg bands and specialized pliers; a Pesola scale and bag for weighing birds; leather gloves

(especially if you are working with raptors – yes, I have been bitten and clawed); mist nets/traps; and a loud volume tape recorder with the species' song recorded numerous times. If you are planning to track the species over long distances you will also need expensive transmitters/receivers and, oh yes, depending on what you are studying, you will probably need

*Curve-billed Thrasher. Photo by Gillian Rice.*



plenty of high tech equipment. This includes a good GPS device to tell you exactly where you are, a powerful computer to store and analyze all your data, and computer software for various analyses. Cameras, and possibly video recorders, are also essential!

Now that you are prepared, you should begin observing your target species. Unless you are studying owls, most bird species get up early. During the summer I have always started work at 4:30am. In our example study, we want to determine the territory size of a Curve-billed Thrasher. From your literature search, you know that you need to begin during the breeding season. With a roll of bright flagging tape in hand, follow your singing male closely and quietly. After observing him sing from a particular perch, flag the spot. This may take several days of observations as I do not flush the bird from the perch but follow him when he moves to a new location. After several days of observations, you will likely have your bird's territory mapped. If you are energetic, you can map all the surrounding territories (use different tape colors for each individual). For determining territory size, you can either plot your data points on graph paper and do some calculating, or, as biologists do, get a GPS location of your flagged data points and enter these into a program that calculates territory size.

At this point, you can probably see that beginning a research study takes a lot of prior leg work. In future articles, I will explain in more detail about the trapping methods I have used for different species and the specific research studies I have conducted. 🐦

*Scott Davies bands an Abert's Towhee. Photo by Ian Morris.*





# The Zone-tailed Hawk: A Raptor That Mimics Vultures

by Tom Gatz



*The narrow bands in the tail of this immature Zone-tailed Hawk help distinguish it from the Turkey Vulture. The adult Zone-tail would have fewer and broader tail bands. Photographed at the Desert Botanical Garden in Phoenix on January 21, 2013 by Jeff Stemshorn.*

**W**hy would a hawk look and act like a vulture? When birders see their first Zone-tailed Hawk, they often mistake it for a Turkey Vulture. After all, it has a similar shape, color and pattern, and it even holds its wings up on an angle and rocks back and forth as vultures do. Keen-eyed birders, however, will note some subtle differences in plumage and behavior, including white or gray bands on the tail, identifying it as a Zone-tailed Hawk.

Not only do Zone-tailed Hawks look and fly like Turkey Vultures, they often soar and roost with vultures and their nests are often found within one mile of vulture roosts. How and why did this behavior evolve?

The Zone-tailed Hawk's diet is mainly vertebrates that have good eyesight and well-developed predator-avoidance responses such as ground squirrels, quail, and spiny lizards. These species usually ignore the ubiquitous Turkey Vultures soaring above because vultures eat dead things and are no threat to them. Mimicking and soaring with vultures may allow Zone-tailed Hawks to execute surprise attacks on unsuspecting prey. Biologists report that the hawks innocuously circle like a vulture past their intended prey, often beyond some cover such as a tree or a large rock, and then stoop back in a dive at an acute angle in a surprise attack. Researchers N.F.R. Snyder

and H.A. Snyder found Zone-tailed Hawks flying with vultures have a 30% prey-capture success rate compared to only a 7% success rate when foraging alone.

The hawks don't learn this behavior from their parents. Over generations of natural selection, it is likely that those that randomly exhibited this behavior were more successful hunters and breeders and passed this instinctive, 'hard-wired' behavior on to their young.

Zone-tailed Hawks have been expanding their range northward over the past 50 years. Once almost only seen in Arizona during the breeding season, they now show up during the winter and they are sometimes observed over urban areas. So the next time you see a Turkey Vulture circling overhead, give it a second look and you just might be lucky enough to spot a Zone-tailed Hawk 'hiding' in full view. 🦅

## References

Snyder, N.F.R. and H.A. Snyder. 1991. Birds of prey: natural history and conservation of North American raptors. Stillwater MN: Voyageur Press cited in Cartron, J.E. (ed.). 2010. *Raptors of New Mexico*. University of New Mexico Press .

