Hummingbird Migration—Where do they go for the winter?
Tucson Audubon inspires people to enjoy and protect birds through recreation, education, conservation, and restoration of the environment upon which we all depend.

Tucson Audubon offers a library, nature centers, and nature shops to its members and the public, any proceeds of which benefit its programs.

Tucson Audubon Society
300 E. University Blvd. #120, Tucson, AZ 85705
520-629-0510 (voice) or 520-623-3476 (fax)
TUCSONAUDUBON.ORG

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Vice President—Mary Walker
Secretary—Deb Vath
Treasurer—John Kennedy

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Matt Bailey, Edward Curley, Kimberly Drew, Dave Dunford, Tricia Gerrodette, Laurens Halsey, Kathy Jacobs, Cynthia Pruett, Nancy Young Wright

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Retail Manager—Debbie Honan ext 7017
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Tucson Audubon Nature Shops
300 E. University Blvd #120
Hours: 10 am–4 pm, Mon–Sat
Agua Caliente Park, 12325 E. Roger Rd 520-760-7881 ext 7015
Hours: October: Thursday, Friday and Saturday: 9–1:30
November–May: Thursday: 9–1:30; Friday and Saturday: 10–1:30
Please call to confirm hours.

Tucson Audubon Nature Centers
Mason Center
3835 W. Hardy Rd, Tucson, AZ 85742
Open most weekdays 9 am–5 pm or when chain is down.
Paton Center for Hummingbirds
477 Pennsylvania Ave, Patagonia, AZ 85624; 520-415-6447

VERMILION FLYCATCHER
October–December 2017

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When birds thrive, people thrive
Through you, we protect bird habitats and we teach people why protecting what is important for birds is also important for us.
You make this critical work possible.
Birds need our support, it’s that simple.
Please give now at TUCSONAUDUBON.ORG/APPEAL

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All photos © the photographer.
Looking Ahead
Karen Fogas, Executive Director

On Saturday, September 16, Tucson Audubon board members and staff arrived at the White Stallion Ranch in northwest Tucson to devote the day to getting to know one another better, sharing ways in which we can improve meeting the goals of our mission—to inspire people to enjoy and protect birds through recreation, education, conservation and restoration of the environment upon which we all depend—and to prepare to update our strategic plan. It was an energetic and productive day.

Our theme for the day was “Change to Engage.” We wanted to acknowledge that change is challenging and remind ourselves that there is an important purpose for the changes that Tucson Audubon is in the process of undergoing: we are positioning ourselves to focus on engaging our region on behalf of birds and their habitats, because what is good for birds, is also good for us.

Since the dissolution of the Huachuca Audubon Society, we’re a different organization. The Tucson Audubon Society now proudly represents members living in the whole of Southeastern Arizona. This means acknowledging and integrating the longstanding work they and we have done in the region over the past years.

We are exploring new ways to engage our members, the public, youth, decision-makers, communities outside of Tucson, and the amazing diversity of ethnicities and cultures we celebrate in our region. We want to focus on reaching out and listening to the many facets of the various communities we serve.

As we have navigated our way to becoming a more regional, effective and engaging organization, people have come and gone along the way. Some people find change difficult. Others want to make change occur faster than we were able to make it happen. In the course of our transition, familiar faces have moved on to new and different things and new faces have joined with us to effect change. We miss the good people we’ve grown close to in this challenging time.

With every change comes opportunity. We have formed a powerful, agile team. Our professional staff is focused on making real and lasting differences for birds and what they need to survive and thrive in our changing environment. We’re excited about where we’re going and our board and staff left our retreat energized by the vision of what we can do together to connect people with birds in new and meaningful ways. But we can’t do it without you—every member, every volunteer, every donor is important to us. We want to share our vision with you and enlist your participation. Without your involvement and energy, Tucson Audubon can’t achieve our goals and fulfill our mission. We hope you, too, will find these changes productive and exciting as we express Tucson Audubon’s mission in new and engaging ways.

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Karen Fogas, Executive Director

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Will you join Tucson Audubon today?
Your membership supports Tucson Audubon’s efforts in:

- **Conservation**: We enable people to conserve our natural environment through on-the-ground activities
- **Advocacy**: We promote public policy and speak out for wild birds and their homes
- **Restoration**: We create sustainable wild bird habitat
- **Engagement**: We help people connect with wild birds

**Benefits include:**
- Free guided birding field trips
- 10% discount in our Nature Shops
- Vermillion Flycatcher news magazine
- Discounts on Tucson Audubon classes and events

All funds are used for local conservation efforts
Feel free to join using the attached envelope*
You may also sign up at [tucsonaudubon.com/join](http://tucsonaudubon.com/join) or call our Membership Coordinator 520-209-1802

*Please note: Not all magazines may contain an envelope.
TUCCON AUDUBON EVENTS AND CLASSES

FIELD TRIPS  Luke Safford, Field Trip Coordinator; photos by Dick Thompson

If you’ve never joined us on a field trip you are missing out! We not only see a lot of birds, but we have fun and work hard too. On July 15 we partnered with Tucson Water and the Arizona-Sonora Desert Museum to plant a Monarch Waystation at Sweetwater Wetlands. It was one of the most rewarding field trips that many of us had ever participated in! Be sure to be on the look-out for more field trips like this that get us out and involved in a hands-on way.

Thursday, November 16, 7:30 am–5:00 pm  Birding at Boyce Thompson with Lynn Hassler
Along with the Arboretum’s diverse collections of flora, we should spot warblers, vireos, thrushes, flickers, finches and up to four species of towhee. And, of course, surprises are our specialty! Cost of the trip includes transportation, guide services, admission fees and boxed lunch.

Tohono Chul & Tucson Audubon Society Members: $115.00
General Public: $135.00

Friday, November 24, Northeast Tucson—It’s Black Friday birding at its best with the first dozen species 50% off their regular price! We will check some northeast Tucson favorites for those super late migrants and Vermilion Flycatchers are always guaranteed or double your money back.

NEW PARTNER FIELD TRIPS WITH TOHONO CHUL PARK

Tuesday, January 16 or Thursday, January 18, 7:30 am–5:00 pm  Sandhill Snowbirds with Lynn Hassler
On this daylong birding trip we visit Whitewater Draw to meet Sandhill Cranes coming back from early morning feeding forays, and to check out the local waterfowl and wintering raptors. Cost of the trip includes transportation, guide services and boxed lunch.

Tohono Chul & Tucson Audubon Society Members: $99.00
General Public: $120.00
You must register for these trips at tohonochulpark.org/event
Our courses are designed for you to improve your knowledge and practice your skills in some of the most beautiful locations in the region.

**SPARROW SPECIALTY WORKSHOP** with Homer Hansen  
**February 1 and 3**  
$110 for members, $185 for non-members  
Often skulky and elusive, these “little brown jobs” are often overlooked in the field. You will learn how to find and observe sparrows in their preferred habitat. Useful foraging behaviors and flight characteristics are presented by genera and vocalizations for breeding species are reviewed. The significance of bill shape and size, wing length and tail length are all discussed in relation to identification. This workshop covers 34 species of sparrows, towhees, and longspurs that may be found in the Southwest.

**RAPTORS SPECIALTY WORKSHOP** with Homer Hansen  
**February 8 and 10**  
$110 for members, $185 for non-members  
A favorite among birdwatchers, raptors impress us with their size and speed. Though there are not many species of raptors, identification challenges arise from variations in their plumages due to age, sub-species or color morphs. In this workshop, you will learn to recognize species apart from their plumages and learn behaviors that aid in their identification. The importance of a raptor’s wing shape and its influence on flight and behavior and other physiological features will be presented. This workshop covers 28 species of raptors that can be found in the southwest.

**NEW! BASIC ANIMAL TRACKING FIELD CLASS** with Kevin Hansen  
**March 10**  
Class limit 12. $45 members, $60 non-members  
Discover the art of animal tracking! The art of tracking animals connects us to our distant ancestors and may have helped us become who we are as modern humans. It is, in the words of Ernest Thompson Seton, “…the oldest writing known on the earth.” Tracking is a practice that includes looking at many different elements in the landscape, including footprints, trails, beds, feeding sign, scat, scrapes, fur, bone, chews, feathers and kill sites. All of these tell us something about the animals around us and help us become more aware and better understand our wild neighbors. This two-hour field class will emphasize the species of the American Southwest.

**BIRD ID: SHARPENING YOUR IDENTIFICATION SKILLS** with Homer Hansen  
**March 23, 25, 30 and April 1**  
$110 for members, $185 for non-members

**ADVANCED TOPICS: BIRDING BY EAR** with Homer Hansen  
**April 12 and 14**  
$110 for members, $185 for non-members

**NEW! HUMMINGBIRD NATURAL HISTORY WORKSHOP** with Stephen Vaughan  
**April 26 and 28**  
Class limit 15. $85 members, $100 non-members

See tucsonaudubon.org/education for details and to register. Registration opens October 15 for all winter and spring classes.

