

THE QUARTERLY NEWS MAGAZINE OF TUCSON AUDUBON SOCIETY | TUCSONAUDUBON.ORG

Vermilion

FLYCATCHER

April–June 2011 | Volume 56, Number 2



Changing World

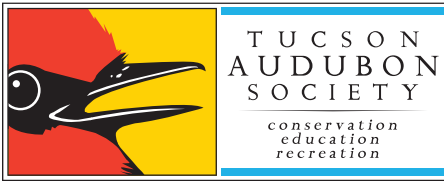
Changing Birds

Cold Weather in a
Warming World

Rocky Mountains in Southeastern Arizona

Birds in the Sky—An Island of Diversity

What's in a Name? Mexican Whip-poor-will



Tucson Audubon Society is dedicated to improving the quality of the environment by providing education, conservation, and recreation programs, environmental leadership, and information. Tucson Audubon is a non-profit volunteer organization of people with a common interest in birding and natural history. Tucson Audubon maintains offices, a library, and nature shops in Tucson, the proceeds of which benefit all of its programs.

Tucson Audubon Society
300 E. University Blvd. #120, Tucson, AZ 85705
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All phone numbers are area code 520 unless otherwise stated.
www.tucsonaudubon.org

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Agua Caliente Park, 12325 E Roger Rd 760-7881
Hours: 9 AM–3:30 PM
Thu, Fri, Sat (APRIL, MAY, JUNE)

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FRONT COVER: Montezuma Quail photographed by Bryan Holliday of Phoenix, AZ. To see more of Bryan's work, visit his website at www.bryanholliday.com.

To have your photographs considered for use in the *Vermilion Flycatcher*, please contact Matt Griffiths at mgriffiths@tucsonaudubon.org.

Birds: Complex Changes in a Complex World of Change

Paul Green, Executive Director

With global warming, vegetation will respond to warming temperature and changing rainfall regimes (see pp 16–17) by migrating northward or upslope. Birds will of course follow their habitats as climate changes.

Already birders can see that many birds are responding to climate change by shifting their ranges farther north. Increased temperatures in the more northerly parts of the northern hemisphere, in both North America and Europe, allow winter birds to stay further north, earlier northward migration, extended breeding ranges, and breeding earlier in the year.

Christmas Bird Count data over the last 40 years reveal that more than half of 305 wintering bird species in North America are spending the winter on average 35 miles farther north than they did 40 years ago. This correlates with a climb in the average January temperature in the United States from 27° F to 34° F. Another study of 254 wintering North American bird species between 1975 and 2004 found a poleward shift in the mean northern range boundary of nearly 28 miles, a shift in the center of occurrence by more than eight miles, and the center of abundance by nearly 20 miles.

Breeding bird data show similar trends. In Europe southern birds shifted their mean northern

range boundary nearly 12 miles northwards over a 20 year period. In Finland the same shift happened in 12 years. Our Breeding Bird Survey showed a 38-mile northward shift over 26 years. None of these studies showed a change in the southern boundary of northern species.

Some spring migrants are arriving earlier on their breeding grounds (20 bird species in Europe have advanced about eight days over the past 30 years), and many species are breeding earlier in the year (Tree Swallows are now breeding on average about 9 days earlier now that they did 30 years ago). A topic of much research currently is whether migrants are becoming mismatched with their principle food supplies and showing declines in productivity as a result, and how quickly species can evolve to match their changing environment.

The current human-induced change in climate is faster than earlier episodes of natural climate change. It coincides with a battery of other environmental changes we have inflicted on birds. While some bird species will adapt and succeed, others will struggle and decline, and many will disappear.



TREE SWALLOW: ALAN D. WILSON, WWW.NATURESPICSONLINE.COM

GUEST COMMENTARY

PHIL SWAIM

Doing What We Can for Tucson

It isn't surprising that when people are asked what they like most about Tucson, the majority says it is proximity to a unique natural environment. We love our mountains, deserts, rivers, and rich wildlife. We also love our community and the quality of life it provides. So perhaps the worst news for our community is that our planet is warming, and the changing climate that results from both natural and human actions is having a negative effect on our natural environment and our human communities. The good news is we can make a difference. It's clear that we need to live more mindfully to reduce our carbon emissions.

How do we do that? While we in the Tucson area cannot take responsibility for the entire planet, we should, can, and must take responsibility for our region. Significant efforts are already underway at the City of Tucson, The University of Arizona, and Tucson Water to create plans that mitigate for (reduce our carbon outputs) and adapt to (learning to live with) a changing climate. Building community support for the plans will be hard work, especially with our rough economy. However, energy efficiency and resource conservation make economic sense while salvaging our quality of life at the same time. The measures we need to employ can be incentivized or required by changes in municipal codes if necessary. Ultimately we need to do these things because they are right for the planet, even if the motivation for many will be economic. We don't need to wait for political decisions to be made. And we can't afford to wait for the next generation to grow up with different habits.



MATT GRIFFITHS

We need to continue to eliminate unnecessary turf such as this swathe near downtown Tucson.

Visit tucsonaudubon.org for updates and more.

We must improve the energy efficiency of our aging residential, commercial and public buildings. Some solutions are simple, and there are tax credits and assistance programs through Tucson Electric Power (TEP) to help.

We must raise the standards for new construction. Tucson, Pima County, The University of Arizona, and other local jurisdictions, now require that their own buildings be built to LEED Silver standards, a national green building rating system. Many architects and contractors are creating green buildings out of habit. You can influence this market by the homes you buy and the businesses you support.

We must conserve water, not just because we live in a desert (where supply is low, and demand and loss are high), but because it takes an amazing amount of energy to distribute water. We are in many respects already a leader in this area, though there is room for improvement. Low-flow bathroom fixtures are a requirement. We need to continue eliminating unnecessary turf, and using even more native landscaping. Our recent local ordinance that requires rainwater harvesting provide half of our irrigation needs for commercial buildings was the first of its kind in the country. We also need to use our reclaimed water efficiently.

We must plan future growth to create density that will reduce travel and allow mass transit to be effective. Tucson is modifying its Land Use Code to support sustainability and infill development. However, we still need to find common ground with our established neighborhoods to allow this to work. In spite of the challenges, our downtown is experiencing tremendous growth with housing, restaurants, the Unisource headquarters, and a modern streetcar (see artist rendition above) creating a strong urban core.

We must take even greater advantage of our solar energy potential. Increased efficiency, lower costs, and incentives have made solar electrical systems more viable. Large solar arrays at school



This artist rendering shows what a Tucson modern streetcar will look like when completed. The Tucson Modern Streetcar is a project co-managed by the City of Tucson and the Regional Transportation Authority (RTA). Visit tucsonstreetcar.com for more information.

districts and other public facilities, Davis–Monthan Air Force Base, the UA Tech Park Solar Zone, and businesses, as well as smaller residential systems, are becoming more common. A Tucson Audubon Birds & Business Ally, Sky Bar, has a new solar system. Now that the accounting firm of Beach Fleischman has installed solar on their building, you know it must make economic sense.

We must develop a brand, or reputation, where Tucson represents a progressive, sustainable (environmental, social and economic) community that will attract and support an economy based on high tech, bioscience, optics, solar, and even ecotourism.

It won't be easy, but our quality of life is at stake. We are already moving in the right direction, just not fast enough. Together we can make a difference. ■

Phil Swaim, AIA, is president of Swaim Associates Architects, and has been providing community planning and designing sustainable public and commercial buildings for almost 30 years. Phil is a Tucson native, and is co-chair of the City of Tucson Climate Change Advisory Committee.

The City of Tucson Climate Change Advisory Committee brings with it broad, high-level skill sets, expertise, and vision to address the multiple dimensions of climate change in a strategic manner on behalf of the city. Tucson Audubon has a seat on this committee.

TUCSON AUDUBON EVENTS AND CLASSES

Learn with the Experts!

Institute of Desert Ecology

April 28–May 1

As of press time there were a few remaining spots in the upcoming 41st annual Institute of Desert Ecology. If you are still considering attending, this is the time to do it. As an added incentive, if you refer a friend or bring a spouse, we'll give you \$50 off both participant fees!

Join us for a world class learning experience in a spectacular setting. Desert ecology will be right at your fingertips in this hands-on, four-day institute. Learn from experts in the fields of herpetology, entomology, ornithology and more! This is a wonderful chance for you to interact with like-minded, inquisitive adults in

the unique landscape of southern Arizona. Don't miss the opportunity!

Location: Catalina State Park. Cost \$425 (\$460 for non-members of TAS, but includes gourmet food, all instruction, and camping fees (if you don't camp, you may also commute from home or stay in a nearby hotel). To sign up, contact Matt Brooks, Institute Director, at 629-0510 x7007 or email mbrooks@tucsonaudubon.org. Also visit www.tucsonaudubon.org/ide.

Last minute
sign-up special:
Refer a friend or
bring a spouse and
get \$50 off!



HOLLY HOPE



SARA PIKE



SARA PIKE



SARA PIKE

Volunteer Days

April 12, Tuesday 8 AM–NOON
(optional birding 6:30 AM)

Help build fencing that will protect the **Esperanza Ranch** conservation easement from cattle incursions.

We will be working with volunteers from Sky Island Alliance as well. The easement is along the Santa Cruz

River between Tubac and Amado, in Santa Cruz County. Contact Kendall Kroesen to sign up and for directions: kkroesen@tucsonaudubon.org or 520-971-2385. Join us at 6:30 AM for a little optional birding.

April 23, Saturday 7–11 AM

Celebrating Earth Day, this is our final TogetherGreen volunteer day of the season. We will be removing invasive

giant reed on private land along **Sabino Creek**. Giant reed removal is where our TogetherGreen volunteer days began—come help us finish the job! Contact Kendall Kroesen to sign up and for directions: kkroesen@tucsonaudubon.org or 520-971-2385.



Get the Most from your Compost

April 30, Saturday 8–11 AM

Join us at Tucson Audubon's Mason Center for a workshop on composting. Composting creates great garden soil, reduces materials taken to landfills, and closes and ecological loop that makes us all more sustainable. Rich Johnson from Tucson Organic Gardeners will teach this workshop, which will consist of an indoor presentation and outdoor, hands-on experience setting up a compost bin. \$10. Contact Kendall at 971-2385 or kkroesen@tucsonaudubon.org to sign up.

RECYCLED GARBAGE CAN COMPOSTER, RICH JOHNSON



Expand your Birding Skills

Head Back to Class this Fall with Tucson Audubon!

Birding By Ear

May 4 & 7, 2011

Taking birding beyond the basics requires learning to use your ears as much as (if not more than) your eyes. This class will delve into the world of bird vocalizations and give you a framework for learning the voices of our master singers. Taught by Homer Hansen.

Classroom session: Tucson Audubon, Wednesday, May 4, 6–9 PM

Field trip: Saturday, May 7, time to be announced

Cost of the workshop: \$145 (\$110 for members)

For more information on these workshops, contact us at education@tucsonaudubon.org or 629-0510 x7012.

CANYON WREN, JAMES PRUDENTE



Moving to Mastery 2011

October 12–November 11

Classroom sessions: Wednesdays, 6–9 PM

Field trips: Saturdays, whole and half days

Reserve your spot now for this year's Moving to Mastery program. Take your birding skills to the next level with leader and Wings Over Willcox chairman Homer Hansen. Begin the process of sorting difficult species based on profile, habitat, and voice. A focus will be on family groups and individual species within groups. A key to becoming a better birder is to realize how your sport fits into the wider world of conservation of birds and their habitats.

Moving to Mastery has a maximum enrollment of 20 and fills up every year, so reserve early to ensure a spot in the class. For more information on this program, contact us at education@tucsonaudubon.org or 629-0510 x7012.

Cost: \$285 (\$250 for members)

NASHVILLE WARBLER, JIM & DEVA BURNS, WWW.JIMBURNSPHOTOS.COM



Specialty Workshops— Fall 2011

WARBLERS

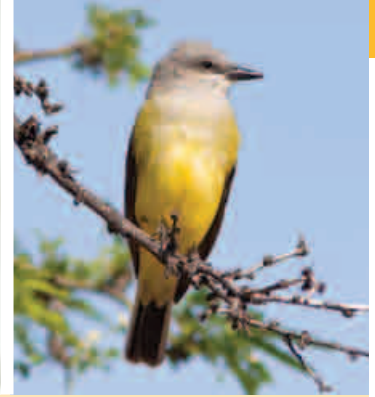
August 31 & September 3, 2011

Learn how to distinguish those challenging fall warblers. Key structural characteristics and similar species comparisons will be taught during this workshop, along with an introduction to learning warbler vocalizations.

FLYCATCHERS

September 7 & 10, 2011

Ready to leap into the identification of Empidonax and Myiarchus flycatchers? This workshop introduces you to the diverse family Tyrannidae and highlights the ways to separate the kingbirds, pewees, empids and flycatchers of southeastern Arizona.



WESTERN KINGBIRD, LOIS MANOWITZ

For both workshops (taught by Homer Hansen):

Classroom session: Tucson Audubon (Historic Y), Wednesday, 6–9 pm (Warblers: September 1; Flycatchers September 8)

Field trip: Saturday, Time TBA (Warblers September 4; Flycatchers September 11)

Cost of each workshop: \$145 for non-members which includes a membership in Tucson Audubon (\$110 for members)

For more information on these workshops, contact us at education@tucsonaudubon.org or 629-0510 x7012.

VERMILION FLYCATCHER, DORIS EVANS



Celebrate our Ironwood Forest May 14th!

Come join us as Tucson Audubon, the Friends of Ironwood Forest, and the Tortolita community celebrate our Twelfth Ironwood Festival on International Migratory Bird Day, Saturday May 14th. Meet new friends and neighbors and learn about birds, habitats, and sustainability: how to tread gently on our fragile lands. We'll have presentations on birds, reptiles and other critters geared at adults, while our young ecologists, the Sunnyside Audubon Student Urban Naturalists (SASUN) organize a full program for kids from 9.00am through 1.00pm. A wide range of environmental organizations will have interactive activities, including live

birds, and we'll have a spectacular used book sale focused on natural history titles. Enjoy lunch, relax with your friends, and listen to live music mid-day and later in the evening. Begin your day early with a demonstration of bird banding and some early morning bird walks on the trail. Learn about efforts to safeguard habitats and wildlife linkages in the region. Take a siesta and come back for our Ironwood Jam in the evening: time to listen to live local music and enjoy local beverages as you talk with friends under a starlit and cooling night sky just a couple of days before full moon. So come for an hour, or



MATT GRIFFITHS

come all day — surprise yourself with what you learn about our desert while having a great time! Our desert habitats are quite delicate: many of the plants and animals living here live close to their limits for water and temperature stress (see p16). The effects of the drought on our cacti are becoming particularly apparent

this year, especially after our recent hard freeze. Plan now to renew your acquaintance with our Ironwood–Saguaro habitats — enjoy a day of celebrations May 14th at Tucson Audubon's Mason Center, located at the SW corner of Thornydale and Hardy.)