Johnson, R.R., R.L. Glinski and S.W. Matteson. 2000. Zone-tailed Hawk (*Buteo albonotatus*), *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology.

Accessed online at <http://bna.birds.cornell.edu/bna/species/529>



*Turkey Vultures have such a keen sense of smell that leaks in natural gas pipelines have been detected by observations of soaring vultures attracted to the 'rotten egg' chemical scent added to the odorless gas that smells like decaying carrion. Photo by Jeff Stemshorn.*



# Rowing an Ocean Boat in the Desert

by Mary Rose



Getting ready to try Dippers, the ocean rowing boat. Photo by Larry Arbanas.

June 7, 2014 marks the start of the race to show that Extinction is Optional™. Through the Pacific Rowing Race, Mary Rose will be rowing almost 3000 miles from California to Hawaii to raise funds to benefit avian conservation. A 90 day journey across the Pacific Ocean, powered only by oars. Don't let another species become another Carolina Parakeet or Passenger Pigeon. Let's do something now to help the birds. For more information visit [www.chirpingcentral.com](http://www.chirpingcentral.com).

Up until February 2013 I had been training in sculling boats on Tempe Town Lake. This is nothing like the Pacific Ocean but this training helps me to work on technique and improve my distance capability. On February 4, however, I had the amazing opportunity to row an ocean rowing boat for the first time. Not just any ocean rowing boat – this boat had belonged to Sarah Outen and had already crossed the Indian Ocean! The boat is *Dippers*. It is crossing the Pacific from California to Hawaii in May as part of the 50@50 challenge launched by Romano Scaturro of FRAANK.org. Romano is based in Arizona and generously allowed me to row his boat until May. What were the odds of finding another ocean rower right here in Phoenix?

And so, on February 4, I stepped aboard an ocean boat for the very first time. I was both nervous and excited. Here was this boat right here in front of me, waiting for me to take my first oar strokes. It is similar to the boat I will row across the Pacific and which will become my home for approximately 90 days. I was in awe of this boat and a little stunned that it was right here in Arizona and that I was about to row it. Let the ocean boat training begin!

Rowing an ocean boat is very different from rowing a sculling boat. The feel is totally different; the ocean boat is much more stable, and notably heavier than a sculling boat. I can see now why the erg (rowing machine) training I am doing in the gym is very important for building up strength in my legs. These boats are heavy which means that I have to push harder with my legs to get the boat moving at a decent rate. The rowing style is also different in that things you can do in an ocean boat are much more forgiving when it comes to balance than in a sculling boat. In a sculling boat you try to keep the oars together for balance, but in the ocean boat that is not an issue – and for good reason. An ocean boat is designed to row in wavy conditions and it would be very difficult to keep your oars together when you are moving around so much. It was not hard to adapt. However, I





Mary Rose in training.  
Photo by Larry Arbanas.

need to make a mental note of what I am rowing going forward because if I row a sculling boat like an ocean boat I will definitely be going for a swim in Tempe Town Lake!

For my first row in *Dippers*,

I had an expert coach with me to teach me some tricks and give me tips. Chris Martin from New Ocean Wave is a world record holder for his row from Japan to San Francisco and has also rowed the Atlantic. What better person to have as my coach on Day 1? Chris had all sorts of advice for me and also provided "wave simulation" while I tried to row. And what fun that was! Chris was in the cabin area of the boat moving around from side to side which of course caused the boat to rock. I tried to keep control of the oars as they moved about as they would in wavy conditions. It's quite an

experience trying to keep both oars in the water as the boat is moving about, while also trying to not hit yourself in the face with the ends of the oars as they bounce about. The good news was that I still managed to row at 2.6 knots while this was happening. Not a bad effort for the first time in the boat!

And so now I've had training in an ocean boat, Project FlightPlan is moving along nicely. I felt incredibly privileged to have Chris as my instructor for Day 1 and very thankful to Romano for allowing me to row *Dippers*. Check out video from February 4 on YouTube: search for Chirping Central. You can see all the video including some humorous short footage of me trying to work out how to "park" an ocean boat. Please share the video with your friends as this helps my campaign to raise awareness about the issues facing birds globally. That really is what this race is all about. 🐦



Mary Rose trains in *Dippers*, the ocean rowing boat. Photo by Larry Arbanas.



