Vermilion

FLYCATCHER

July-September 2018 | Volume 63, Number 3





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

Board Officers & Directors

President—Mary Walker Secretary—Deb Vath Treasurer-Richard Carlson Vice President-Tricia Gerrodette

Directors at Large

Les Corey, Edward Curley, Kimberlyn Drew, Laurens Halsey, Kathy Jacobs, Doug Johnson, Cynthia Pruett, Cynthia M. VerDuin

Board Committees

Conservation Action-Kathy Jacobs

Engagement—Deb Vath

Finance—Richard Carlson

Nominating & Governance—Cynthia VerDuin

Personnel—Tricia Gerrodette

Resource Development—Kimberlyn Drew

Paton Center Buildings & Grounds-Laurens Halsey

Programs & Activities

Field Trips—Luke Safford 520-209-1811 Library, Membership Meetings 520-629-0510 ext o Rare Bird Alert—Andrew Core | Report Rare Birds 520-629-0510 ext 3

Staff (unless otherwise stated, dial 520-629-0510 plus extension)

Executive Director—Jonathan Lutz Finance Director—Kevin Marshall ext 7013 Accounting Clerk—Julie Xu ext 7003 Director of Conservation & Research—Jonathan Horst 520-971-6238 Bird Conservation Biologist—Jennie MacFarland ext 7004 Conservation Advocate—Nicole Gillett ext 7010 Field Crew Supervisor—Rodd Lancaster 520-256-6909 Restoration Project Manager and K-12 Youth Engagement

Coordinator—Andy Bennett

Field Crew-Dan Lehman

Restoration Project Coordinator—Kari Hackney

Citizen Science Coordinator—Olya Phillips

Paton Center Coordinator—Tina Hall

Volunteer Coordinator—Luke Safford ext 7011 Development Director—Keith Ashley ext 7006 Events Coordinator—Katie Brown ext 7012 Membership & Development Coordinator—Diana Rosenblum ext 7002 Digital Media & Bird Conservation—Matthew Griffiths 520-971-7924 Operations Director—Lesley Rich

Retail Manager—Debbie Honan

ext 7007

Habitat at Home Coordinator, Nature Shop-Kimberly Matsushino

ext 7017

520-262-1314

TUCSON AUDUBON NATURE SHOPS

300 E University Blvd #120 ext 7015 Hours: 10 am-4 pm, Mon-Sat

Agua Caliente Park, 12325 E Roger Rd 520-760-7881

Hours: June-September: Thursdays only: 9 am-1:30 pm

Please call to confirm hours. Nature Shop space generously provided by Pima County Natural Resources, Parks & Recreation.

TUCSON AUDUBON NATURE CENTERS

Mason Center

3835 W Hardy Rd, Tucson, AZ 85742

Hours: 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 Hours: Open dawn to dusk

Vermilion Flycatcher is published quarterly. For address changes or subscription issues, call 520-629-0510. Submissions are due the 1st of the month, two months before issue date. Send submissions to Matt Griffiths at mgriffiths@tucsonaudubon.org in Microsoft Word, RTF, or plain text files.

Coordinator - Matt Griffiths 520-971-7924

Proofreaders—Tucson Audubon staff and Dorothy Fitch

Design / Layout - Melina Lew

© 2018 Tucson Audubon Society

CCL in photo credits=creativecommons.org/licenses/by/2.o All photos © the photographer.

FEATURES

- Southeast Arizona Birding Festival
- Introducing Board President, Mary Walker
- 10 Year of the Bird Continues to Soar
- Arizona IBA and Big Picture Surveys
- 15 Location-based Identification: The Case of the Western Flycatcher
- 16 Planting Hope for a Healthier Creek, One Grass at a Time
- 18 Habitat at Home Featured Naturescape
- 20 Just Add Water

DEPARTMENTS

- **Events and Classes**
- **News Roundup**
- Southeast Arizona Bird Calendar
- Habitat at Home Plant Profile
- Birds Benefit Business Alliance
- 22 Birding Travel from Our Business Alliance Partners
- **Conservation News**
- 28 Tucson Audubon Society Nature Shop
- 29 Book Review



FRONT COVER: Varied Bunting in Bisbee by Larry Selman. He resides in Bisbee, AZ and Santa Cruz, CA. When not playing the Viola da Gamba, Larry is photographing birds and humans in their natural habitats.

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

Date: Saturday, September 22, 2018

Free!

Bird the San Pedro

Location: Holy Trinity Monastery, St. David Birding trips: San Pedro River, Benson, and the **Whetstone Mountains**

Join Tucson Audubon for a family-friendly day of birding along the San Pedro River with fun activities, off-site birding trips, and opportunities to learn more about this critical riparian lifeline in southeast Arizona.



Connecting Birds and People in Southeast Arizona Jonathan Lutz, Executive Director

On April 23 I was grateful to join donors and self-described "Pure Birders," Ralph Van Dusseldrop and Marilyn Johnson, for a ribbon cutting ceremony and dedication of Paton Center's updated backyard viewing area. As I listened to inspiring words from Marilyn and Ralph, the audience and the

setting captured my attention. Over 100

attendees were gathered in the backyard

made famous decades ago by Wally and

Marion Paton.

The Paton Center represents what careful thought and hard work by volunteers and professionals can do for both birds and people. Nearly 14,000 people visited the property in 2017, many of them contributing to Patagonia's local economy. These visitors enjoyed the Paton Center in all seasons and gained a first-hand glimpse of what native plant landscaping can look like at a residential scale. Birders submitted thousands of bird observations to Cornell's eBird program in 2017 (and over 1,000 so far in 2018). The property once known as the exclusive venue for finding one's lifer Violet-crowned Hummingbird has since grown into a focal point for birding tourism and conservation. That is what we were celebrating on April 23.

Recent success at the Paton Center inspires me to dream of what Tucson Audubon Society can do for recreational birders and bird conservation.

In my relatively short time as a resident of Arizona, it is clear that our state, like the rest of the nation and the world, faces extreme environmental challenges. Our partners at the National Audubon Society continue to raise alarm for the effects of climate change on the 914 bird species that call North America home. Our Tucson Audubon Society staff and volunteers are keeping abreast of the increasing challenges pertaining to water resources in the American West. Global mining interests pose a growing threat to Arizona's imperiled watersheds, including fragile Sonoita Creek in Patagonia.

We could fill this issue with the all threats to birds and bird habitats of Southeast Arizona. The scales of climate science, water policy, and industrial resource extraction may seem inaccessible to the average bird lover. Rest assured, however, that opportunities exist for birders, native plant enthusiasts, and butterfly chasers to have an impact. One only needs to look as far as the Audubon network to see that good things are happening, from partnerships with waterconscious breweries to programs that support homeowners wishing to embrace bird- and pollinator-friendly landscaping.

As your Executive Director, I'm most looking forward to ways of connecting your passion for birds and nature with accessible actions you can take to benefit conservation. While I'll be focusing on fundraising, board governance, and organizational development, I'll also be empowering staff and volunteers to deliver conservation messages throughout Tucson Audubon

Society's service area. As an organization, we'll be working hard to turn ideas into results—just as we have been able to do at the Paton Center for Hummingbirds. Doing so is at the core of what Tucson Audubon Society stands for.

I invite you to be part of the effort. Join us for the Southeast Arizona Birding Festival, the annual Gala, or one of our Wednesday walks at Tucson's Sweetwater Wetlands Park. Find time to volunteer with our Field Crew, in a Nature Shop, or with our Development staff. Consider setting up an estate gift to ensure that the work of Tucson Audubon Society will endure for generations to come. Together we can succeed in connecting birds and people for the benefit of both.



Sincerely,

Jonathan E. Lutz



Black-crowned Night Heron, Cathy Wasson

Register Now for Fall Birding Classes

Our adult education classes are designed for you to improve your knowledge and practice your skills in some of the most beautiful locations in the region!

Visit tucsonaudubon.org/education for details and to register.

Wondrous World of Warblers with Homer Hansen

Warblers are some of the smallest birds found on the North American continent. They are known for their wide variety of colors and long migrations. They travel from South America and the West Indies to the northern regions of Canada and back again. These small jittery birds hardly ever stop moving, almost always hopping from branch to branch, making it challenging to hold them in your binocular sight. Learn how to distinguish those challenging fall warblers here in southeast Arizona. Key structural characteristics and similar species comparisons will be taught during this workshop. An introduction to warbler vocalizations will also be covered.

Class Size: 10 Intermediate to Advanced Birders.

Class Presentation: Thursday, August 16, 5:30-8:30 pm at the Historic Y Conference Room, 738 N 5th Ave

Field Trip: Saturday, August 18, time and location to be announced at class. Please leave the day open.

Cost: Members \$110; Non-members \$145, includes 12-month Tucson Audubon membership



Are you ready to take your photography to the next level? Then this is certainly the class for you. We will discuss proper exposure techniques, including how and when to use exposure compensation. Learn how to use histograms and how they relate to exposure. We will discuss how and when to use different exposures and auto focus modes. Other topics include depth of field, flash exposure and ISO.

Class Presentation: Thursday, October 11, 5:30-8 pm

Field Trip: Saturday, October 13, 7 am-12 pm

Location: Both at Tucson Audubon's Mason Center, 3835 W Hardy Rd.

Cost: Members \$75; Non-members \$110, includes 12-month Tucson Audubon membership

Meet Our Instructors

Homer Hansen

Homer has a passion for sharing birdwatching with others and instructs numerous workshops about birds, birdwatching, and bird ecology. He is a native of Willcox, Arizona, and served as chairman of the Wings Over Willcox Birding & Nature Festival for 17 years. He is also co-founder of the Sulphur Springs Valley Young Birders Club and the annual Arizona Young Birders Camp.

