



The Cactus Wren·dition

Volume LXV, No. 3

Fall 2012

Fiery-eyed Dancer

Photo by Pierre Deviche



Tuesday, September 4, 2012

Devils Canyon Bob Witzeman

MAS Conservation Chair Bob Witzeman introduces us to one of the most ecologically diverse and stunningly beautiful riparian treasures in Arizona, Devils Canyon, known as Gaan to native people. Located near Oak Flat Campground off US 60, its rocky spires and cascading waterfalls lure rock climbers seeking challenge and beauty. Its healthy canopy of sycamore, alder, ash, walnut, cottonwood and willow attract neotropical migrants and harbor a wealth of flora and fauna. We will explore this little known riparian ecosystem and learn how its biotic community is threatened by a 7,000' deep planned copper mine and federal land swap. Dorrance Hall, Desert Botanical Garden

Committees/Support

Arizona Audubon Council Rep
Emerson Stiles
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

Maricopa Audubon Website
<http://www.maricopaaudubon.org>

Maricopa Audubon Phone
480-829-8209

**Deep in the sun-searched growths
the dragonfly
Hangs like a blue thread loosened
from the sky.**
~Dante Gabriel Rossetti, *Silent Noon*

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: Fiery-eyed Dancer, Male, Spur Cross Conservation Area, Maricopa County, AZ, 26 November 2011
Photo by Pierre Deviche

Tuesday, October 2, 2012

Australia: Life on the Outback David and Diane Reesor

Bullo Station, Sydney, Perth, Adelaide, the Margaret River wineries and Kangaroo Island are some of the locations the Reesors visited in Australia. They stayed a week with an aboriginal family to experience life in the outback. The Reesors are well known for their exotic adventures, fascinating discoveries, and superb photography. Dorrance Hall, Desert Botanical Garden



November 6, 2012

Green Fire



Join us for a special viewing, sponsored by the Desert Botanical Garden, of the first full-length documentary film ever made about legendary environmentalist Aldo Leopold. *Green*

Fire highlights Leopold's extraordinary career, tracing how he shaped and influenced the modern environmental movement. The film provocatively examines Leopold's thinking, renewing his idea of a land ethic for a population facing 21st century ecological challenges. Leopold's biographer, conservation biologist Dr. Curt Meine, serves as the film's on-screen guide. The film challenges viewers to contemplate their own relationship with the land community. *Green Fire* was produced in partnership between the Aldo Leopold Foundation, the Center for Humans and Nature, and the US Forest Service. Dorrance Hall, Desert Botanical Garden

December 4, 2012

Cochise County's National Wildlife Refuges and the Lower San Pedro River Collaborative Conservation Initiative Bill Radke

Cochise County in southeast Arizona contains some of the most biologically diverse and unique fish and wildlife in the nation. San Bernardino National Wildlife Refuge and Leslie Canyon National Wildlife Refuge are two special areas

administered by the U.S. Fish & Wildlife Service that were set aside to help recover several federally-listed threatened and endangered species. At least 332 bird species have been confirmed on the refuges, including many nesting species. In addition, 67 mammal, 43 reptile, 13 amphibian, and 8 fish species have been documented. The refuges lie within the Rio Yaqui Basin, a large watershed that drains portions of Arizona, New Mexico, Sonora, and Chihuahua. Come hear and see why these refuges were established, what fish and wildlife they protect, how the areas are managed, and learn how you can visit and enjoy them.

Additionally, there is currently an opportunity to help ensure protection of a Globally Important Bird Area along the Lower San Pedro River through a collaborative conservation initiative that



would help maintain habitat for migratory birds and endangered species, contribute to a healthy river system and benefit local economies, and help guarantee continued open space in portions of Cochise, Pima, and Pinal Counties. Information regarding the idea for a Lower San Pedro River Conservation Area will be provided.

William Radke is a wildlife biologist and is currently the refuge manager of San Bernardino and Leslie Canyon National Wildlife Refuges in Cochise County. A Phoenix native, and a graduate of the University of Arizona, Bill has worked for the U.S. Fish and Wildlife Service since 1983, and has been stationed at several different wildlife refuges in five western states. He works with a variety of mammals, birds, reptiles, amphibians, fish, invertebrates, and plants, and was awarded the 2011 Sky Island Alliance Land Stewardship Award and the 2011 U.S. Fish and Wildlife Service Recovery Champion Award. He lives with his wife and daughters in southeast Arizona. Webster Auditorium, Desert Botanical Garden



Mark W. Larson

Last summer's big environmental news in Arizona was the Wallow Fire which consumed a reported 538,000 acres in the White Mountains. It wasn't the only wildfire last year, but it was the largest fire in the state's history. After all the negative media coverage, I was apprehensive about returning to some of my favorite places there.