# The Sources and Meanings of Bird Color

Gillian Rice



*Hesperaloe campanulata* with leucistic *Selasphorus rufus*.  
Colored pencil on paper. © 2012. Jo Ann Loza

"We first saw the leucistic Rufous Hummingbird on September 3, 2012," explains Jo Ann Loza, an Audubon member who lives in Hereford, in the foothills of the Huachuca Mountains, near Miller Canyon. "We maintain hummingbird feeders in the backyard year round, and seed feeders as well. The hummer stood out so, with his pale plumage, making him very noticeable. We watched him and photographed him as he went from plant to plant. He visited the *Hesperaloe campanulata* more than the feeders."

Loza's experience as well as the widely-circulated photograph on the Internet of the albino Ruby-throated Hummingbird from Virginia in 2011 made me want to know more about bird color. What is a leucistic bird? How does this differ from an albino? What is the role of color in birds? How do birds produce color in their plumages?

Color in birds can be carotenoid-based, which is usually associated with red, yellow, and orange colors. Melanin is related to black, brown, gray, and earth-toned colors. Structurally-based colors include the blue on a Steller's Jay or the iridescence on a hummingbird gorget.

Loza was very lucky to see the leucistic hummer. The Cornell Laboratory of Ornithology reports that over the period 2000-2006, Project Feeder Watch participants reported fewer than 1000 leucistic birds

out of 5.5 million birds recorded for each season. Albino birds are even rarer. Albinism is a genetic mutation and affects an entire bird. It has no melanin at all and has pink eyes, caused by blood vessels behind the eyes, which have no other color. Partial albinism is a misnomer. If a bird has dark eyes but is pale all over or "pied" with a patch or patches of white or paleness, it is leucistic, an inherited condition. Leucistic birds are vulnerable to predation because they are more conspicuous and also have weaker feathers which can hinder their ability to escape. Albino birds often fail to reach adulthood because of poor eyesight.

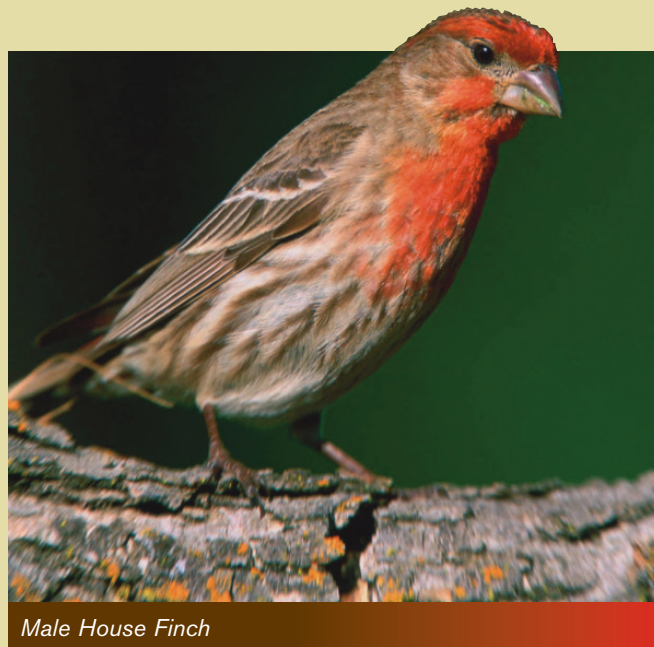
Color has various functions, such as sexual selection, where particular colors in the male attract females. Color is often related to health and to the ability to maintain territorial dominance. Color can signal age. The juvenile White-crowned Sparrow, which has a lower status in the flock, has a brown head stripe that turns white only when it reaches its second year. A juvenile Curve-billed Thrasher has a dark eye in contrast to the piercing yellow of the adult. Birds use color for camouflage as do the Great Horned Owls that sometimes roost among the cottonwoods at the Desert Botanical Garden. They are notoriously hard to find!

Eating red, yellow, and orange fruits and vegetables can help us be healthier. Carotenoid pigments that are only available through diet (plants, bacteria, or fungi) can also improve the health of birds. Birds can use these pigments to color their bodies. For example, the beak color of the male Zebra Finch gives important

messages about foraging ability and nutritional health to females choosing a mate. In an experiment, Kevin McGraw, a researcher at Arizona State University and leading authority on bird coloration, found that only male Zebra Finches with the highest access to carotenoids in their diet can remain the healthiest while simultaneously developing the brightest beaks.