**UPCOMING**

**GARDENING TO ATTRACT HUMMINGBIRDS** with Lynn Hassler  
**October 14**  
Cost $25. Limited to 15 participants

**INTRODUCTORY TOPICS: BIRD IDENTIFICATION—SHARPENING YOUR OBSERVATION SKILLS** with Homer Hansen  
**October 19 and 21**  
Cost $110. Limited to 10 participants

**NEW! BIRD PHOTOGRAPHY** with Stephen Vaughan  
**October 26 and 28**  
Cost $110. Limited to 10 participants

**NEW! BEGINNING BIRDING** with Jim Logan  
**Starts November 8**  
Cost $110 OR join Tucson Audubon for $45 individual membership prior to first class. Current Tucson Audubon members may attend for free. Limited to 25 participants
TUCSON AUDUBON SOCIETY INVITES YOU TO...

Fly!

An Evening Celebration of Arizona's Birds and the Arts

Friday, October 20, 2017

Master of Ceremonies Dave ‘Fitz’ Fitzsimmons presides as we celebrate our first Year of the Hummingbird in glittering style!

Travel to the Kiva Ballroom and Patio at Loews Ventana Canyon Resort to:

• DISCOVER Tucson Audubon
• ENJOY cocktails and hors d'oeuvres by twilight
• MEET some of nature's avian ambassadors for their cousins in the wild
• FEAST on an inspired dinner from Executive Chef Ken Harvey
• HEAR from the heart with our executive director Karen Fogas
• BID in an auction of unique artworks and experiences
• FLAUNT your festive finery
• MARVEL as Master of Ceremonies Dave Fitzsimmons—'Fastest Draw West of the Pecos'—wrangles ink, and bid for a chance to be cartooned
• EXPERIENCE Flam Chen's towering hummingbirds, live music from Bending Blades and The Latest Tradition

Proceeds from this event further our mission at Tucson Audubon Society to inspire people to enjoy and protect birds through recreation, education, conservation, and restoration of the environment upon which we all depend.

Silent auction items are viewable on our website; here is a sneak peek:

- **Title:** The Conspiracy
  - **Artist:** Sarah Kennedy-Equine, Scorched Earth Creations
  - **Size:** 10” x 10”
  - Individually hand-cut, glazed mosaic pieces assembled and then fired. Rustic metal weather sealed frame, ready to hang indoors or out.

- **Bed, Bread and Birds:** Two-night stay at The Red Door for 2 adults, continental breakfast and expert-guided birding walk. Delightful garden and patio leads into light-filled great room with kitchen and living space, pull-out twin bed, bedroom with double bed and bathroom with full tub/shower. Patagonia, AZ

Fly!

Purchase tickets online at [tucsonaudubon.org/gala](http://tucsonaudubon.org/gala)

Individual tickets $150
(a portion is considered tax-deductible)

Consider:
- Showing your company's commitment and become a gala corporate sponsor, or
- Donate to our arts-inspired auction and spotlight your business.

5:30 pm Patio Reception and Silent Auction
7:00 pm Dinner and Program
8:30 pm Desserts

Gala room rates available and free valet parking

Questions?
- Jan Holder, Development Director at 520-419-0374,
- or Katie Brown, Events Coordinator at 520-209-1812
Living with Nature Monthly Program

Free monthly programs to entertain, inform and educate. Invited speakers present topics related to bird biology and ecology, global and regional birding hot spots, and conservation issues that affect birds and their habitats. Program locations in Tucson, Green Valley and Oro Valley. Bookmark tucsonaudubon.org/lwn for more details. Do you have ideas for Living with Nature topics and speakers? Contact Katie Brown, at kbrown@tucsonaudubon.org or call 520-629-0510 x 7012.

TUCSON

Saturdays, 3:30–4:45 pm, October–November
Joel D. Valdez Main Library, Lower Level 1,
101 N Stone Ave, Tucson, AZ 85701
Parking is free on Saturdays.

October 7
Planting Hope: Landscaping with Native Plants to Benefit Birds

We welcome John Rowden, Director of Community Conservation for the National Audubon Society, to Tucson Audubon Society’s Living with Nature program. National Audubon’s Bird-friendly Communities conservation strategy is guided by the principle of improving communities throughout the country by providing birds with food, shelter, safe passage and places to raise their young. Native plants provide resources that support birds in each of those areas, and research is demonstrating that even small patches can benefit birds. John will summarize the benefits that native plants provide for birds and explore the resources we have developed to support planting natives, with a particular focus on the desert southwest. The program begins with a brief update on Santa Ana National Wildlife Refuge by Dinah Bear, attorney and advocate. We expect this event to be popular—register your attendance online, or by calling 520-629-0510 x 7002.

November 11
The Wonder of Hummingbirds

As our first Year of the Hummingbird draws to an end it’s a great time to reflect on the splendor of these magnificent birds. Stephen Vaughan will look at hummingbirds through two different lenses. From his biologist perspective, he is fascinated by how much we know about hummingbirds, and as a photographer spending time with them he realizes how little we actually understand. Steve will be sharing some of his favorite hummingbird photographs and his experiences with these “feathered jewels”.

December 11
Members’ Potluck. See page 11

GREEN VALLEY

Saturdays, 10–11 am. November–April
Green Valley Recreation Desert Hills Center,
2980 S Camino Del Sol, Green Valley, AZ 85622

October 7
Save Santa Ana (again)

The proposal to construct a continuous border wall once again places the Santa Ana National Wildlife Refuge in jeopardy. Plans leave the entire refuge, except for the visitor’s center, on the south side of the wall and subject habitat to flooding, cleared vegetation, light pollution, and more. Unfortunately, this may proceed even if Congress does not appropriate funding for the larger border wall. Dinah Bear works with a number of organizations trying to save the refuge. Learn how we can help.

November 4
Amazing Hummingbirds

Hummingbird facts & fun! Author and conservation biologist Karen Krebbs has been studying hummingbirds for 30 years and will share her knowledge of hummingbird identification, entertaining behavior, nesting biology, and ways to attract these tiny jewels.

December 2
How to Make a Difference for Native Wildlife

Did you know that you can provide critical habitat for Arizona’s wildlife in your own backyard? We can become part of the growing movement to create pockets of habitat within the city that are essential to the survival of native wildlife. Maddox Wolfe, AZ Field Organizer, National Audubon Society, and Charlene Westgate, Westgate Garden Design, introduce Tucson Audubon’s recently updated Habitat at Home public program.

ORO VALLEY

Saturdays, 12–1 pm
WNPA Western National Parks Association
12880 N Vistoso Village Dr

January 20
The Urban Rehabilitators!

with Tucson Wildlife Center staff members, Robin Motzer and Angéline Fahey.
NATIONAL AUDUBON’S JENNIFER PITT VISITS TUCSON

Join Tucson Audubon and the new National Audubon Colorado River project director for a presentation detailing how southeast Arizona is affected by issues related to the Colorado River.

November 3 | Location to be determined

Before joining Audubon last winter, Jennifer Pitt spent 17 years working on Colorado River projects for the Environmental Defense Fund, including taking part in the negotiations for Minute 319, an historic water-sharing agreement between the United States and Mexico. Through that treaty, conservationists were able to secure a delivery of 34 billion gallons water to the Colorado River Delta; that release of water allowed the Colorado River to flow all the way to the Gulf of California for the first time in decades, providing a desperately needed shot of hydration to the delta’s ecosystems. In her role at Audubon, Pitt is working on the negotiations for the second iteration of the Minute 319 agreement, in addition to increasing Audubon’s role in western water policy to ensure the Colorado River is used to support both people and wildlife.
Celebrating the 7th Annual Southeast Arizona Birding Festival

“Great birding experience and a great way to experience southeast Arizona.” —Kenneth Oldham, festival attendee

This is the experience we hope everyone coming to the Southeast Arizona Birding Festival enjoys, and this year’s festival really delivered! We offered 38 field trips, led by 33 expert field trip leaders, who found exactly 200 different bird species ranging from Rose-throated Becard to Upland Sandpiper. The birding experience during the festival is always amazing, and if you have not experienced one of the field trips watch for next year’s registration so you don’t miss out!

The birding festival is a great opportunity to introduce people to the incredible uniqueness of southeast Arizona. We welcomed people from 27 states and three foreign countries to see and enjoy the amazing variety of birds that reside or pass through southeast Arizona. And through the course of the festival, they also learn about why this area is so important to birds and how they can help protect it.

We are especially grateful for all of the faithful volunteers who helped over the long weekend and our tireless guides who led groups all around southeast Arizona.