Tucson Audubon's Living with Nature Lecture Series

TUCSON Living with Nature Lecture Series and Member Meetings

DuVal Auditorium, NE section of the University Medical Center, Bldg. 501 N Campbell Ave. Program begins at **7 PM, second Monday** of each month September through May.

GREEN VALLEY Living with Nature Lecture Series

Joyner-Green Valley Library, 601 N La Canada Dr. 594-5295. Program begins at **10 AM, third Saturday** of each month October through March.

Contact Erin Olmstead, 629-0510 ext. 7009 or eolmstead@tucsonaudubon.org for more information or visit tucsonaudubon.org.

April 11 • TUCSON—UMC

ANNUAL MEMBERS' MEETING & WHEN THE RAINS COME with *John Alcock*

John Alcock, Emeritus Professor of Biology at ASU and author of the book *When the Rains Come*,

will speak about the role of rain in the two deserts with which he is familiar—the Sonoran Desert and the vast Western Australian Desert. A comparison of the two deserts reveals some similarities, such as the critical role of winter rain in the production of annual plants, and some differences such as the greater plant biodiversity of the Australian deserts. Although plants will play a major role in Alcock's talk, he will let a bird or two into the presentation just for us!

Copies of John Alcock's excellent book, *When the Rains Come*, reviewed in the July–August 2010 issue of *Vermilion Flycatcher*, and others, will be available for sale and signing after the program. Our short and sweet Annual Meeting with precede the lecture.



May 9 • TUCSON (alternate venue) at The Riverpark Inn (see map at the bottom of the page)

OWLS & WOODPECKERS with *Paul Bannick*

Join us for the Grand Finale of the 2010–11 season with a special presentation by wildlife photographer Paul Bannick at The Riverpark Inn. Coupling his love of the outdoors with his skill as a photographer, Paul creates images that foster the intimacy between viewer and subject, inspiring education and conservation.

Paul's presentation on owls and woodpeckers will take us on a visual and auditory exploration of habitats of North America through the owls and woodpeckers that most define and enrich these places. This photographic field report celebrates the ways the lives of these two iconic birds are intertwined with one another, and their role as keystone and indicator species for their environment. Audiences are



immersed in the sights and sounds of forest, grassland, arctic, and desert, and in the entertaining and informative details of Paul's narrative. The hidden life of these birds is obvious for those who know how to find it. Paul knows how to find it, and will bring it to life for us through photos, sound, and story.

Copies of Paul Bannick's *The Owl and the Woodpecker* will be available for sale and signing after the presentation.

Tucson Audubon's free Living with Nature Lecture Series resumes in September.

Tucson Bird & Wildlife Festival

Presented by Tucson Audubon and The Riverpark Inn
August 17–21, 2011

Featuring:

- Exciting monsoon birding: peak numbers and diversity of bird species!
- Some of the best birding in N. America at nearby hotspots!
- Sky Islands Birding Cup on August 17
- Birds & Beer Social on August 18
- Welcome Banquet featuring Rick Taylor on August 19
- Keynote Banquet featuring Kenn Kaufman on August 20
- Renowned expert birders, naturalists, educators
- Full-day and half-day field trips on Friday and Saturday
- Birding & Natural History Talks, Workshops for beginners through advanced
- Youth and Family-friendly activities, vendors, and live critter exhibits
- Special Festival rate at The Riverpark Inn

For more info visit tucsonaudubon.org/festival
Find us on Facebook!



LARRY LIESE



KENDALL KROESEN



JOAN GELLATLY



Clockwise from top left: Lush upland desert; Broad-billed Hummingbird; Kenn Kaufman

The What and Why of Birdathon

Erin Olmstead, Special Projects



LEFT BOTH PHOTOS, MATT GRIFFITHS

Birding is different for every birder. Why do you bird? Is it for the rush, or for the relaxation? For fun, or for inspiration? For the competition, or for contemplation? For solitude or for social experiences? To appreciate greatness in small things, or to understand nature's grandeur? Whatever your reason, this is the season!

This time of year you sure don't have to go far to be stopped in your tracks by the sights and sounds of Spring. Birds are everywhere! To celebrate, we invite you to play a little part in something big by joining Birdathon 2011.

Birdathon is like a walk-a-thon, except all about birds and nature. Think of it as scavenger hunt with binoculars, or a birdwalk-a-thon. It's a friendly competition that links the fun of birding with saving habitat. Birdathon is a time to connect with nature and with other nature lovers, too. Don't have a team or don't know where to start in planning a Birdathon day? Join one of Tucson Audubon's All-Star teams setting out every weekend from April 8 through May 8 and treat yourself to great day's birding to feel good about.

Birdathon is an opportunity to give back to the birds, and pay it forward! Share the thrill of the chase, the wonder of natural beauty, or the journey of discovery with a friend by asking them to sponsor your Birdathon effort or join your team.

Visit tucsonaudubon.org/birdathon to join a team, start one of your own, or make a pledge. We're counting on you!

Visit tucsonaudubon.org for updates and more.

Birdathon Basics: Easy as 1-2-3

1. Ready...

Register your team at www.tucsonaudubon.org/birdathon OR Join a Tucson Audubon All-Star team

2. Set...

Collect pledges online via your personal fundraising page, or on paper if you prefer. Share your enthusiasm with friends and family. Start by asking a few friends for a few bucks.

3. Go birding!

Bird when, where, and however you like for up to 24 consecutive hours during **April 8–May 8**. Or, take the month-long Backyard Birdathon Challenge. Be on your best birding behavior!

Guided Team Outings for Your Birding Pleasure

These Tucson Audubon expert-led All-Star Teams are open to anyone, but registration is required. No experience necessary! Group sizes are limited and a minimum "give or get" fundraising effort is suggested. For info contact Erin at 629-0510 x7009.

APRIL 8: ROOKIES with Paul Green. Find out what Birdathon's all about on a fun kickoff outing with Tucson Audubon's Exec. Director. This laid-back morning walk begins with an intro to the birds of the Ironwood-Saguaro habitat at the Mason Center and nearby Hardy Wash. (\$100)

APRIL 9: HIGH ROLLERS with Gavin Bieber. Get the lowdown on Sky Island life zones from the top down! This relaxed all-day survey trip explores the Huachuclas from Carr Canyon down to the San Pedro, turning up a choice cross-section of local bird diversity along the way. (\$250)

APRIL 17: WRENEGADES with Jennie MacFarland. Join the Wrenegades for a fun Sweetwater-Madera out-and-back! Cruise the ponds at Sweetwater, then hit Madera Canyon for a birdy packed lunch picnic and feeder survey, ending back at Sweetwater by 2 PM. (\$100)

APRIL 23: HOYER'S VOYEURS with Rich Hoyer. "Hoyer's Voyeurs" are back in hot pursuit of the feted Most Species Seen title. This full-on birdathon around Southeast Arizona will shoot for a whopping 175 species, starting with owls and other nightly audibles. (\$250)

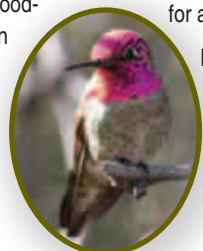
APRIL 30: BIRDS OF FRAY with Richard Fray. "Birds of Fray" will start the morning off right at Sweetwater before heading on to Madera Canyon, Las Cienegas, and Patagonia on a laid-back attempt to see 100 species! (\$250)

MAY 7: GONZO BIRDERS with John Yerger. Returning team champions, "Gonzo Birders" will set out on a coffee-fueled frenzy with a goal of 150+ species. This attempt hits hotspots like Madera Canyon and Patagonia, and a few "secret" spots, too. (\$250)

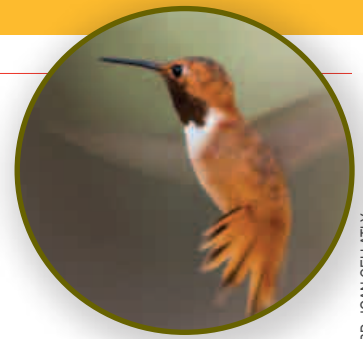
New!

MAY 7: FLEDGLINGS with SASUN & Tucson Audubon Young Birders' Club. Beginners of all ages and families are welcome to wander Sweetwater Wetlands with this friendly group. See how many species we can find together and/or play "BIRDY BINGO" for a small donation! 9 to 11 AM.

PHOTO CONTEST: BEST BIRD PHOTO. \$50 entry donation.



ANNA'S HUMMINGBIRD, JOAN GELLATLY



RUFIOUS HUMMINGBIRD, JOAN GELLATLY



RAISE \$50 and earn a limited-edition **BIRDATHON T-SHIRT** featuring the artwork of Narca Moore-Craig (above).

BACKYARD BIRDATHON: Take the [whole month](#) to rack up a "Birdathon Yard List."

Donations are tax-deductible, and support Tucson Audubon's conservation and education programs.

Details online at tucsonaudubon.org/birdathon

Important Dates for Birdathon: Mark Your Calendars!

- April 8: Birdathon season begins!
Rookies
- April 9: High Rollers
- April 17: Wrenegades
- April 23: Hoyer's Voyeurs
- April 30: Birds of Fray
- May 7: Gonzo Birders
Fledglings
Birdy Bingo
- May 8: Birdathon season ends
- May 16: Deadline to turn in pledges / materials to be eligible for prizes
- May 22: Birdy Brunch at the Mason Center

Thanks to our Birdathon 2011 sponsor



TUCSON AUDUBON NEWS ROUNDUP

WELCOME NEW MEMBERS!

Mike and Mary Abbey, Beth Acree, Nancy and John Adams, Doris Alexander, Linda Archer and Curtis Kommer, Vick Applegate, William Azevedo, Anne Babson-Gulotta, Judi Backenstow, Bobbie Barg, Mary Ann Bavaria, Donna Bazzo, Linda Bednarek, Susan Bell, David Bier, Amy Black, Emma Susan Bond and Jennifer Bond, Lynn Bossone, Frank Bouchard, Pat Bray, Christopher Broome, Daryll Brosanders, Brenda Burton, Yunghi Choi, Wesley Clark, Ann and George Cottay, Dan Davis, Vincent Diflumeri, Richard DiRusso, Bob Dumke, Edna Dunn, Karen Dunne, Don Elvestrom, Susan Fallon, Jamie Ferguson, Anita C. Fonte, Bettina Fuchs, Richard Fujinami, Joseph Gentile, Bob Gjestland, Michael Glasson, Ed and Kathie Godwin, Cliff and Dee Graves, Penelope Graves, Janice Gruver, Hilary Hamlin, Judy and John Harmer, Patricia Hennigan, Jane Hervich, Jerry Holmes and Kathryn Anderson, Pam Hopkins, Casey Hovey, Noreen Hotch, Maureen Hughes, Diana Imig, Marcia Johnson, Norman Johnson, Carl Kanun, Jacqueline Kern, Frank Kipper, Ron Kroll and Liz Temple, Holly Lachowicz, Denise Lanuez, Roberta Light, Margo Lightfoot, Claire Livesey, Gary and Eleanor Livingstone, James Lowrey, Maggie Lutz Sanderlin, Susan and Gerald Maggiora, Sherry Manoukian, Chris Marshall, Patricia McAlamen, Judy McDonald, Bob McKay, Karen McWhirter, Susan Mudd, Laura and Gary Nabhan, Steve Nagy, Mike Nealen, Jan Newlin, Maureen Nichols, Allison Nicotera-Holt, Geraldine and Nick Nissen, Rebecca Odom, Geoffrey Palmer, Martha Pankratz, Jill Perry, Susan and John Pifer, Candace Plumlee, Joan V. Powell, Cassandra Rexroad, Emily Rhoads, Licela Ricksecker, Sereta Robinson, Susan Rolfe, Marilyn Ruckman, Edna Earle Russell, Frank Sciannella, Shaffer Dry Cleaning, Laurie Shields, Barbara Siegel, Sylvia Simpson, Nancy Sims, Southwestern Research Station, Anita Stafford, Darwin Stapleton, Sherie Steele, Dick Stenzel, Richard Stevens, Laura Stewart, James Sugg, Mark and Susan Sullivan, Tory Syracuse, Joan Tavares, Alondra Telles-Waite, Rod Thompson, Carol Tierney, Kitty Tobiw, Maria Theresa Tostes-Ribeiro McLaughlin, Steve Utter, Patricia Waits, Peter Warren, Michelle Waters, Angelina Wehrkamp, Art Weiner, Anne Westenhaver, Kevin Wheatley, Phillip White, Jody and John Williams, Sandra Wood, Beth and William Woodin, Claire Zucker

Jean Barchman,
Membership Coordinator

Paton Update

Many people have inquired about the current situation with the Patons' property in Patagonia. For more than a year we've been working on a solution and negotiations continue. We continue to work with the idea of forming an independent non-profit organization whose initial goal will be to raise the funds to purchase the property from the Paton family. Subsequent to purchase, the organization will manage the site as a self-sustaining non-profit business, to fulfill the needs of the birds, visiting birders, and the community.

In the coming weeks and months we will be revealing more of our plans and asking for donations

and investment in order to reach this goal. We know that the whole birding community is behind us and is desperately keen to safeguard this birding gem.

Richard Fray, Board Member



The hummingbird feeders at the Paton property are not only the best place in America to see Violet-crowned Hummingbirds, but also a magnet for many other species. Fruit and seed feeders, a pond, and trees attract many other birds.

Happy Birthday!