Yellow plumage is not necessarily derived from carotenoids, however. "We are finding more and more examples of this," explains McGraw. "We now know that birds can internally synthesize yellow - like the yellow plumage of penguins.

Baby chickens are yellow but this is not related to carotenoids either. In both cases, the yellow is due to a fluorescent, 'glow in the dark' pigment."



Male House Finch





Greater Roadrunner, photographed at the Desert Botanical Garden on June 24, 2012 by Gillian Rice.

What about some of the birds we see locally? McGraw and colleagues have studied House Finches. In particular, they were interested in the red, orange, and yellow colors of males, which come from carotenoid pigments in food. "Females from many house finch populations prefer the reddest males as mates, and these males have better diets and are healthier," says McGraw. Carotenoids can have sexual value in females too. Their research revealed



Adult White-crowned Sparrow

that females with higher carotenoid accumulations were more responsive to males in general. Perhaps such females are healthier and can move about more to choose and select a mate. If so, they are likely to pair up earlier, lay better eggs (yolks contain carotenoids), and have higher reproductive success over the season.

In another study, McGraw and his colleagues studied the melanin-based throat bib of the House Sparrow and the melanin-based brown hood of the Cowbird. They found that these were less associated with the nutritional condition of the birds, perhaps because

animals synthesize melanins themselves. However, in the experiment, nutritionally-deprived Cowbirds grew less iridescence (a structurally-based color) than did undeprived birds. Much remains to be studied. Is a bird's fine control over the tissue and pigment arrangement in its feathers to produce iridescence affected by its health or condition? Perhaps hormones play a role.

Not only is there much to learn about how birds produce their colors, but plenty is left to be discovered about particular species. For example, what is the purpose of the color behind the eye on a roadrunner, which sometimes is noticeable and sometimes not? McGraw tells me that one researcher has suggested it represents an intimidation or threat signal. Does the size and color of the black cap on the male Black-tailed Gnatcatcher function like the House Sparrow's throat patch, signaling territorial dominance? Research by McGraw and a colleague showed that the red gorget on the male Anna's Hummingbird functions as a status symbol among hummers. No research has yet been performed on the Costa's Hummingbird's gorget, and I wonder if the length of the handlebars on the moustache has any meaning to females. I'm now more aware of bird colors and, although I'll often be pondering their purpose, I will continue to enjoy their beauty and variety. 🐦

#### Additional Resources

Van Grouw, H. 2006. Not Every White Bird is an Albino: Sense and Nonsense about Color Aberrations in Birds. *Dutch Birding*. Accessed online on March 21, 2013 at [http://www.vogelringschier.nl/DB28%282%2979-89\\_2006.pdf](http://www.vogelringschier.nl/DB28%282%2979-89_2006.pdf)  
[www.birds.cornell.edu](http://www.birds.cornell.edu)