In early June I did return and found an altered, but not devastated, landscape. There were strips of green forest amid swaths of tall, black spikes of burned forest. Some of the hillsides were blackened, but others looked as though the fire was merely a bad dream. This mosaic of impacts is typical of fire behavior. Fires that burn uniformly over large areas are the rare exception, not the rule.

Letter From the Editor

by Emily Morris

I hope everyone is having a relaxing summer! For those of you who are able to escape the scorching temperatures of the desert, send us some rainy thoughts! We have been getting some good storms (complete with dust storms), so that has definitely kept things interesting. I would like to apologize for the tardiness of this Wren-dition. Things have been very busy for me and for the rest of the board. We are currently lacking a field trip board chair, so we have all banded together to solicit field trip offerings and compile the dates and times. Thank you so much for your patience.

On another note, I came across an excellent idea for helping us all to get out and do more birding (and other activities) and I wanted to share it with you. A few weeks ago I was telling a friend about some of the interesting programs and festivals offered by Audubon Arizona and the Desert Botanical Garden (Birds and Beer every third Thursday at Audubon, Chilies and Chocolate festival at the DBG, etc.). My friend reached into her purse and brought out a little book to write down the details of the

programs. She described this book as her "weekend activities list." What a great idea! To help keep her on task, she kept a list of events, programs, shows, etc. that she was interested in to help motivate her to finish all the mundane tasks of life during the week so they wouldn't clog up the weekends.

Needless to say, I have now started a "weekend activities list" of my own, and it has many bird-related ideas. Here's a sample to help you start yours:

1. Ramsey Canyon for hummingbird viewing
2. Hike the Grand Canyon
3. Willcox for Sandhill Cranes
4. A big day (attempt to see/hear as many species as possible in one day)
5. Bosque del Apache Refuge in New Mexico
6. Climb Camelback Mountain
7. Owling in Madera Canyon

We all need a little help now and then to focus on the things we truly love. Maybe a "weekend activities list" will help you! Happy birding!

by Mark W. Larson

Under the black spikes of burned forest I saw a chartreuse carpet of grass, wildflowers, and other verdure. Life was already returning! The moral is this: Fire is a natural process of renewal, one that we have suppressed for too long. Traditionally trained land managers need to embrace fire as a tool, not fight it as an enemy. Otherwise, massive wildfires will continue to occur, and some may surpass our ability to control them. The result might be a high country landscape that takes generations to return to productive forest. And, when I say productive forests, I am referring to recreation, wildlife, and water production rather than primarily wood products.

Our monthly meetings this fall will have even more reasons to attend than ever, so make plans now for each first Tuesday in the month. If you would like to attend a meeting but lack transportation, please notify me or another Board Member and we will help you find a ride.

Come to a meeting—I can guarantee that you will make some new friends and learn more about the natural world we all care so much about!

Birders Welcome

By David Chorlton

*There's an edge
of what-you're-sitting-on
excitement when
forty fit into thirty places
set around the yard,
some dressed in
December clothes, but
everyone with eyes
for April as they raise
their scopes, binoculars
and massive cameras
to focus on the
iridescent hummingbirds,
orioles at orange
belves, and the dull
but quite uncommon
juniper titmouse, until
a Cooper's hawk
cleans every lens as
he passes like a breath
of amazement nobody
present had breathed.*



Notes & Announcements

Flagged Shorebirds

Although not common in our area, please be aware of color-flagged Hudsonian Godwits, Whimbrels, and any other shorebird species which you notice have color bands. You can contact Dave Krueper, Ass't. Nongame Migratory Bird Coordinator, US Fish and Wildlife Service, PO Box 1306, Albuquerque, NM 87103, (505) 248-6877 or dave.krueper@fws.gov

Unwanted Catalogs

Is your mailbox full of unwanted mail? Catalog works collaboratively with the catalog industry to embrace voluntary measures to reduce unwanted mail by honoring your mail preferences. Catalog Choice has become a significant consumer voice in the direct mail industry. Nearly 200 catalog mailers are participating in Catalog Choice, and this number grows every day. Please go to <http://www.catalogchoice.org/pages/merchants> to reduce the mailing of unwanted catalogs.

E-Newsletter

The MAS e-newsletter includes meeting and field trip reminders, special events, citizen science projects and more. It is a supplement to the Cactus Wrendition, sent out monthly, Sept.- May. We do not use the emails for anything other than their described purpose. To subscribe, email laurienessel@gmail.com

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 or Paul Baicich at 410-992-9736 or paul.baicich@verizon.net. They never sell the recipient list and you will receive a lot of interesting information.