Best wishes to our April birthday members: Cydney Loggins, Cynthia Pruet, Debbie Bartolazzi, Alison Reichle, Richard Fray, Jutta Holzhaus, Lynn Kelley-Piper, Bobbie Lambert, Jean Rios, Cliff Graves, Yvonne Bir, Aaron Pie, Allan Lawson, Laura Nabhan, Carole Warneke, Peter Aschbacher, Lea Ward, Kendall Kroesen, Susan Mudd, June Scroggin, Patricia Orosz-Coghlan, Vicki Powers, Barbara Patten

Best wishes to our May birthday members: Eleanor Gladding, Kathryn Kopp, Carolyn Moss, Marshall Moss, Kenneth Cookson, Phyllis Webster, Judy Meister, Sandra Cook, Ana Landry, Dick Stenzel, Adrian Hall, Roger Fox, Fermin Garcia, Nancy Tuhey, Peg Kazda, Audrey Toepper, Kathleen Roach, Donald Goodliffe, Jack Padalino, Terri Hamstra, Gay Gilbert, Olga Harbour, Thomas Partel, Gavin Bieber, Margie Shiffman, Cynthia Keyworth, Peggy Wenrick, Morris Ewing, Robert Elliot, Richard Harris, Joan Smith, Mort Womack

Best wishes to our June birthday members: Richard Stevens, Jill Perry, Ruth Romaro, Lewis Roscoe, Barbara Johnson, Erin Olmstead, Anne Westenhaver, June Pacelt, Theresa Lutz, Patricia Carlson, Don Segraves, Holly Lachowicz, Sandy Wolf, Art Denison, Charles Liley, David Rife, Bryna Ben-Asher, Peter Bengtson, Him Chumby, Betty Bengtson, Mary Ann Bavaria, Gary Moeller, Andy Bennett, Cherie Lazaroff, Cynthia Lindquist, Jean Barchman, Tom Sluss, Ruth Wilderman, Martha Auslander

We wish to thank Linda Greene and Mike Hall for their donation to the birthday fund.



Art Show Benefits Tucson Audubon

Marti White and Ruth Canada are long time artists and supporters of Tucson Audubon and their recent show at the Gallery at Agua Caliente Ranch House was a success on many levels. After the show they each donated a portion of their sales to Tucson Audubon.

Ruth Canada's art piece, *Waiting Game*, was raffled off and the lucky recipient, Sean Todicheeinie (above), then turned around and donated it to the Amity Circle Tree Ranch residential home, where Sean temporarily lives. The ranch offers alternative holistic addiction treatment and rehabilitation programs.

Becky Aparicio



RUTH CANADA

2011 Nominees for Officers and Directors

The following names have been submitted by the Nominating Committee for election at the Annual Meeting of the Society on April 11, 2011:

Officers for new two-year term:

President: Cynthia Pruet
Vice President: Sandy Elers
Secretary: Ruth Russell
Treasurer: Richard Carlson

Directors at Large

for second three-year term:

Jessie Shinn
Linda Stitzer

for first three-year term:

Gavin Bieber
Jennifer Duberstein
Debra Finch
Robert Hembrode
John Kennedy
Claire Zucker

Volunteer News Roundup

Becky Aparicio, Volunteer Coordinator

New Volunteers

We welcome new volunteers Rich Barchman, Kathleen Neighbors, Sharon Tice, and Susan White.

Tucson Audubon has more than enough volunteers to fulfill all its obligations so we're just saying NO! to new inquiries. April Fools!

This will probably never happen, given the many demands for Tucson Audubon's services from our community: far too many for staff to fulfill alone. Tucson Audubon has many incredibly committed volunteers but we realize that volunteers come and go for lots of reasons, so we need to replenish and train our volunteer staff all the time. When our field trip coordinator gave up her volunteer job after many years of committed work we were made aware of how important it is to engage all our volunteers and rely on them for extra effort. Very special thanks go out to the field trip leaders who have stepped up and helped us through the process of adjustment and change.

Volunteer Needs

Restoration

April 12: Esperanza Ranch fence building (see p 4)

April 23: Sabino Canyon invasive species pull (see p 4)

Earth Day Festivities

April 16: Reid Park
 April 23: Patagonia Days
 April 30: Children's Museum

International Migratory Bird Day

May 7: Madera Canyon

Ironwood Festival

May 14 (see p 5)

Tucson Audubon's Bird & Wildlife Festival

August 17 through 21: Many volunteers will be needed for this inaugural event! You won't want to miss this opportunity! See p 6.

Please contact Becky, baparcio@tucsonaudubon.org or 629-0510 x 7011 for volunteer information. Check www.tucsonaudubon.org/festival for more details.

Volunteers Out and About

Birdathon

Volunteer Birdathon Team "Bird Brains" will once again participate in this fun and fabulous event: day to be determined (see p 7).

Tucson Festival of Books

This event was a huge success for Tucson Audubon due to the many volunteers who manned our booth. Mil Gracias!

Meet **Jessie Bhango**, Volunteer of the Quarter at Tucson Audubon.

Jessie has worked and mostly volunteered on and off for the Important Bird Areas (IBA) Program at Tucson Audubon since 2007. Jessie recently finished a fantastic stretch of full time assistance for the IBA Program for two months this past winter. Jessie is not a birder, but a technical guru and problem solver, and most notably a great guy. We truly appreciate him, and give him big "thank you!". Jessie is off on his travels again, but before he left I asked him some questions.

What is your passion?

Humanitarian work. Helping communities to do more. The theme of my work is always leveraging simple tools—programs, databases, instrumentation, programming language, and computers, getting the most out of them, and solving the needs and challenges of an organization or community.

Who do you like to help?

I like to help organizations that are helping to make the world a better place, such as conservation organizations, schools, medical clinics, food producers, and other social service organizations.

Where have you gone to pursue that?

"Organically" often through the internet, all over the world—Canada, rural U.S., Guatemala, England, north and south India, South Africa, and China.

What brought you to help Tucson Audubon and the IBA Program?

I have a graduate



MATT BROOKS

degree in Computer Science from the University of New Mexico (I started at UA) and my specialty is databases, and I also do lots of programming, I thought I could help. I liked that the IBA Bird Survey database would be practical for the people collecting the data, for science use, and for conservation. I liked the tight feedback loop of my work with IBA data users, both staff and bird surveyors. Then, I got to thinking about an on-line map interface and bringing all the GIS program information from a technical and expensive program in a simple form to IBA data users through free Google Maps & Google Earth, which was a fun challenge! (We will unveil this map interface this spring!)

What's Next? I may go back to Guatemala and check on the medical clinic I helped last year. And, I'll continue to work on a smart phone/iPod app for the IBA data collection. I'll be back to Tucson soon. I like it here!

What's your favorite bird? I wouldn't know a bird if it bit me! But, I really like penguins.

Scott Wilbor

IBA Conservation Biologist



JOANNE TRIPLETT



BECKY APARICIO



BECKY APARICIO



MATT BROOKS

Top left: Agua Caliente Park Book Club members Sharon, Shirley, Maggie, Lexie, and Becky take a reading break.

Top right and bottom row: Volunteers and visitors at Tucson Audubon's busy booth at the Tucson Festival of Books.

You Went Outside. You Listened. You Gave. Thank You!

Soundscape Ecology: it's a new discipline headed by ecologist Bryan Pijanowski, a Professor at Purdue University. Bryan is exploring how sounds in our environment can be used to assess ecosystem health. That's exactly what we asked you to do in our Winter Appeal: to go outside, listen, and answer the question

"Would you know exactly where you were in the world from the birds that you heard?" That really struck a chord with you, and we exceeded our \$40,000 fundraising goal this winter. You donated nearly \$60,000. Thank so very much for your kind and generous support.

Paul Green, Executive Director

It's a Party and You're Invited!

Two IBA Recognition Events Coming Up in Southern Arizona



Jennie MacFarland, IBA Program Assistant-Biologist

JENNIE MACFARLAND



Important Bird Areas (IBAs) pinpoint the most important habitats in Arizona for our native birds. There are 40 identified Important Bird Areas in Arizona and every now and then an IBA has its own recognition event (aka party!) and becomes a "recognized" IBA. You are invited to two such ceremonies coming up very close to Tucson!

The first IBA "coming out" party is **APRIL 16th** and will be celebrating the **Upper Santa Cruz River IBA** at the Tubac Community Center where the festivities can take place right along the IBA. The morning will start with birding walks through the habitat of the IBA starting from 7:30 AM to 8 AM and going to about 8:30 AM. There will then be a series of short talks about the IBA program and the importance of the Upper Santa Cruz IBA for birds and the communities near it. All attendees will then be invited to enjoy some refreshments, visit information tables, ask questions of the experts present, and generally enjoy themselves.

On **MAY 7th** the **Santa Rita Mountains IBA** has its turn. This recognition event will take place in Madera Canyon in conjunction with the International Migratory Bird Day festivities. There will be expert-led bird walks, some led by the IBA crew, into the famous habitat of this IBA. There will also be brief talks on the importance of this IBA to native birds as well as a demonstration of how IBA surveys are conducted at Proctor Loop Trail. Attendees will also be invited to enjoy refreshments and take advantage of the plethora of information available from the attending experts. All festivities will be centered at the Proctor Road ramada.

So show your support of the IBA program and come out to one or both of these events and enjoy these IBAs right along with the birds!

We thank the Arizona Game & Fish Department, Arizona Bird Conservation Initiative, for support of these events and for supporting the IBA Program overall. ■



KENDALL KROESEN



FERRAN EALES

Upper Santa Cruz River IBA at Esperanza Tucson Audubon conservation easement (upper left); Madera Canyon, part of the Santa Rita Mountains IBA (upper right); and recognition activities at past IBA celebrations. Elegant Trogon (right), one of the species that qualified the Santa Rita Mountains for IBA status.

Birds in the Sky—An Island of Diversity in the Pinaleños

RICH HOYER

Birding can be interesting almost anywhere during April and May. Birds are on the move, mostly migrating at night, using their mysteriously and marvelously accurate internal navigation systems. But come daylight, they prefer to rest, feed and steer clear of predators. While they may be on the right general route to their breeding territories, their options for any day's stopover might not be ideal. So birds destined for the coniferous forests well north of us might find themselves at dawn over the Tucson metro area, and that's why this is a good time of year to check your back yard, local park, cemetery, or university campus each morning. Anything like Western Wood-Pewee, Lazuli Bunting, Warbling Vireo, Wilson's Warbler, or Black-headed Grosbeak might surprise you with a brief visit.

But it's in our Sky Islands, with their extreme range of habitats, where you stand to get the most bang for your buck. The Pinaleño Mountains, capped by Mount Graham, are the largest and least-visited of our isolated mountain ranges; but they have much to offer. In early April, the lower elevation oak woodlands and chaparral at Stockton Pass will already have returning Black-throated Gray

Warbler, Scott's Oriole, and Black-chinned Sparrow singing up a storm alongside the non-migratory Crissal Thrasher and Greater Roadrunner common in this area.

As the season progresses, working your way up the Swift Trail—the only road that leads to the highest elevations—will bring further rewards. By mid-April, later migrants such as Virginia's Warblers and Black-headed Grosbeaks will be setting up territories in the denser oak woodlands, while by early May, nearly all species should be back, including Warbling Vireos in the aspens, Red-faced Warblers where a few Gambel oaks are mixed in with the Douglas-firs, Grace's Warblers wherever there are stands of Chihuahua and Apache pine, and Cordilleran Flycatchers in the understory of the deepest, darkest woods.

The habitat at the highest elevations of Mount Graham might be better referred to as a "Sky Islet." Right at the top is a very isolated and small patch of what is classified as the Hudsonian Life Zone—a Rocky Mountain-inspired spruce and fir forest with protected draws of moist vegetation that harbor small, remote populations of several species. Perhaps most famous of these is the endemic subspecies of the Red Squirrel once thought to be confined to the spruce stands at the very summit; but less known are the birds there. While doing bird surveys here for a US Forest Service study in 1994, I discovered a tiny breeding population of MacGillivray's Warblers, the southernmost in the United States at the time (some were found in the Davis Mountains of west Texas a few years later). Our survey team also found Orange-crowned Warblers, both Ruby-crowned and Golden-crowned Kinglets, Mountain Chickadees, and Red-breasted Nuthatches, and more recently birders have found American Dippers breeding—all sounding pretty far-fetched for a Southeastern Arizona location. There is also much to be learned about ongoing speciation, as this area lies in the twilight zone between the major biogeographical regions of the Rocky Mountains and the



ENGLMANN SPRUCE, MATT GRIFFITHS

Sierra Madre of Mexico. One species to be especially alert for is Northern Pygmy-Owl, and if you find one, take special care to take notes on its song, or better yet, get a recording. Do they toot at 100 beats per minute (like the Mountain Pygmy-Owl to the south) or 60 beats per minute (like the Rocky Mountain Pygmy-Owl to the north)?

This habitat and the populations that depend on it are made vulnerable merely by their isolation and small size—chance events such as fire and insect outbreaks, as well as direct habitat destruction by humans have long been existing threats. But now we are witnessing global climate disruption, which effects are most pronounced at high latitudes and elevations. The same potential threats are magnified with the addition of warmer temperatures and drier conditions causing the amount of habitat to shrink. Some may dismiss as unimportant such isolated populations of what are otherwise common and widespread species, but we may not fully understand their value, such as potential banks of genetic diversity not found in other areas. (For a scholarly article on this topic, read "Genetic evidence for the effect of a postglacial population expansion on the phylogeography of a North American songbird" by Borja Milá and others in the May 22, 2000 issue of the *Proceedings of the Royal Biological Society*.)

The peak breeding season at this elevation is late May into June, and be prepared for a temperate climate, always chilly in the mornings. Be sure to consult your copy of Tucson Audubon's *Finding Birds in Southeast Arizona* for more details on birding the exciting Pinaleño Mountains. ■

Rich Hoyer is a Senior Leader for WINGS Birding Tours Worldwide, www.wingsbirds.com/leaders/rich-hoyer.



GRACE'S WARBLER AND NORTHERN PYGMY-OWL, JIM & DEVA BURNS, WWW.JIMBURNSPHOTOS.COM

Interesting stories about birds with interesting names

Mexican Whip-poor-will

LARRY LIESE

Have you ever tried sneaking up on a calling Whip-poor-will at night? Before learning the secrets of eye shine I had tried this a number of times, attempting to turn a “heard-only” bird on my checklist into a lifer. Most of the time I’d head back to my campsite, wondering just where that bird within ten feet of me disappeared to.

Mexican Whip-poor-will, *Caprimulgus arizonae*, was recently split from *Caprimulgus vociferus*, now called Eastern Whip-poor-will. Long considered a candidate for full species status, the breeding range for Mexican Whip-poor-will is far separated from the eastern branch. Five sub-species exist for Mexican Whip-poor-will, extending from parts of Arizona and New Mexico south through Mexico to Honduras and El Salvador. Differences between Mexican and Eastern Whip-poor-wills center on vocalizations, mitochondrial and nuclear DNA, morphology and egg pigmentation. Most of us will have to settle for just hearing the Mexican’s burrier call, though if you ever happen upon a nest with eggs belonging to one, note the egg’s color. Mexican Whip-poor-will’s eggs are mostly white with indistinct scrawl markings while the Eastern Whip-poor-will has eggs with colored blotches or spots.

