

Bobcat Baby Stand, 2015 Chertok Photo Contest, Honorable Mention, Advanced Category. Photo: Ruth Pannunzio.

This Month's Program:

June 20, 2019

31st Annual Chertok Florida Native Nature Photography Contest

Orange Audubon Society (OAS) will celebrate the end of its season with an exclusive showing of eligible entries in the 2019 (31st Annual) Kit and Sidney Chertok Florida Native Nature Photography Contest.

Entries in this year's contest take you across Florida, spotlighting its diverse landscapes and native wildlife! OAS will furnish substantial finger foods so you don't need to worry about dinner before the program.

Please arrive at 6:00 p.m. to enjoy delicious food and scope out 100+ silent auction items. Your small donation (\$5 suggested) to help defray costs of the event will be sincerely appreciated. And

please bring your wallet for the Silent Auction, which has become a tradition for this end-of-season event.

Around 6:45 p.m. the Chertok show will begin and the suspense will mount ... who will win the contest in the Youth, Novice and Advanced Amateur/Professional categories?

At the program's conclusion winners will be announced and over \$1,300 in ribbons, cash and other prizes will be awarded. At the same time there will be heightened anticipation from friendly competition for dozens of Silent Auction donations from local restaurants, native nurseries, camera and outdoor retail outfitters, resorts, area theme parks, our fantastic members and more. A listing of items received to date is on p.9. and updates will follow in the OAS email blast and website. Proceeds from this event will benefit a future OAS nature center and/or related conservation and nature education projects.

A large number of volunteers will make the check-out lines painless, especially if you pay by cash or check. Credit cards are accepted but a little slower to process! Mark the date and don't forget to bring an appetite for good food and camaraderie, your wallet for the Silent Auction, and your best party attitude. This is OAS' 53rd year and the 31st year of this wonderful photo contest. We hope you join us!

Teresa Williams

Get Out and Bird!

The June Challenge is an easy-going contest to get birders out in the field in one of the more difficult months for finding birds. In the June Challenge a birder picks a county, any county they like in the state, and tries to compile the biggest list of species for that area. All birds are countable and follow the [American Birding Association \(ABA\) checklist](#). List your ABA species number first, and then the non-ABA birds, like a Mute Swan at Lake Eola.

One twist for the June Challenge is that *you have to see the bird*, not just hear it. The rules, from Alachua Audubon Society, are [at this link](#).

As a gauge, the top June Challenge total over the past 8 years has been in 2015 by Bob Sicolo with 126 species (7 of them exotics). If you send me your list at the end of June, I will be happy to forward to Rex Rowan of Alachua Audubon, who is gracious enough to compile all the sightings per county. Contact me at riglingk@aol.com.



Black-bellied Whistling Duckling. Photo: Mary Keim

June Challenge Kickoff June 1, 2019

Orange Audubon Society will kick off the June Challenge on Saturday, June 1st, with an expert-led field trip to Orlando Wetlands Park (OWP).

We will meet at OWP at 7 a.m. to begin the half day segment and move to other locations at the discretion of leaders Gigi DePizzo, Larry Martin and Bob Sanders. The minimum donation for the half day at OWP (7-11 a.m.) is \$10, and for all day until 4 p.m. is \$20. You can bring your donation that morning. Also bring lunch and beverages. If you have any questions, contact me at riglingk@aol.com or (407) 488-9559. *Kathy Rigling*

Orange Audubon Society programs are free and no reservations are necessary.

Programs are the 3rd Thursday of each month (September-June) and all but June start at 7:00 p.m. in the Camellia Room at

Harry P. Leu Gardens

1920 North Forest Ave., Orlando, FL 32803

For map and directions, visit:

www.leugardens.org/plan/directions/





Atmospheric CO₂ levels of 415 ppm — No!