Casa Del Caballo Blanco EcoLodge – Belize

A new six-cabana, eco-friendly accommodation in Belize - Casa del Caballo Blanco is a 23-acre former ranch 9.5 miles from the Guatemalan border near San Ignacio. It also shelters the not-for-profit Casa Avian Support Alliance (CASA) <http://www.casaavian.org/>. Its purpose is to understand and

support the biodiversity of Belize that attracts and sustains over 530 species of migratory and resident birds spotted in a given year. Jodi and Vance Benté, owners of the property, also established The Alliance whose motto is: "Birds are the farmers of the world - help us to help them continue to sow their seeds." Their work has been undertaken in cooperation with the Government of Belize's efforts to protect critical habitat, the loss of which threatens the avian population. Guests are invited to share in the responsibilities of supporting the avian program. They can assist in nest-box building, maintenance and feeding as well as trail building and signage. A percentage of each cabana rental will be donated to the CASA center to assist with medical and other expenses related to the management of the facility. Casa also organizes day-long tours that in addition to an educational and scientific focus can include bird-watching, horseback riding, cave tubing and visiting archeological and World Heritage Sites in Belize and Guatemala. For more information, call 707-974-4942 or visit www.casacaballoblanco.com.

Land of the Quetzal

Rich Kern and his brother, Jim, are looking for twenty partners to join us in the purchase of the 486 acre parcel, which is adjacent to Los Quetzales National Park and across the Savegre River from Los Santos National Preserve in Costa Rica. Preserving an important piece of quetzal habitat is a big part of our motivation in choosing the Savegre tract; the area is one of the best places to see this beautiful bird. Besides birds, it is also possible to see puma, ocelot, the little margay, jaguar and tapir. Half of the shares for the project have been spoken for. If you would like more information and a copy of the DVD please contact Rich Kern at kernnature@aol.com. (N.B. The Kern brothers project is independent from Audubon.)

Chapter discount on bird-friendly chocolate - what's not to love?

Audubon and Theo are pleased to announce the launch of their first co-branded chocolate bar.

Theo Chocolate is the first organic and fair trade certified bean-to-bar chocolate maker in the United States. Theo produces "origin" chocolates, which are identified by the cacao's growing region. Costa Rica was selected as the

country of origin for Audubon chocolate because sustainable farming there protects Neotropical migratory bird habitat. Audubon's Licensing Department worked with our International Alliances Program in approving the farms from which our products are sourced. Theo proudly supports the mission of the National Audubon Society and its diligent work to conserve and restore natural ecosystems that benefit birds, other wildlife and their habitats.

Audubon's 91% cacao bar is a super dark and slightly bitter chocolate that appeals to the "serious chocolate aficionado". Additional products are in development for more mainstream chocolate lovers.

Check out the **next Wrendition** for a review of MAS member, Charlie Babbitt's, article in *Arizona Wildlife Views*, "Visitors from the Gulf."

For Rent in Costa Rica

A 990 sq.ft. house with small yard on Wendy and Mark Bernstein's larger finca (farm), \$250 for only one month or longer. Or \$10 per night per person. In refreshing mountains near San Vito, close to Panama's border, on the way to La Amistad National Park. Utilities included and it is furnished with everything from sheets to pans, Queen orthopedic mattress, flat screen TV, dvd player, tico washing machine, refrigerator, convection oven, propane three-burner stove, wood oven, more. Chickens (eggs) with coop, Talamanca Mountains views, birds, bird trails, nature, country living, peace and quiet* included. We have a struggling greenhouse and you can share that produce, plus lots of free food out in the finca (from avocados to zapote). Bus service is a three minute walk. Excellent road. We use our cell phone as our modem for internet service; you might do something else. We can figure out cost if you want to include some meals, laundry, internet, rides... less for rent if you do not need furnishings. Better for one person or a couple although there can be more beds. Photos may be available. Our local phone in Costa Rica is 8867-8973 or markbailaw@yahoo.com or reggaew@aol.com *The house is 24 feet from a tiny spur road serving four houses spread, so traffic is extremely light twice a day. It's really not a problem but we want to tell all!

Book Store Selections

We now have a selection of books on birding topics for adults and children alike. Remember that Friends of Maricopa Audubon members get a 10% discount and that your purchase helps to support our event, education and conservation efforts.

Arizona Watchable Wildlife Tourism Association (AWWTA)

Check out their website for events around the state—www.azwildlife.com

Museum of Northern Arizona

They sponsor Venture trips that explore and discover the Colorado Plateau in the Four Corners area. For more information contact Lisa Lamberson at 928-774-5211 x241 or llamberson@mna.mus.az.us.

Environmental Fund

Green At Work—Thousands of employees can now support Maricopa Audubon Society (MAS) in their annual fall charity campaign. The Environmental Fund for Arizona gets thousands of Arizona employees involved with our group and many other conservation groups through payroll deduction workplace campaigns. Help spread the word at your office about checking off "Green" choices this fall! If your employer does not yet include environmental/conservation groups, please contact Laine Seton at the Environmental Fund for Arizona: efaz@efaz.org or (480) 510-5511.