Incorrectly called “goat-suckers” for a long time, nightjars acquired their genus name from the Romans, who heard the story from the Greeks but gave them a Latin name. As the story goes, Greek shepherds would see nightjars flying at dusk around their domestic stock (including goats), where the birds would be foraging for insects common around livestock. Apparently imagination had its way as they thought the birds were suckling the she-goats and they gave them the Greek name *aigothelas* “goat-

Mexican Whip-poor-will, *Caprimulgus arizonae*, was recently split from *Caprimulgus vociferus*, now called Eastern Whip-poor-will.



GEORGE WEST

milker” from the Greek *aix* from *aigos* “goat” and *thelazo* “to suckle.” The Romans applied the Latin words *capri* and *mulgus*, (again, goat-milker) which we have to this day. The more proper designation “nightjar” comes from the old world for the “jarring” call of one of this genus’ members there.

Whip-poor-wills day-roost on the ground in leaf litter, and don’t flush unless nearly stepped on, so are generally only seen when aerial foraging at dawn or dusk, or (with patience and a flashlight held to your temple) night-roosting on horizontal tree limbs, sitting parallel to the branch (sometimes in small groups). Their orange-red eye shine is quite bright and can be seen from a surprising distance away, but they will flush when a bright light is put right on them. My suggestion for trying to get a view of calling birds at night is to look for eye shine from a fair distance away, and once found move quietly closer, finally using your light once again but only letting the edge of the light beam illuminate the bird.

Nightjars in general call frequently, sometimes for much of the night. Moonlight coming up over the horizon can be a strong trigger for calling to start. This fact can help when searching for a rare nightjar such as Buff-collared. In an area they have been reported in, try for them on nights just after full moon when the strong moonlight arrives just after darkness. An interesting substantiation of this fact was observed when Whip-poor-wills were heard calling before

and after—but not during—a total lunar eclipse.

Mexican Whip-poor-wills (Eastern’s as well) are strictly insectivorous. They forage mostly at dusk and dawn but on moonlit nights (particularly when nestlings are present) they might hunt all night long. Favorite food items include beetles, moths, flying ants, grasshoppers, and mosquitoes. They have very small bills but enormous gapes, allowing food items as large as 50mm to be caught and swallowed. Their mouth opening is lined with rictal bristles, long thought to help trigger a reflex closing of their mouths when contacting insect prey but now thought to be more as a defense against ricochets into their eyes. Their function is not known for sure.

Where should you go to find some? In Arizona they prefer pine-oak woodland below the Ponderosa pine (Transition) zone. The upper half of the road in Madera Canyon is a good place to hear them but getting a view there can be tough due to access. In the past I would have advised a campout in Scotia Canyon where one can walk about the dirt roads (I had my first views of a batch of five in a tree there), but present border conditions warrant staying away from there at night. Mount Lemmon has possibilities but remember that a permit beyond the regular car pass is required for nighttime activities. Regardless of where you try, success will bring you a smile once you see one. Good luck! ■

Field Identification of the Rocky Mountains in Southeastern Arizona

RICK TAYLOR

I'm happy to say I can hear the accelerating, tinkling notes of singing Golden-crowned Kinglets, and the tiny "explosion" of microscopic sound bubbles bursting at the end of each chorus. For me hearing Golden-crowned Kinglets means more than avoiding a visit to the ear doc; for me this miniature songster symbolizes the boreal community of birds that live at high elevations here in Southeastern Arizona.

Southeastern Arizona is, of course, renowned for its biological diversity. Many of our most-prized birds follow the long tendrils of the tropics that reach up from Mexico. The Rocky Mountain community of plants and birds in Southeastern Arizona is both limited in size and comparatively species poor. But for me it's the cherry on top of the hot fudge sundae.

Birds: First-time visitors to Southeastern Arizona are always shocked by a trip to the top of the Santa Catalina Mountains. Nothing shatters a sandy, cactus-studded preconception of Arizona as much as unspooling a slow drive down the Bear Wallow Road or scrolling the length of the Hitchcock Highway up to Ski Valley. I take a voyeur's delight in watching a newcomer's face as Pygmy Nuthatches glean from the needle clusters and Red-breasted Nuthatches patrol the pink, aromatic trunks of Ponderosa pines. Meanwhile spiraling songs of Hermit Thrushes fill the mountain amphitheatres like the score of a major motion picture.

Habitats: There are brooks, there are meadows, there are groves of aspen and Gambel oak, and there is coniferous forest. South-facing slopes are dominated

by Ponderosa, and north-facing hillsides support a Canadian zone admixture of white and Douglas firs. On the shadiest slopes, usually above an elevation of 9,000 feet, there are stands of subalpine fir in the Santa Catalina or Engelmann spruce in the Chiricahua Mountains. Both trees occur in the Pinaleno Mountains above Safford. Each of these vegetative types has a representative bird emblematic of the Rockies.

Orange-crowned Warblers breed along the willow-trimmed streams, Broad-tailed Hummingbirds ply the delphinium in the meadows, Violet-green Swallows seek out quaking aspen chambers for their nests, and flycatching among open Ponderosa pine stands are summering Western Bluebirds. For the most part, singing Golden-crowned Kinglets do not show a preference between Canadian fir and Hudsonian spruce forests. Like the birds farther north, all of these species are at least partially migratory.

Most run south ahead of the lowering jet stream as winter approaches. A few of the hardier types—Common Ravens and Mountain Chickadees, for example—stick it out. Others, like American Dippers in the Pinalenos, may descend into sheltered canyons to escape the effects of ferocious storm events. And others yet, such as Steller's Jays, employ both strategies. Steller's Jays occur on every Christmas Bird Count circle that includes high elevations in Southeastern Arizona. But during snowy winters the total number on the Portal CBC may slip to a minute fraction of their summer abundance in the Chiricahuas. Only six individual birds were recorded in 2006. Clearly, at least in some years, Steller's Jays are largely migratory.

Locations: Paradoxically, Red Crossbills usually commence nesting in early winter. But Red Crossbills are probably the least predictable breeding species in the entire pantheon of Southeastern Arizona's avifauna. To fully experience the birdlife of the Rocky Mountains in Southeastern Arizona, plan




Barfoot Park, Chiricahua Mtns. (above), Golden-crowned Kinglet (left), and north side of Mount Bigelow, Santa Catalina Mtns. (below left and inset).

to bird the mountaintops in late spring—when birdsong reaches its peak, again in summer—when fledglings are abundant, and especially in fall. Fall mixed warbler flocks comprising primarily Townsend's and Hermits may number from dozens to a thousand or more, depending on the year, and may include seven or more species. Other birds such as chickadees and nuthatches frequently join the freewheeling pandemonium.

All of our border ranges exceeding 8,000 feet in elevation support islands of Douglas fir and quaking aspen. Because of the Merriam Effect—the larger the mountain mass the greater it influences local climate—our three largest ranges in Southeastern Arizona are most apt to produce a satisfying day with boreal birds. Take a scenic drive to the crest of the Santa Catalina, Chiricahua, or Pinaleno Mountains. South of Sierra Vista the gravel Reef Road switchbacks to above 7,000 feet into the upper Huachuca Mountains. Birding here, too, can be excellent, but species such as chickadees are absent except as vagrants. Only backpackers have access to the high Santa Rita Mountains or to Manning Camp in the Rincons.

In the candy shop of avian treats available to birders in Southeastern Arizona, for me nothing beats settling down on a mat of conifer needles somewhere deep in a secluded mountain glen, leaning back against the great gray, time-fissured trunk of a forest leviathan, and listening to the ethereal song of a Golden-crowned Kinglet. Chances are a Red-faced Warbler will be singing, too.

And that's the cherry on top! 

*Rick Taylor is Managing Director of Borderland Tours www.borderland-tours.com. His new photographic field guide, *Birds of Southeastern Arizona*, is available at Tucson Audubon's Nature Shops.*



Cold Weather in a Wa

JONATHAN OVERPECK

The Earth's climate is constantly changing in response to many natural processes, and now increasingly in response to human causes. Although the Earth's surface climate is warming just about everywhere as the atmosphere traps more and more energy from the sun, this doesn't necessarily mean each year will be warmer than the last. Instead, it's the long view that matters when talking climate. Our most recent winter provides a nice lesson in how climate change and weather can interact to give us an unusual experience.

Winter 2010–11 has been an interesting one for people across the country, including those of us in Tucson. Although not necessarily the coldest winter ever, many of us have plants and trees (my poor lemon tree!) that prove the recent cold snap was very real and unusual. (February 3, 2011, gave us a record nighttime low for that date of 18°F, and record lows for a daytime high on the same day of 38°F.) And we're not alone. Back east, there have been some big snowstorms!

The situation isn't that different from the winter of 2009–10. Back then, some folks even built igloos on the Washington DC mall and pretended, some seriously, that global warming must be a thing of the past. The levels of radiation received at the outer edge of the earth's atmosphere (solar irradiance) hit record lows and stoked some more serious claims on blogs that we were in for a

record cold year with a demise of global warming. Of course, 2010 went on to become a record warm year, and the last 10 years the warmest ever in the thermometer record. So much for the long discredited idea that the sun is driving global warming, or that the sun has more influence than increasing greenhouse gas concentrations in our atmosphere.

So what about this cold winter weather, and all the snow back east? First, it is key to remember that winters are by nature cold, and even snowy in some places. It is also important to remember that we are experiencing weather, and not climate. Climate is the long-term average of weather—"climate is what we expect, and weather is what we get," goes an old saying. Well, we got some serious cold, and now scientists are just as intrigued as the public—so what's up?

The quick answer is that no one knows for certain, but we have some pretty good ideas. An important clue beyond our cold winter weather, and the east's snow, is what's happening in the Arctic. There, sea ice coverage has been at an all-time low through much of the winter. This has led to more relatively warm ocean water (just above freezing is warm for the Arctic in winter!) being in contact with the atmosphere, which has led to air temperatures in parts of the Arctic warming to well above normal.

In addition to the possible sea ice–ocean–air temperature link in the Arctic, there has also been lower atmospheric pressure in the Arctic

(perhaps in part because of the lower than average sea ice coverage), and this has led to weaker than normal "polar vortex" winds isolating—and insulating—the Arctic from lower latitudes. Normally, the high-level "vortex"

winds blow more or less straight from west to east around the pole and limit the exchange between cold polar air to the north and the warmer air to the south. However, when the polar vortex winds weaken, the jet-stream gets more sinuous like a big meandering river. When this happens, the jet-stream will transport more cold air to the south when and where it meanders south, and more warm air north when and where it meanders north. This allows more outbreaks of cold Arctic air to the south, giving us our cold weather and the snows along the East Coast.

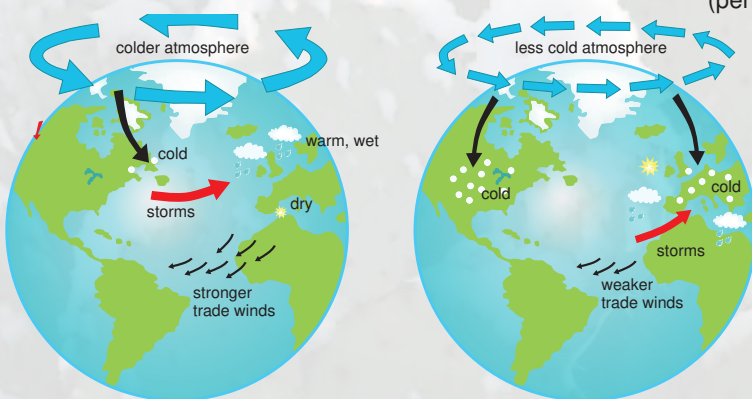
Changes in the atmospheric pressure between Arctic and lower latitudes is a reflection of what is called the "Arctic Oscillation" which has more recently shifted from the "negative" phase described above (weak polar vortex), to the opposite "positive" phase. It's unclear if—and how—this change is leading to weather impacts down our way.

Another idea is that the build-up of snow in Siberia in recent winters might also be contributing to our cold and snow. Why more snow? This probably comes about because a warmer atmosphere can hold more moisture and changing atmospheric circulation is delivering more snow to Siberia. In turn, all this snow may be driving pressure changes that are making the Northern Hemisphere circulation more sinuous and capable of exchanging air between the Arctic and mid-latitudes where we live.

This is a cool idea but, as with all the other ideas, scientists can't be certain. However, a paper published recently in the journal *Nature* showed—with statistical confidence—that humans are likely causing rain and snow to fall in a more intensive fashion as we warm the global atmosphere. This makes sense, since warmer air can hold more moisture and, when wrung out by a storm, that means more water to fall as rain or snow.

Where does that leave us? Certainly, the cold weather we experienced in Tucson this winter doesn't refute global warming or climate change. The globe is still warming, and there are many

BACKGROUND IMAGE: CLIFF CATHERS



Arctic Oscillation: positive phase (left) and negative phase (right)
(Source: J. Wallace, University of Washington; NASA)

arming World

other climate changes occurring that are consistent with that warming. I haven't mentioned the on-going La Niña in the tropical Pacific, which in addition to diverting moisture-laden storms northward of Arizona and New Mexico (as La Niña conditions usually do), may be helping to drive the circulation changes that have allowed more Arctic air into the Southwest and elsewhere.

Could global warming be giving us more outbreaks of cold Arctic air? The answer is yes, but we can't be sure. Perhaps the outbreaks are due to the steady retreat of Arctic sea ice, or build-up of Siberian snow, or other reasons. However, the science isn't yet at the state where we can be relatively sure of a linkage between global warming and winter extremes. For now, we can enjoy our more normal and above normal temperatures (shorts weather in Tucson and more than 70°F in Washington DC earlier in February when I was there to give a talk), and wait for the science to become more clear on yet another intriguing issue. ■

As the co-director of the Institute of the Environment at The University of Arizona, Jonathan Overpeck is working to help foster a new paradigm of interdisciplinary knowledge creation between physical, biological and social scientists—all with a goal of serving the environmental needs of society in a more effective manner. Visit southwestclimatechange.org/contributors/jonathan-overpeck for more details.

Sonoran Desert snowscape (right) and snow-covered barrel cactus (above, inset)

Websites where you can learn more

Arctic sea ice: nsidc.org/arcticseaicenews/

Arctic oscillation: nsidc.org/arcticmet/patterns/arctic_oscillation.html

Our recent weird winter weather: southwestclimatechange.org/blog/10799

Visit tucsonaudubon.org for updates and more.