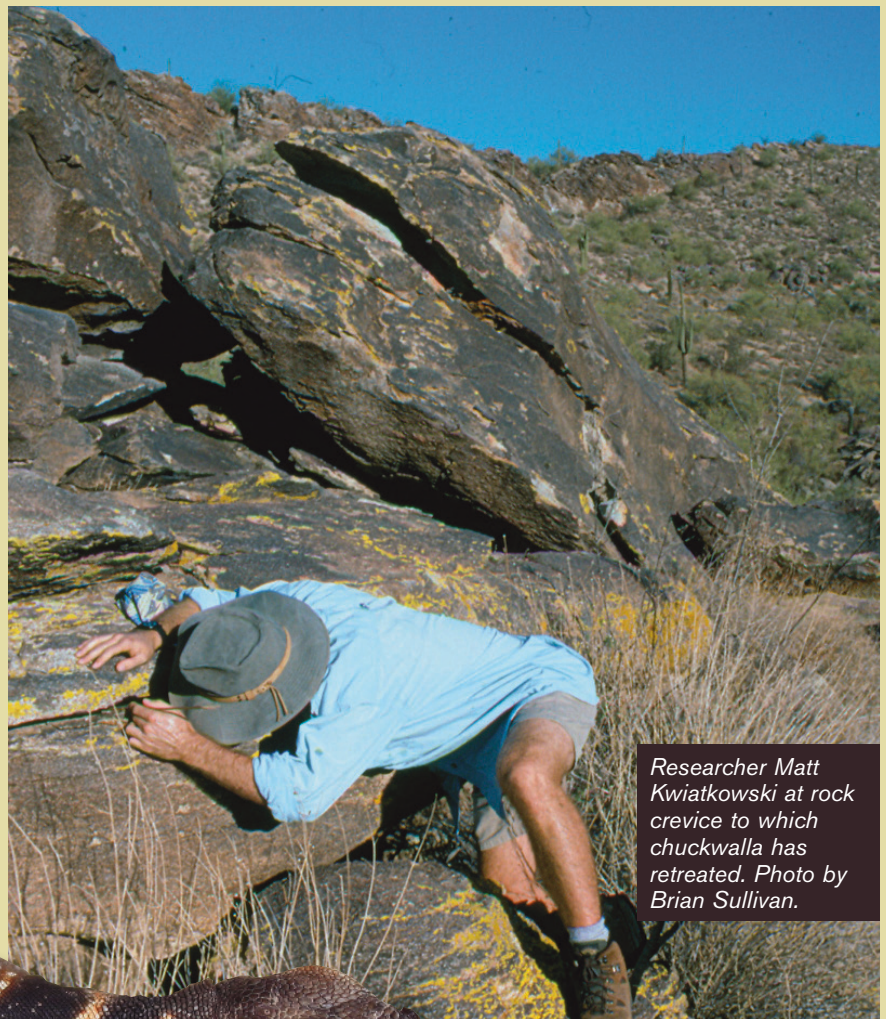
# Common Chuckwallas in the Lookout Mountain Preserve

By Gillian Rice

**D**id you know that chuckwallas can live for perhaps 30 or 40 years? The Common Chuckwalla (*Sauromalus ater*), a large, herbivorous lizard of the Sonoran and Mojave Deserts, is present in rocky areas of all preserves of the Phoenix Mountains. In contrast, the Desert Iguana and Long-nosed Leopard Lizard are absent or declining.

Many of us enjoy hiking, dog-walking, mountain-biking, birding, or rock-climbing in the mountain preserves. Do these activities have adverse impacts on lizards and snakes? The Phoenix Metropolitan area has experienced significant heat island temperature increases of between 2-4 degrees Celsius. Does this affect reptile populations?

A little appreciated aspect of human effects



Researcher Matt Kwiatkowski at rock crevice to which chuckwalla has retreated. Photo by Brian Sullivan.



Juvenile chuckwalla, about 1-2 months old, about 5 inches long. Because juveniles are not large enough to hold themselves in a crevice they face a high mortality rate from predators such as kingsnakes and coachwhip snakes. Photo by Brian Sullivan.

on reptiles in urban landscapes is habitat destruction by collectors of animals for the pet trade. If critical refuge sites like rock crevices are destroyed, this can lead to higher levels of predation and declines in lizard populations. "A collector must have a permit from the Arizona Game and Fish Department, which

makes a special effort to ensure that habitat destruction does not occur," explains ASU researcher Brian Sullivan. "Collectors cannot use anything like a crowbar that damages crevices."

Sullivan and his colleague, Keith Sullivan, contend that long-term studies are vital to reptile conservation. Such studies can assess the human impact over time on reptile populations in natural areas isolated within urban environments.

The Sullivans (a father and son team) investigated a population of chuckwallas on Lookout Mountain Preserve in Phoenix. Over an entire activity season from April to September 2011, they captured all lizards present in a five hectare area (just over 12 acres) that had been studied in the period 1995-9. The area is within the Sonoran Upland Desert Community and is dominated by Brittlebush, Bursage, Creosote, Foothill Palo Verde,





Female chuckwallas are uniformly drab brown or tan, with some banding similar to juveniles. Photo by Brian Sullivan.

Ocotillo, and Saguaro Cactus. Chuckwallas are selective regarding their food choices, and prefer to eat Foothill Palo Verde, Desert Globemallow, Trixis, Ocotillo, Desert Lavender (*Hyptis emori*) and *Lycium* species.