Mark your calendar for next year’s dates for the Southeast Arizona Birding Festival, August 8–12, 2018. Registration opens February 1!
You would think that things would slow down for us over the summer, but that certainly has not been the case in 2017. Volunteers have been busy doing restoration projects, surveying for Elegant Trogons and Western Yellow-billed Cuckoos, running the Southeast Arizona Birding Festival, working at the Paton Center for Hummingbirds and much more!

Below are a few photos of our volunteers in action, see if you can picture yourself in their shoes—restoring habitat, engaging the community, and enjoying nature!

If any of these volunteer opportunities interest you, or you want to know more about how to start volunteering with Tucson Audubon, please email Luke Safford at lsafford@tucsonaudubon.org.
“My goodness, how things have changed” is almost as oft-mentioned by Paton Center visitors as “We had great looks at the Violet-crowned,” which was seen almost daily since the first of the year.

And indeed, 2017 was a year of significant change for the Paton Center for Hummingbirds. New viewing areas, hundreds of additional native plants, and a growing list of new species records—the result of the combination of native plant landscaping and bird-feeding traditions of the past—are bearing fruit for Tucson Audubon Society in Patagonia.

This spring also brought the beginning of the pavilion project with the creation of a new, wheelchair-friendly path, surrounded by a hand-placed rock retaining wall and landscaping. The area includes a new recirculating stream feature that’s frequented by hummingbirds, tanagers, and warblers. Hidden beneath the new ground plane are three massive concrete footers that will support the permanent viewing structure.

The project’s second phase will entail the assembly and on-site installation of a locally designed and handcrafted viewing pavilion. Three steel beams will support a 42-foot-long laminated white oak spine, allowing for unimpeded views in every direction. Overlapping strips of metal roofing material will allow light to pass through while keeping visitors dry during rain. Phase II will commence in November, necessitating the backyard viewing area be closed to visitors through the end of the calendar year. The viewing area and completed pavilion will reopen to the public in early January.

The Richard Grand Memorial Hummingbird Meadow and front yard viewing areas—approximately two-thirds of the 1.4-acre site—will remain open for enjoying late-blooming wildflowers, the pond, and winter bird species like Green-tailed Towhee, Pyrrhuloxia, and Lincoln’s Sparrows. And in anticipation of the construction, we have gradually moved select feeders to the perimeter so visitors will still be able to view visiting hummingbirds.

A personal note from Paton Center Coordinator, Jonathan Lutz:
November 14 will mark my one-year anniversary of serving as Tucson Audubon Society’s Paton Center Coordinator. Residing in Patagonia at a globally recognized birding hotspot affords me the opportunity to see an amazing array of bird life, but also to meet visitors from across the United States and the world. I’m truly honored to be the organization’s representative, ambassador, and interpreter for all things Paton-related, from ongoing habitat improvements to installations of locally created artwork. I’m grateful for the opportunity to live in the Patons’ casita with my pup, Jonesy, and wake each morning to fill feeders, work with volunteers, and help manage a variety of projects. I hope to see you soon in Patagonia. Happy birding!

—Jonathan
Preserving Orpha Mason’s Legacy  

Cynthia Pruett, Board of Directors; photos by Lynn Hassler

Tucson Audubon’s Mason Center sits on the corner of Hardy and Thornydale, some 20 acres of the Sonoran desert in one of the select regions where ironwood trees grow. This tree is considered a keystone species and nurse plant because over 500 species of plants and animals depend on it for survival. The homestead, given to Tucson Audubon in the late ‘90s, for almost twenty years now has been used to host Ironwood Festivals, classes, Birdy Brunches for Birdathons, gatherings for donors, a requiem for a conservationist, music fests, and even a wedding or two.

OF GARDENS AND PATHS

Over the years Audubon staff and volunteers have worked to preserve the nature of the property as designated in the original bequest by keeping the majority of the property as native desert. There are paths through the desert, left to the whims of nature for survival, small gardens nurtured close to the house and garage/classroom built by the Masons, and now the last remnants of a citrus orchard disappearing with age and drought.

HABITAT FOR BIRDS, BUTTERFLIES, AND OTHER WILDLIFE

Like the other plants and wildlife that depend on the ironwood tree, the Mason center depends on volunteers and staff for a vigorous survival. Over the course of the last several years, and with a leap last year, a lot of activity is taking place. A volunteer team, the Mason Green Gardeners, have worked Wednesdays and Sundays adding native plants for birds, transplanting, adding and repairing irrigation lines, watering, and generally enhancing the diversity.

Supplementing the effort has been the addition of 10 milkweeds and 28 other nectar plants, part of a Monarch Waystation program done in partnership with the Arizona-Sonora Desert Museum. By spacing these plants within 3 feet of each other the caterpillars can move from plant to plant.

AND THERE’S MORE

Volunteers have worked on building and maintenance projects that include misting benches for plant propagation, painting and sealing patios, and trail maintenance. Donors have funded energy efficient windows for the classroom building, a shed for the trash containers, and plants for the gardens.

THANKS, VOLUNTEERS AND DONORS  In no particular order:

Kathleen Heitzmann - volunteer and donor
Kari Hackney - volunteer/staff
Mustafa (Mu) Alahwel - volunteer
Lorel Picciurro - volunteer and donor
Lisa Marshall - volunteer
Laura Diaz - volunteer
Tim and Karen Morey - volunteers and donors
Don Larson - volunteer
Doug Noble - volunteer and donor
Jim Gessaman - volunteer and donor
Mary Ellen Flynn - volunteer and donor
Cynthia Pruett - volunteer and donor
Karen Wadman - donor
The 11th annual AZFO state meeting is in Cottonwood, October 20–22. The Verde Valley area features a good number of birding hotspots such as Dead Horse Ranch State Park, Tavasci Marsh, and Mingus Mountain, as well as underexplored areas. Two special events will be a kayak birding expedition led by Doug Von Gausig and an advanced eBird workshop given by Ian Davies, eBird Project Coordinator. There will be a selection of mini-field expeditions to nearby locations in the Verde Valley. The Saturday program will include interesting presentations about ongoing research on the status, behavior, and distribution of Arizona birds. Further information about accommodations, registration the Saturday program, and field trips can be found at azfo.org.

You’re Invited to the Holiday Potluck!

MONDAY, DECEMBER 11 AT 6 PM
St. Philip’s in the Hills Episcopal Church,
Murphey Gallery East Room

Each year, the holiday potluck celebrates our members and all you do for Tucson Audubon. It’s a great time to meet fellow nature enthusiasts, catch up with old friends, and learn something new and exciting about the year ahead.

Whether this is your first or fifteenth holiday potluck, we hope you will join the fun. Visit tucsonaudubon.org/calendar to RSVP online, or call 520-629-0510 x7002 so Diana Rosenblum can take your details. When you RSVP, please indicate whether you will be bringing a salad, appetizer, main dish (vegan, vegetarian, or meat), dessert, or punch. Please bring your own plates, cups, cutlery, and serving utensils. Simple recipe cards are also appreciated by those with dietary restrictions. This is sure to be a wonderful event and we look forward to seeing you there!

Join us this fall for: OktoBIRDfest
OKTOBER 11, 5:30–7:30 PM, LA COCINA

German and autumn-themed bird fun for all. Follow our weekly emails for more info, or go to tucsonaudubon.org/calendar to RSVP

TUCSON AUDUBON NEWS ROUNDUP

WELCOME NEW MEMBERS

Martha & Kurt Adamson, Craig Anderson, Jean & Larry Ashby, Patricia Bacchetti, Marion Ball, Elizabeth White & Dick Barmore, Karen Boleyn, Rosemary & Tamar Bolza, Sue & Phillip Bush, Janis Cadwallader, Patty & Paul Calver, Kiri Carini, Don Carlson, Shirley & Gerald Casebolt, Heather Conrow, Doug Corbett, Nancy DeFeo, John DesRochers, Don Falk, Jan Flanagan, Laura Franklin, Dede & Hank Frantz, Deborah Fuchs, LaNella Gaines, Nicole Gillett, Michele Girard, Olivia Graves, Annie Smith & Sally Gunyon, Debra & Bradley Haber, Kari Hackney, Mary Lynn Hamilton, Joyce Hayes, Jenann Ismael & Brien Harvey, Elena Klaver, Max Leibowitz, Breanna Lesson, Stephen Loftin, Martin Molina, Heather & Edward Murphy, Muhammad Naseem, Nancy & Mark Nelson, Elena & Michael Patterson, Dick Patterson, Suzanne & David Pear, Marilyn Pollow, Tiana & Jeff Ronstadt, Barb Saffrir, Phyllis & Joseph Schling, Jeffry Scott, Roseanne Sherry, Anne & Ron Stirling, Carol & Ed Sullivan, Dale Sweetnam, Darla Thompson, Teri & Barry Tillman, Renna Ulvang, Bonnie & Dennis Vadnais, Dorian Dodson & Gene Valdes, Louella Weld, Patty Yates, Bill Ypsilantis

FREQUENT FLYERS


GIFTS IN HONOR/MEMORY

To Michael Gibbons from Leonie Batkin & Ronald Thorn
To Marie Chadwick from Andrea Chadwick
In memory of Carol Fraker from Matt Fraker
In memory of Helen Gordon Matelson from Teri Matelson

Arizona Field Ornithologists State Meeting

You’re Invited to the Holiday Potluck!
Welcome Arizona’s Three New Important Bird Areas

Jennie MacFarland, Bird Conservation Biologist

It’s no secret that Arizona contains beautiful landscapes and an incredible bird diversity that attracts birders from around the world. The uniqueness of our state is reflected in Arizona’s Important Bird Areas (IBA) Program which can claim some of the most magnificent places in the world among its identified IBAs. Tucson Audubon is proud to announce that three new IBAs have been recognized in Arizona, bringing our total up to 48.