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Changing Birds in a Ch

SCOTT WILBOR | IMPORTANT BIRD AREAS PROGRAM CONSERVATION BIOLOGIST

Arid desert ecosystems of the western United States are characterized by low productivity and slow plant growth, primarily because of water availability. Plants and animals in this region live near their physiological limits for water and temperature stress, and are particularly susceptible to climate change and climate variability. As a result, slight changes in temperature or rainfall regimes could substantially alter the composition, distribution, and abundance of species.

The Climate Assessment for the Southwest (CLIMAS) program at The University of Arizona remarks that there is broad consensus among climate models that the arid regions of the southwestern United States will become drier in the 21st century and that the transition to a more arid climate is already underway. The current prognosis for global climate change impacts on the Southwest includes fewer frost days; warmer temperatures; greater water demand

by plants, animals, and people; and an increased frequency of extreme weather events (heat waves, droughts, and floods). Furthermore, warmer nights and projected declines in snow pack, coupled with earlier spring snow melt, will reduce water supply, lengthen the dry season, create conditions for drought and insect outbreaks, and increase the frequency and intensity of wildfires. Temperatures currently considered unusually high will occur more frequently. These model-based projections align with observations made in the region over the past decade.

The drought that develops in our region over the remaining years of the current century will be different to major droughts of the past, for example the drought of the 12th century, in that low precipitation will be accompanied by consistently high temperatures. The widespread 2002–2003 piñon pine mortality in the Colorado Plateau was far more extensive than that from the 1950s drought because of the

combination of reduced rainfall with high temperatures.

Climate simulations for the Intergovernmental Panel on Climate Change suggest new, warmer climates arising by 2100 AD will increase the likelihood of species reshuffling into novel communities such as occurred in the late-glacial past. Some species that exist within ecological communities today will persist, some species will become extinct, and new species will evolve over time. Some ecological surprises could occur that result from elevated atmospheric carbon dioxide, nitrogen deposition, and non-native species introductions.

See **Climate Change and Ecosystems of the Southwestern United States** by Steven R. Archer and Katharine I. Predick. *Rangelands*, 30 (3): 23–28. 2008.

Paul Green
Executive Director

Birds are more mobile than many other animals. They can shift their ranges rapidly as a changing climate brings about changes in habitats. As a result, we can expect long-term changes in the species and number of birds that we see, and where we will be able to find them.

As conservationists, one of our jobs will be to provide for species as they adapt to a rapidly changing set of conditions. For example, Audubon California predicts that California's Important Bird Areas will help 16 of 25 sensitive species persist through the year 2100, even in the face of extreme climate change.

Vegetation changes will mirror our changing climate and weather patterns, and so too will the animals that live in those new plant communities. Ranges of biological communities will tend northward and upslope, and high quality habitat patches will attain greater importance for the continued survival of certain species. As our familiar species assume a more northern distribution, so more southerly species will move into our region, both as visitors and as breeders. Management of key habitats will be critical to maintain species diversity.

IN SOUTHERN ARIZONA

Deserts and birds: The drier, hotter, southwestern climates of the

future will bring extreme weather events, especially heat waves and drought. These conditions may be beyond the tolerances for heat and water loss of some species, resulting in increased mortality. Some evidence already exists that the combination of thermal and water stress affects small-bodied species such as hummingbirds, Verdin, gnatcatchers, and goldfinches, whose annual survival may decline by as much as a quarter.

Decreased availability of water may result in fewer large flying insects which would reduce the food supply for



MATT GRIFFITHS



RICHARD DITCH



MATT GRIFFITHS

Changing Climate

species such as Lesser Nighthawk and Elf Owl. By reducing lizards, snakes, and small-bird populations, species including Cactus Ferruginous Pygmy-owl and Greater Roadrunner may also be affected.

A drier climate will impact desert grasses production, which will reduce grass seed availability in winter for bird species that forage for seeds, including wintering sparrows, such as Vesper's Sparrow.

Aridlands ecosystems are highly susceptible to invasion by non-native species. Facilitated by climate change, invasion by non-native species could alter the type and quantity of food for birds. For example buffelgrass (*Pennisetum ciliare*), prevalent in our wetter eastern Sonoran desert (6–24 in. of rain), is spreading into desert uplands, posing a fire hazard in a desert that is not fire-adapted. Buffelgrass would threaten birds that nest in areas dominated by saguaros and palo verde. Climate change may lengthen its already long growing season.

Montane forests and birds:

Climate change models predict an overall drying of our “sky island” forest ecosystems, leading to the loss of some seeps and springs, and drying of creek reaches. This will also increase the risk and vulnerability of forests to catastrophic crown-sweeping fires and outbreaks of insect pests, such as pine-bark beetles. We should expect slow changes in vegetation communities, especially at the higher elevations of our distinct mountain ranges, with a shrinking in the range of oak, pine-oak,

and mixed conifer forests as chaparral, scrub oak, and grasslands extend upslope. Bird distribution patterns will reflect these habitat changes. Forest birds including owls (Mexican Spotted Owl and Mountain Pygmy-owl), nuthatches, creepers, sapsuckers, high-elevation warblers (Red-faced Warbler and Olive Warbler), and some woodpeckers (such as Hairy Woodpecker) will decline locally and shift northward. We may experience more southern Sierra Madrean flycatchers, wrens, thrushes, and hummingbirds as their ranges shift north to find more suitable conditions.

To manage for the continued diversity of our Madrean “Sky Islands” it will be important for us to actively maintain forest connections to allow for elevational and northward movements, and to protect cooler and wetter refugia, prevent the disturbance of seeps and springs, and conserve perennial stream reaches within mountain drainages by protecting bankside overhanging shrubs and trees.

Low-elevation riverine systems and birds:

The drying and warming will lead to a reduction in the perennial reaches of rivers and creeks, and die-back and die-off of mature riparian trees such as cottonwoods and willows, especially trees that survive through localized “perched” groundwater. Other changes we can expect in the riparian zone include an increase in shrub-dominated vegetation and more infestations by non-native grasses, including reeds. More extreme precipitation events are likely to lead to flood events of greater magnitude.

Some bird species of the understory and mid-canopy zone riparian habitats will thrive in this scenario, for example vireos, Yellow-breasted Chat,

Northern Cardinal, flycatchers, and wrens. Reductions in the tall canopy will likely result in declines in species that include Great Blue Heron, raptors, and tanagers. Again, we can expect some species currently with a more southern range including orioles, mockingbirds, kiskadees, wrens, and kingbirds to extend their range north as they find new habitat.

Key actions to maintaining bird diversity in these habitats will be to manage for high groundwater levels in valleys; remove invasive, non-native plant species; and establish and maintain connectivity through broad riparian habitat linkages.

Grasslands and birds: A changing climate will bring non-native, warm-climate adapted grasses to native grassland communities, accompanied by shrub encroachment. Habitat changes and increasingly arid conditions will result in fewer insects, so reducing numbers and productivity of wintering and nesting birds. Some grassland birds, such as Arizona Grasshopper Sparrow may decline, while others, including Rufous-winged, Black-throated, and Lark sparrows may increase in numbers as dense grasslands shift towards shrub–cacti–grassland mixes. Again, currently more southern species, such as seedeaters, grassquits, and buntings, may expand north in “pockets” in wetter years.

We can maximize grassland bird diversity and abundance in the future by managing for prevention of further fragmentation of grassland habitats, as for example for sub-division to ranchettes and housing developments. The use of fire and holistic grazing regimes are two techniques that help to preserve the diversity and abundance of native grasses and the birds they support. ■

Reference

BirdLife International (2011) Climate change is driving poleward shifts in the distributions of species. Presented as part of the BirdLife State of the world's birds website. Available from: www.biodiversityinfo.org/casestudy.php?r=pressure&id=153.



JENNIE MACFARLAND



KEDNALL KROESEN



CONSERVATION AND EDUCATION NEWS

CHRIS MCVIE, PAUL GREEN, KENDALL KROESEN, AND SCOTT WILBOR

C2E: A New Formula for Conservation

BOTH PHOTOS KENDALL KROESEN



The Atturbury-Lyman Bird and Animal Sanctuary is on Atturbury Wash at Lincoln Regional Park. Though mostly undeveloped, Atturbury Wash has experienced erosion and vegetation die-off. Tucson Audubon is developing a restoration plan there which will be enhanced by support from C2E.

The Tucson Conserve to Enhance (C2E) Program grew out of an idea hatched by Sharon Megdal and Andrew Schwartz at the University's Water Resources Research Center (WRRC) (more background at www.ag.arizona.edu/azwater/conserves2enhance).

Sharon and Andrew were searching for a way to motivate people to conserve water by showing them that the water they conserved

would contribute to habitat restoration along rivers and washes, rather than just facilitating more development.

The proposed mechanism was that people would see water savings on their water bill and make a monetary donation equivalent to the money they had saved on their bill. The donation would go toward providing irrigation water to restoration projects.

A coalition made up of WRRC, Watershed Management Group and

Sonoran Institute began to push the idea forward. However, it turned out to be more complicated than expected due to the Tucson Water billing system and other considerations.

An advisory board was formed to continue to explore the idea, and Tucson Audubon was invited to sit on this board. Under the guidance of the board, a way forward has begun to emerge. Catalyzed by grants from the US Environmental Protection

Agency and Bureau of Reclamation, 60 pilot project homeowners are conserving water in and around their homes and calculating their savings. Participants in the C2E Program track personal water conservation and donate their cost savings to environmental enhancement. Those who not wish to track water savings can donate directly to C2E by going to the Watershed Management Group website (<http://watershedmg.org/c2e>) clicking on the "contribute" tab, making a donation and putting "C2E" on the comment line.

There is currently an "open space check-box" on Tucson Water bills, and the Tucson Mayor and City Council have agreed that some money coming into that fund will be used by C2E for habitat restoration as well.

The advisory board provides the essential oversight, guidance, and development component for the burgeoning Tucson C2E Program. The first project chosen to receive C2E funds is Tucson Audubon's own Atturbury Wash Restoration Project. (The Tucson Audubon representative on the advisory board recused himself from the selection process due to potential conflict of interest!)

*Kendall Kroesen
Habitats Program Manager*

Conservation Corner!

For years light emitting diodes (LEDs) have had a number of specialized uses. Now they are entering the household lighting market. They hold great promise due to energy savings and long life.

The federal government has created incentives for the development of new lighting technology, such as the Department of Energy's L Prize (see www.lightingprize.org). Some states have also mandated phasing out incandescent bulbs.

Household lighting using LED technology is already on the market. Bulbs that mimic incandescent bulbs can be bought and tested today.

Their advantages over incandescent bulbs include much longer lifespan and much lower electricity use. Compared to compact fluorescent bulbs, LED bulbs brighten more quickly, don't contain mercury, have a color more like daylight (which many people like) and often use even less electricity.

Lights made with LEDs are now affordable if you take into account their long life and low energy use. Questions have been raised about whether their lifespan will really be as long as advertised. But even if the lifespan is only half of what is advertised, that's still a long time over which to defray the up-front cost.



Due to the great promise of LED lighting, we recommend that you begin to use it. However, because it is in its infancy, we recommend experimenting with one bulb to start. If everybody buys one, it will stimulate manufacturers to continue to innovate. On the other hand, if you replace a lot of your lighting now with an early version of LED bulbs, you may see better products in a year or two and be stuck with bulbs that won't burn out for 10 years or more. That's a green dilemma!

Bulbs made with LED technology are available at many local stores and on the Internet. Replacements for PAR 38 halogen bulbs are coming on the market as well. Tucson Audubon demonstrates LED lighting (left) in the solar-powered, off-grid DC lights on the new composting toilet building at our Mason Center (below!)

*Kendall Kroesen
Habitats Program Manager*



ALL PHOTOS KENDALL KROESEN

Wading into the Conservation Effluent Pool

A 1979 intergovernmental agreement (IGA) between Tucson and Pima County established the current county authority over most of our region's wastewater treatment system. In 2000 the City of Tucson and Pima County signed a supplemental agreement that better defined ownership of effluent and created a 10,000 acre-feet per year "conservation effluent pool" (CEP). The CEP was to benefit wildlife by making effluent explicitly available for "riparian projects."

However as of early 2011, in the words of Deputy City Manager Richard Miranda, "no effluent [had] been designated for riparian projects as the procedural details to implement the CEP were not completed." That has now changed. In January the Tucson Mayor and City Council approved an additional intergovernmental agreement establishing procedures

under which effluent can be allocated to riparian projects. The Pima County Board of Supervisors had approved it in December.

It remains to be seen exactly how the use of effluent for "riparian projects" will be implemented, including who will design and implement projects. In theory, those who currently have rights to effluent (the county and most of the local municipalities, and their water providers) can request the use of water from the CEP for a riparian project. Approval will come from "CEP Administrators" consisting of one person designated by the county and one by Tucson.

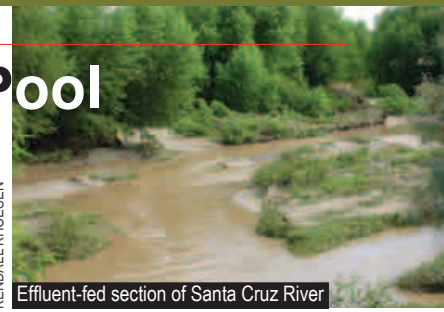
Effluent, as it emerges from certain metropolitan treatment facilities will be available at no cost, though the operator of a riparian project is responsible for conveying it to the

project site. Water that flows through Tucson's reclaimed water system will be available at an "environmental rate" yet to be established, assuming that the amount of water required is available from the system. Again, the operator of the project is responsible for conveying reclaimed water from the existing distribution system to the project site.

Interestingly, administrators may recommend an increase in the amount of effluent in the CEP. An acre-foot of water is the amount of water it would take to flood one acre one foot deep, or 325,851.4 U.S. gallons.

While it is a courageous move on the part of the city and county to dedicate 10,000 acre-feet of water to riparian projects, bear in mind that this is a small amount relative to the hundreds of acre-feet of water Tucson that area residents use. Our

KENDALL KROESEN



Effluent-fed section of Santa Cruz River

allocation of Colorado River water is about 144,000 acre-feet per year. So even with eventual use of the CEP for riparian projects, we are still taking vastly more water from riparian systems than we are giving back.

Eventually the more courageous move on the part of our elected officials will be to move much more strongly toward conservation, so that we take less water from wildlife in the first place. In the interim, we are encouraged that the CEP may actually start facilitating the restoration of riparian habitat.