Stephen Vaughan

Steve is a professional nature photographer and instructor. His photographs have appeared in numerous publications including Audubon magazine as well as Audubon books and calendars. Steve was also president of Aiken Audubon Society in Colorado Springs for 5 years.

Both Homer and Steve will be leading fieldtrips and workshops for the Southeast Arizona Birding Festival.





Events Calendar

AUGUST

8–12 Southeast Arizona Birding Festival

10-12 Nature Expo

10 Paton Center for Hummingbirds Big Sit

11 Youth Birder Outing at Sweetwater

11 Banquet with Bill Thompson III Keynote

16 & 18 Wondrous World of Warblers Class

SEPTEMBER

22 Bird the San Pedro

OCTOBER

11 & 13 Advanced Nature Photography Class

NOVEMBER

- 2 Birding with Gala speaker Noah Strycker
- 3 Book signing with Noah Strycker
- 3 Fly! Gala with guest Noah Strycker



Tucson Audubon's 31st annual Birdathon FUNdraiser generated over \$28,000 to support all aspects of the organization's work on behalf of birds in southeast Arizona. Fifty-one birders, divided into 19 teams, combed habitats from Tucson's urban parks to the peak of Mount Lemmon, and from the Willcox Ponds to Patagonia Lake. Each team's goal was to spot as many species as possible in a 24-hour period or less—and to have a good time! A total of 316 individual donations supported the teams' efforts.

The 2018 Birdathon wrapped up with a party at Borderlands Brewing with about 50 people in attendance. Congratulations to the following teams on earning a prestigious award:



Grand Prize: No Egrets (Susan Atkisson, Betty & Pete Bengtson, Judy Geddes, Barbara Johnson, Debbie Honan, Kim Matsushino, Kathy Olmstead, Olya Phillips, Jean Rios, and Jim Watts) spotted an impressive 105 species and raised \$1,620.



Most Species Seen: The Wrenegades (Matt Griffiths, Tim Helentjaris, Jennie MacFarland, Sara Pike, and Chris Rohrer) set the mark with 173 species.



Most Funds Raised: The Cochiseballs (Ron Beck, Ken Blankenship, Jonathan Lutz, and Luke Safford) raised \$4,143 with the support of 30 donors.



Youngest Birdathoner: The 3 Nestlings (Audra, Athena, and Parker) won with an average team age of 16 months and 6 days!

Please join us in 2019 for an even bigger Birdathon!











No Egrets; Red-faced Warbler, Chris Rohrer; Agua Caliente Birdbrains; Rosenbirders; Wrenegades



Come Visit us at the Nature Expo

There is something for everyone at this year's Nature Expo at our new location! The DoubleTree by Hilton Hotel Tucson—Reid Park, 445 S Alvernon Way

Friday, August 10: 12–6 pm Saturday, August 11: 10 am–6 pm Sunday, August 12: 10 am–2 pm

28 Workshops & Free Talks from sparrows, to Hawaiian endemics, to dragonflies, and more!





Checkered Setwing, Laurens Halsey



Mandy Talpas, the "Hawaii Birding Babe"

Kids' Zone Saturday (10 am –2 pm) Sunday (10 am–1 pm)

Saturday join us for:

- · Live animals from the Reid Park Zoo
- Raptors from Wildlife Rehabilitation of Northwest Tucson

Sunday join us for:

- Presentations from Tucson Herpetological Society
- Live reptile encounters

Both days kids can enjoy owl pellet dissection, facepainting, coloring contest, and hands-on activities



See live birds up-close



Reptile encounters shouldn't be scary!

The 8th Annual Southeast Arizona Birding Festival presented by Carl Zeiss Sports Optics, August 8-12 Register for field trips, workshops, free talks, and more at tucsonaudubon.org/festival.

Welcome Bill Thompson III (affectionately "BT3") of Birdwatcher's Digest as our Keynote Speaker on Saturday!

Message from BT3 for Festival Attendees



It's been a while since I've visited southeast Arizona, so I'm really looking forward to reconnecting with old friends and making new ones (both feathered and human) at this year's festival. Please join me on a field trip, attend my Beginning Birders' Workshop, my Saturday evening presentation, or stop by on Friday afternoon, August 10, between 2-4 pm and I'll clean your optics! This is going to be super fun and I can't wait!

- Cheers, BT3

BT3's Schedule:

Friday, 5:30 am-12 pm, Paton Center for Hummingbirds "Big Sit" Friday, 2-4 pm, Binocular Cleaning & Evaluation at the Nature Expo Saturday, 7-9:30 am, Youth Birding Outing at Sweetwater Wetlands Saturday, 1-2 pm, Beginning Birding Workshop at the Nature Expo Saturday, 6-8:30 pm, Keynote Presentation & Banquet

Daily Featured Events (register online)

Thursday, 10-11 am, Easy Digiscoping with Carl Zeiss Sports Optics Friday, 6-7:30 pm, Birder's Happy Hour Saturday, 3:30-5 pm, Hands-on Tips from the Experts with Tamron Sunday, 5:30 am-12 pm, Spotting Scopes 101 at Cochise Lake



Photography and Birdinga growing part of the festival!

Meet our Professional Photographers:



Scott Bourne—30 Secrets to Bird Photography for Anyone from Beginner to Pro on Sunday

Olympus Visionary, Scott is a professional wildlife photographer, author and lecturer who specializes in birds.



Lisa Langell—Learn to Photograph Raptors in Flight on Saturday Lisa is an award-winning professional photographer and is genuinely passionate about three things: creating emotionally evocative images of nature; providing exciting, fun and high quality learning experiences; and

being a good steward of our natural resources.



Daniel Grayson— Amazing Bat Photography on Thursday, Friday, and Sunday The photographs Daniel presents are a catalog of incredible adventures to far off lands and inspiring wildlife encounters in untouched areas.



Marc Morris—Science of Optics on Sunday

Now with Tamron, Marc is a 21-year veteran of the photo imaging industry and has sold cameras to a Beatle!



Stephen Ingraham—Point & Shoot Photography on Saturday Stephen has been celebrating the wonders of the natural world with a camera for over 50 years and was the Birding and Nature Observation Product Specialist for ZEISS Sports Optics.



Stephen Vaughan—Hummingbird Photography on Thursday Steve is a professional nature photographer and instructor. His work has appeared in numerous publications including Audubon magazine as well as

Audubon books and calendars. Steve was also president of Aiken Audubon Society in Colorado Springs for 5 years.



WINGS Birding Tours Worldwide has been organizing tours for over 45 years. We are proud to be your guide!

www.wingsbirds.com 520-320-9868 wings@wingsbirds.com

Scarlet Minivet in Thailand by Luke Seitz



Thanks to our sponsors

PresentingSponsor



Associate Sponsor

-0

TAMRON





SupportingSponsor

ContributingSponsors















Introducing Board President, Mary Walker



Mary's love of birds and appreciation for nature developed with her upbringing in a small town in northern Pennsylvania. There she explored the forested mountainside adjacent to her home with her mother, grandfather, and cousins. After completing a BS in Chemistry at the University of Georgia, Mary worked in environmental and medical research, environmental compliance, and public participation and policy related to the environment. Her employers included: the Environmental Protection Agency, Bowman Gray School of Medicine, Baylor College of Medicine, Tennessee Valley Authority, and several consulting firms. Mary owned and operated Mary Walker & Associates, Inc., an environmental consulting firm located in Chattanooga, Tennessee. She was a board member of The Nature Conservancy of Tennessee for ten years, and chaired the board for two

years. Mary served on the board of Audubon Arizona from 2010 to 2013, and the board of Tucson Audubon since 2015. Her three great passions during retirement are enjoying and protecting birds and wildlife, exploring landscapes while flying small aircraft, and performing and teaching Appalachian mountain dulcimer.

When asked why she serves as the board president, Mary shared: "My work with Tucson Audubon is satisfying on many counts. Our conservation advocacy and landscape restoration work is effective because it is reasoned and founded on sound science. We introduce people of all ages to the delightful world of birds, and we help them understand the connection between healthy birds, healthy habitats, and our quality of life on planet Earth."

TUCSON AUDUBON SOCIETY'S

PATON CENTER for HUMMINGBIRDS CAPITAL CAMPAIGN



A year ago, Tucson Audubon Society kicked off a capital campaign to redevelop the Paton Center for Hummingbirds, one of Southeast Arizona's most revered birding destinations. The Paton Center received nearly 14,000 visits in 2017. Birders, photographers, and nature lovers from all 50 states and 20 foreign countries visited the property last year.

We need your help to complete the redevelopment of this beloved preserve. We are only \$90,000 away from our goal and the ability to move forward with plans to redevelop this important site that will serve nature lovers for many years to come.

Can we count on you for a donation to this important effort? A gift of any size will be meaningful towards preserving the legacy of the Patons. Make a gift today and your donation will be doubledthe result of a donor challenge that matches contributions, dollar for dollar, up to \$100,000.

Donate online at tucsonaudubon.org/patoncampaign or by calling Diana Rosenblum at 520-209-1802.

JOIN US AT TUCSON AUDUBON'S 10TH ANNUAL

FLY! Gala

WONDER · NATURE · CONNECTION



Saturday, November 3, 2018 Westward Look Wyndham Grand Resort & Spa

Join us to celebrate Year of the Bird, marking the centennial anniversary of the Migratory Bird Treaty Act.

Guest speaker Noah Stycker is the first person to see over half the world's birds in one year. As a writer, photographer, and adventurer he skillfully and humorously inspires an appreciation for birds and the birders of the world who are working to protect them.

The evening features bird's eye views from a rooftop patio, an exquisite seated dinner program, music, live birds, and creative ideas to help us continue to protect birds and their habitat.