2017’s new Arizona IBAs are:

**LAS CIENEGAS NCA IBA**
Globally significant for Chestnut-collared Longspur

Grasslands are a rich and vital habitat for many species of birds that have become increasingly rare in the United States. Las Cienegas National Conservation Area is located just north of Sonoita and often visited by birders in the late summer for our monsoon nesting Cassin’s and Botteri’s Sparrows. Empire Gulch, a lovely riparian area with large cottonwood trees, is within the IBA and also well known to birders for the amazing bird rarities found here, especially during migration. During the winter the grassland habitat of this IBA supports large flocks of sparrows and abundant raptors. Tucson Audubon volunteers documented wintering groups of Chestnut-collared Longspurs over the past two winters in this grassland in flocks large enough to qualify the site as a globally significant IBA for this rapidly declining species. This beautiful grassland habitat is well worth your time to visit this winter.

**TUCSON SKY ISLANDS IBA**
Globally significant for Mexican Spotted Owl

This new IBA is a large one and is composed of the Santa Catalina Mountains and Saguaro National Park East, which includes the lovely Sonoran Desert habitat many of us associate with this Park, as well as the Rincon Mountains. The diversity of habitats within this IBA does make it a rather unique designation and its proximity to urban Tucson also makes it convenient to visit and enjoy. This large portion of mostly undeveloped habitat adjacent to a large city also acts as a refugia for native birds and other wildlife, which further adds to its biological significance. The large portions of high elevation forest within both the Santa Catalina and Rincon Mountains support more than enough Mexican Spotted Owl pairs to qualify this site as globally significant and the lush Sonoran Desert habitat of the lowlands likely contain enough Elf Owls and Costa’s Hummingbirds to also qualify the IBA for Continental status and this will be investigated in surveys planned for spring 2018.

**TUCSON MOUNTAINS IBA**
Continently significant for Gilded Flicker

This IBA contains the Tucson Mountains and adjacent uplands Sonoran Desert habitat just west of Tucson. Containing some of the densest stands of saguaros anywhere on earth, it is unsurprising that Tucson Audubon volunteers documented enough nesting Gilded Flickers to qualify this site as an IBA of Continental significance for this very range restricted species. Gilded Flickers are easily displaced by urbanization and having an IBA adjacent to Tucson composed of Saguaro National Park West and Tucson Mountain Park recognizes the value of undeveloped habitat for this and other desert species. The unparalleled saguaro uplands habitat within this new IBA supports many bird and wildlife species and is also significant for other species such as Elf Owl, Lucy’s Warbler and Costa’s Hummingbird that could further elevate the site’s significance within the larger IBA program. Such designations also draw the public’s attention to how important these areas are for native birds and our own wellbeing as a community.

To find out more about Arizona’s 48 diverse and stunning Important Bird Areas please visit [aziba.org](http://aziba.org). This site also has information about where to visit the IBAs, birds you might find, how you can volunteer for the program and about our vital partners, Audubon Arizona and Arizona Game and Fish.
One of the thrills of birding in the mountain canyons of southern Arizona is encountering the impressive Magnificent Hummingbird, *Eugenes fulgens*, which breed in the oak-pine forests and visit familiar hummingbirds feeders in our sky islands. But as of July 2017, this hummingbird is no longer known as Magnificent. It remains magnificent, but no longer in name. Those of you who have been birding since before 1983 may remember a time when it was called Rivoli’s Hummingbird. Well, that name is back. This is not the result of some secret pact between the American Ornithological Society (AOS) and book publishers to boost demand for new field guides, but the result of a proposal put forward to recognize the southernmost populations as specifically distinct. After committee deliberation, this has resulted in a split. The northern birds become Rivoli’s Hummingbird and the southern birds become the Talamanca Hummingbird, named for the range of mountains in Costa Rica where they are most common. The proposal is interesting in that it illustrates how museum science and fieldwork operate at times out of step with one another. Both the proposal and the voting comments of the North American Checklist Committee (NACC) members point to a lack of awareness of any potential vocal differences between populations despite acknowledging how important they might be in determining species limits.

Like most Arizonans, I am much more familiar with the northern population of the recent Magnificent Hummingbird (*fulgens*) than I am with the southern birds (*spectabilis*) from Costa Rica and western Panama. But when I was first exposed to the southern birds some years back, my immediate hammer-over-the-head reaction was how remarkably different the two forms sounded! We’re talking NOTHING alike. That was really surprising to me, since generally speaking, closely related hummingbirds usually sound rather similar to one another. It made me wonder whether these two populations should really be considered the same species. Examples of northern and southern vocalizations can be found on Xeno-Canto and can be seen visually in the spectrogram included with this article. Northern birds have a sweet, musical “chip” note, while southern birds have a harsh, raspy buzzy call. Despite the public accessibility of these calls, they went entirely ignored by the NACC in their deliberations. Fortunately, this did not affect the outcome.

Visually, the two hummingbirds look rather similar to one another. Talamanca is a larger bird than Rivoli’s, but this would not be readily apparent in the field. They do have slightly different proportions and subtly different coloration. Rivoli’s is more blackish on the chest and upper back (these areas are greenish on Talamanca), and the throat color of Rivoli’s is more greenish than the aquamarine color of Talamanca. Talamanca rarely exhibit the flat headed look frequently seen on Rivoli’s and are a bit longer billed on average. But all of these differences are subtle. There was some genetic support for a split, or at least acknowledgment that these populations have been separated for a long time. But in the case of isolated populations, the question is always one of whether to consider them species or subspecies. So the NACC went ahead with a tepid split based on genetics and subtle morphological differences, while overlooking compelling vocal differences.

So what does that mean for Arizona birders? Should we be on the lookout for vagrant Talamanca Hummingbirds among the Rivoli’s? The closest Talamanca Hummingbirds are some 2200 miles away, and as they favor moist cloud forests, they are unlikely to wander. The tougher task facing birders is reverting back to the old name Rivoli’s, a far cry from magnificent.

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Chris Benesh is a tour leader for Field Guides Incorporated (fieldguides.com) and a long time Tucson resident. An avid birder with a keen interest in bird taxonomy, identification, and education, Chris has served several terms on the Arizona Bird Committee and has taught numerous workshops focused on improving identification skills.
WHERE OUR HUMMINGBIRDS GO IN WINTER

In the last issue of the *Vermilion Flycatcher* we introduced you to our special hummers which arrive for summer and the monsoon rains. Some of these species aren’t in the region very long before they move on again. Where are these tiny fliers going for the winter and does their preferred habitat differ? Read on to see the paths of hummingbirds that breed in southeast Arizona or just pass through on their migration routes. Some travel thousands of miles!

### ANNA’S HUMMINGBIRD

Although most hummingbirds migrate south for winter, the Anna’s hummingbird stays in much of its range year-round, and some may be permanent residents. Anna’s follow an east-west migration route instead of the more typical north-south route and often wander up- and downslope following seasonal food resources. In southeastern Arizona, Anna’s Hummingbirds will delight you all year-round where you can find them at your feeder or diving among colorful blooms in your yard.

### BLACK-CHINNED HUMMINGBIRD

Black-chinned Hummingbirds are set apart from other species by their ability to thrive in multiple habitats. They are abundant in the spring and summer in southeast Arizona in riparian areas, canyons, oak woodlands and urban areas. Their adaptability does not extend through the seasons; by the end of October nearly all of them have left southern Arizona and begun their migration south. They work their way through central Mexico and spend the winter mainly on the southwest coast of Mexico, concentrated in the low elevation areas adjacent to the beach. Sounds like a nice place to spend the winter!