Environmental science, like any science, requires effort to understand. Conclusions are based on data, and it is useful to understand the way the data was taken. When I taught this subject at community college, I had to build the student's understanding by first introducing what the industrial revolution was and how humankind converted to combustion of fossil fuels, releasing carbon previously in the ground, and how fossil fuel combustion resulted in increasing levels of atmospheric carbon dioxide (CO₂). The textbook made clear that natural processes such as respiration and volcanic eruptions also emit CO₂ and that deforestation lessens the planet's uptake of CO₂, but, by volume, increased combustion of fossil fuels is what has increased atmospheric CO₂ levels worldwide, as country after country has industrialized.



Fire in the Sky – Fire Rainbow (circumhorizontal arc).
2018 Chertok Photo Contest, Honorable Mention, Novice
Category. Photo: Angie Jore

Understanding the role of CO₂ in trapping solar heat and raising atmospheric temperature dates back over 123 years. Swedish chemist Svante Arrhenius in 1896 gave detailed evidence for “the greenhouse effect.”

In 1958, Charles David Keeling of the Scripps Institution of Oceanography took the first reading of CO₂ levels at the Mauna Loa observatory in Hawaii. Keeling's autobiographical account of his

motivation to begin these measurements and the trials of continuing them, so that he was able to produce data with validity and meaning, are at [this link](#).

When Keeling began this long-term research, the air contained 316 parts per million (ppm) of CO₂. His son Ralph Keeling continued the painstaking measurement-taking work after his father's death. By March 2007 readings had increased to 384 ppm. This May, daily CO₂ readings had reached a shocking 415.26 ppm. “The CO₂ atmospheric concentration keeps rising and it's getting higher year after year,” said Wolfgang Lucht, from the Potsdam Institute for Climate Impact Research. “This number needs to stabilize.” [But far from stabilizing, levels of CO₂ are climbing ever more rapidly.](#)

The 2015 Paris Agreement calls for a worldwide effort to block the rise in Earth's temperature at “well below” 2 degrees Celsius (3.6 Fahrenheit) compared to preindustrial levels. But the last four years were the four hottest on record and, in spite of the Paris accord and increasing public awareness, humankind continues to break its own emissions records, year after year.

Audubon's Birds and Climate Report of September 2014 concluded that climate change is a threat to the survival of more than 50 percent of North American bird species. National Audubon Society's seven-year science investigation, made possible by decades of community-science data provided by people who care deeply about birds, compelled the organization to launch its climate initiative. This effort is its most ambitious since the organization helped fight and win the battle against DDT in the 1960s. The [Audubon Climate Report](#) asks members to do two things: 1) Protect the places birds need now and will need in the future, and 2) Address the underlying causes of climate change.

Toward the first, Orange Audubon Society (OAS) works to protect our local parks and preserves as habitat for birds—and you can help by joining our OAS Central Florida Conservation Network to be available to speak up (email info@orangeaudubonfl.org to join) and by getting out and using the parks (*Use 'em or lose 'em*). You can also recreate backyard bird habitats.

The second goal seems more difficult, as use of solar or other renewable (non-fossil fuel) energy sources is not possible for most of us, but we can minimize our impact by being as energy efficient as possible (p. 3). Eating locally grown food and eating lower on the food chain—meat production is energy intensive—are simple measures we can all take. And please speak up wherever you can about the importance of science and of our addressing climate change. *Deborah Green, OAS President*



Orange Audubon Society (OAS) mission: To promote public understanding of, and an interest in, wildlife and the environment that supports it; foster the recognition of the tangible and intangible values in the remaining natural areas of Florida and the world, and our responsibility for the conservation of the Earth's natural ecosystems.

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The OASis (Orange Audubon Society information source) newsletter is published monthly, September–June, and posted on the OAS website. A link announcing new issues is e-mailed to subscribers.

Never miss out on OAS happenings. Add or update your email address by contacting newsletter@orangeaudubonfl.org.