Harmless to humans, chuckwallas drop into nearby crevices to escape from potential threats. If disturbed, a chuckwalla wedges itself into the crevice retreat and inflates its lungs in order to entrench itself. "For all our studies, we have scientific collecting permits from the Arizona Game and Fish Department. We have developed special methods to capture chuckwallas without harm," says Brian Sullivan.

He describes the Lookout Mountain study methodology: "We checked each captured lizard for markings that we make when we capture one, measured it, recorded its body temperature, and then released it. We also used photographs to compare subjects from 2011 with those from the 1990s."

Adds Keith Sullivan: "We found that, on average, 12 individuals occupied the study area per year. This small site sustained 42% of the individual lizards that were present about fifteen years previously. The lizards used the same crevices

as retreats in 2011 as they did in the 1990s."

Using their measurement data and observing that females grew at about 1-2 mm per year, the Sullivans discovered that one female recaptured in 2011 that had been estimated to be 15 years old in 1995. In 2011, she was potentially over 30 years of age. By similar reasoning, they discovered a male that could easily be 40 years old. "We found two females that were captured in 1995 and in 2011 still lived within 20 meters of their original capture sites," says Keith Sullivan. "This population of chuckwallas has been remarkably stable over the past two decades." 🦎

## References

Sullivan, Brian K. and Sullivan, Keith O. 2012. Common Chuckwalla (*Sauromalus ater*) in an Urban Preserve: Persistence of a Small Population and Estimation of Longevity. *Herpetological Conservation and Biology* 7 (3): 437-441.

Kwiatkowski, Matt and Sullivan, Brian K. 2002. Geographic Variation in Sexual Selection among Populations of an Iguanid Lizard, *Sauromalus obesus*(=*ater*) *Evolution* 56 (10): 2039-2051.



Male chuckwalla in the tricolor pattern, the most widely distributed form found north of the Salt River (e.g. in the Phoenix Mountains), and west into California, Nevada and southwest Utah. Males with black bodies and yellowish white tails are found in the Santan Mountains, and south toward Tucson. The second bicolor pattern, where males have a black body and orange tail, is found only in the South Mountains; this particular population is protected by law from collection. Photo by Keith Sullivan.



# Rosy-faced Lovebird Makes the ABA North American List

By Bob Witzeman

**"Modern man is inclined to regard Nature not as the environment in which we live out our lives, but as enemy territory to be conquered and occupied"**

*Max Picard 1888-1965*

*Lovebirds often nest among cut-off date palm tree branches. All photos by Bob Witzeman.*

The American Birding Association (ABA) in the November 2012 issue of *Birding* magazine announced that the ABA Board of Directors had officially added the Rosy-faced Lovebird to the list of bird species found in the North American continent. This means that "life-listing" birdwatchers may now add it to their species list for that region.

This parrot is easy to breed in captivity, having as many as three broods each year, and is bred by bird fanciers in almost every color of the rainbow. Its residence in metro Phoenix results from an escapee from captive-bred stock. The native or "wild" rosy-faced form found here largely mimics the color of the native rosy or peach-colored forms found in the wild in southwestern Africa (Angola, etc.). Although the Rosy-faced Lovebird is now widespread in metro Phoenix, it has not spread beyond the well-watered urban habitats of the greater metropolitan area into the desert, or to other parts of Arizona and the U.S. thus far. Its population appears stable.

An excellent article by Kurt Radamaker and Troy Corman about its status and a map of its specific distribution areas in metro Phoenix is online at: <http://www.azfo.org/journal/Rosy-facedLovebird2011.html>



*The Lovebird's fine plumage has a waxy appearance, making the bird look like a clay painted doll.*



*Rosy-faced Lovebirds come in varied plumages. This pale headed, greenish-blue individual may be natural or more likely the result of cross-breeding by bird fanciers.*

disruptions. Like the starling, the Rosy-faced is a cavity nesting species. Some fear it will compete with native birds such as the Gila Woodpecker and other saguaro and cavity nesting native species. Happily, it seems to have found enough nest sites in electrical utility boxes and on date palm trees where branches have been removed, where, remarkably, it holds its own successfully against the starling.