See Event Calendar on page 2 for Birding with Noah & author's book-signing dates.

For sponsorship opportunities contact us at 520-209-1812 or events@tucsonaudubon.org.

TUCSONAUDUBON.ORG/GALA

© Charley Harper Art Studio

Year of the Bird Continues to Soar Lanella Gaines







Southeast Arizona Birding Festival, Molino group, Luke Safford

In December 2017, the National Audubon Society, in conjunction with National Geographic, BirdLife International, and the Cornell Lab of Ornithology, launched a campaign to celebrate the wonder of birds and provide an opportunity for people everywhere to recommit themselves to protecting the species. This year has been proclaimed as the Year of the Bird. This campaign has a focus on conservation, citizen science, and plants for birds.

Tucson Audubon is a part of this effort. Our work this year has supported several key components of the Year of the Bird campaign.

According to National Audubon, February was declared the month of the Great Backyard Bird Count (GBBC) for Year of the Bird. Since its launch in 1998, the GBBC has been known as the first online citizenscience project to collect data on wild birds and to display results in near real-time. To date, more than 160,000 people have joined in on this four-day count that occurs every February. This effort creates an annual snapshot of the distribution and abundance of birds.

Tucson Audubon hosts its own local citizen science program, the Tucson Bird Count, every year in partnership with the University of Arizona. The actual bird count takes place April 15-May 15. Residents in urban Tucson communities are encouraged to spend just one morning participating. The goal of this program is to determine how parts of Tucson are utilized by native birds. The collected data helps us learn how to turn more of Tucson into productive habitat.

National Audubon also kept Year of the Bird going strong in March by encouraging the public to grow native plants through its Plants for Birds program to help create bird-friendly communities. Tucson Audubon is thrilled to have our Habitat at Home program continuously act in this capacity to inspire a local movement towards environmental sustainability. Since its re-launch in November 2017, the Habitat at Home program supports almost 70 homes in creating bird-friendly landscapes. Habitat at Home staff have begun grassroots outreach efforts in the Tucson community to get the word out on water conservation and how this program can serve people, plants, and wildlife simultaneously.

Tucson Audubon's conservation focus remains on water for Year of the Bird. We are a founding member of the Community Water Coalition, whose mission seeks to provide leadership and guidance towards water policy in Tucson and the lower Santa Cruz River Watershed. Our conservation work has extended to the San Pedro River Watershed in an effort to preserve this national treasure, which is also a designated Important Bird Area. Just when you thought the work stops there, Tucson Audubon has also made a commitment to protect and restore our "water dependent habitats." These spaces include local riparian areas, wetlands, and shallow groundwater areas, which are critical for ensuring the sustainability of our region's birds, wildlife, and economy.

We continue to celebrate the Year of the Bird! This summer, Tucson Audubon will kick off its annual Southeast Arizona Birding Festival at a new location, the DoubleTree by Hilton Hotel Tucson—Reid Park. This premier event for all things birds, birding, and nature happens August 8-12 with field trips, workshops, educational talks, and a free nature expo. Registration is still open! Please visit our website for more information.

Happy Year of the Bird!

IMPORTANT BIRD AREAS:

Arizona IBA and Big Picture Surveys

Jennie MacFarland, Bird Conservation Biologist

The Arizona Important Bird Areas is a very fun program to coordinate. There is always a lot going on and many extraordinary volunteers help with all the different aspects of the activities pursued through this program that centers around both small and large projects. Part of what keeps coordinating this program so interesting is that we do smaller, contained projects as well as sweeping, landscape-scale projects. Many of you reading this article may have been involved in one or more of these projects and I want to share some of what we have learned through the efforts of so many volunteers and Tucson Audubon staff.

Elegant Trogons

This charismatic, show-stopper of a bird is very popular with both resident and visiting birders. The distinctive call and beautiful plumage of the Elegant Trogon is an icon of southeast Arizona's Sky Island mountain ranges, which is the only area where they reliably nest in the United States. Rick Taylor had been organizing census style surveys of these birds in the Chiricahua and Huachuca Mountains for many years, but couldn't survey the other three key mountain ranges on his own. In 2013, Tucson Audubon partnered with Rick and the survey expanded to five mountain ranges so we could get a more complete picture of how Elegant Trogons are doing in Arizona. This was only possible with the help of Tucson Audubon's and Arizona IBA's huge existing volunteer base of birders up for such a challenge. In some years, over 80 different volunteers have helped with this enormous survey effort with many volunteers helping in multiple ranges. Huge, landscape scale surveys need lots of people

out searching for birds and, with the help of our amazing volunteers and support of the local communities near these mountain ranges, we were able to produce the data in this table.

The main trend for Elegant Trogons in Arizona is up! These birds do seem to be increasing and we do take into account that survey effort did increase from 2013 to 2015, when we added more canyons. This is a huge survey effort in May and early June that can always use more people, so if you haven't helped before and are interested, we would love to hear from you.



Survey Year	Atascosa Mountains	Santa Rita Mountains	Patagonia Mountains	Huachuca Mountains	Chiricahua Mountains	Sky Islands Total
2013	13	19	15	38	12	97
2014	10	23	21	41	12	107
2015	18	19	29	23	12	101
2016	25	26	30	41	12	134
2017	33	24	34	47	14	152
2018	19*	45	46	56	18	164

^{*}The Elegant Trogons seemed to be a bit late in 2018 so this year's number is artificially low. eBird data shows that at least 5 more trogons arrived later in the month.

Timing of these surveys: Atascosas—first Sunday in May, Patagonias—last Saturday in May, Santa Ritas—last Sunday in May, Huachcuas—first Saturday in June, Chiricahuas—first Sunday in June. More detailed data split out by each route for 2017 and 2018 can be found at aziba.org.



The Arizona IBA program is part of a large global conservation effort, but even in our comparatively small portion, the state of Arizona, Tucson Audubon manages to accomplish huge survey efforts with the dedicated help of our amazing volunteers. Together we have done important and impressive field science. Thank you.

VOLUNTEER SPOTLIGHT

We all want to make a difference in our community and volunteer, so let us help you get started! Never volunteered with Tucson Audubon before? It's easy to get going. Don't have much time? Even an hour or two can make a tremendous difference. Don't know much about birds? Not a problem! Here are some steps to help you move forward as a volunteer:

- · Start the process by emailing Luke at lsafford@tucsonaudubon.org and tell him you want to start volunteering.
- · Read and respond to monthly volunteer emails. (Not receiving them? Notify Luke.)
- · Join a Volunteer Team—it is always better to work with a team! (Fly! Gala, Important Bird Areas, Mail Crew, Paton Center, Nature Shop, etc.)
- · Learn how to, and record, your volunteer hours online. This helps us receive new grants!
- · Regularly check the Tucson Audubon volunteer page: tucsonaudubon.org/volunteer

Wondering what it looks like to volunteer this summer season? Here are some opportunities:



Our 18 Paton Center Birding Ambassadors fill feeders, greet visitors, and help keep up the grounds. We could use more team members at this beautiful location.



Volunteers, like Joe Eigner (right), are essential for creating a great experience at the Southeast Arizona Birding Festival. Consider joining the festival team for a shift or two this August 8–12.



Bird surveys have always been a key component of Tucson Audubon, and our volunteers help get this enormous job done! Our crew of Elf Owl surveyors, pictured here, had a ton of fun. Consider joining a Yellow-billed Cuckoo survey this summer or a Chestnut-collared Longspur count in the winter.



The monsoon season provides us with many restoration opportunities, especially in the Sonoita Creek area near the Paton Center for Hummingbirds. Look for weekday and weekend dates this summer to get involved.

If you would like to learn more about current volunteer opportunities and start volunteering with Tucson Audubon, please email Luke Safford at lsafford@tucsonaudubon.org.

Welcome New Members

Lindsey Abrahams, Carol Amos, Patty Sue Anderson, Richard Anderson, Audrey & Kenneth Arnold, Sara Arthur, Jill Bachman, Sherril Beach, Liz Betts, Arijit Bose, Jon Boss, John Boswell, Carol Bouska, Sherree Brasher, Mari Carlos, Roger Carrillo, Deborah Cassady, Cheri Chamberlain, David Colicchio, Sharon & James Connor, Rae Consigli, Nancy Coombs, Tereasa & Brian Corcoran, Yvonne Couch, Louise & Charles Scott Crabtree, Melanie Culver, Amanda Damin, Sandy & Gregory Davis, Katherine Denune, Elizabeth DiGrazia, Heidi Doman, David Dore, Brian Edney, Connie Ernst, Dave Eshbaugh, Amy Fenwick, Kenneth Gary, Kenneth Gray, Margaret Greene, Lynne Hakanson, Tim Halm, Nancy Hand, Pam & Stan Hart, Regina Heitzer-Momaday, Vicki Henry, Christine Hoebermann, David Holder, Deepa Khushlani & Krishan Patel, Titus King, Kim Kirkpatrick, Deborah & Randall Komisarek, William Kramer, Sally Krommes, Mary Ann Kruger & Jim Gurnett, Elmer Kuball, Charles LaGrone, Shari & Douglas Larson, Tom Lindner, Ronald Locke, David Luery, Carolyn Lukensmeyer, Cynthia Lyman, Bruce Macdonald, Sheila McGinnis, Jerry McHale, Julie Michael, Gabrielle & Jeffery Miller, Theresa Miller, Sarah Miller, Joanne Millius, Suzann Mohr, Tiuui Morgan, Linda Morrison, John Munshower, Robert Murray, Pam NcNabb & Alan Baker, Rick Negele, Randall Nelson, Brenda Neufeld, Molly & David Niven, Rose Novack, Eric Noyes, Erin & Paula ODonnell, Sandra OKeefe, James Olmes, Sandra Pachter, Mark Pecha, Helaine Prince, Vicki Rapp Gabrielson, Robert Reilly, Lesley Rich, Sheri & Bob Rodriguez, Janie Rodriguez-Roe & Franklin Roe, Laurel & Omar Salvador, Morris Sandvig, Judith Schneider, Melanie Scott, Randy Selig, Dale Sloan, Pamela & Richard Smith, Ellen Sosin, Sherry Steele & Mark Winter, Ansel Stein, Peg & David Sudol, Lisa Texeiro, Tom Thomsen, Tom Torget, Judy Vandever & Ray Kube, Wayne Walter, Deb & Rick Waring, Elizabeth White & Dick Barmore, Sandra & Woody Woods, Julie Xu