### BROAD-BILLED HUMMINGBIRD

Some Broad-bills stick around through the winter each year in southern Arizona, though these are overwhelmingly grouped along the Santa Cruz River, in the Tucson Basin, or at feeding stations in the lower Sky Islands. Most of those here for the summer breeding season head south in stages. The males historically head south in late August, while the females and juveniles linger until mid-late September. It’s thought that they primarily migrate to the highlands of south-central Mexico. How do they go there? What paths do they take? What cues their flight? No one has yet answered these questions!

### BROAD-TAILED HUMMINGBIRD

The Broad-tailed Hummingbird is a common southeast Arizona visitor in summer, but where does it go in winter? This tough hummingbird primarily winters in Mexico’s Central Volcanic Belt south to Oaxaca and southeast to Chiapas, and is relatively common in western Guatemala. The Broad-tailed Hummingbird is much harder to find in the United States at this time, but rare occurrences have been observed in southeast Arizona, southeast Texas, and even at feeders in Louisiana and Alabama! This traveler is comfortable in a variety at habitats (from oak to fir to thorn forests) within a large elevation range, ensuring that it can find a nice home throughout winter.
CALLIOPE HUMMINGBIRD

The Calliope Hummingbird is the smallest bird in the United States, but can travel over 5000 miles each year. Calliope Hummingbirds migrate from the mountains of Northwest US and Canada down to the forests of Mexico. In Arizona, fall is an excellent time to keep a look out for a Calliope while they migrate south towards Mexico. After breeding and resting up north, the Calliope follow the Rocky Mountains south. They stop in the subalpine and mountain meadows and continue through the Southwestern states. Winter calls Calliope Hummingbirds to the thorn forests, pine-oak forests, and brushy edges in Mexico.

COSTA’S HUMMINGBIRD

Costa’s Hummingbirds reside in their preferred location of Arizona-California deserts during the winter months. Chuparosa and desert lavender flower in abundance in places like the Superstition and Picacho Mountains, where the presence of Costa’s begins to increase in December. Most will remain in this habitat through the breeding season, which runs at its peak in March and April. During the close of the winter season, Costa’s can also be found in the Mojave desert of California, Nevada, Utah, and Arizona. Little is known about the movements of the species in the Mojave desert in July through early February. Most, according to scientists, presumably spend the majority of winter along the Baja coast in Mexico.

RIVOLI’S HUMMINGBIRD

Don’t worry, there’s not a species you have missed all these years, Magnificent Hummingbird was recently renamed Rivoli’s! See page 13. The majority of their range is occupied year-round except for the birds in Arizona and northern Sonora, which typically start migration in late September. It is unknown how far these individuals travel south, but it is clear they favor the same Sky Island habitat through the highlands of Mexico down to Nicaragua. Birds in the southern portion of the range may also shift to lower elevations in the winter. In recent years, there have been increasing numbers of Rivoli’s wintering in southeast Arizona, at feeders or in mountain canyons.

RUFOUS HUMMINGBIRD

This bright, orangey-russet and green, iridescent little bird manifests unique characteristics, even among hummingbirds. Notably, the Rufous Hummingbird makes one of the longest migratory journeys of any bird in the world, measured by body size. At just over three inches long, it flies the equivalent of 78,470,000 body lengths to accomplish its nearly 4,000 mile one-way journey from Mexico to Alaska. These little travelers are wide-ranging, breeding as far north as southeastern Alaska, the northernmost breeding range of any hummingbird in the world. Their clockwise migration takes them up the Pacific Coast in late winter and spring, timed to reach the northwest by May. As early as July, they are making the trip south along the Rocky Mountains, through southeast Arizona and on to southern Mexico for the winter.

VIOLET-CROWNED HUMMINGBIRD

Violet-crowns are common in Mexico, but occur in only a few places in southeastern Arizona and southwestern New Mexico. The southern range for this species extends as far as Oaxaca, Mexico. The species is considered resident throughout most of its range, though the Violet-crowned hummers found in the United States and northern Mexico are considered migratory. Only a few birds overwinter at locations in Arizona, including the Paton Center for Hummingbirds in Patagonia. The Paton Center is located adjacent to Sonota Creek and is shaded by a grove of sycamore trees—the Violet-crowned Hummingbird’s preferred nesting habitat.
2017—A YEAR OF HUMMINGBIRDS

We distributed or sold 1500 Year of the Hummingbird calendars to our members and the general public. Our Nature Shop sold a number of Hummingbird Hotspot Starter Kits leading to increased hummer watching throughout Tucson!

Reaching youth in schools:
- 13 volunteer educators taught 875 school children about hummingbirds
- 33 full and 17 mini lessons were given
- 20 hummingbird feeders put out and one rain garden established

Photo contest:
Forty-one people submitted 122 amazing hummer images that were judged by 13 local photographers

Citizen science:
- 46 Hummingbird Hotspots were created and mapped around southeast Arizona
- 10 species and over 170 hummingbirds were reported and mapped during our Hummingbird Blitzes and Hotspot Watches
- Our Hummingbird Hotspots and Blitz maps were viewed over 4000 times

HummerGo Passports returned:
Remains to be seen! If you’ve completed yours, don’t forget to bring it in or mail it to our Nature Shop by the end of the year for a chance to win a pair of binoculars!
Hummingbird Hotspot Starter Kit

Our Hotspot Starter Kits are still available from our Nature Shop! As part of Year of the Hummingbird, we’ve made it easy to create your very own Hummingbird Hotspot by putting all the essential items together.

The Kit includes:

- 8oz. Best-1 Hummingbird Feeder
- HummerPlus Brush bottle cleaner
- Trap-It Ant Mote
- Small brush port cleaner and nectar recipe
- Super Shaker nectar maker
- 6" S hook
- Hummingbirds: Backyard Bird Series book by Stan Tekiela

Kits sell for $32.50 and you can find them online at tucsonaudubon.org/hummingbirds or come by the Shop and pick one up!

Back by popular demand—hummingbird demand!

Because Arizona features the second largest number of hummingbird species (12, reliably) found in the United States, we realized there was so much left untapped after our first year that we need to keep going in 2018! So, watch for more hummingbirds, more activities, and more fun!

Lynn Hassler, Garden Volunteer Captain

Slipper Plant: All-Star Hummingbird Flower

Lynn Hassler, Garden Volunteer Captain

**Scientific name:** Pedilanthus macrocarpus  
**Family:** Euphorbiaceae (Euphorbia)  
**Native range:** There are two color forms—the gray-stemmed form grows in arroyos in Baja CA from 1000–2300 feet; the green-stemmed form grows along the coast of Sonora, Mexico  
**Wildlife value:** Flowers provide nectar for hummingbirds and stems make ideal perches

This accent plant makes a bold statement in the landscape, is extremely drought tolerant, makes no mess, and is essentially maintenance free. Hardy to at least 30 degrees, it is an excellent choice for most Tucson gardens.

Slipper plant grows in clusters of slender upright stems 3-5’ high and 3-4’ wide. Stems are sometimes arched and wavy. Plants grow moderately fast, but stems may be slow to fill in. Although leafless for most of the year, tiny leaves do appear briefly on new growth.

Plants readily endure full sun and hot/dry situations though may look chlorotic in extreme exposures (heat islands with asphalt and cement). Filtered or part-day sun is sometimes the ticket. Slipper plant is happy in the ground in well-draining soil, but also makes a superb specimen for large containers. There is a dwarf form that is fetching in small pots. Water twice a month from late spring until early fall to encourage growth. Maintenance is essentially nonexistent: remove occasional dead stems if you find them offensive. As with other members of the Euphorbia family, a milky latex is exuded if stems are cut or wounded; use water to wash from your skin.

The common name comes from the interesting shape of the red-orange flowers which look like little slippers, conjuring up fanciful images of Cinderella’s dainty footwear. Hummingbirds find the 1-inch long red-orange “slippers” irresistible. Blooms occur from late spring into summer and sometimes fall. In addition to enjoying the nutritious floral nectar, hummingbirds find the stems to be ideal perches for guarding their territories.

Plants propagate easily either by clump divisions or stem cuttings. Share with neighbors and friends and, for some holiday cheer, decorate with red ribbons.
‘Tis the Season—
Christmas Bird Counts!

Southeast Arizona has as many as 14 Christmas Bird Counts each year. Here’s a sampling.
Contact the compiler, join a team, and have fun!

**Tucson Valley: December 14**
The Tucson Valley Christmas Bird Count will celebrate its 46th year in 2017! Join us on Thursday, December 14th as we seek to count every single bird in Tucson, which means we need a lot of people out in the field. Last year 117 participants found 62,488 individual birds and 156 species. This count is known for its high numbers of Vermilion Flycatchers (392 in 2016) and Broad-billed Hummingbirds (64 in 2016) and we will see if we can best those numbers for 2017. The count always ends with a fun-filled evening at the “Countdown Potluck” where stories are shared, rarities are reported, and new birding friends are made. If you would like to join in on this collaborative citizen-science adventure please contact compiler, Luke Safford, at saffordluke@gmail.com.