I never fail to see or hear the lovebirds on my occasional lunch walk which passes along the date palm-lined 3900 block of East Hazelwood Street. Combine that experience with a stop at the delightful lunch facility of La Grande Orange two blocks away at 40th Street and Campbell Avenue! Other Rosy-faced Lovebird localities in metro Phoenix are mapped in detail in the article by Kurt Radamaker and Troy Corman. 🌵

Interestingly, this article shows a photo of three birds in a saguaro at the Gilbert Water Ranch (GWR). In recent months, I have encountered frustrated, out-of-state, life-listing birders at GWR who have asked me where they can find this species. I do not see this bird at GWR often and I suggest to them other areas of the Valley where it is more common.

Rosy-faced Lovebirds even occasionally appear at my feeder (yes, I admit to the controversial habit of feeding birds). Anxiety exists that this species' incursion might spread like that of the House Sparrow, European Starling, and Eurasian Collared Dove, and cause ecological



# Nature through the Artist's Eye: Jo Ann Loza

Jo ann Loza



Jo Ann Loza stands next to the equator marker in Uganda.

Traveling and birding, along with art, of course, are Jo Ann Loza's passions. She says: "My art is my passport to revisit the wild places, plants and creatures that I see on my journeys and in my wonderful big backyard." Loza's home in Hereford, Southeastern Arizona, is within one mile of the Coronado National Forest.

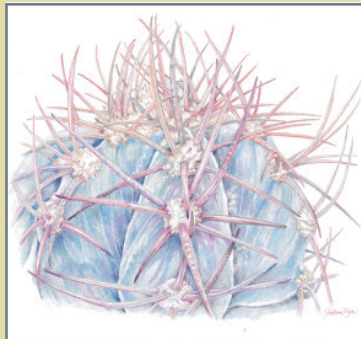
Loza works primarily in colored pencil, pen and ink, graphite and watercolor. "My studio is currently in my dining room, which looks out upon the Huachuca Mountains," she adds. She is a graduate of the Desert Botanical Garden Botanical Art and Illustration School, and a member of the American Society of Botanical Artists, the Southwest Society of Botanical Artists, and the national and local Colored Pencil Society. She's also a member of the Huachuca Audubon Society and The Nature Conservancy. Says Loza: "I work out of my home with my life partner, Joe, three goofy cats and a cockatoo, and I look forward to retiring in five years or so to concentrate more on my art." 🐦

She enjoys wildlife art as well as botanical art. "To me, they mesh together perfectly," she explains. "I strive to be accurate in the plants and animals that I depict in my art."



Mexican Spotted Owl, 14" x 10.5" Colored pencil

This piece is a favorite of mine. These owls nest in Miller Canyon, about 4 miles from my home. It is a bit of a hike to reach their roosting and nesting area, but they are one of the most sought out birds for birding visitors to our area. The artwork was based on observation and photos of the owls over the years I have lived here.



Nichol's Turk's Head Cactus, 12.5" x 8.5" Colored pencil

The Latin name is *Echinocactus horizontalis* var. *nicholii*. This is an endangered cactus found in Southern Arizona, specifically Pima County. I drew this image from a live specimen at the Desert Botanical Garden. Although it is not my typical botanical illustration style, I am pleased with the representation of the wonderful spines and colorful body.



Ringtail up the Arizona Sycamore 8" x 11" Colored pencil

This was based on an encounter that I had in Miller Canyon, here in southeast Arizona. One of the local ranchers had caught a ringtail and was preparing to release it. A photographer friend of ours called us and we went up the canyon to witness the release and take photos. The ringtail was released at the base of an Arizona Sycamore, which he immediately climbed and stopped high up to see what we were up to. He then jumped from the Sycamore into the surrounding Silver Leaf Oaks and disappeared. We were fortunate to get several photos before he made his grand escape. The Ringtail is the Arizona State Mammal.



Lucifer Hummingbirds in Palmer's Agave 10" x 13" Colored pencil

The composition is based on a flowering Palmer's Agave in our yard, and familiarity with the Lucifer Hummingbirds which visit this area in the spring through the fall. The art features a male and a female hummingbird, and the art itself is much more graphic in style than I usually do. The image was the featured artwork for the Southwest Wings Festival here in Sierra Vista, and was printed on t-shirts.