The Dovetail Directory

(www.dovetailbirding.com): The Directory is an online catalogue of world birding tours, and our goal is to help birders locate that special birding tour, to any of 85 countries around the world. This is a free service. There are no hidden costs or surcharges. Tours are offered at the operator's price. In addition to tours, the Directory also carries a comprehensive inventory of birding-related books. For your further convenience we maintain a North American, toll-free number 877-881-1145, and someone will always be happy to take your call.

Shade-grown Coffee

If you are searching for a source to purchase shade-grown coffee and haven't been successful, try ABA Sales. They carry seven kinds of Song Bird

Coffee. For information call 800-634-7736. Also, Trader Joe's carries shade-grown coffee, as does Sunflower Market. Another source is Toucanet Coffee/Avian Ecologist. They are in the business of serving Smithsonian certified, bird-friendly coffee. All of their varieties are organic and shade-grown. They also have fair trade varieties. Please visit www.toucanetcoffee.com for more information about their goals or to place an order. The website also includes an online community for bird and/or coffee lovers. They invite you to join. Another website for shade-grown/organic coffee is www.cafebritt.com. An additional website is Thanksgiving Coffee Co—www.thanksgivingcoffee.com or 800-648-6491. And another from Kenn Kaufman is www.birdsandbeans.com

More Birding and Nature Festivals

www.americanbirding.org. and www.birdinghotspot.com

SUBMISSIONS

Do you have an interesting story to tell about birding? Please forward your submissions to the Editor – Emily Morris. Check the back page for address/email. Attaching an article to an e-mail is the absolute easiest way to submit an article. 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.

AZ Field Ornithologists Meeting

The sixth annual meeting of Arizona Field Ornithologists will be held in Lake Havasu City the weekend of October 26 – 28. There will be field trips on Friday and Sunday and presentations on Saturday on changing bird status and field research in Arizona. The meeting will honor Gale Monson who passed away February 19, 2012. For more details please visit the AZFO website: azfo.org

Gale Monson

August 1, 1912 – February 19, 2012

Gale was best known as a co-author of *The Birds of Arizona*, *The Birds of Sonora*, as well as the editor of the *Southwest Region for N. American Birds* from 1948 until 1963 and again from 1971-73. His family has asked that contributions in his memory be made to the Arizona Field Ornithologists "Gale

Monson Research Grant Program" c/o AZFO Treasurer. Doug Jenness, 4375 E. Rollins Rd., Tucson, AZ 85739.



The North American Bluebird Society 35th Annual Bluebird Conference in Newport Beach, CA. October 4th-6th, 2012

The Southern California Bluebird Club is hosting this family-friendly event at The Radisson Hotel in Newport Beach, directly across from the John Wayne Airport! Members have planned an exciting and entertaining conservation-focused agenda for participants. Laura Erickson from Cornell University will be the keynote speaker; her topic, How Birds Learn, and her workshop, 101 Ways to Help Birds. Other highlights include a hero of conservation, Steve Simmons from Merced, CA. Steve will be talking about his many years of banding experience, his 800 nest boxes for cavity-nesting species and showing his menagerie of ingenious tools to outwit and safely trap birds. From Colorado, Andrew Mackie, Executive Director of the Land Trust of the Upper Arkansas, will talk about the status of Mountain Bluebird, and from Oregon, naturalist, Steve Shunk, will enlighten guests about how woodpeckers are keystone species for cavity nesting birds. Additional information on workshops and field trips with registration information is now available via Southern California Bluebird Club www.socalbluebirds.org and NABS www.nablebirdsociety.org websites. Check out their promo video on YouTube: http://youtu.be/CS2_jMQwqd0

Saturday, September 8

Glendale Recharge Ponds

These relatively new ponds should provide an assortment of shorebirds, waterfowl, raptors, and passerines. Dress for intense desert heat and sunlight. Bring water, telescope helpful. Wear subdued attire. Go west on W. Camelback Rd. to 107th Ave. Turn north on 107th Ave. for approx. one mile. Park where paved road ends. Meet at 8:00 a.m. Contact Bob Witzeman at 602.840.0052 for more information.

Saturday, September 29

Lopiano Habitat and Tempe Town Lake

The Lopiano Habitat is an under-birded bosque and desert between Papago Park and Tempe Town Lake, good for migrants and desert natives. We'll also bird the lake's downstream habitat from the pedestrian bridge. An easy stroll. Meet at Tempe Center for the Arts, 700 W. Rio Salado Parkway at 7:00 a.m. No reservations. For more information, contact Myron Scott at on at 480.968.2179 or gaia_3@netzero.net.

Saturday, October 6

Metropolitan Phoenix Wastewater Treatment Plant

We should see an assortment of shorebirds, waterfowl, raptors and passerines. Dress for intense desert heat and sunlight. Bring water, telescope helpful. Wear subdued attire. Travel south on 91st Avenue. Park just north of Salt River adjacent to horizontal steel pole gate located on west side of highway. Meet at 8:00 a.m. Contact Bob Witzeman at 602.840.0052 for more information.