**Atascosa Highlands: December 19**
The Atascosa Highlands CBC covers a remote area of mountainous beauty along the Mexican. This count usually holds national high counts for Five-striped Sparrow and Whiskered Screech Owl, and always has the potential to turn up stray birds from south of the border like the Nutting’s Flycatcher and Rufous-capped Warbler discovered last year! Contact Jake Mohlmann at mohlmann2@yahoo.com.

**Dudleyville: December 30**
The Dudleyville count covers primarily riparian areas along the San Pedro River and Aravaipa Creek. Since 2000, 191 species have been reported with an average of 117 per year. Some years the count has had the high nationally for White-throated Swift, Cassin’s Vireo, Plumbeous Vireo, and Black-throated Sparrow. Contact Doug Jenness at d_jenness@hotmail.com.

**Green Valley/Madera Canyon: December 28 (tentative)**
Hello birders, I am looking for an enthusiastic, responsible person to take over my job of Compiler for the Green Valley/Madera CBC this year. Preferably somebody who has birded and lived in the area for a while and knows the area, trails and of course the birds. This count is one of the biggest in Arizona and so far holds the record for number of species recorded with many rarities. Contact Sally Johnsen at empidonax@netzero.net or 520-399-4050.

**Nogales: December 16**
Join us for the Nogales CBC—all are welcome regardless of ability level or CBC experience. The Nogales count centers in the vicinity of Rio Rico, AZ and encompasses some beautiful and diverse areas. Contact me if interested and let me know if prefer an area of your own or would like to go along with someone. Contact Michael Bissontz at seetrogon@comcast.net.

**Ramsey Canyon: December 17**
After a couple of “off years,” my goal is for this count to immediately take its rightful place among the most well-organized and well-covered in the state, with some of the greatest species diversity, and—critically—with some of the most highly-skilled Area Leaders and observers that can possibly be mustered! That’s where you come in. This circle has amazing potential, with varied habitats ranging from the San Pedro River corridor and freshwater marshes of the EOP, to extensive mesquite grasslands all the way up to the montane conifer zones of the Huachuca Mountains. A few changes/improvements starting this year include: newly-designed Areas with clear borders; detailed maps; and a countdown dinner! Contact Ken Blankenship 770-317-8486.

**Santa Catalina Mountains: December 16**
The Santa Catalina Mountains CBC has a long, splendid history of avian diversity and birding fun...yet they still have plenty of room for new discoveries. The southern edge of our count circle includes the rich riparian habitat of Tanque Verde Creek. Its northern end extends to the ponderosa pines around Summerhaven. Sabino and Ventana Canyons lay to the west, and Redington Pass oak/juniper habitat is to the east. We need teams to explore both the known hotspots and some as yet uncounted areas. Some of these are remote mountain slopes but others are the feeders in your own back yard! Everyone can contribute! Kendall Kroesen and Brian Nicholas will be co-compiling the circle this year. Please reach out to us, whether you want to join a survey team or want to submit data from your feeders. Contact Brian, weehawker2@yahoo.com, 520-760-3583 or Kendall, kkroesen@cox.net, 520-971-2385.

Find the complete list of Arizona counts at tucsonaudubon.org/cbc.
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The Times They Are a-Changin’ —Bob Dylan

Come gather ‘round people
Wherever you roam
And admit that the waters
Around you have grown
And accept it that soon
You’ll be drenched to the bone
If your time to you
Is worth savin’
Then you better start swimmin’
Or you’ll sink like a stone
For the times they are a-changin’

As we go to press, unprecedented, severe flooding is slowly receding from Category 4 Hurricane Harvey in Texas and Louisiana, leaving steaming, toxic debris in its wake. Category 5 Hurricane Irma decimated the islands of the Caribbean and seriously damaged Florida, flanked by Hurricanes Katia in the Gulf of Mexico and Jose in the Atlantic Ocean. Category 4 Hurricane Maria devastated much of the American Virgin Islands and Puerto Rico may not have electricity or clean water for months to come, creating a humanitarian and environmental justice crisis. Meteorologists have never seen a situation where three such powerful Atlantic basin hurricanes made landfall, at the same time, in the lower 48 states and American territories.

Since 1948, all of Tucson’s official weather records have been measured at the Tucson International Airport. Tucson normally records an average of 2.25” of rain in July and an average of 6.09” over the entire monsoon season—half of our average annual 12” precipitation. The previous record for July precipitation was 6.24” in 1921—until a new record of 6.8” this July. July 2017 was also the second wettest month ever recorded in Tucson, exceeded only by July 1955.

Meanwhile, late season forest fires rage in Washington, Oregon, California, Nevada, Utah, New Mexico, Arizona, Colorado, Montana and Idaho. In northern Idaho, residents were breathing some of the worst air in the U.S. with an air quality indicator over 460 in the first week of September. A rating above 150 is considered unhealthy and levels above 300 are hazardous, according to the Environmental Protection Agency. With the National Preparedness Level at 5, the highest level, the National Interagency Fire Center in Boise, Idaho mobilized active duty military personnel to serve as firefighters to assist with wildfire suppression efforts. Smoky, ash filled haze has been bad even in cities with no major wildfires nearby and poor air quality extends across much of the north-central and western portions of the nation, including southern Arizona.

In Arizona, an 18-year state Drought Emergency Declaration (PCA 99006) has been in effect since June 1999 and the Drought Declaration for the State of Arizona (Executive Order 2007-10) has been renewed annually since May 2007.

In 2015, Scientific American noted that nine out of the ten deadliest heat waves ever have occurred since 2000; together, they’ve killed 128,885 people. Small increases in global temperatures equate to large increases in the number of dangerously hot days. Arizona leads the U.S. in heat exposure related mortalities. The elderly appear to be the most vulnerable to increased heat, followed by infants, young children, and people with chronic health problems (pre-existing heart disease, respiratory disease, diabetes), disabilities or social isolation.

In Tucson, June 2017 was the hottest June ever, the second hottest all time high temperature, and the seventh hottest month ever recorded since we began keeping temperature records in the latter half of the 1800s. We had three days of 115°+ daytime temperatures. The June 2017 monthly average temperature of 89.7° ranks as the warmest on record.

In June, Tucson Electric Power customers set not one but two new energy use records as air conditioners strained to provide relief from hot, dry weather. Demand on TEP’s local grid peaked at 2,406 megawatts between 3 and 4 pm on June 21, setting a new system record. Daily energy use peaked on June 20, when customers used more than 42 million kilowatt-hours over 24 sweltering hours. These usage peaks occurred during a record-setting nine-day stretch when Tucson temperatures exceeded 100 every day and never dropped below the 80s. Scattered outages occurred without storms, wind or factors other than heat and peak load.

Whether or not you or we “believe” that humans have contributed to our changing climate is irrelevant. Opinions are not science. Science is based on data, measurements and objective observations—it is what it is. Across the globe, extreme weather events are occurring more frequently and are having severe consequences for public health and safety, private property and the environment. The effects will only get worse and will be felt for decades, if not much longer.

Come senators, congressmen
Please heed the call
Don’t stand in the doorway
Don’t block up the hall
For he that gets hurt
Will be he who has stalled
There’s a battle outside
And it is ravin’
It’ll soon shake your windows
And rattle your walls
For the times they are a-changin’
Unless and until “we the people” insist that our representatives and our institutions act, now, to address these issues, we will continue on a path where we are not prepared to effectively cope. We require local, state and national plans to adapt to our changing circumstances, improving our resilience and creating a better future for our children and future generations. We need to be prepared for circumstances we may not have imagined before. It’s up to us—raise your voices. Vote accordingly.

Bird Migration During Tropical Storms and Hurricanes

It’s fall migration season. Any day in late August, September, or October, many millions of little birds and shorebirds are streaming down the Atlantic Seaboard, along the Atlantic Flyway, heading southward through Florida and across the Caribbean during hurricane season. Millions of others are flying down the Mississippi Flyway to cross the Gulf of Mexico; or the Pacific Flyway from Alaska across the Gulf of California to Central and South America; or the Central Flyway from Canada through Mexico to South America.