Gifts In Honor/Memory

In honor of Olya Phillips from Doris & Larry Abrams

In honor of Betty McComiskey from Karen Allomong In honor of Ken Blankenship from Kathe Anderson In honor of Peter Hochuli from Lois Barlow-Wilson & Malcolm Wilson In memory of R. Michael Andersen from Mary Beck, Eva Ann & Jim Elmer, Susan Emerson, Joel Greer, Lisa & Mark Guetzko, Virginia Porter, Suki & Tom Thomsen

In honor of Andy Bennett from Steven Bennett In memory of John Letovsky from Jeanne Bird To Leo, Josephine, & Eleanor Daney from Gerry Daney In memory of Robert Oren "Scotty" Campbell from Lorraine & Kent Frazier

To Patricia Griffiths from Denise Griffiths In honor of Luke Safford from Mia Hansen In memory of Norma Hart Anderson from Pam & Stan Hart In honor of Audra Lew from Janie & Conrad Heatwole In memory of Carolyn Merkle from Wanda Jaworski In memory of Robert Oren "Scotty" Campbell from Phyllis Kelly In memory of Ruth S. Hileman from Karen & Gilbert Matsushino In memory of Barbara Schaffner from Deborah Merriman In honor of Lesley Rich from Debbie Rich In honor of Ruth & Steve Russell from Mary & Sherman Suter In honor of Maureen Daney Houlahan from Mary Szewczyk To Dorothy J. Newhouse from Nancy & Tom Trimmer In honor of Andy Bennett from Doyle Walker

Frequent Flyers

Craig Anderson, Susan Atkisson, Matt Bailey, Ardeth Barnhart, Melanie Builder, Shawn Burke, Carianne Campbell, Marilyn Carney, Becca Carroll, Karen Chandler, Janet Cohn, Mich Coker, Christopher Cokinos, Christine Curtis, Sandy Elers, Kimberly Fitzpatrick, Peggy Ford, Judy Heffner, John Henry King, Bob King, Titus King, Susan Kozacek, Suzanne Long, Marcia OBara, Erin Olmstead, Lorel Picciurro, Jean Rios, Jeff Schlegel, Deb Vath, Frances Ann Walker, Nancy Young Wright, Claire Zucker

Monthly giving through automatic credit card or bank withdrawals is convenient, secure, and simply one of the best ways you can support Tucson Audubon's programs. For more information, visit tucsonaudubon.org/frequentflyer.



Southeast Arizona Bird Calendar

What our birds are up to July through September

Matt Griffiths

July is usually the start of southeast Arizona's "monsoon" season, and the rains bring a revitalization of life for the region. After making it through the intense heat and "dry summer" of June, birds and humans welcome the "wet summer" season! Grasslands and canyons spring to life, providing food for a new generation of insects, which in turn provide food for birds and reptiles. Some birds wait until this time period to breed, and some birds return just for this short wet season and then are gone in the blink of an eye. The Yellow-billed Cuckoo, also known as the "rain crow," is one of these birds. As one of the last "spring" migrants to arrive, cuckoos are back along riparian areas and up in oak woodlands by late June and are already starting to migrate south by mid to late August.

July through August is the best time to locate the elusive Five-striped Sparrow in the scrubby and dense hillsides of desert canyons. Most likely present year-round, the birds are up and singing in California Gulch and a few other locations—the only spots in the US where these birds breed.

It's time to start birding for "oddities" in late August and into September as a number of interesting birds could come through. Keep your eyes and ears open for an Aztec Thrush in the mountains, or a Painted Bunting in riparian thickets. Black Terns are passing through, making brief stops at local lakes or ponds. Finding a rare Eastern Kingbird or Scissor-tailed Flycatcher is also possible now!

Almost unbelievably, winter sparrows start to arrive by September and the dry, fall season is underway!

HIGHLIGHTS FOR THE SEASON



Grasslands come to life

The typically dry, brown rolling hillsides of places such as the San Rafael Valley and the Sonoita area transform into a lush and vibrant green grocery store for birds. A morning out should produce multiple singing Cassin's, Botteri's, and Grasshopper Sparrows. White-tailed Kites and Lilian's Eastern Meadowlarks are also taking advantage of the bounty, and the skies fill with Swainson's Hawks rising on thermals.



Hummingbird diversity peaks

The number and different kinds of hummingbirds that can be found is at its yearly peak in August, with 14 species possible! In addition to the regular breeders like Blue-throated, Black-chinned, and Rivoli's, migrant Calliope and Rufous are already coming through and can be found most reliably at the region's feeder stations. Take a seat in Madera Canyon or in one of the canyons on the eastside of the Huachuca Mountains and look out for White-eared, Berylline, or a Plain-capped Starthroat.

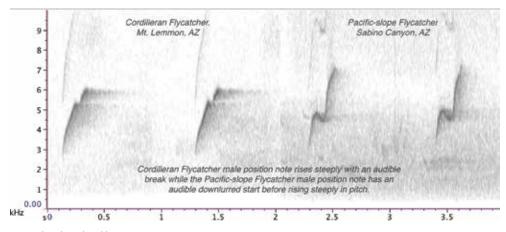


Migration begins

The end of August sees the first migrants heading south as bunting flocks mass feed in seedy areas and warbler flocks dominate in the mountains. It may seem like birds are completely absent until you stumble upon a mixed feeding flock and find a tree filled with 50 birds or more! Shorebirds and swallows swarm at lakes and ponds before moving south. Our local migratory breeding species are heading out by the end of September, and before long, the first White-crowned Sparrows will be heralding the onset of the cooler times ahead.

Lillian's Meadowlark, ©bryanjsmith; White-eared Hummingbird, ©bryanjsmith; Townsend's Warbler; Doris Evans

Location-based Identification: The Case of the Western Flycatcher





Cordilleran Flycatcher, Martin Molina

Western Flycatcher Male Position Notes

Can the methods of separating two similar species differ depending on where you are? I have been pondering this recently in the context of separating the various populations that make up the Western Flycatcher complex, namely Pacific-slope and Cordilleran Flycatcher. After they were both elevated to full species in 1989 based on detailed studies looking at vocalizations, protein genetic work, and morphology, teasing out differences between them has proven to be challenging work. Since that time, some of these differences have been called into question, raising doubt in minds of some over the wisdom of the split.

Tyrannid flycatchers belong to a special subset of song birds known as the suboscines. What sets these apart from other songbirds is their possessing a simpler syrinx and, importantly, having genetically programmed, innate vocalizations. While there have been a few proven exceptions to this, current thinking is that if two flycatchers sound different from each other it is because they are genetically different. Alder and Willow Flycatcher are two examples of this (think "freebeer" versus "fitz-bew"). Once thought to be a single species (Traill's Flycatcher), voice was the telltale clue that led to their split.

Turning our attention back to Pacific-slope and Cordilleran flycatchers, long ago, birders noticed that Western Flycatchers breeding from say, coastal California, sounded different than those breeding from say, southeast Arizona. This is still true today. The differences are subtle but consistent. But observers listening to these birds in the Pacific Northwest along the east slope of the Cascades, much of northeast California, British Columbia eastward into southern Alberta, Idaho, and western Montana paint a very different picture. Pacific-slope Flycatcher has been expanding its range northward and eastward into the range of Cordilleran, and this has resulted in a breakdown in the distinctiveness of the vocalizations in some regions. Birds have been documented giving intermediate sounding calls, which, because they are suboscines, suggests that hybridization is occurring. A biologist might argue that this indicates that the isolating mechanisms that would normally keep these populations from interbreeding are weak and not

functioning well in maintaining two species. Ask any birder from that region whether Pacific-slope and Cordilleran should be lumped back together and the answer would be a resounding YES!

While this is a vexing problem from a biological point of view, it is one that seems largely restricted to that region. The Cordilleran Flycatchers nesting in the canyons of the sky islands in southeast Arizona are not likely sharing in the gene flow from Pacificslope Flycatchers. But what of the Pacific-slope Flycatchers that migrate through the region? Where do these birds end up? Are they hybridizing with Cordilleran Flycatchers on their breeding grounds? The scant vocal evidence that exists suggests that the Western Flycatchers we encounter at lower elevations in migration in southeast Arizona are Pacific-slope. This conclusion is based on the most commonly given call in migration, one frequently referred to as the male position note. Interestingly, despite being the local breeding species, Cordilleran Flycatchers have not been well documented in the lowlands of southeast Arizona. More specifically, birds giving Cordilleran male position notes have not been documented away from their breeding sites in southeast Arizona. This suggests that they predominately migrate through higher elevations and avoid the deserts and grasslands. Getting back to the original question, can we rely on the differences in male position notes if those same notes are intermediate in northwest populations? I think that in southeast Arizona, largely outside the influence of the hybrid zone, the answer is probably yes.