Saturday, October 13

Rio Salado: Central Avenue to 7th Ave

The Rio Salado Restoration Habitat is a restored riparian habitat, good for migrant warblers, including some recent rarities, waterfowl and waders. Easy. Meet at the Nina Mason Pulliam Rio Salado Audubon Center on Central, just north of Broadway (3131 S. Central Ave.) at 7:30 a.m. No reservations. For more information, contact Myron Scott at on at 480.968.2179 or gaia_3@netzero.net.

Monday, October 22

Route 60, off the beaten path.

We'll leave Gilbert about 5:45am to head straight to Oak Flat, a few miles beyond Superior, then work our way back, skipping the birding hot spot of the Boyce Thompson Arboretum! Other stops will include Queen Valley and probably the "Electric Park" in Mesa. These various environments should give us a nice collection of avian desert residents at different elevations. We'll find a ramada to eat a bag lunch. Expect to return to Gilbert about 1pm. No entrance fees at this time. Limited to 8 participants. Please register with Kathe Anderson at kathe.coot@cox.net.

Friday, November 23

ASU and George Ditch, Tempe

ASU campus is de facto arboretum, with birding opportunities to match, and student traffic will be at a minimum this holiday weekend. George Ditch is an historic Tempe canal with good urban birding there and in the adjacent Lutheran Peace Park. Easy. Meet at University Lutheran Church,

349 E. 15th Street, Tempe at 7:30 a.m. No reservations. For more information, contact Myron Scott at on at 480.968.2179 or gaia_3@netzero.net.

Monday, November 26

Tempe's forgotten ponds

This easy local trip will start about 7:30am in Tempe, and explore the ponds at ASU Research Park first, before heading over to Kiwanis Park to check out the pond there. We expect the usual variety of winter waterfowl to have arrived, plus common urban desert species. This is an excellent beginner's trip, but may include some surprises (such as black-hooded parakeets), and excellent close-up views, that keep more experienced birders interested. Wrap up about 10:30. Limited to 8 participants. Please register with Kathe Anderson at kathe.coot@cox.net.

Friday, December 7

Lake Pleasant

We'll start about 6:45am from Scottsdale, and take the road that leads behind Lake Pleasant for desert birding, with the hope that the water level at the lake is high enough to get some interesting waterfowl as well. We'll enter the park (fee required), and explore a couple of roads and trails, before wrapping up at a ramada to go over the list. Scopes will be helpful on this trip. Back to Scottsdale by noon. Limited to 8 participants. Please register with Kathe Anderson at kathe.coot@cox.net.

Guess whose eye!



A



B



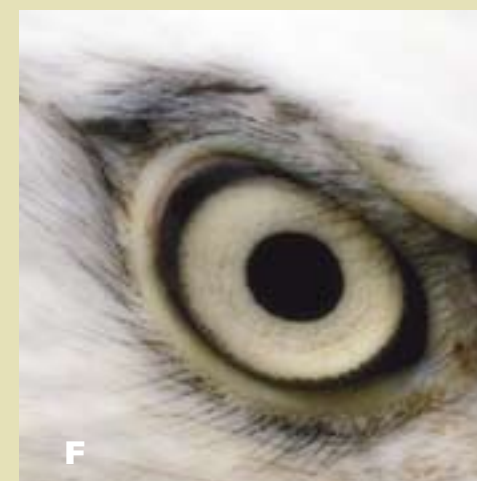
C



D



E



F



G

Answers:

- A: Anna's Hummingbird
- B: Blue-gray Gnatcatcher
- C: Gambel's Quail
- D: Great-tailed Grackle
- E: Verdin
- F: Bald Eagle
- G: Western Screech Owl

Report of Income and Expenditures for Fiscal Year Ended May 31, 2012

by Herb Fibel

A substantial bequest near the end of the fiscal year enhanced the income side of the report substantially as you can see. Here are the figures:

INCOME	
NAS dues share	\$ 6,238
Friends of MAS	5,265
General donations	1,354
Sales	1,038
Big Sit!	1,557
Raffle	988
EFAZ	1,429
Hughes Trust	400,000
Annual banquets	685
Sparrow workshop	430
Miscellaneous	75
Total Income	419,058

The books and figures will now be placed for financial review with our CPA, and all the required reports will be filed. If you have any questions or would like further information, please contact Herb Fibel, Treasurer.