In Arizona, our Sky Islands and riparian habitats are vital to western fall migrants that have an interrupted molt strategy. More eastern species tend to complete their molt on their breeding grounds before heading south. Some western species, however, leave their breeding grounds, head south and then interrupt their migration to stop in favorable habitat to molt their feathers. Our Sky Islands and riparian habitats, including our Important Bird Areas (IBAs), are critical molting areas. This pattern of interrupted molt and migration is more prevalent in birds of the west—with approximately 50% of species and subspecies using this strategy—than the east where only about 10% exhibit this behavior. Migration and molt are very taxing, physiologically demanding processes for birds; and for some species migration is the time of greatest mortality. However, the benefits of abundant resources and decreased competition outweigh the high costs of migration from winter quarters. The success of this gamble, however, depends on suitable migratory stopover sites along the way. The abundance of food found in our Sky Islands and riparian habitats during the late summer and fall fill the gap in available resources and the birds travel to these areas to take advantage of these resources. These birds are following a chain of stopover sites whose integrity we need to preserve to ensure their survival. Some of the species that show interrupted molt and migration are Lazuli Bunting, Painted Bunting, Western Kingbird, Lucy’s Warbler, Western Tanager, Lesser Goldfinch and Bullock’s Oriole.
When birds fly into an extreme weather system they have no way of
detecting what's ahead. Some will detour around the storm to avoid
it. Others will use it to their advantage — tagged shorebirds have
been documented flying through hurricanes and even using their
prevailing tailwinds for a boost. Some species will shelter in place,
finding places for refuge. Many may perish.

Hurricanes and tropical storms are renowned for blowing birds
many miles off course, with rare seabirds found after landfall in the
most unlikely places. Radar images often show birds trapped in the
eye of hurricanes, unable to escape through the eyewall. Seabirds
caught up in the spiraling winds often will find their way to the calm
eye of the storm and will travel within it, even if it moves over land.
When the storm dissipates, they may be hundreds of miles inland.

Witness the two Sabine’s Gulls that were recently sighted at the
Amado Waste Treatment Plant by Tucson Audubon’s Arizona IBA
Conservation Biologist, Jennie MacFarland, and Richard Fray after
being blown in by Pacific Tropical Storm Lidia.

“Bird fallout”, or “migration fallout”, occurs as a result of extreme
weather preventing migratory birds from reaching their destinations.
Due to the long distances travelled during migration, birds may not
have enough energy to continue flight when encountering high winds
and intense rains. This exhaustion can result in many bird species
“falling out” and resting in one area. This may be very stressful for
the birds and on the surrounding ecology. Due to the large number
of species and birds resting, a lack of shelter and food may threaten
their survival. Late arrival to their breeding destination can lead to
a delay in reproduction, leading to higher mortality. Though not a
particularly common event, one notable incident occurred on April
25, 2013, when 294 species of birds were observed resting at High
Island, Texas, after experiencing severe rain and high winds.

Even before and after flights, when migrants have higher than
normal food requirements, they may have problems finding safe
supplies of food in areas devastated by storms. Resident birds may
also be adversely impacted.

Due to the loss of natural habitats—in particular wetlands and
natural coastal habitats—hurricanes and tropical storms pose
greater threats to vulnerable, threatened and endangered bird
populations than they once did. Working to preserve and restore
wetlands and as much coastal habitat as possible, to minimize
toxic spills and leaks during storms by enacting and enforcing strict
regulations, and to keep bird populations healthy year-round are our
best strategies for minimizing the long-term effects of these types of
extreme weather events on birds.

How can we accomplish these goals?

Updates from Audubon Chapters in
Texas and Florida

Hurricane Harvey: Harvey is now on record as the worst natural
disaster to hit Texas and has caused the deaths of more than 70
people, including a longtime Houston Audubon Society volunteer,
Agnes Stanley. Both National Audubon and local chapters own,
manage or are working on several sites which were impacted by
the storm including coastal, woodland and urban sanctuaries. Staff
and volunteers are just now starting to assess damage and begin
recovery, but it appears that the most severe damage has been to the
coastal habitats.

You can check for ongoing updates here: bit.ly/2wT1m48
And learn how you can help here: bit.ly/2y3Fx77

Hurricane Irma: As we go to press, the impacts of Irma are being
updated. While many adults and juveniles of the endangered
Everglade Snail Kite on Lake Okeechobee rode out the storm and
survived, nests with eggs or flightless babies perished and all 44
active nests were lost due to high winds and rainfall. Many birds
were displaced by the storm—birds from the Atlantic and the
Caribbean are being spotted around Florida. The upland habitats of
Southeast Florida and the Keys were stripped bare of foliage in some
places and toppled in others, areas usually a crucial food source
for the Atlantic Flyway’s fall bird migrants and other pollinators.
Fresh water is being supplemented throughout the region due to the
increased salinity of natural sources.

Hurricane Maria: While it is too soon for a detailed assessment,
satellite imagery shows wide ranging habitat destruction in the
American territories.

You can check on updates here: bit.ly/2xGmdvJ
What tools do we have? Some of our tools are laws.

Key Legislation Protecting Birds: The Migratory Bird Treaty Act and the Endangered Species Act

Together, the Migratory Bird Treaty Act (MBTA) and the Endangered Species Act (ESA)—along with the Bald and Golden Eagle Protection Act—address the protection, conservation and recovery of birds in the United States. Most people have heard of the ESA, but many remain unaware of the MBTA. Both laws are administered by the U.S. Fish and Wildlife Service.

As bird lovers and advocates, we need to understand and defend the few legal tools available to protect birds and the habitats upon which they depend for their complete life cycles. According to the Center for Biological Diversity, since 1996, 303 attempts have been made to weaken the Endangered Species Act by legislation introduced by members of Congress—as of July 2017, 39 attempts have been introduced this year alone.

What sets these laws apart and why do we need both?

<table>
<thead>
<tr>
<th>The Migratory Bird Treaty Act</th>
<th>The Endangered Species Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signed into law in 1918</td>
<td>Signed into law in 1973</td>
</tr>
<tr>
<td>Implemented nationally based on treaties with Canada, Japan, Mexico, and Russia</td>
<td>Implemented nationally to protect fish, wildlife, and plants listed as threatened or endangered; may identify and designate critical habitat</td>
</tr>
<tr>
<td>Protects native migratory bird species</td>
<td>Protects listed species regardless of location</td>
</tr>
<tr>
<td>Currently covers 1,026 listed bird species</td>
<td>Currently covers 101 listed bird species</td>
</tr>
<tr>
<td>Strength: Covers live or dead birds, including bird parts, feathers, eggs, and nests; establishes protected refuges and data sharing</td>
<td>Strength: Conserves covered species throughout all or a significant portion of their range; provides for recovery plans and habitat conservation plans</td>
</tr>
<tr>
<td>Private citizens (such as conservation groups) may sue the government over alleged violations under the Administrative Procedures Act</td>
<td>Private citizens (such as conservation groups) may sue municipalities, the federal government and private companies over alleged violations</td>
</tr>
<tr>
<td>Felony, misdemeanor, or civil penalties</td>
<td>Misdemeanor or civil penalties</td>
</tr>
</tbody>
</table>

Both address the hunting, capture, possession, transport, import, export, take (harm or harassment) and sale of listed species.
ROCKJUMPER—WORLDWIDE BIRDING ADVENTURES
rockjumperbirding.com

INDIA—SOUTHERN: BIRDING & WILDLIFE OF THE WESTERN GHATS 2018
Tour Dates: January 13–24, 2018
Tour Price (Per Person): $3975
Tour Leaders: Holly Faithfull & Stephan Lorenz
Taking in the rugged lands of southern India and the impressive Western Ghats Mountains—a land of endless valleys, rolling tea estates and breathtaking highland vistas—we will revel in some of the best birding opportunities available, not only in this immense and extremely rewarding nation, but in all of Asia, too!

TAIWAN—WINTER BIRDING 2018
Tour Dates: January 30–February 10, 2018
Tour Price (Per Person): $3,800
Tour Leader: Rich Lindie
Our comprehensive tour of Taiwan focuses on the endemics and other East Asian specialities available in this nation’s largely pristine and well-protected forests. Our time will be spent in the mountains, lowlands and along the coastline in search of the best this nation has to offer, including various species difficult to see anywhere else.

SOLIPASO TOURS solipaso.com
WEST MEXICO
Tour Dates: February 4–18, 2018
Tour Price (Per Person): $4350
Tour Leader: David MacKay.
Baja is a great place to pick up a few unique Mexican endemic birds including the Gray Thrasher, Belding’s Yellowthroat, Xantus Hummingbird and the Cape (Baja) Pygmy Owl, as well as a number of other interesting species. We also have a chance to get up close and personal with the whales in the San Ignacio Lagoon.

BAJA NORTH TO SOUTH
Tour Dates: March 16–28, 2018
Tour Price (Per Person): $4400
Tour Leader: David MacKay.
Baja is a great place to pick up a few unique Mexican endemic birds including the Gray Thrasher, Belding’s Yellowthroat, Xantus Hummingbird and the Cape (Baja) Pygmy Owl, as well as a number of other interesting species. We also have a chance to get up close and personal with the whales in the San Ignacio Lagoon.