For those wishing to look further into this topic and listen to examples of these vocalizations, I can recommend a couple of sources: Arch McCallum's site covers the topic in depth: bit.ly/2Hj5srq Nathan Pieplow's Earbirding site: bit.ly/2Jk7Vnv

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.

Planting Hope for a Healthier Creek. One Grass at a Time Restoration Project Manager

When Tucson Audubon acquired the Paton property in 2014, we immediately identified the Sonoita Creek corridor around the property as an environment with room for improvement. Exotic weedy species dominated large areas of the creek's floodplain, greatly reducing its value for birds and wildlife and decreasing its ability to diminish flood flows. Tucson Audubon's field crew began restoring the floodplain at once, removing invasive grasses on the property like giant reed and Johnsongrass, and replacing them with appropriate native species like big sacaton, vine mesquite, and desert honeysuckle.

Our attention soon shifted beyond the Paton Center and, in late 2015, Tucson Audubon began investigating ecosystem restoration potential along the stretches of Sonoita Creek just upstream and directly across from the Center. This area, known as the Johnston Parcel, was heavily infested with Johnsongrass, so much so that large areas were choked with a near-monoculture of the aggressive, seven-foot high grass. Native to the Mediterranean region, Johnsongrass has spread to most of the warmer areas of the world and has, especially in the Gulf Coast states, become a serious agricultural pest in the U.S. In our region this grass emerges in the spring before most native plants, allowing it to quickly and effectively out-compete other plants and grow a shockingly wide and vigorous root network—a network that can sprout a new grass

from any point. Johnsongrass seeds, produced in abundance during the summer, can survive for years in the soil, making this grass a formidable foe in restoration efforts.

Despite the heavy, well-entrenched infestations of Johnsongrass present in the Johnston Parcel, Tucson Audubon recognized the potential for much-improved ecosystem conditions in this area and the strategic importance of the Parcel as it relates physically and culturally to the Paton Center. Johnsongrass provides little benefit to birds in the form of forage, cover, or nesting opportunities and, aside from sporadic over-wintering flocks of White-crowned and Brewer's Sparrows, it doesn't appear to support any other birds at any time of year. Because large areas of the floodplain near the Paton Center were smothered by this grass, it's a fair bet that replacing it with native plants will benefit birds and enhance birding opportunities and that is just what Tucson Audubon has set out to do.

By slowly weakening and out-competing Johnsongrass with native plants that provide far more benefits to birds and wildlife, Tucson Audubon's vision is to transform the Johnston Parcel into a Shangri-La for birds and people alike. With support from generous project donors and a Partners for Fish and Wildlife grant through the U.S. Fish and Wildlife Service, Tucson Audubon kicked off restoration efforts in the spring of 2016 by aggressively mowing Johnsongrass









monocultures and replacing them with native plants. To-date, nearly 2,100 native container plants and transplants have been planted in the Parcel; over seventy days have been spent mowing and weed-whacking the grass. We are happy to report that the majority of these plants are slowly becoming established in the Parcel, and we're cautiously optimistic that they can out-compete the Johnsongrass over the long run.

Tucson Audubon specifically aims to improve conditions on the Parcel for the Federally-threatened Western Yellow-billed Cuckoo. The Arizona black walnut is a major host for the tent caterpillars favored by cuckoos during the breeding season. For whatever reason, walnut trees are scarce along many stretches of Sonoita Creek, including the Paton Center reach, so establishing a decent number of them in the Parcel is a major project goal. Besides walnut, we've planted several other native plant speciesespecially big sacaton grass. Along with another grass curiously named vine mesquite, big sacaton was historically the dominant floodplain grass in our region, but is now missing from many areas. Big sacaton's robust year-round structure and deep root system improve soil moisture conditions, stabilize streambanks, slow and spread floodwaters, and provide places for wildlife to nest and hide. Preliminary work at the Paton Center suggests that, with a little help from us, big sacaton can out-compete Johnsongrass infestations.

The Paton Center for Hummingbirds is a world-class birding destination that can be enhanced by improved ecosystem conditions nearby that support more birds and wildlife. Our longterm vision for the Johnston Parcel is a wilder extension of the Paton Center that is always open and accessible to Paton visitors and Patagonia locals alike, filled with blossoms, bugs, and hiding spots for birds. A birding trail may be built along the Parcel's length and connected directly to the Paton Center and the Montessori School's trails, thus creating a continuous path along a long portion of Sonoita Creek offering ripe opportunities for enjoying nature.

I'd be remiss in not mentioning how all of this work has really been possible: volunteers! Since May 2016, project volunteers have contributed over 1,200 hours of their valuable free time, valued at over \$29,000. Five different school groups have learned about riparian ecology, restoration, and wildlife habitat through volunteer field experiences on the project. Volunteer support has truly been instrumental in project success to date, and the project will continue to benefit from their help. Interested in lending a hand and learning more about ecosystem restoration? We can always use your help! Contact Andy Bennett at abennett@tucsonaudubon.org or 520-891-9446.





Katie Brown and Diana Rosenblum helped us dig up truck loads of sacaton transplants on a rare staff mixer day; Rodd Lancaster mowing Johnsongrass during the project's first month

Habitat at Home Featured Naturescape

LaNella Gaines



Lush habitat starts even before you enter the Wildlife Habitat Garden, photos byMatt Griffiths

It was a busy spring for the Habitat at Home program! We had almost 30 new homes register to begin creating beautiful, wildlife habitat in their yards. Tucson Audubon has been asked to present on the program and do outreach activities at numerous community events. I also had the honor to complete site visits and certify four urban wildlife habitats at the Cardinal level, the highest of four recognition levels.

One of these "naturescapes" belongs to the Pima County Master Gardeners (PCMG), a program through the UA Cooperative Extension. PCMG has an impressive array of demonstration gardens located in midtown. I was both inspired and enlightened after visiting this impressive community gem for the first time.

Upon exiting my car outside their offices, with my Habitat at Home certification materials in hand, I was greeted by Dave Williams, a PCMG volunteer who has been involved with the program for six years. Dave and I had just recently co-presented a talk on wildlife habitat at the Wilmot-Murphy Library. At the event, Juanita Lehman, another PCMG volunteer, introduced herself to me and asked if I would be willing to certify one of their demonstration gardens. I was happy to accept this invitation.

The concept of what would become the PCMG Wildlife Habitat Garden began in 2012. A Master Gardener team chose an area of the "recycled garden," which had lain fallow for several years, to create a wildlife habitat. It included an enclosed area formed by a straw bale wall on one side, and an adobe wall on the other. At one point it was considered as a site for a water garden pond, but that idea was abandoned. The team

put together a plan to reshape the area, install irrigation, and build a small circulating pool of water. The goal was to create an area of dense native vegetation to attract birds, insects, lizards, and small mammals.

Six years later the PCMG volunteers are hard at work maintaining this labor of love every Thursday morning. Dave provided me with a personal tour of the area. The Wildlife Habitat Garden is abundant with native plant diversity to include upper-, mid-, and lower-story desert species. One goal is to extend the time of the blooming season with a greater variety of plants so that it's welcoming year-round. Bird favorites like desert hackberry, aloe, and salvia are present to support a variety of species' needs for food and shelter. I immediately spot Anna's Hummingbird, White-crowned Sparrows, and House Finches busy at work. The garden has several different types of bird feeders and offers a nesting opportunity to the Lucy's Warbler in the form of a nest box. The irrigation setup is very impressive and both passive and active methods of water harvesting are in place. Berm landscaping has been strategically sculpted throughout to hold and soak in rainwater. A 500-gallon rain tank has been put in and was full during my visit due to recent rainfall. There is also a central water feature in the garden that supplies wildlife with a consistent source of fresh, clean water. Note to self: I must put "becoming a Master Gardener" on my bucket list!

According to Eric Johnson, Program Coordinator for PCMG, the demonstration gardens are meant to be an asset and inspiration to the Tucson community. People can come and learn about horticultural best practices and implement new ideas at home. He adds, "The public can

be assured that decisions here are made based on solid research." Dave Williams mentions the challenge of attracting wildlife next to a busy street: "The animals need a little more reassurance with plenty of cover and yummy food." The garden is also meant to have a "wild" aesthetic. Dave states, "Habitat gardens need not be tidy, since animals aren't tidy and insects live in litter." Juanita Lehman provides another useful tip to those trying to create wildlife habitat in their yard by adding, "Do not rake up your leaf litter. It makes for a healthier habitat and helps to cool off the soil." The PCMG Wildlife Habitat Garden is proof that habitat can successfully be created in a highly urbanized area. The Master Gardener Wildlife Habitat committee and Tucson Audubon will continue their partnership to showcase this community treasure in an effort to educate

the public about creating wildlife habitat in their yards. The synergy of this relationship benefits the community in many ways, including raising its awareness of both programs and improving the environment.

The Pima County Master Gardener Demonstration Gardens are free and open to the public seven days a week from sunrise to sunset. The address is 4210 N Campbell Ave in Tucson. There are also free guided tours of the gardens on Wednesdays and Saturdays at 9 am throughout the year. For more information, please visit their website extension.arizona.edu/pima-master-gardeners. During your visit to the Wildlife Habitat Garden, you will notice a Habitat at Home sign that proudly displays a bright red Cardinal decal.

For more information, please contact Habitat at Home Coordinator Kim Matsushino at habitat@tucsonaudubon.org.











olunteer, Juanita Lehman, continually enhances the Wildlife Habitat Garden with new plant species, water features, nestboxes, and much more.