EXPENDITURES	
<i>Cactus Wren-dition</i>	\$ 13,757
MAS phone	636
Donation to DBG	1,000
Insurance	1,276
Conservation	1,000
Banquets	1,008
Officer & committee expense	529
Sparrow workshop	339
Purchases for resale	593
Website expense	139
Miscellaneous	70
Total Expenditures	20,347

Getting To Know Our Native Bees

by Gillian Rice

The bee is frenzied, clambering over the tops of the stamens in the prickly pear flower. I use a magnifying glass to get a close-up view. She gathers pollen and carries it on the underside of her abdomen, which becomes bright yellow matching the flower's hues. It's difficult to believe how she could fly away with such a load. The pollen is precious protein for her



Leaf cutter bee in prickly pear blossom
photo by G. Rice

larvae. This is a bee in the genus *Lithurgus* in the family *Megachilidae*: a leafcutter bee. Bees in *Megachilidae* carry pollen under their abdomens instead of on their hind legs.

You might have seen evidence of her nest-building: neatly cut circles from leaves – about 1/4 to 1/2 inch in diameter – which she uses to separate multiple cells in her nest, one cell for each larva. She stocks each cell with a sufficient mixture of pollen, nectar, and saliva for the larva to feed on. She constructs her nest in a small cavity in soil, a plant stem, or a wall.

"There is tremendous diversity among bees and more in the Southwest than in any other area," says Stephen Buchmann, a prominent bee expert and Adjunct Professor of Entomology at The University of Arizona. "Arizona has about 1300 species of native bees, most of which are solitary, compared to 4000 in the whole of the USA."

"Each bee has its own lifestyle," adds John Alcock, Professor Emeritus, Arizona State University. "The larger the area with native plants, the more likely highly specialized native bees will be present."

Individual native bee species are hard to identify. Careful observation, however, can help you learn the family or genus to which the bee belongs. Look at the bee's behavior (on which plants the bee forages, how it carries pollen, its flight pattern), its sounds, size, and colors.

Bee lifestyles

Diadasia rinconis is an example of a pollen specialist, active on cactus flowers from late March to September. You might see a female on the flowers of a barrel cactus where she swims along the tops of stamens to gather pollen. "Except for saguaros, honeybees pretty much ignore cactus," says Buchmann. "Otherwise, honeybees are super-generalists. In contrast, *Trachusa larrae* is a bee that is exclusively dependent on creosote. It's a pretty lemon yellow bee with black stripes, as large as a honeybee."

The Sonoran Desert is home to the world's smallest bee, *Perdita minima*, which is only two millimeters long. Am I likely to find one? "No," says Buchmann, who admits that he can only spot them by observing their shadows as they forage on weedy plants in sidewalk cracks or empty lots.

On more than one occasion I've watched a bee hovering under a tree for several minutes. What is it doing? "It's

“In order to be stung by a native bee, you'd have to grab one”

a small male *Centris pallida* waiting for an unmated female," says Alcock, who has conducted extensive research on these particular digger bees.

When it's time to sleep, female bees use their nests, but males spend the night with their mandibles clamped on a stem or they sleep inside a flower. "If you have a vegetable garden and you touch a wilted squash flower, it might buzz!" says Buchmann.

The bee won't sting you. Only female bees sting and it is rarely. "In order to be stung by a native bee, you'd have to grab one," laughs Alcock, recalling the time he netted a bee and seized her without thinking.

Even huge, black, shiny carpenter bees are harmless. Males are territorial and chase other males away (and us!) but

they don't sting. Carpenter bees are generalists and their massive jaws allow them to rob nectar from the base of a flower they are too large to enter.

Although honeybees, like carpenter bees, are generalists, they can't pollinate some native US plant species. Jeff Ollerton and colleagues refer to recent UK studies that imply most pollination of crops is carried out by wild bees, hoverflies, and native pollinators – not honeybees. Buchmann comments: "This is a controversial view. I tend to believe it. Growers of blueberries and cranberries depend on native bees that sneak over into the crops from adjacent wild lands. More plant diversity around croplands is very beneficial in attracting pollinators."

The California Almond Objective Measurement Report published by the USDA in 2011 finds that almond yields have continued to increase from 1,840 pounds per acre in 2006, when Colony Collapse Disorder first appeared among honey bees, to 2,600 pounds per acre in 2011, suggesting that the importance of honey bee pollination might be overestimated.

Honeybees cannot buzz-pollinate, something that is essential for the pollination of tomatoes and eggplants. Bumblebees and digger bees "buzz" the flowers by rapidly vibrating their wing muscles. These vibrations shake the pollen out of the anthers. When working in my garden, I enjoy hearing the high-pitched sound of the buzz pollinators around my eggplants in summer. The bee wraps her abdomen around the flower's anthers to catch pollen as it is released from the pores.

Buchmann is currently researching buzz pollination. He describes the study: "We have colonies of native bumblebees

connected to a flight room with a little tube. The flight room contains specially designed artificial flowers. All the bees are numbered with small cling tags. We hope to learn more about what aspects

of the flower – shape, color, or odor – tell the bees to buzz pollinate."