*Kendall Kroesen,
Habitats Program Manager*

Birding with Aging Eyes

All of us are growing older; those of us on the downhill side must contend with changes that affect our birding: arthritis, memory loss, hearing loss, loss of bone density, and more besides. It's particularly discouraging though when companions refer to subtle cues, necessary to identify that cryptic sparrow or fall warbler, which I am unable to see. Did I need to upgrade my binoculars or get new glasses? My optometrist assured me that my eyes were perfectly corrected.

Then I got to wondering about my progressive lenses, and decided to try an experiment. I ordered new lenses for my old frames but with traditional "lined" bifocals. When I tried them with my binoculars I saw a real difference!

Birds focused more easily, stayed in focus, and the whole binocular field

seemed much flatter and in focus. Confirmation also came when I went to the shooting range and looked through my scope: the targets were decidedly less fuzzy and I could see all of the individual bullet holes.

While I still prefer my progressive lenses for everyday work, including reading and working at the computer, my new lined bifocals give me a much better view when I use field optics.

I am near-sighted and the difference between my normal lenses and the bifocal segment is pretty obvious, so if you have less distorted eyesight you might not benefit. Try this test. Look through your binoculars without your glasses. Is the view that much better, the field flatter and in focus, when compared with your progressive eyeglasses? If so, this might be a sign that the progressive lenses are making it harder for your eyes to focus when looking through optics. It might just help you to identify those birds that have been giving you fits, although you will still have to learn the field marks!

Tim Helentjaris

Tedra Fox: In Memoriam

It is with deep regret that we report the passing of Tedra Fox, Pima County's first Sustainability Manager. Tedra established the long-term Sustainable Action Plan for County Operations, winning the "Innovation in Sustainability Award of Excellence" award from the National Association for Operations Management.

The plan integrated more than 100 action items to create a more sustainable workplace. The plan addresses: Water Conservation and Management; Alternative Fuel Vehicles; Green Building; Green Purchasing; Waste Reduction; Renewable Energy and Energy Efficiency; and Land Conservation and Management.

Tedra, and the Sustainable Action Teams she assembled, enabled Pima County to show measurable improvements including:

- Reducing waste streams by 30% since FY2008 through the "Recycle While You Work" Campaign.
- One quarter of Pima County's 1141 Fleet Vehicles now use alternative fuels.

- \$1.2m in energy savings during the last year through such things as videoconferencing, turning off heating and cooling systems after hours.

With the City of Tucson, Tedra secured funding to establish a Regional Solar Coordinator and the Solar One Stop Website, and The Green Pueblo Map (www.greenpueblomap.org) which created greater awareness and enjoyment of Pima County's many sustainable assets. Tedra was posthumously awarded the Legacy Award from the Pima County-Tucson Women's Commission for her outstanding service in local government.

Though Tedra would say that it was a Pima County team effort, we know that none of these accomplishments would have been possible without her leadership. We mourn the loss of one of the brilliant lights dedicated to improving our community. We will miss her greatly. See tucsonaudubon.org/what-we-do/conservation/296.html for a full appreciation. ■

Lilian von Rago and Chris McVie



Does Your Representative Know What You Think?

During March we learned that members of the House Energy and Commerce Committee voted **against** the following amendment: “*Congress accepts the scientific finding of the Environmental Protection Agency that ‘warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.’*”

Two other amendments, one that affirmed that human-caused emissions are causing climate change and another that such climate changes pose threats to human health and welfare, also fell to defeat in a vote along party lines. Incidentally, the 31 Republicans and three Democrats who voted in favor of H.R. 910 (The Energy Tax Prevention Act of 2011) have received a total of \$350,250 from Koch Industries, the second-largest private company in the United States. Greenpeace reports that between 1997 and 2008 Koch Industries donated nearly \$48 million to groups that doubt or oppose the theory of anthropogenic climate change. We wonder whose interests they have at heart.

Meanwhile in Phoenix a bill called the “Freedom to Breathe Act,” SB1393 would seek to remove the Environmental Protection Agency’s federal authority to regulate fine particulates (PM-10 and PM- 2.5) microscopic particles of air pollution small enough to penetrate deep into the lungs and exacerbate cardiopulmonary illnesses, as well as regulate greenhouse gas emissions.

This bill follows an executive order issued last year by Gov. Jan

Brewer that withdrew Arizona from the Western Climate Initiative.

The Senate has approved and forwarded to the House two pieces of legislation under which Arizona would ignore federal health and safety guidelines set by the Clean Water Act and the Clean Air Act, which impose uniform standards over the amount of pollutants that can be discharged into the air and water.

SCR 1015 would have Arizona voters decide whether to amend the state Constitution to allow the state to become the sole regulatory authority over the levels of pollution that can be emitted into intrastate waterways, and give the state Legislature the authority to define what intrastate waters are.

These actions are contrary to what the voters say they want. A telephone survey conducted among a representative sample of 500 voters in Arizona reports that Arizona voters believe that protecting and preserving the natural environment is important and, in light of the recent state budget cuts, want existing funding for the Land and Water Conservation Fund preserved. Among key findings from the survey;

- 92% rate protecting the quality of water “very important” (99% total important)
- 84% rate conserving lakes, rivers and streams “very important” (97% total important)
- 79% rate protecting the quality of air “very important” (95% total important)
- 76% rated preserving natural areas and parks for future generations of Arizonans “very important” (97% total important)

- 68% rate preserving habitat for fish, birds and wildlife “very important” (96% total important)
- 66% rate preserving historic sites and lands unique to Arizona’s history and heritage “very important” (96% total important)
- 57% rate protecting recreational opportunities in natural areas and parks “very important” (94% total important)

Further, a majority of voters (68%) agree “we can protect land and water and have a strong economy with good jobs for Americans at the same time, without having to choose one over the other,” while just 28% agree “sometimes protections for land and water and having a strong economy are in conflict, and we must choose jobs over protecting natural areas and parks.” Finally, given the state’s budget cuts, six-in-ten (61%) believe that it’s “more important to preserve existing funding for national parks and monuments, like that from the Land and Water Conservation Fund.”

A broader survey of five western states www.coloradocollege.edu/stateoftherockies/Conservation_West_Survey/ConservationWestSurvey_02_20_11ev1.pdf discovered that nine of ten Westerners would rather spend a day outdoors than a day in a city, and an overwhelming majority of voters surveyed also attach a high “importance to having clean water, clean air, natural areas and wildlife as a fundamental ingredient in the good quality of life in their state (87% extremely or very important).”

Two-thirds believe the current laws protecting land, air and water should be strengthened, or at least

better enforced (66% combined, 18% strengthened, 48% better enforced). When provided with an economic rationale for reducing some of these standards on major employers such as agriculture and construction, three-quarters of western voters believe the current “protections for land, air and water that apply to major industries” should be maintained.

One area where voters see the potential for job growth is increasing the use of renewable energy sources, as two-thirds (67%) perceive this to be a job creator for their state. Only twelve percent think this would “cost their state jobs.”

Voters indicated that they would increase the amount of their state’s electricity needs being produced by renewable sources to 65%. A majority agree that it is “time to start replacing coal with other energy sources like wind and solar power (70% agree, 28% disagree).” The survey also found that “fully 88% indicate a willingness to pay something more each month for this purpose.” These results are driven by concerns for air quality. Respondents are mostly (67% supporting and 30% opposed) in favor of EPA “requiring reductions in carbon emissions from sources like power plants, cars and factories in an effort to reduce global warming.”

Finally, the current Senate budget proposal jeopardizes the ability of Arizona State Parks to function as an agency, so no matter how much Federal partners can give for the Site Steward Program, it’s unlikely that ASP will be able to continue to support our park system as part of the budget see article at tucsonaudubon.org/images/stories/conservation/More_cuts_StParks.pdf.

We Westerners want to preserve the quality of life we’ve come to love in the West. This is what Arizona voters want. Do your representatives know what you want or are they advancing their own agenda when it comes to our natural environment?

Visit tucsonaudubon.org/act-now/advocate.html for a list of who to contact in local, state, and federal governments. ■



SAN PEDRO RIVER, MATT GRIFFITHS



SABINO CANYON, MATT GRIFFITHS

TUCSON AUDUBON FIELD TRIPS

MATT GRIFFITHS | INTERIM FIELD TRIP COORDINATOR



KENDALL KROESEN

April

April 2—Saturday 9–11 AM

Sweetwater Wetlands Family Outing Series (first Saturday of every month)

Share your love of birding with your children or grandchildren at one of the “birdiest” places in Tucson. Borrow our backpacks filled with fun family birding activities, field guides and binoculars, or visit our hands-on nature stations. This monthly outing is self-guided; bring your children and take as long as you like! The Family Outings are developed in conjunction with Sunnyside School District’s Student Urban Naturalists who seek to promote an understanding of the environment through engaging birding and nature activities. An adult must accompany children. Leader: Deborah Vath dvath@hotmail.com 490-4835

April 5—Tuesday 6 AM

Florida Canyon

Meet in Green Valley at the McDonald’s at 6:00 AM. Bring your lunch. Wear good hiking shoes. Lots of water. Looking for migrants. Mileage: 50. Leader: Melody Kehl Outdoor1@cox.net 245-4085



April 10—Sunday 6 AM

Lower Madera Canyon

Meet at the Green Valley McDonald’s on Continental Road. This half day trip will include hiking the Proctor Loop for 2 miles, exploring the feeder sites at Santa Catalina Lodge and the Kubo. Spring migrants and returning resident breeding birds should make this an interesting hike. We will have an early lunch at the upper canyon picnic area and be back shortly after noon. Leaders: Mark and Farrish Sharon farrishsharon@gmail.com



April 12—Tuesday 7:30 AM

Patagonia to Kino Springs

Explore Patagonia to Kino Springs. In the morning we will hike take a 5-mile hike through Nature Conservancy trails in Patagonia then head south to Kino Springs to bird. Lunch at the Kino Springs Golf resort restaurant. Limit 10 participants. RSVP required. Carpool in Tucson



Sulphur-bellied Flycatcher

JIM & DEVA BURNS, WWW.JIMBURNSPHOTOS.COM

at Houghton Rd. just north of I-10 at 6:30 AM (leader not present). Meet leader at the The Nature Conservancy Patagonia Sonoita Creek Preserve in Patagonia, 150 Blue Haven Rd, at 7:30 AM. Map: <http://goo.gl/maps/TqK4> RSVP Leader: Frank Kee birding@keesmail.com 775-453-0241

April 16—Saturday 1 PM

Sweetwater Wetlands for New Birders

This is an opportunity for people who wish to explore the hobby of birding. We will take a look at a variety of species in this popular birding location. Leader will have a scope. If you would like to borrow some binoculars, contact me by April 10 otherwise simply meet me in the parking lot. Leader: Darlene Smyth dsmyth3@comcast.net 297-2315

April 16—Saturday 8 AM

Earth Day Youth Birding: Reid Park

Learn how to use binoculars and identify the common birds of Reid Park! Tours will leave the Tucson Audubon’s Earth Day tables every hour on the hour. Families are encouraged to attend this fun introduction to birding for kids. Young children will make and take their own “recycled binoculars” from used toilet tissue rolls and string. Older children can learn to bird with a pair of loaner binoculars. Questions? Leaders: Scott Olmstead 840-9567 sparverius81@hotmail.com and Deborah Vath 490-4835 dvath@hotmail.com

April 19—Tuesday

Rock Corral Canyon

Come explore a little-known canyon draining to the northeast out of the Tumacacori Mountains and incorporating the Wild Chile Botanical Area. Lower areas have Rufous-winged and Black-throated Sparrows, while the upper parts of the

WEEKLY BIRD WALKS

Fridays—8–9:30 AM

Tucson Audubon’s Mason Center Friday morning bird walks. Learn the very basics of birdwatching and how to identify the birds commonly seen in the Tucson Area. A brief presentation is followed by a slow stroll around the half-mile trail at the Mason Center—genuine Ironwood forest habitat. Led by Mary Ellen Flynn. No reservation required. Loaner binoculars available.

Thursdays—8 AM

Wake Up With the Birds at Agua Caliente Park. A stroll through the bosque and along the ponds. Loaner binocs available, meet in front of the ranch house. For more info call Pima County Parks and Rec., 615-7855.

Visit tucsonaudubon.org/fieldtrips for the latest or expanded field trip information

or call us at 520-629-0510.

Note: All phone numbers use the 520 area code unless otherwise stated.

General Information

Tucson Audubon field trips are free. For general information call 520-629-0510. For specific information about a trip, contact the leader of that trip.

Please dress appropriately for your field trip. Always wear sturdy shoes, a hat, and use sun protection. Bring plenty of snacks and water for yourself. Always bring your binoculars, field guide, and for most trips a scope can be useful. Bring money to cover your share of the carpooling and any required entry fees (eg for state parks).

Arrival Times

Please arrive before listed departure times. Trips will leave promptly at the time given.

Carpooling Sites

Tucson Audubon strongly encourages carpooling and for some trips it may be required. Check our website for frequently used carpooling sites. You are expected to reimburse the driver for the actual cost of fuel. Drivers and trip leaders are not expected to contribute.

Rare Bird Alert

Listen to the latest rare bird alert at 629-0510 ext. 3. Report rare birds at 629-0510 or rarebirdalert@tucsonaudubon.org

Don't forget to stop in our Nature Shop for your field and ID Guides, and other birding supplies.

KENDALL KROESEN



Rock Corral Canyon

canyon have patches of oak with Bridled Titmouse, Hutton's Vireo, Ash-throated Flycatcher, Northern Beardless-Tyrannulet, Scott's Oriole, and perhaps some migrants. Maybe we'll get lucky and discover a waif Five-striped Sparrow. Walking on rough, rocky road and trails, steep in places requires good physical ability. Limited to 12 participants, at least 3 of whom are willing to drive their high clearance vehicles the 2.5-mile entrance road; carpooling to rendezvous recommended. Contact leader to sign up and to receive further details. Leader: Rich Hoyer birdernaturalist@me.com 325-5310

April 24—Sunday 6:30 AM

The Santa Rita Mountains



This spring day, we'll explore the Santa Rita Mountains near Green Valley, from the grasslands and scrublands, to the canyon hotspots. Join us for a low-key, easy walking day. Meet at the Green Valley McDonalds on Continental Road at 6:30 AM. Leader: Clifford Cathers AZCliffy@Q.com or 762-3201.