Habitat at Home Plant Profile: Snapdragon Vine, Twining Snapdragon

Lynn Hassler, Nature Shop Garden Volunteer Captain

Scientific name: Maurandella (Maurandya) antirrhiniflora

Family: Scrophulariaceae (Figwort/ Snapdragon)

Native range: Western Texas to southeastern California to southern Mexico; in Arizona found in rocky canyons and washes at elevations from 1500-6000 feet

Wildlife value: Flowers attract hummingbirds; larval host plant for Junonia coenia (Common Buckeye butterfly) and Sympistis sorapis (a moth in the Noctuidae family); flowers and foliage enjoyed by desert tortoises

This delicate vine has diminutive scattered flowers—either purple or red in color—and arrow-shaped leaves. The slender stems twist and trail over other plants in pots, or up walls, posts, small trellises, or trees from the ground. While not particularly showy, this perennial grows quickly—to 3 feet or more in a single season—and the reliable bloom period (springfrost) can't be beat, attracting hummingbirds

aplenty. The plant also serves as a food plant for the larvae of some moths and butterflies. The caterpillars of Sympistis sorapis are gorgeous, and make tasty morsels for songbirds; the resulting adult moth, however, is pretty much a dull brown job—so dull in fact that it doesn't even warrant a good common name.

While not a true snapdragon, the common name for the plant comes from the fact that the blossoms resemble those of the popular cultivated snapdragon, commonly grown as a cool season annual.

Maurandella leaves and stems may freeze in the mid-20s, but roots are hardy to 10 degrees. Plants die back each winter; cut them to the ground when this happens. Plant in full sun/ part shade and provide moderate water. Additional summer watering will promote blooming and faster growth. Since the flowers are so dainty and small, snapdragon vine might be overlooked in a large-scale landscape; plant somewhere where it will be noticed—on the



patio or near an entryway. Try combining it with a structural plant such as an agave.

Snapdragon vine reseeds readily and is also available in one-gallon containers at some specialty nurseries.



My Pima County Big Year, in just 365 days!





Just Add Water

We live in a desert. Yet as I reviewed my 2017 Pima County bird list, I noted that over 80 species, or about 25%, were birds typically found close to water or marshy habitat. This list didn't even include the rare warblers taking advantage of the willows and cottonwoods along the edges of these wetland areas. There were the Sabine's and Heermann's Gulls at Amado Wastewater Treatment Plan (WWTP); the Dunlin, Surf Scoter, and Black Tern at the Ajo Sewage ponds; the American Bittern and Common Gallinules at Sweetwater Wetlands; and the broad assortment of ducks and sandpipers at the Green Valley WWTP. Even the Avra Valley WWTP, which was closed most of the year due to construction, produced a Eurasian Wigeon to the delight of many.

I purposefully mentioned these particular water venues since they are, or were, water treatment facilities. These desert "wetlands," have become a haven for migrating ducks, sandpipers, warblers, and many other birds looking for a short reprieve along their migration route. Some birds, such as the extremely rare White Wagtail, found at the Ajo Sewage ponds by Doug Backlund and Paule Hjertaas, may have seen the pond as an only option, a literal oasis in the desert. In late summer and fall these man-made refuges are the best locations for finding diverse groups of sandpipers in migration, perhaps aside from the popular El Rio Open Space Preserve. And the birding is relatively easy, at least until you find that one questionable sandpiper. In summer, these wastewater ponds are a great midmorning stopover when desert birds are quiet, that is if you can handle the persistent hot winds and heat waves coming off the surface. I would often take a drive to the Green Valley ponds to get close views of Baird's Sandpipers, Lesser Yellowlegs, or the hundred or so Wilson's Phalaropes, leaving before the afternoon closing time.

The Ajo Sewage Ponds were always a draw for me, since they are rarely visited yet produce so many neat birds. I knew from eBird bar charts that this would be my best hope for a Black Tern in late summer. I envisioned having access to 24-hour live cams of these ponds, whose footage could be scanned for that rarity that would justify the 3-hour trip across the desert. If I didn't use these tools, the suspense built up inside of me until it was unbearable, and I'd make the long journey with high hopes, perhaps seeing Crested Caracara on the way. In September one of these random visits did indeed turn up a Black Tern. Another arbitrary trip in October produced the first Surf Scoter found at this sweet hotspot. In November I met Doug Backlund and Paule Hjertaas there, two excellent birders who casually pointed out a Dunlin, a lifebird for me. Wow! Later that year Doug would also show me my first Kit Foxes, residents of the Ajo area.





Sweetwater Wetlands is so popular yet so unique that two birders walking the marshes on the same day can have enough variance in their lists one would think they birded at two separate locations. The reeds are great cover for any bird wanting to escape notice from all but the lucky or persistent. The Baltimore Oriole and American Bittern are prime examples of two elusive yet consistent birds at this refuge. It took many excursions to see these two species, yet the diversity of these wetlands made each trip worth the effort.

The Amado Sewage Ponds is the go-to place for Black-bellied Whistling Ducks in season, and is a gull and tern magnet. Seabirds just love to perch on those tall triangular buoys on their way up the "I-19" migration route. These ponds are also the best place to be after a rain or the occasional autumn tropical storm. At these times history shows absolutely anything is possible!

I encourage anyone attempting a county Big Year to research these hotspots in eBird to get an idea of their rich history. Older local birders may inform you of the good days before water treatment improvements at these plants. Although this may be true, they are still a remarkable resource for discovering and studying sandpipers and waterfowl. Good luck on your Big Year quest!



Brian Nicholas is a birding enthusiast who has lived in Tucson for about 20 years. His primary focus has been birding his neighborhood in northeast Tucson, where he has seen around 250 species. In addition to volunteering at Tucson Audubon as an IBA bird surveyor and field trip leader he also supports conservation each day by living a vegan lifestyle.

Opposite page: Semi-palmated Plover at Green Valley WWTP, Brian Nicholas; American Bittern at Sweetwater Wetlands, Doris Evans; Black Tern at the Ajo Sewage Ponds, Brian Nicholas

Above: Eurasian Wigeon, Becky Matsubara; Surf Scoter, Nicole Beaulac Left: Kit Fox near Ajo, Brian Nicholas



Tucson Audubon thanks our Birds Benefit Business Alliance members. who have shown their support for bird conservation through annual contributions and in-kind donations. Please show your appreciation by supporting them. For more information, including links to member websites, visit tucsonaudubon.org/alliance.

LEADING

Carl Zeiss Sports Optics Circle Z Ranch Focus HR Historic Y Riverpark Inn Western National Parks Association

Crown Community Development-Arizona **Farmers Investment Company** Heartstone Retreat/La Cocina Kimberlyn Drew Realtor Leica Sport Optics Swarovski Optik

SUPPORTING

Rockjumper Birding Tours Solipaso Tours/El Pedregal Nature Lodge

CONTRIBUTING

Candlewood Suites Tucson Diet of Hope Institute Dr. Miguel A. Arenas, MD Financial Architects/ KMS Financial Services Inc. Mabel's on 4th Kitchen Boutique

Opticron USA Quailway Cottage Santa Fe Ranch Foundation Santa Rita Lodge **Sundance Press**

Visit Tucson

WINGS Birding Tours Worldwide

SMALL BUSINESS

Bed and Bagels of Tucson **Borderland Tours** The Bird House Desert Harrier

Birding Travel from our Business Partners

Rockjumper—Worldwide **Birding Adventures**

rockjumperbirding.com

ETHIOPIA—ENDEMICS BIRDING III

Dates: November 5-23, 2018

Price: \$5950

Leader: Jan Pienaar Spaces Available: 8

Our 19-day Ethiopia birding tour comprehensively covers this unique country and every single endemic bird is targeted (Ethiopia has the second highest count of endemics on the continent). Up to five hundred species of birds and many rare mammals can be expected, and the ease of the birding is quite remarkable.

INDIA—SOUTHERN: BIRDING & WILDLIFE OF THE WESTERN GHATS II

Dates: November 11-22, 2018

Price: \$4075

Leaders: David Hoddinott & Holly Faithfull

Spaces Available: 8

Our 12-day birding tour takes us to the rugged lands of southern India and the impressive Western Ghats Mountains—a land of endless valleys, rolling tea estates and breathtaking highland vistas, wellknown for harboring a superb range of highly localized endemic birds and a host of special mammals.



Crimson-backed Sunbird, Shrikant Rao

Solipaso Tours solipaso.com

OAXACA BIRDS AND DAY OF THE DEAD

Dates: October 28-November 3, 2018

Price: \$2950

Leader: David MacKay

Home to 12 endemics and many other tropical species, including Oaxaca and Bridled Sparrow, Ocelatted Thrasher, Dwarf and Slaty Vireo, White-throated Towhee, Red Warbler and Chestnut-sided Shrike Vireo. We'll also visit several ruins and take time to experience the great traditions of the Day of the Dead.



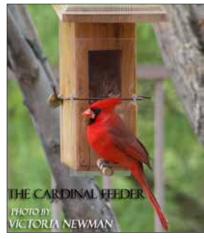
YUCATAN BIRDS AND RUINS

Dates: January 10-20, 2019

Price: \$4050

Leader: David MacKay

Our itinerary takes us to a myriad of different habitats for seeing most of the regional endemics. We also visit the ruins of Tulum, Calakmul, and Uxmal, and explore the world of the Mayan culture. Highlights include Yucatan Flycatcher, Vireo, Woodpecker, Bobwhite, Jay, White-bellied Wren, Orange Oriole, Ruddy Crake, Rose-throated Tanager, Mexican Sheartail, and Gray-throated Chat.



TUCSON'S FAMILY-OWNED, LOCAL & INDEPENDENT BIRD STORE

- Handcrafted feeders & specialty foods
- The freshest seeds
- Locally made products and the finest commercially made bird feeding supplies
- Expert advice, friendly & knowledgeable staff

10% OFF WHEN YOU **MENTION** THIS AD

3160 East Fort Lowell Road (520)322-9466 wildbirdsonline.com



Celebrating over 36 colorful years of serving Tucson's local publishing community.