**THE TAS-ifieds—CLASSIFIED ADS**

**Got Birderhouses?** If you need help buying or selling a home, call Kimberlyn! Tucson Audubon Business Member since 2006, helping clients across Tucson while giving back to our community. Kimberlyn Drew, MBA, Associate Broker, Long Realty Company, call/text 520-237-1408, email Kimberlyn@KimberlynDrew.com, or visit online at KimberlynDrew.com

Classified and display ads are accepted from individual members and members of our Birds Benefit Business Alliance. Visit tucsonaudubon.org/fflycatcher for rates or contact Matt Griffiths at mgriffiths@tucsonaudubon.org to book an ad.
2018 CALENDARS

- 1,000 Places to See Before You Die: $14.99
- Atlas Obscura: $14.99
- Audubon: $14.99
- LISA HOUCK'S MINDFULNESS COLOURING: $14.99
- MINEARLYN COLOURING: $14.99

BOOKS FOR BIRDERS

- The Atlas of Birds: $22.95
- Australian Bird Guide: $39.95
- Birds of Prey: $26.00
- Birds of Southeastern Arizona: $19.95
- Raptors of Mexico and Central America: $7.95

FOOD AND FUN

- ABA Songbird Coffee: $16.00
- Bird Bingo: $29.95
- Desert Dreams: $20.00
- Eco Notes Notecards: $10.00
- TAZA Chocolate Discs: $5.00
- Puzzle Charley Harper: $16.95
- Savvy Southwest Cooking: $16.95

LOCAL AND REGIONAL

- Arizona Classic Hikes: $21.95
- Chasing Arizona: $19.95
- Journey Home: $28.00
- Weird Arizona: $19.95
- Grassland Plant ID for Everyone: $22.95

SHOP LOCALLY!
<table>
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<tr>
<th><strong>HOME AND LIFE</strong></th>
<th><strong>KIDS CORNER</strong></th>
<th><strong>FIELD EQUIPMENT</strong></th>
<th><strong>OUTDOOR ACCESSORIES</strong></th>
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<tr>
<td>Chico Bag $12.99</td>
<td>Audubon Birds $9.95</td>
<td>Arizona Gazetteer $19.95</td>
<td>Agate Windchime $18.00</td>
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<td>Chuck Watkins Art $7.00–$25.00</td>
<td>Bugs Pop Up $19.99</td>
<td>Pajaro Grande Shoulder Field Bag $49.95</td>
<td>Bat Bungalow $35.00</td>
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<td>Songbird Dishtowel $12.00</td>
<td>Clean Water Science $14.95</td>
<td>2017 Checklist of North American Birds $4.00</td>
<td>Murphy’s Mosquito Candle $10.00</td>
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<td>ToGo Ware $12.95</td>
<td>Javelina Baby $10.00</td>
<td>Field Guide Vest $95.00</td>
<td>Native Seed Company Seeds $10.00</td>
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<td>Bird Brainiacs $14.95</td>
<td>Rick Young Ultra Thin Binocular Harness $22.95</td>
<td>Hawk Eye Wireless Nature Cam $129.99</td>
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<td>Wine Bottle Stopper $10.00</td>
<td>Desert Dwellers Flash Cards $17.95</td>
<td>PackSeat $30.00</td>
<td>Solar Water Wiggler $40.00</td>
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- **FIELD EQUIPMENT**
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  - PackSeat $30.00
  - Green Trails Maps $14.00

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  - Solar Water Wiggler $40.00

**TUCSON AUDUBON NATURE SHOP WINTER 2017 CATALOG**
GIFTS AND JEWELRY

- Jabebo Earrings: $12.95
- Ben’s Bells Hummingbird: $15.00
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- Sanyork Travel Case: $18.00
- Wren Walraven Art Blocks: $22.00

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- Bird Gourd Ornaments: $10.00
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- Thankful Garden Flag: $12.00
- Tea Light Holder: $5.00

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- Suet: $3.00
- Bugs Nuts & Fruit Cylinders: $12.00-$24.00
- Tube Feeder with Seed Tray: $40.00
- Nuttery Helix Feeder: $60.00
- Cole’s Nutberry Suet 5lbs: $21.00
- Hummer Helper Nesting Material: $10.00
- Hanging Sphere Hummingbird Feeder: $14.95

APPAREL

- T-shirt: $20.00
- T-shirt: $12.00
- Sanyork Travel Case: $18.00
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## OPTICS

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- **Agua Caliente Park**: 12325 E Roger Rd · 520-760-7881 · Thu–Sat, 10 am–1:30 pm*

*Please call to confirm hours. The shop opens earlier and closes later during certain months.

For more shop items, visit [TUCSONAUDUBON.ORG](http://TUCSONAUDUBON.ORG)
The Seventh A review by Rick Wright

A full 47% of Americans alive today were born after this canonical field guide was first published. On its appearance in 1983, “Nat Geo” instantly became the book of choice for all serious birders, displacing the Golden Guide and the venerable Peterson volumes alike. Over the 35 years since, under the skilled editorial, authorial, and artistic tutelage of Jon Dunn and Jonathan Alderfer, this title has gone through seven editions, each one better than the one before; this new seventh edition continues that tradition, staking a strong claim to the title of best field guide available for any region in the Americas.

The new edition retains the now familiar format of plates with facing-page texts and range maps. As in the sixth edition of 2011, the painted illustrations are heavily annotated with field marks and behavioral characters, echoing the design of several influential European field guides. The size and shape of the book block is the same as in the two preceding editions, and half an inch wider than the pocket-sized first, second, and third editions; at almost 600 glossy pages, the new edition is brick-like in format and in weight, a significant consideration for beginning birders who might still plan to carry the book in the field. Nat Geo is still notably smaller and lighter than the big Sibley guide, and hardly larger or heavier than either of the two smaller regional Sibley volumes.

The advantage of the new edition’s relatively lavish size is the large-scale reproduction of the paintings, which average about 20% larger than in the big Sibley. The design here varies from plate to plate, but many preserve plenty of white space in the background, making them even more appealing and easier to use. Just as importantly, the type used in this seventh edition is subtly different from that of the sixth, and at least appears to be ever so slightly larger, making the entire book—plates and text—supremely legible even to my worn old eyes.

Each edition of the Nat Geo has included a large number of newly painted figures; this time, 330 birds have been added or replaced, the work of four different artists. The new images include several recently established exotics, a few new vagrants, and some additional geographic races. Of particular note to birders in southeast Arizona, the ground-doves are much improved, with insets showing the distinctive wing covert patterns of both species and views of the birds in flight from below. The white-breasted nuthatches are entirely new, the images and their annotations more clearly pointing out the distinctions between the three distinct subspecies groups (or, probably more accurately, the three distinct species). The depictions of hummingbird wings and tails are much better than in preceding editions, and Nat Geo’s is now hands-down the most informative field guide treatment of these often difficult birds. The pages devoted to the Phylloscopus warblers—any of which could stray to Arizona—are also greatly expanded and improved.

Not all of the new figures are as successful. The new magnolia warblers in my review copy are blurry and perhaps not quite to scale with the others on the plate. The replacement trio of Aztec thrushes are all disconcertingly starling-like, and the adult female looks simply unfinished on the page. A few notoriously poor images, including the vesper sparrow, the sage thrasher, and the yellow-breasted chat, have been carried over from earlier editions. For every such small disappointment, however, there are a dozen delightful surprises: the common scoter, for example, has been ever so slightly touched up to emphasize the drake’s eye ring, and a new inset shows the distinctively ochre-colored Fuertes’s oriole, a bird not depicted in any competing North American guide.

Arizona birders will note with satisfaction that several remarkable species recorded in the state have been moved from the appendix into the main text of the new edition. The Sinaloa wren, brown-chested martin, and even pine flycatcher are all now accorded full treatment as bona fide members of the avifauna of the United States and Canada.

The most noticeable innovation in the guide is its implementation of the new sequence of orders and families propounded by the American Ornithological Society in 2016. Pigeons and hummingbirds have been moved to near the front of the book, loons and grebes are widely separated, the hawks and owls are adjacent. There will inevitably be complaints from birders used to one or the other “traditional” sequence, but by continually updating the order in which the birds are presented, Nat Geo has always honored the historical connection between birding and the science from which it arose.

This is, simply put, an even more outstanding iteration of one of the most outstanding bird guides ever produced. It will serve long-experienced birders and beginners alike as a new standard for the field.

Jon L. Dunn and Jonathan Alderfer
National Geographic Field Guide to the Birds of North America
Seventh edition
Washington, DC: National Geographic Society, 2017

Rick Wright leads birding and birds and art tours for Victor Emanuel Nature Tours. He is the book review editor at Birding magazine, and a highly sought-after lecturer and widely published writer.
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Anna’s Hummingbird, Mick Thompson