April 26—Tuesday 4:30 AM

Fort Huachuca



Birding on foot in some of the canyons on Fort Huachuca. Because the Army limits the number of participants on the trails, this trip will be limited to twelve participants (including the leader) in three high-clearance vehicles. Contact the leader by email to reserve a place. All participants must have a government-issued picture ID, and all drivers must have drivers license, car registration, and proof-of-insurance. If you are not a U.S. citizen, please let the leader know when you make your reservation. Be prepared to hike on rough rocky trails that are steep in places. Bring lunch. 160 miles round trip. Leader: Jim Hays jhays@iname.com (preferred) or 895-3299

April 30—Saturday 7 AM

Robb Wash Bird Walk

Spring is a great time to learn to identify the common birds of Tucson's urban washes. We will identify common birds by their songs as well as by visual field marks. Beginners are especially encouraged to attend. We will explore the segment of Robb Wash between Speedway and Pima, east of Pantano. Bring water and sunscreen. We'll be done by late morning. Call leader for

exact directions: Kendall Kroesen, kkroesen@tucsonaudubon.org or 971-2385.

May

May 7—Saturday 9—11 AM

Sweetwater Wetlands Family Outing Series (first Saturday of every month)

Share your love of birding with your children or grandchildren at one of the "birdiest" places in Tucson. Borrow our backpacks filled with fun family birding activities, field guides and binoculars, or visit our hands-on nature stations. This monthly outing is self-guided; bring your children and take as long as you like! The Family Outings are developed in conjunction with Sunnyside School District's Student Urban Naturalists who seek to promote an understanding of the environment through engaging birding and nature activities. An adult must accompany children. Leader: Deborah Vath dvath@hotmail.com 490-4835

May 10—Tuesday 8 AM

Madera Canyon for the Novice or Handicapped Birder



New to birding, or simply not up to long hikes? This will be a leisurely two hour trip to introduce three Madera Canyon Hot Birding Spots: Proctor Road, Santa Rita Lodge, and Madera Kubo. At Proctor Road we will stay on the paved path, so if you are handicapped and use a scooter, this would probably work for you. Total walking is about 1 mile. Benches are available at the Santa Rita Lodge, but at Madera Kubo, we will be standing. Loaner binoculars and bird books will be available. Limit 10. Meet at Green Valley McDonalds, 8 AM Leader: Nina Hansen ninahansen2008@gmail.com. 203-8038.

May 15—Sunday 6:30 AM

The Santa Catalina Mountains

Join us for a spring jaunt up Tucson's Santa Catalina Mountains for species ranging from the Sonoran desert to high elevation conifers. Meet at the McDonalds at Tanque Verde and the Catalina



Atturbury Wash

KENDALL KROESEN

Highway in northeast Tucson at 6:30 AM. Bring lots of water and sunscreen. Leader: Clifford Cathers AZCliffy@Q.com or 762-3201.

May 17—Tuesday 7 AM

Santa Gertrudis Lane to Tubac



Bird along the Anza National Historic Trail beside the Santa Cruz River. A five mile morning hike one way. Expect to be done by 10 AM. We will shuttle cars to go one way. Limit ten participants. RSVP required. Car Pool in Tucson in Front of Pet Smart 1175 W Irvington Rd (shopping area Irvington/I19) at 6:15 AM (leader not present). Dive I19 south to Tubac 41 miles, exit 34. Meet leader in Tubac at 7 AM in front of the "Tubac Deli & Coffe" Map: <http://goo.gl/maps/R3jm> RSVP Leader: Frank Kee birding@keesmail.com 775-453-0241

May 21—Saturday 7:30 AM

Youth Birding: Agua Caliente Park

A half-morning introduction to birding for kids. We will begin with the basics of using binoculars and spend time observing the resident birds of Agua Caliente Park, as well as any migrants that are moving through the area. Emphasis will be placed on how birds interact with their surroundings. Families are encouraged to attend! Please pre-register with leader. Leader: Scott Olmstead 840-9567 sparverius81@hotmail.com

May 21—Saturday 6:30 AM

Atturbury-Lyman Bird and Animal Sanctuary

Join us to explore the rich microcosm of native nesting birds along one of Tucson's premier washes: Atturbury Wash. This is a great place to learn the songs of Lucy's Warbler, Bewick's Wren, and many others. The location is lower Lincoln Park on the east side, off Escalante east of Pantano Road (not upper Lincoln Park off Pantano south of Escalante). Meet at lower Lincoln Park at 6:30 AM. Bring water and sunscreen. Call leader for exact directions or to carpool: Kendall Kroesen, kkroesen@tucsonaudubon.org or 971-2385.

May 24—Tuesday 5 AM

Patagonia Lake State Park



A great diversity of wildlife can be found at Patagonia Lake State Park, one of the best birding sites in Southeast Arizona. We'll explore



JAMES PRUDENTE

Varied Bunting

Chiricahua Mountains

grassland, desert scrub, riparian, marsh and open water and we should be rewarded with a high number of birds. There is an entrance fee of \$10/vehicle. Bring a hat, sunscreen, plenty of water and something for lunch. Please contact leader Richard Fray for meeting place: richard@funbirdingtours.com or 323-4234.

May 28—Saturday 2:30 PM

California Gulch

Let's head to the gulch and hope for Five-striped Sparrows and Varied Buntings. Bring your supper and drinks. Wear good walking shoes. Meet in Green Valley at the McDonald's at 2:30 PM, return by midnight. Mileage: 300 miles Leader: Melody Kehl Outdoor1@cox.net 245-4085



May 29—Sunday 5:30 AM

Sycamore Canyon

Rugged Sycamore Canyon is legendary among birders for the rarities it has harbored over the years, as well as for its steep, difficult terrain. We'll bird the canyon for a roundtrip hiking distance of about 2.5 hot miles, over very uneven terrain and wet stream crossings. We will encounter species typical of Oak-Juniper and Riparian habitats. Meet at the Green Valley McDonald's parking lot at 5:30 AM. Contact the leader to sign-up. Leader: Ethan Beasley ethanbeasley@yahoo.com



June

June 11/12—Saturday/Sunday 6:30 AM

Chiricahua Mountains

Join us for a full weekend exploring the birdlife of the Chiricahuas. Our leader, who lives and guides in Portal, will take us from the desert lowlands to the mountain peaks in search of regional specialties. Camping is available on the National Forest lands; regular lodging is available in Portal. Note that indicated meeting time is 6:30 AM in Portal, NOT in Tucson! We will bird all day Saturday and half of Sunday, allowing for a return to Tucson by about 4 PM. Be prepared for



Buff-breasted-Flycatcher

less maintained roads. Limit 10 participants; call or email leader to sign up starting May 9. Request more details via email any time prior. (350 miles roundtrip). Leader: John Yerger jyerger24@yahoo.com or 558-0019

June 15—Wednesday 4 AM

Buenos Aires National Wildlife Refuge

Look for grassland and riparian specialties off the beaten birding track. Wear long sleeves and pants, a good sun hat, and plenty of sun screen; bring lunch, water, notebook, and pencil. Meet at the Fry's at Irvington and I-19 at 4 AM or at the Green Valley McDonald's (Continental Road exit) before 4:30 AM. We'll return to Tucson by 3 PM, earlier if the weather requires it. About 160 miles round trip. Leader: Rick Wright, birdaz@gmail.com

June 18—Saturday 6 AM

Carr Canyon & Hummingbirds

Today, we'll head to the upper reaches of Carr Canyon in the Huachuca Mountains near Sierra Vista for Buff-breasted Flycatchers and high elevation warblers. Mid-morning, we'll head over to Tom Beatty's to check on the hummingbirds in Miller Canyon. Meet at Houghton and I-10 in Tucson at 6 AM. Carpooling in vehicles able to navigate Carr Canyon's rocky, dusty incline necessary. Bring lots of water. Back



Join the following All-Star Teams on their Birdathon Days

April 8: *Rookies*
 April 9: *High Rollers*
 April 17: *Wrenegades*
 April 23: *Hoyer's Voyeurs*
 April 30: *Birds of Fray*
 May 7: *Gonzo Birders, Fledglings*

See page 7 for full details.



by noon or shortly thereafter. Leader: Clifford Cathers AZCliffy@Q.com or 762-3201.

June 25—Saturday 5 AM

Mount Lemmon

We'll escape the heat of the day by getting out early and heading up the mountain. A wide range of interesting birds spend the summer high in the mountains and we'll hopefully find many of them before it gets too hot. Bring a hat, sunscreen and plenty of water. We'll head back down at around midday and optionally you can join me for lunch in Tucson before heading home. Please contact leader Richard Fray for meeting place: richard@funbirdingtours.com or 323-4234. ■

3 Chirps for Darlene!

We are very sad to report that Darlene Smyth has stepped down as the Field Trip Coordinator after many years of invaluable service to Tucson Audubon. As a volunteer, she regularly averaged over 100 hours a month in guiding the most prolific Audubon trip program in the nation. Darlene will continue to lead trips for us and we wish her well with all her new-found free time! A longer appreciation of Darlene will appear in the next issue of *Vermilion Flycatcher*.



ADDITIONAL BIRD WALKS IN TUCSON AND SOUTHEAST ARIZONA

For information on weekly regional bird walks from Agua Caliente Park to Ramsey Canyon Preserve, please see our website, www.tucsonaudubon.org/what-we-do/birding/128.html.

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San Blas: Mangrove Estuaries, Coffee Fincas, Palm Forests and More. Dec 10–18, 2011,

\$2,195. Leader: Keith Kamper and John Yerger. The coastal fishing village of San Blas is one of the premier birding destinations in Mexico. We'll visit mangrove estuaries, coffee fincas, beaches and coastal lagoons. 25 Mexican endemics possible including San Blas Jay, Rufous-necked Wood-rail, Cinnamon Hummingbird and Golden Vireo. Jungle boat tour with oddities like Boat-billed Heron and Northern Potoo, even iguanas and crocodiles! We'll be based at one motel throughout so we can unpack, unwind and enjoy the region's natural and cultural history, fresh mariscos and green flash sunsets.

Colima and Jalisco: West Mexican Endemics from Beaches to Volcanoes. Mar 10–18, 2012,

\$2295. Leader: Keith Kamper and John Yerger. The states of Colima and Jalisco comprise perhaps the most biologically diverse region in Mexico, where the mountains of the Sierra Madre Occidental meet with the central volcanic belt. This volcanic belt bisects Mexico on an east-west axis, straddling a boundary along the northernmost or southernmost edge of many species' ranges. By scouring this region from its unspoiled coastlines up to volcanoes with cloud-enshrouded montane forest, we should see upwards of 40 endemics and specialties, including Balsas Screech Owl, Red-breasted Chat, Chestnut-sided Shrike-Vireo, and Cinnamon-bellied Flowerpiercer.

SOLIPASO TOURS

www.solipaso.com

Yecora-Alamos: April 30–May 8, 2011. \$2200

Leader: David MacKay. The best of Sonora... the Sierra Madre, colonial Alamos and the Sea of Cortez! Starting in Tucson, we head south and up to the logging town of Yecora in the Sierra Madre to pick up high elevation endemics such as White-striped Woodcreeper, Rufous-capped Brushfinch and Mountain Trogon. In Alamos, we stay at the beautiful El Pedregal Nature Lodge and bird the area for Blue Mockingbird, Mexican Parrotlet, Russet-crowned Motmot, and Yellow Grosbeak. We will also take time to explore town. At the coast, we'll be treated to high numbers of shore and water birds, including Blue-footed and Brown Boobies! We'll spend the last night in Guaymas and enjoy a seafood feast before heading back to Tucson. Sonora is our home and no one runs better trip than Solipaso!

Northwest Mexico: August 11–18, 2011. \$1900.

Leader: David MacKay. This trip takes us to the rugged country of Northwest Mexico and the Sierra Madre for several high elevation endemics, great scenery, and delicious rancho food! The trip starts in Tucson and we will spend the first day birding our way through the grasslands and juniper on our

way to Casas Grandes, Chihuahua. Then it is off to Madera where we will focus on finding Thick-billed Parrots in their nesting habitat. Basaceachic Falls is fantastic for scenery and birds like Rufous-capped Brushfinch, Spotted Wren and Gray-silky Flycatcher. In Yecora we look for Mountain Trogon, Gray-collared Becard and Gray-crowned Woodpecker. Into tropical deciduous forest, we will look for Colima Pygmy Owl, Fantailed Warbler, and Rusty Sparrow. Our final night of the trip is spent in Hermosillo and we will spend the last day birding the Sonoran desert on our way back to Tucson.

ROCKJUMPER—WORLDWIDE BIRDING ADVENTURES

info@rockjumperbirding.com
www.rockjumperbirding.com

Namibia, Okavango & Victoria Falls Overland III. 11–28 Aug 2011. \$6575 (Single Supplement:

\$500). This popular tour visits some of the major highlights of three of Africa's most remarkable countries. From the ochre-colored dunes of the Namib Desert to the lily-choked backwaters of the Okavango Delta, the flamingo-studded lagoons of the Skeleton Coast to the game-filled waterholes of Etosha National Park and the breath-taking Victoria Falls, these countries provide incredible contrasts and an eco-tourism experience like no other. Top birds include; Slaty Egret, Wattled and Blue Crane, African Skimmer, Pelis Fishing Owl (one of ten possible owls!), White-tailed Shrike, and an incredible diversity of larks.

Brazil—Birds & Wildlife of the Pantanal

& Cerrado. 6–14 Oct 2011. \$3975 (Single Supplement: \$650). This tour is a birding and wildlife safari that takes in three significant locations; deciduous Amazonian forests, where we will visit the nesting site of a Harpy Eagle, the bird rich Cerrado woodlands, and the celebrated Pantanal—the planet's largest wetland, encompassing 80,000 square miles. With over 650 bird species and a staggering 200 mammals, this region is unlikely to disappoint. To boot, this is also the most reliable place for sighting the magnificent Jaguar. Top birds include; Hyacinth Macaw, Amazonian Antpitta, Swallow-tailed Cotinga, Spot-billed Toucanet, and Chestnut-bellied Guan.

Available extensions: Brazil—Atlantic Rainforest Extension—Endangered Endemics 1–95 Oct & Brazil—Amazon Rainforest Birding Extension 14–9 Oct

TROPICAL BIRDING

www.tropicalbirding.com
info@tropicalbirding.com • 1-800-348-5941

Rwanda and Uganda: Shoebills and Albertine Rift Endemics June 1–17, 2011. \$6900 from

Kigali. This two-country tour offers world birders a host of Albertine Rift endemics in Nyungwe Forest including the stunning and colorful Ruwenzori Turaco. As well as searching these mountain forests for endemics, we will survey

papyrus swamps for the mighty Shoebill lurking in the shallows, and also make a special trek for incredible close-ups with a group of Mountain Gorillas at the very place where Diane Fossey studied these amazing primates. Indeed this destination is fantastic for wildlife in general so by combining forest and savanna sites we also have opportunities to look for Chimpanzees, take some game drives out on the plains for East African megafauna, and pick up around 450 bird species in the process.