Contact us for a competitive quote on your magazine, newsletter, program or other short-run publication.

sundancepress.com

520.622.5233



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 · Vermillion Flycatcher news magazine

· Discounts on Tucson Audubon classes and events · 10% discount in our Nature Shops

All funds are used for local conservation efforts.

Sign up at tucsonaudubon.org/join or call our Membership Coordinator 520-209-1802.

Conservation News

Nicole Gillett, Conservation Advocate

Legislative Wrap-Up—The time to speak up for birds is now

2018 was an overwhelming year for environmental and social activists following the Arizona Legislative session. The expectation that water would be a central focus was met, but the results were disappointing. While a strong attempt was made to recognize ecological water as a beneficial use was introduced, several bills aimed as weakening water protections were also brought forward and, in the end, the Governor and legislators could not come together to draft critical drought measures, known as the Drought Contingency Plan+. While most of the harmful water bills did

not make it to the Governor's desk, the ecological water bill was never voted on and several harmful measures were signed into law that we will now need to watch carefully. As Sandy Barr, chapter director for Sierra Club's Grand Canyon (Arizona) Chapter, said when she introduced this year's Environmental Report Card, "It was disappointing that legislators did nothing this session to protect Arizona waters or advance environmental protection." See the report card here: tinyurl.com/yce6u7ff.



Legistlative Day, James Garcia

Moving forward—Linking water and consumer protections

While HB2512 and SB1507 did not make it to the Governor's desk, the harmful measures contained in these large omnibus-style water bills are not new to the legislative floor. The sections of these bills that sought to allow over-pumping of groundwater and exceptions to new developments in certain counties were battled over in 2016 as well—and we expect they will return. The concept of 100-year water adequacy, what that means, and how to demonstrate such a large amount of water is in debate on the House and Senate floors and conversations about both water protection and consumer protection are happening across Arizona as we all continue to deal with prolonged drought and the desire to bolster local economies. Allowing over-pumping of groundwater is dangerous to both people and the environment. Imagine purchasing a new house, only to discover some years later that the development does not actually

have enough water to serve your home. Your home value will decrease and your ability to live there is no longer guaranteed. Such a depleted aquifer will also have ecological consequences as we have seen in dried-up riverbeds across the state. As a people, we need to acknowledge the connection between surface water, groundwater, and the well-being of all in our state.

What to watch:

- The debate over new development in Pinal county: tinyurl.com/ y87kptkm
- The Arizona Supreme Court case over federally protected surface and groundwater in the San Pedro National Conservation Area: tinyurl.com/yb83pkkc

More state water action—Triennial review

The Triennial Review is a review of the clean surface water standards for the State of Arizona. It is conducted by the Arizona Department of Environmental Quality. This year's review includes a reconsideration of several aspects of the Outstanding Arizona Waters designation, which includes a 'non-degradation' standard for local OAW's Cienega

Creek and Davidson Canyon. Tucson Audubon has been involved with the stakeholder meetings for this process, and encourages Arizona Department of Environmental Quality (ADEQ) to keep designations and standards for clean water strong.

Continuing to protect birds in riparian areas

Both SB1493 and SB 1494 were signed into law, directing the Arizona Department of Environmental Quality to assume two federal Clean Water programs. Tucson Audubon has covered the importance of the Clean Water Act before in the Vermilion Flycatcher. You can see a summary of the issues with state assumption of the critical Clean Water Act 404 Program and the Underground Injection Well Permit Program in the October 2017 issue at tucsonaudubon.org/flycatcher. These bills directed the Arizona Department of Environmental Quality to begin the process of assuming these programs. As Tucson Audubon has reported in Action Alerts before, and as the Sierra Club's Grand Canyon Chapter again said in their Report Card, the department does not have the funding or capacity to adequately take over these programs and we are extremely concerned what the impacts on our waterways could be if the State successfully assumes these programs. The department begins stakeholder meetings this summer on the Clean Water 404 Permit Program and Tucson Audubon will be in attendance.

What to watch:

- · ADEQ will be holding stakeholder meetings on program assumption and anyone can attend these meetings virtually or in person. Sign up for email updates: bit.ly/2tkrlCn
- Environmental organizations such as Tucson Audubon frequently use the 404 permit process as an opportunity to ensure proper environmental protections are being followed. You can follow the progress of our lawsuit over a new mega-development's 404 permit on our website: tucsonaudubon.org/our-work/advocacy

At the federal level— **Protections for Migratory Birds**

The Migratory Bird Treaty Act of 1918 (MBTA) is the cornerstone of bird protections in the United States, covering over 800 species of migratory birds. The original treaty was between the United States and Great Britain and has since expanded to include Japan, Mexico, and Russia. The power of this treaty lies in its expansive coverage; it is illegal to pursue, hunt, take, capture, kill, or sell birds listed as migratory birds. Tucson Audubon gave brief coverage of the MBTA back in our January 2018 issue. The MBTA has been significantly weakened by a Trump administration decision to reinterpret what an "incidental take" means. Under the traditional interpretation, any unintentional and avoidable killing of covered migratory birds by industrial activities would qualify as a violation of the MBTA. Under the new interpretation only purposeful acts will be covered. This drastically weakens the MBTA, as any mistake or accident, such as oil spills, will no longer be prosecuted under the MBTA.

Tucson Audubon signed a letter back in January to urge the administration to reconsider this interpretation and continued to advocate for a strong and ensured Migratory Bird Treaty Act.

What to watch:

- · A coalition of national environmental groups has sued over this new interpretation of the MBTA—National Audubon Society v. Department of the Interior. You can take action at: abcbirds.org/ action/petition-mbta
- Sign up for Tucson Audubon Action Alerts to get updates on how you can be a voice for birds. Sign up now at: tucsonaudubon.org/enews





Summer Tanager, Lois Manowitz

The Future of the Santa Cruz River

The Santa Cruz is the heart and historic lifeline of Tucson. The tributaries that feed into the main stem are the critical riparian habitats for our local wildlife and birds, the people of the city enjoy biking and running along the river path, and our history is rooted in the life-giving water the Santa Cruz provided to native peoples and settlers. In present day the river is designed and managed to contain a certain amount of flow each year, and while water daylights in certain reaches and places along the river, for the most part we only see rushing water during monsoon season. Flooding during that season is an annual concern and the prerogative of Pima County's Flood Control to anticipate and prepare for future flooding.

This year and next, Pima County Flood Control will work on sections of high concern of the Santa Cruz to lower flood risk. This project will be the removal of large amounts of sediment from the riverbed. Tucson Audubon gathered a multi-stakeholder meeting, which included Flood Control, to discuss protecting areas of native vegetation, avoiding nesting birds, and relocating species as needed. We will continue to be involved in future plans to avoid issues of timing and excessive impact to birds and wildlife in the riverbed. Currently our website hosts all of the publicly available information on the project: tucsonaudubon.org/our-work/advocacy.

Flood Control has completed extensive studies on the maintenance needs of the Santa Cruz River and has contracted excellent assistance to perform bird and wildlife studies. The conclusion reported in a whitepaper published by Flood Control is that large, damaging floods, such as the one in 1983, are caused by improper management of the Santa Cruz and sediment buildup. In conversations with Tucson Audubon, stakeholders and flood control agreed that some of this sediment buildup needs to be addressed in the upland tributaries that have also not been managed properly.

Preserved nesting sites in the river, Nicole Gillett



These upland riparian areas support much of our area's bird and wildlife populations, and degradation of these areas is partially responsible for the amount of sediment moving downstream to the Santa Cruz.

The first stretch of the project, between Grant and Speedway, will remove 90,000 cubic yards of sediment. The project should take between 4–6 weeks and aims to reduce flood risk to properties along the river. The initial timing of this work was of concern to local residents and Tucson Audubon Society as it occurred right during nesting season and spring migration. Through conversations with Flood Control and the stakeholder meeting, we were able to reach an agreement that in the future the public needs to be involved early in the process and the upmost concern should be given to timing and avoiding harmful impacts. Flood Control agreed to have monitors out in the field to ensure contract workers avoid the marked areas for preservation and keep Tucson Audubon and the Community Water Coalition in the loop for future planning.

You can follow progress of this project and get involved on our website: tucsonaudubon.org.



The Santa Cruz River just south of Grant during Flood Control Project, Nicole Gillett

It's Time to Take Care of (Manage) the Santa Cruz River Eric Holler

The Santa Cruz River defines Tucson. With its beginnings in Arizona, it dips south into Mexico for a short distance before heading north, across the border just east of Nogales, and continuing north, through Tucson before meeting up with the Gila River northwest of the Pima County border.

Those who know the Santa Cruz describe three stretches: one from south of Green Valley to San Xavier Road, the second from there to Point of Mountain (near Avra Valley Road), and from there to Trico Road. The stretch I want us to focus on is from San Xavier Road to Avra Valley Road, where the mighty river has been under assault by urbanization for about 100 years.

The banks have been armored to convey flood flows; bridges span the river; there are utility lines, grade control structures, and landfills; and huge pits where aggregate for development have been mined. At two wastewater treatment plants, Aqua Nueva at about Prince Road and Tres Rios at Ina Road discharge, treated wastewater (effluent) flows into the channel of the Santa Cruz, the only continuously flowing reach. Major improvements in the quality of the effluent discharged to the river have made it hospitable to fish and other aquatic creatures. This has changed everything!

Many Tucsonans know and use the Loop, which almost completely runs the perimeter of the river and major tributaries, like the Rillito and the Canyon del Oro. You can walk or ride your bike forever without vehicle interference. Riverside parks, equestrian trails, birding and cultural resources are there because of the River.