Centris pallida covered with soft sand while digging
photo by J. Alcock

Farmers recognize the value of native bees. "For example, alfalfa farmers use "bee boards" – artificial nest sites – to attract native bees to their lands," explains Alcock. The alkali bee is a good alfalfa pollinator, and is an example of a bee in the Halictidae family. Many halictid bees, also known as sweat bees, are beautiful, such as the one I discovered foraging on my garlic chive blossoms in late September.

Nesting behavior

"About 90 percent of native bees are ground-nesting and 10 percent require dead wood for their nests," Buchmann says. "They use dead branches on palo verde or mesquite. Most can't build their own nests and depend on holes bored and vacated by beetles. Carpenter bees can excavate their own holes and use dead yucca, sotol or agave stalks."

Although *C. pallida* are technically solitary bees, which means that they do not join others at a nest or colony, females may nest in large aggregations, because of ideal conditions such as slope and drainage. "Females dig the nests on their own – they are 'single moms with families to feed,'" clarifies Buchmann.

Native bumblebees are ground nesters and exhibit social behavior. Their colonies are not as big or as long-lived as those of the honeybee, however.

"I still believe that the honeybee, whether European or Africanized, competes with native bees," declares Buchmann. "This is difficult to prove. There are many Africanized bees in Phoenix and Tucson. They can swarm at any time – there's such a huge biomass of Africanized bees and it's my feeling that they are taking an enormous amount of



Male of a species of *Diadasia* sleeping in Globe Mallow (photo by J. Alcock)

floral resources (nectar and pollen)."

In April 2011, I observed a honey bee swarm resting in a cholla cactus. "A swarm occurs when an old queen flies off with about half of her daughters," explains Buchmann. "They rest for 1 to 3 days and send out scouts to look for a new nest-site, which might only be 100 meters distant. They are actually gentle at this stage because they leave the nest engorged with honey. The swarm might consist of 10,000 to 20,000 bees."

"Africanized bees prefer to nest on or close to the ground and they like to use irrigation boxes. It's rare for them to nest higher up and make free-hanging nest combs," says Buchmann.

He suggests removing such nests, even though

Africanized bees are great pollinators. "I hate to kill bees but removal is probably wise," he comments. "The longer the nest is there, the more likely someone is to get stung."

Where do native bees spend the winter? "Native bees are active for only four, five or six weeks and then the adults die. The larvae in the nest carry the species over, so there is usually one generation per year" Buchmann tells me. "A few species have two or three generations per year."

Conserving bees

Many of us are unaware of native bees. We are often oblivious to bees until they fly near us and we swat them away. However, they are crucial pollinators of our native plants and many food crops. We can do a number of things to attract bees and help to conserve them.

Provide nest habitats by making or buying a "bee house." This is a simple block of wood with holes drilled in it. I'm delighted that bees appear to be using the one I placed in my vegetable patch this spring. You can also leave a patch of dry bare ground to attract digger bees or a dead branch or agave stalk tree for use by carpenter bees.

Avoid using pesticides and herbicides.

Plant native flowering plants in clumps of four to six. Ensure year-round blooms.

Generate a mud puddle – many bees use mud for nesting material. •

FURTHER BEE RESOURCES

1. The Pollinator Partnership <http://pollinator.org> Promotes the health of pollinators, critical to food and ecosystems, through conservation, education, and research.
2. The Xerces Society for Invertebrate Conservation <http://www.xerces.org> Information on all kinds of invertebrates, including bees, and how you get involved in their conservation by participating in citizen science projects. Also provides details on how to build bee nest habitats.
3. <http://arizonabeetlesbugsbirdsandmore.blogspot.com> Adventures and observations of Margarethe Brummerman, biologist working at University of Arizona Insect Collection.
4. *The Forgotten Pollinators* by Stephen L. Buchmann and Gary Paul Nabhan. Island Press, 1996.
5. Jeff Ollerton and colleagues. (2012). "Overplaying the role of honeybees as pollinators: A comment on Aebi and Neumann (2011)." *Trends in Ecology and Evolution*. Vol. 27, No. 3, pp 141-2. Accessed online at [http://www.cell.com/trends/ecology-evolution/issue?pii=S0169-5347\(12\)X0003-X](http://www.cell.com/trends/ecology-evolution/issue?pii=S0169-5347(12)X0003-X)

Backyard Birding: Nest Parasites

By Matt VanWallene



These nestlings show one of the first backyard bird experiences I had a few years ago with an Abert's Towhee that had nested in one of our orange trees. This towhee is predominantly an Arizona bird that lives here year around. I caught this bird south of Tucson. Abert's is not sexually dimorphic, that is mom and dad look the same.



They are very aggressive at the feeders and a bit fearless. If I sit very still they come within 5 feet of me after I throw out seed.