**Jo Ann Loza can be contacted at:**

[joann@woodley.ws](mailto:joann@woodley.ws)

Or

P.O. Box 397

Hereford, AZ 85615

## Maricopa Audubon Society

P.O. Box 15451

Phoenix, AZ 85060-5451

Non-Profit Organization

U.S. Postage

PAID

Phoenix, AZ

Permit No. 419



Time-dated material; do not delay!

### Monthly Meeting

First Tuesday of the month, unless otherwise announced, September through April, 7:30 p.m. Our meeting place is Dorrance Hall or Webster Auditorium, at the Desert Botanical Garden (DBG), except for our annual banquet in May, the location to be announced. The DBG is located at 1201 N. Galvin Parkway, Phoenix, Arizona. This is approximately 1/4 mile north of the Phoenix Zoo. For a map, please see the DBG website at [www.dbg.org/](http://www.dbg.org/).

Dorrance Hall is located just off the main parking lot and entry to the DBG. Webster is in the far southeast side of the gardens. Please contact a board member if you have any questions, or check out our web site at [www.maricopaaudubon.org](http://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; Harris'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](mailto: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](mailto:editor.wrendition@yahoo.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.

### Reprinting of material

Unless stated explicitly in the article, material in *The Cactus Wren•dition* may be reprinted on 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.



## Maricopa Audubon Board

### PRESIDENT

#### Mark Larson

13585 N. 92nd Pl.  
Scottsdale, AZ 85260-4333  
Home: 480 474-4439  
Cell: 480 310-3261  
[larsonwarren@gmail.com](mailto:larsonwarren@gmail.com)

### VICE PRESIDENT

#### Robin Silver, MD

P O Box 1178  
Flagstaff, AZ 86002-1178  
Phone: 602 799-3275  
FAX: 928 222-0077  
[rsilver@biologicaldiversity.org](mailto:rsilver@biologicaldiversity.org)

### SECRETARY

#### Mary Rose

28161 N Varnum Rd  
Queen Creek, AZ 85143  
Phone: 602 999-7828  
[mary@chirpingcentral.com](mailto:mary@chirpingcentral.com)

### TREASURER

#### Herb Fibel

3255 S. Dorsey Ln, Apt. 2004  
Tempe, AZ 85282-3981  
Home: 480 966-5246  
Cell: 480 226-6014  
[hsfibel2004@q.com](mailto:hsfibel2004@q.com)

### FIELD TRIPS

#### Nathaniel Smalley

929 E Harwell Road  
Phoenix, AZ 85042  
602 770-3184  
[FeatherFocusPhotography@gmail.com](mailto:FeatherFocusPhotography@gmail.com)

### PUBLICITY

#### Lisa Fitzner

6120 E. Redwing Rd.  
Paradise Valley, AZ 85253  
480 223-3784  
[leftfzner@aol.com](mailto:leftfzner@aol.com)

### CONSERVATION

#### Robert Witzeman

4619 E. Arcadia Ln.  
Phoenix, AZ 85018  
Phone: 602 840-0052  
FAX: 602 840-3001  
[witzeman@cox.net](mailto:witzeman@cox.net)

### PROGRAMS

#### Laurie Nessel

1632 E. Cedar St.  
Tempe, AZ 85281  
480 968-5614  
[laurienessel@gmail.com](mailto:laurienessel@gmail.com)

### MEMBERSHIP

#### Scott Burge

8869 S. Myrtle Ave.  
Tempe, AZ 85283  
Work: 480 968-5141  
Home: 480 897-8608  
Cell: 480 227-3965  
FAX: 480 345-7633  
[burge@burgenv.com](mailto:burge@burgenv.com)

### EDUCATION

#### Mike Foley

1812 E. Pinchot  
Phoenix, AZ 85016  
Work: 602 914-4339  
Home: 602 327-9707  
[mfoley33@gmail.com](mailto:mfoley33@gmail.com)

### EDITOR

#### Gillian Rice

602 375-8831  
[editor.wrendition@yahoo.com](mailto:editor.wrendition@yahoo.com)

**Audubon Online**

see us on the Web at:

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