Pima County Flood Control should be given a heap of credit for taking care to make sure that the floodways function and for incorporating multi-purpose parks in improvements. Tucson Water deserves an equal amount of credit for responsibly managing our water resources, especially the effluent they own. However, much of the river channel itself is ignored. It could be so much more.

Recently the river has been in the news because of Tucson Water's Agua Dulce proposal to move effluent south and discharge it through the downtown area. The concept must be fleshed out, but I think this is a visionary idea. Another major story in the AZ Daily Star from March 5, 2017, describes the possibility of the Bureau of Reclamation removing effluent they own from the river.

Tucson owns about 40% of the total effluent, Pima County and several other local water providers own another 20%, and Reclamation owns the remaining 40%. Water is money and water providers must maximize use of effluent they own. Reclamation is not a local water provider;

their goals are different, mainly the implementation of a Water Rights Settlement, as the AZ Daily Star story explains. Reclamation has no firm plans, however, and removing the effluent from the river may be the easiest way to maximize the benefit.

Effluent is mired in a labyrinth of issues, such as state statutes (which put pressure on owners to remove effluent from the river) and land ownership issues. And if we think riparian areas supported by effluent sound good, the idea competes with landfills and the limited floodway capacity.

I think we need to step back and take a big, broad look at the Santa Cruz River and develop a Comprehensive Integrated Santa Cruz River Management Plan.

- · Comprehensive: It must address effluent value, environmental goals, public safety and flooding, water quality, cultural values, and recreation. It must include water providers, political jurisdictions, environmental coalitions, and public input.
- · Integrated: Yes, you can facilitate flood safety with riparian area enhancement; they are not mutually exclusive.

The circumstances and timing are favorable. We have high-quality water available and there are no firm plans for 40% of the effluent. It will be difficult, but developing a Comprehensive Integrated Santa Cruz River Management is achievable.



Santa Cruz River on the Tucson Audubon conservation easement at Esperanza Ranch, Kendall Kroesen

F. Eric Holler was born and raised in Nogales, AZ, and graduated from the University of Arizona with a degree in Civil Engineering. He retired after a 37-year career with the Bureau of Reclamation in their Tucson office, where he worked in the construction of the Central Arizona Project and water resources management and planning, including groundwater recharge.

Shop with us and Support Tucson Audubon Society Debbie Honan

Our members already know that the mission of Tucson Audubon Society is to "inspire people to enjoy and protect birds through recreation, education, conservation, and restoration of the environment upon which we all depend," but did you know that there are two Tucson Audubon Society Nature Shops that help support the overall mission of the organization? In fact, the supplemental mission of the Nature Shops is "to encourage interest in birds and bird conservation, help visitors and members understand birds and the places they live, and generate revenue for the organization."

The Nature Shops are much more than retail outlets. We act as a resource hub for members and are often the first point of contact for people in the community and visitors who stop in. This gives us the opportunity to start a dialogue with people about the incredible work Tucson Audubon Society is doing as an organization and the myriad of ways to get involved, including field trips, Bird Counts, the Southeast Arizona Birding Festival, Habitat at Home and an abundance of volunteer opportunities.

Of course you expect us to have merchandise available that will enhance your birding/ nature experiences, and we do! We carry a variety of books on birds and other wildlife, field vests, quality optics, and sun protective clothing. We also have an amazing kid's section with books and games that make it easy and fun for the young—and young at heart—to learn about science and conservation. Whether you live in the Tucson area or are visiting, make sure to check out the Nature Shops. Members receive a 10% discount on everything (including optics!) and there's never any tax on purchases with us since we're a non-profit. Our fantastic volunteers and staff are welcoming, knowledgeable, and most speak fluent bird. We're here to help everyone learn about and support Tucson Audubon Society.

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 520-629-0510 ext. 7015 300 E University Blvd #120, Tucson 85705 (corner of University & 5th Ave.)

AGUA CALIENTE PARK SHOP

June through September Thursdays only: 9 am-1:30 pm 520-760-7881

12325 E Roger Road, Tucson 85749

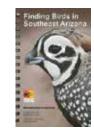
*Please call to confirm hours. The shop opens earlier and closes later during certain months. Nature Shop space generously provided by Pima County Natural Resources, Parks & Recreation

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



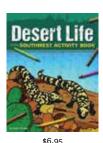
\$24.95















\$24.95

\$24.95

\$20.00

\$22.



Raebird Creations by Saraiya Kanning \$5.95-\$120.00



Art by Chuck Watkins \$5.00-\$56.00



Art by Diana Madaras



Thanksgiving Coffee \$16.00



TAZA Chocolate \$5.00-\$21.00



Nikon Monarch 7 8x30 MSRP \$422.95, Member \$379.95



Vortex Viper 10x42 MSRP \$599.99, Member \$499.99



Zeiss Conquest 8x32 MSRP \$999.99, Member \$899.99



Zeiss Victory SF 8x42 MSRP \$2944.99, Member \$2649.99



Swarovski BTX Eyepiece & 85mm Objective Spotting Scope MSRP \$4987.00, Member \$4488.00

BOOK REVIEW

Consistent Wonder and Celebration A review by Caitlin Kight

The radio show BirdNote presents a "series of engaging stories about birds" designed "to promote appreciation of birds and nature" more effectively than is possible in face-to-face contact between experts and the lay public. The show's first home was at KPLU in Tacoma, Washington; its two-minute segments are now aired on a number of stations across the country, and all of the shows are also available as a podcast and in transcript form at birdnote.org.

The new book of the same name is a compendium of 100 of those transcripts, slightly edited and accompanied by striking illustrations by Emily Poole. It is an interesting concept to take something originally produced for the unique medium of radio—one of the greatest strengths of the original audio version of BirdNote has been its liberal use of recordings from the Cornell Lab of Ornithology's Macaulay Library—and repackage it, with very little adjustment, into a book.

The audio shows are characterized by a certain conversational intimacy that is, almost inevitably, diminished in written form. Two minutes of audio, which seems like a decent-length watercooler chat with your quirky bird-loving colleague, translates into a mere 200-word entry in the book, where the same amount of information frequently feels insufficient. Most of us read faster than we hear, and therefore process the same content much more quickly, which, alongside the lack of supporting soundscape, mean that the snippets in the book don't feel as vibrant and full as they do in acoustic form.

BirdNote: Chirps, Quirks, and Stories of 100 Birds from the Popular Public Radio Show The Writers of BirdNote

Seattle: Sasquatch Books (Seattle, Oregon, USA)

224 pages—hardcover; \$22.95

It is also hard to overlook the fact that some of the stories are simply written better than others: they contain more information, have a better "hook," and avoid the kitschy, gimmicky endings that characterize several of the entries. Some vignettes (for example, "Green Heron") repeat the same thing twice; others (for example, "The Marsh Wren's Many Nests") mention something that isn't fully explained; still more are guilty of anthropomorphising (for example, "What in the World is a Hoopoe?") and using misleadingly colloquial language (for example, "Crow Parents"). These last two are especially surprising and egregious given that scientific experts were consulted when the texts were first created. This issue is especially frustrating when paired with the fact that opportunities to place the vignettes within a broader context, or to link ideas with key terminology (for example, "altricial" and "precocial" in "Pigeon Babies Do Exist"), are rarely taken advantage of.

Another weakness of the book is its organization. There does not appear to be any particular logic to the arrangement of the stories. It would have made sense to break the volume into sections in which each collection of stories could have, together, formed a whole that was greater than the sum of its parts. Recurring themes include feeding, breeding, locomotion, migration, social behavior, and ecology, and each of these could have been a heading under which multiple entries could have been collected—perhaps with a short intro to make an overarching point

about the topic.

Even a totally random organization would have worked, since it would have emphasized the amazing diversity that can be found within the class Aves. However, there seem to be some almost deliberate groupings of species and topics-ptarmigans and grouse close together at the front, bald and golden eagles side by side later on—that leave the reader dissatisfied, wondering whether there is some pattern they aren't seeing.

This is not to say that all the entries are bad or that the book isn't worth reading. For one thing, the illustrations are wonderful; each avian subject is endearingly full of personality. For another, some of the profiles are delightfully fascinating, clever, and humorous, answering questions that every birdwatcher and ornithologist has been asked (and perhaps wondered about themselves at some point), and placing the content within a broader evolutionary, ecological, or social framework. Standouts include "Bushtit, a Very Tiny Songbird," "The Little Red Spot on a Gull's Bill," and "Loons Go Fishing."

While stories like these may contain information that is new even to seasoned nature lovers, the bulk of the book is more appropriate for those just starting out, particularly children and adolescents—but even this inexpert audience may be frustrated by some of the skimpier entries. There is, though, a consistent feeling of wonder and celebration throughout BirdNote; between its enthusiasm and its visual aesthetics, it has the potential to win over those who have not yet been seduced by the world of birdwatching, though likely they will quickly want to graduate to a volume more replete with ornithological wisdom.

Based in Exeter, Devon, UK, Caitlin Kight is a widely published writer, editor, science communicator, and educator. The Ohio native's most recent book is Flamingo, published by Reaktion in its Animal Series.



300 E University Blvd, #120 Tucson, AZ 85705

Address Service Requested

Vermilion Flycatcher

Volume 63, Number 3, July-September 2018

© 2018 Tucson Audubon Society

The Vermilion Flycatcher is the newsletter of the Tucson Audubon Society, a chapter of the National Audubon Society. National Audubon Society members and members of other chapters may receive the Flycatcher by joining the Friends of Tucson Audubon. See membership at tucsonaudubon.org.







ZEISS Victory SF 42

The first choice for birders.





NON-PROFIT ORG
US POSTAGE **PAID**TUCSON, AZ
PERMIT #1345