South Africa: Fairest Cape to Kruger.

September 23–9 October, 2011. 38705 Rand from Capetown. The tour of this wonderfully diverse modern country packs a lot in: The endemic-rich bird areas of the Western Cape, some of the world's most spectacular pelagic birding off Capetown, surrounded by hordes of petrels and albatrosses, walking with penguins at Boulders Beach, and the game-rich *bushveld* of Kruger National Park. An irresistible extension to the breathtaking Drakensberg Mountains and Lesotho can be added to ensure you pick up both rockjumper and tip the bird list over 450 species, (including many southern African specialties and Cape endemics), and rack up more than 50 mammal species too.

VICTOR EMANUEL NATURE TOURS, INC.

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North Carolina. May 28–June 4, 2011; \$2,795 in double occupancy from Wilmington. Our first-ever North Carolina tour focuses on specialty landbirds and waterbirds of the southeastern United States. We'll search hardwood swamps and pine forests for such prizes as Red-cockaded Woodpecker, Brown-headed Nuthatch, Swainson's Warbler and Bachman's Sparrow. On the famed Outer Banks we should see a diversity of coastal specialties such as Piping Plover, Sandwich Tern, and Seaside Sparrow. Two pelagic trips into the Gulf Stream should produce up to 10 species of seabirds, including Black-capped Petrel. Michael O'Brien, co-author of the acclaimed *Shorebird Guide*, and one of the continent's top field observers, leads.

Point Pelee, Crane Creek & The Kirtland's Warbler. May 9–17, 2011; \$2,475 in double

occupancy from Detroit. Fringing two sides of Lake Erie, the migration hotspots of Point Pelee and Crane Creek are renowned among birders as premier places in North America to observe migration. In a little over a week participants on this tour will visit the north and south shores of Lake Erie in search of dozens of waterfowl, shorebirds, warblers, orioles, tanagers, grosbeaks, buntings, and more. We'll also travel to north-central Michigan to view nesting Kirtland's Warblers—North America's rarest songbird. Beyond his knowledge of birds, tour leader Steve Hilty brings a wealth of knowledge about botany and ecology as well. ■

KIRTLAND'S WARBLER, LOU GEORGE / USFWS

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The Southwestern Research Station (SWRS) is a non-profit biological field station owned by the American Museum of Natural History, in New York, NY. Nestled within the great "sky island" mountain wilderness of the Chiricahua Mountains of S.E. Arizona, the SWRS is situated

in the midst of extraordinary biodiversity. The Chiricahua Mountains are a prime destination for nature enthusiasts, with some 265 bird species recorded in the area, including nesting Elegant Trogons, Montezuma Quail, and over 13 species of hummingbirds; a wide diversity of mammals and more than 75 reptile species. Call 520-558-2396 or visit <http://research.amnh.org/swrs/> for information on birding and nature tours!

FARMERS INVESTMENT CO. (FICO), Dick and Nan Walden: Stewards of the Land.

For more than six decades, Farmers Investment Co. (FICO) has farmed in the Santa Cruz River valley south of Tucson, and has become the world's largest integrated grower and processor of pecans. Today they are leaders in sustainable farming and have implemented state-of-the-art irrigation technologies to conserve water. Because of their commitment to the land, FICO's Dick and Nan Walden are planning the long-term future of their pecan groves. To learn more, visit sahuaritafarms.com.

SIERRA VISTA RANCH

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Rancho Sierra Vista de Sasabe is a multi-use ranch located in the Altar Valley of south central Arizona. Our vineyard uses no-till organic farming practices and supplies Arizona-grown grapes to Canelo Hills Winery. The ranch is committed to restoring degraded riparian and wetland zones, replacing woody vegetation with native grasses, and conserving open space and sparing land from development and other land-use changes. The land is managed for long-term ecological and economic resilience.

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Classified and display ads are accepted from individual members and members of our Birds & Business Alliance. Visit tucsonaudubon.org/vfly for rates or contact Matt Griffiths mgriffiths@tucsonaudubon.org to book an ad.

HIGH-SPEC LAPTOP COMPUTERS NEEDED!

Tucson Audubon's staff are in urgent need of high-specification recent-model laptop computers for their work. If you can help please call Jean Barchman on 520.629.0510 ext 7002.

THE OASIS AT WAY OUT WEST B&B/Private Nature Preserve. A secluded trail side location offers close-up wildlife observation and colorful mountain sunsets. Bird our trails (135+ House List) or the Catalinas. 20+ feeding stations, Naturalist/Photographer on-site, Wi-Fi, Hydrotherapy spas, Bike rentals, Eco-Excursions. WOWArizona.com. 520.825.4590.

WHITE MOUNTAIN AUDUBON CAMPOUT

2011. June 17-19. Bird area hotspots such as the Little Colorado River, Becker Lake, White Mountain Grasslands Wildlife Area and possibly Sipe Wildlife Area. Enjoy a Saturday night potluck and evening program. Please contact Liz and Tom for details and to register (\$20/vehicle): lizntom@frontiernet.net or 928-532-1510.

PATON BIRDER HAVEN CASITA RENTAL



Internationally famous birding destination in Patagonia, Arizona featured in PBS *Birdwatch* and *Arizona Hummingbirds* and listed in Frommer's as "a favorite stop of avid birders". Newly remodeled, non-smoking facility. Living room with separate sleeping area (sleeps 4), dining area, bathroom, and fully-equipped kitchen, washer/dryer. Walk to town, Sonoita Creek Preserve or watch birds from the back yard. Over 200 species have been seen on the grounds. Linens, towels provided. Two night minimum—\$185/2 nights or \$250/3 nights (plus tax). Longer term available. View details and reserve the Casita at the website www.patonbirderhaven.org or contact Michael Marsden at 520-394-2340.

Visit tucsonaudubon.org for updates and more.

Tucson Audubon thanks our Birds & Business Alliance Members, who have shown their support for bird conservation through annual contributions and in-kind donations. **Please show them you appreciate their support for us by supporting them.** Visit www.tucsonaudubon.org for more information about our Birds & Business Alliance members, including links to their websites.

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Tucson Audubon's Nature Shops provide for your needs in natural history books and guides, birding optics and accessories, and gifts right here in Tucson. We offer a great selection, the best prices, and member discounts. Remember to shop locally.

Cole's Brand Seed

Our Nature Shops are now carrying Cole's brand bird seed. We made a switch when our previous high-quality brand, Wild Delight, ceased delivery to Arizona. Through our research we found Cole's, another seed brand that offers a variety of choices of premium seed for your bird feeding needs.

A sample of the varieties we carry:

- *Special Feeder*—a unique blend that is a high energy treat for woodpeckers, cardinals, finches and other songbirds. It includes black oil Sunflower seeds, sunflower meats, black stripe sunflower, raw peanuts, safflower and pecans (5lbs, \$12.99)
- *Finch Friends*—A finch mix for tubular feeders. It includes sunflower meats, niger seed, canary seed (5lbs, \$14.99)
- *Nutberry Suet Blend*—includes more of the fruits and nuts that birds really crave, plus nutritious Insect Suet Kibbles. It includes sunflower meats, raw peanuts, pecans, blueberry flavored cranberries, apple slices, Insect Suet Kibbles. (5lbs, \$14.99)

Many more flavors and sizes available. Stop in the shop today to stock up!



Hints for Bird Feeding and Seed Selection

By Caroline Patrick

Over the past two years that we have been selling bird seed in the Nature Shop, we have had countless members of the community stop by to tell us about the amazing array of birds they have coming into their yards. Without a doubt, one of the best ways to increase the number and variety of birds in your neighborhood is, along with planting native plants and providing a water source, to place one or more feeders in your yard. With all the different types of feeders and seed available, the prospect of picking what is right for your yard can seem quite daunting. Here are some helpful hints for selecting the best seed and feeders for your yard.

Buy a feeder that is easy to hang and easy to fill.

While the seed may be for the birds, you will enjoy the experience much more if you can easily access your feeder for filling and cleaning. Before buying a feeder, think about where it will hang. The Nature Shops have chains, hooks, and other supplies to make your feeder accessible. For excellent close-up views try a feeder that attaches to the outside of a window.

Different seed mixes attract different birds.

A traditional all-purpose bird seed blend often includes black-oil sunflower, shelled sunflower seeds, millet, and cracked corn. The Nature Shops carry specialized blends including Cole's brand

Special Feeder for woodpeckers, cardinals and song birds, *Nutberry Suet Blend* which includes suet kibbles for insect feeders, and *Finch Friends*, a sunflower/nyger seed mixture guaranteed to bring a variety of finches to your yard.

Want to avoid waste? Go with hulled sunflower seeds.

Although many seed companies advertise a "no waste" blend of bird seed, if there are nuts or seeds with shells, there will be some waste. As an alternative, try hulled sunflower seeds (also called "meats"). If going with a shelled seed, we recommend using birdfeeders that have a tray attached designed for catching extra seed and discarded shells.

Birds go nuts for peanuts! Raw, whole peanuts in a wire-mesh feeder are a favorite of the woodpeckers of this region, not to mention the Cactus Wrens. These feeders do not empty as quickly as regular seed feeders and are extremely durable. In addition to woodpeckers, local wrens and towhees will likely frequent a peanut feeder for a daily snack.

Put a sock in it! One of our most popular feeders at the Nature Shops is our "sock" style feeder. These nifty mesh bags are typically filled with nyger seed (but can hold small seed blends as well) and can be hung virtually anywhere. We have several

sock feeders hanging outside of the main Nature Shop that are immensely popular with the local goldfinches, sparrows, thrashers, and other birds.

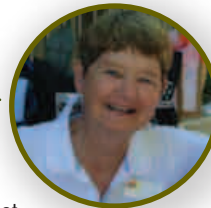
Spice it up...squirrels don't like it hot!

Several seed companies including Cole's have been infusing some of their seed products with a liquid chili pepper. Birds take no notice of the spice but rodents do not care for it. This is useful for extending the supply of seed both at the feeder and what spills on to the ground. Be sure to buy a product designed for this rather than adding chile powder to seed. And use gloves when handling chile-infused seed!

Feeding is not just for the birds! Ever wonder why your hummingbird feeder gets empty overnight? It is likely because of the two species of nectivorous bats we have in southern Arizona:

Lesser Long-nosed Bats (*Leptonycteris curasoae yerbabuena*) and threatened Mexican Long-tongued Bats (*Choeronycteris mexicana*). Bats use the hummingbird feeders for a few weeks in the spring and fall as they pass through in migration. Feeding and studying bats has become a very popular pastime for Tucsonans, and it is worthwhile to invest in an extra hummingbird feeder for this purpose. In addition, the Shop also carries feeders designed to attract butterflies to your yard.

With spring in full bloom in the desert, be sure to stock up on seed and bird feeding supplies from the Nature Shops. Making your yard hospitable to birds, through native plantings, a water source, and providing seed/nectar is a sure way to attract migrating visitors as well as our year-around residents.



Need Suet? No Sweat!

Lorel Picciurro, a volunteer at the Tucson Audubon Nature Shop has bird-feeding down to a science. Not only does she take care of cleaning and filling all the feeders at the Nature Shop, she makes sure her personal feeders are also well-stocked with diverse meal options for the birds. Her suet recipe (below) is no-melt and easy to make. Give it a try!

Lorel's Peanut Butter/Lard Cakes for the Birds

Melt together on low heat, and stir to blend:

- 2 cups chunky peanut butter
- 2 cups lard

When fat is melted, turn off heat. Add dry ingredients one at a time, mixing well after each addition:

- 1/2 cup sugar (optional)
- 2 cups flour
- 4 cups corn meal
- 4 cups oatmeal (quick is best)

Blend all ingredients thoroughly. Press mixture into a 9x13 inch pan. Cool (in refrigerator) and cut into squares. Or, press into empty plastic commercial suet containers and cool. Remove from containers as needed and place in suet baskets.

Cooking for the Birds

by Adele Porter
Adventure Publications, 2010



Ever considered making a "banana split" for the birds in your yard? Adele Porter has. This protein-packed meal (made with scoops of suet in place of the ice cream) is ideal for migrating species in route to their breeding territories. This fun book has a variety of recipes to attract a wide variety of birds. While some recipes, such as the "Appetizing Crumble Pie" (said to attract towhees, orioles and mockingbirds) requires some actual cooking, other recipes can be put together with minimal effort. *Cooking for the Birds* also features excellent descriptions of the important ingredients needed for successful bird feeding as well as a guide to bird types (by family) and their preferred food sources. Adele Porter also correctly emphasizes the importance of citizen science in her book and encourages parents to get their children involved with bird feeding and observation. Each of the 26 recipes in the book includes a photo illustration, easy-to-follow instructions, and advice on yard placement. If you enjoy both the pleasures of cooking and bird watching, this book is for you.


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We've finally brought back the used book shelf in the nature shop, so stop by often for a constantly changing selection of quality used books.

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Now in the Nature Shop!

For the first time, Tucson Audubon is proud to offer Leica binoculars as part of our optics lineup. Leica has been producing binoculars for over 100 years and grinding lenses even longer, so they truly know what they are doing when they produce a product. We have stocked up on Leica Ultravid HD 8x42 and 10x42. If you've never held a pair of Leicas before, this is your chance to try them out.

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TUCSON AUDUBON NATURE SHOPS

When you support your local Tucson Audubon Society you are supporting birds and bird habitat conservation. Thank you!

SHOP HOURS

MAIN SHOP
Monday–Saturday 10 AM–4 PM,
Phone: 629-0510 ext 7015
On the southeast corner of University Blvd and 5th Avenue.

AGUA CALIENTE PARK SHOP
April–June: Thursday, Friday, Saturday
9 AM–3:30 PM
Phone: 760-7881

From Tanque Verde Rd and Houghton, continue east on Tanque Verde 2 miles. Turn left (north) onto Soldier Trail, continue north for 2 miles. Turn right (east) onto Roger Rd, continue ¼ mile to the park entrance on the left (north).

When you need a book, think of Tucson Audubon Nature Shops first! Support your local book store.



300 E University Blvd, #120
Tucson, AZ 85705

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