Abert's has the unfortunate distinction of being the only nesting species in my yard that falls victim to brood parasites, birds that lay their eggs in other species' nests. Arizona has two of these parasites: Brown-headed and Bronzed Cowbirds. My towhees breed twice a year with their



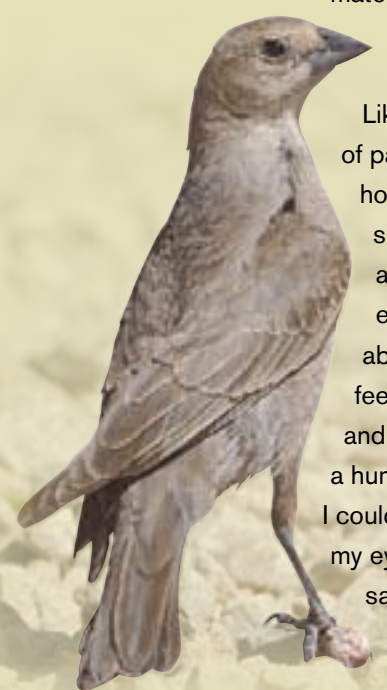
first clutch starting after the winter rains. The cowbirds arrive a month later during the song bird migration. Without interference with their first clutch, the towhee's success rate is still only 28% for any one egg (Finch).

This Brown-headed Cowbird with a bit of an overbite and has been in my yard for the last couple of months. Per Wikipedia, this bird followed the bison back in the day, eating bugs kicked up by the herd. Brown-headed Cowbirds may attempt to parasitize more than 220 species, but with attempts in about 50 of those species the chick will not survive. The cowbird is an omnivore (plants and insects) and some of its hosts are herbivores. The Brown-headed Cowbird is slightly smaller than an Abert's Towhee (1.5 ounces vs. 1.6). Being smaller than the towhee puts its chicks at a disadvantage.

The female cowbird shown below on the next page has a proper bill. It is interesting to watch it eat alongside the towhee and then fly off to follow it to its nest. Females cowbirds can lay up to 36 eggs in a season (wiki). When people try to help out the bird that has been victimized, the cowbird over compensates by laying even more eggs with more hosts. The impact of the Brown-headed Cowbird on the Abert's Towhee is to bring its

success rate from 28% per egg laid down to 5% (Finch). This started out by the cowbird ejecting some of the towhee eggs, changing the average clutch size from 2.9 eggs down to 1.7.

Living in a border state we are fortunate to have the Bronzed Cowbird also. They are found from California to Florida. This is a male—a pretty cool looking bird, don't you think? I have seen Bronzed Cowbirds



mate in a very exciting display. Like a bird of paradise, it hops from side to side and then elevates about three feet in the air and hovers like a hummingbird. I couldn't believe my eyes when I saw it. This next bird is a female Bronzed Cowbird. That look is of a female that pecks other eggs in the nest to improve its chances of success. The highest number of Bronzed Cowbird eggs in a single



nest was 14 (Cornell). I read a study by Deborah Finch (1983) about the Abert's Towhee and brood parasites. I used some of her statistics in this chronicle.

leaving the species inside the woods safe. As humans have cut up the natural landscapes, we have created more and more edge. Because of this, cowbirds have been able to parasitize more nests of more species. We anthropomorphize these birds, making them out to be lazy baby-killers who abandon their own offspring; we forget that these birds have evolved this behavior, and it was held at a steady rate until humans offset that balance.

Note from the Editor: I find cowbirds to be absolutely fascinating birds; they have iridescent plumage, a two-toned song, and a highly-successful breeding strategy. However, there are many birders who actively hate these birds for their parasitizing behavior, and I think this is unfair. Cowbirds have historically specialized on birds that nest along the edges of woodland,

Maricopa Audubon Society

P.O. Box 15451

Phoenix, AZ 85060-5451



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miscellaneous

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/.

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.maricopa-audubon.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* 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 or Chandler, 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*. "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* is to become a "Friend".) For National Audubon membership address changes or other questions call (800) 274-4201 or e-mail CHADD@audubon.org. For all other membership questions call or e-mail Scott Burge.

Submissions

Copy for *The Cactus Wren* 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. E-mail to: The Cactus Wren Editor, Emily Morris: monarchmorris@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.

Reprinting of material

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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

VICE PRESIDENT

Robin Silver, MD

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

Secretary

Mary Rose

28161 N Varnum Rd
Queen Creek, AZ 85143
Phone: 602 999-7828
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

FIELD TRIPS

Open

PUBLICITY

Lisa Fitzner

6120 E. Redwing Rd.
Paradise Valley, AZ 85253
480 223-3784
lefitzner@aol.com

CONSERVATION

Robert Witzeman

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

PROGRAMS

Laurie Nessel

1632 E. Cedar St.
Tempe, AZ 85281
480 968-5614
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

EDUCATION

Mike Foley

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

EDITOR

Emily Morris

1226 W. 5th St.
Tempe, AZ 85281
203 213-5208
monarchmorris@gmail.com

Audubon Online

see us on the Web at:

www.maricopa-audubon.org