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Energy Efficiency Works

Orange Audubon Society (OAS) wanted to show that home energy efficiency is a cost-effective, under-emphasized way to reduce greenhouse gases. Using a \$64,000 Toyota TogetherGreen by Audubon grant, from 2015-16 OAS worked with the City of Winter Park Sustainability Program. Residents obtain their electric from Duke Energy but the City handles billing, and the Sustainability Department can analyze billing data.

For the older low-income homes retrofitted through this grant (at no cost to the participant), insulation and duct repair were the most cost-effective retrofits. Upgrading of aging AC and heating systems and/or water heating systems would also be cost-effective but were beyond the scope of the project. The [June 2017 OAS*is* \(p.4\)](#) gives more details with results.

Of 28 homes retrofitted, 9 representative homes had a 13% reduction in energy use. Since monthly bills averaged \$130, a 13% reduction would be a savings of \$16.90/month or \$202 per year. An average \$1100 was spent per home on the retrofits, so return on investment might be as little as 5 years.

City Sustainability staff analyzed 2016-2018 billing data and found that 8 of the 9 participants had already achieved bill savings equivalent to the costs of the retrofits. OAS will be encouraging the City to make the results widely available to further promote energy efficiency.

Newer homes with many high-tech appliances can save by turning off unused appliances and being conscious of plug load. LED lights have also come of age and can save significant energy, particularly when replacing old incandescents.

Deborah Green

Board Member Honored

Gabbie Buendia, who has served on the Orange Audubon Society (OAS) board since her Sophomore year, has just graduated from Rollins College as one of this year's valedictorians. At the same time she has become a U.S. Citizen. Here's [the link to the Orlando Sentinel front page article](#). Gabbie, congratulations on both milestones; we are proud to know you! OAS Board

Dragonfly Field Trip

On May 11th at Orlando Wetlands Park, Mary Keim and Randy Snyder led a field trip focused on dragonflies. Participants were eager to learn about these insects in the order Odonata (from Greek *odonto* meaning tooth, referring to the strong teeth found on the mandibles of most adults). The morning was gloriously sunny and the air and perches were alive with dragonflies and damselflies, and the air redolent with savory, the mint underfoot. The group learned to recognize at least nine species of dragonflies. As a reference book, the 2011 Princeton University Press *Dragonflies and Damselflies of the East* by Dennis Paulson was recommended.



Green Jewel - Eastern Pondhawk on Silver Buttonwood.
2018 Chertok Photo Contest, Honorable Mention, Youth
Category. Photo: Lillian Frazer

Three of the five dragonfly families that have been seen locally are: the darners, named for their abdomens that are shaped, some say, like darning needles; clubtails, with characteristic club-like expansions at the end of their tails; and skimmers, a large and varied family of dragonflies.

Dragonflies eat as they fly, scooping insects from surfaces or in mid-air. Carnivores, they may be seen stuffing food into their mouths with their short set of front legs. They have extraordinary flying abilities. "They can fly upside down, turn 360° on a dime, and fly more than 55 [34 mph] kilometers per hour. They can even fly backward with as much skill as they fly forward." A YouTube showing this is at [this link](#).

Dragonflies regulate body temperature in various ways,



Dragonfly Field Trip at Orlando Wetlands Park, May 2019.
Photo: Linda Gaunt. Slaty Skimmer, mature male above,
female or immature male below. Photos: Mary Keim

including assuming the arresting obelisk position with tail pointed toward the sun to minimize solar rays hitting their bodies.

We learned how common Eastern Pondhawks are and that it is easy to distinguish the green females and blue males.

We saw groups of Four-spotted Pennants and learned how the younger adult stages have only faint dark areas on the wings. The key is the distinctive white stigma (area on the outer edge of the wing).

Mary and Randy are both excellent photographers, and Mary posts images and observations on iNaturalist, where experts confirm her identifications. Her FLICKR account includes photos illustrating the diversity of our local dragonflies.

You can survey her dragonfly photos, starting at [this link](#).

Bettie Sommer

In case you missed it ...

Tracking Swallow-tailed Kites

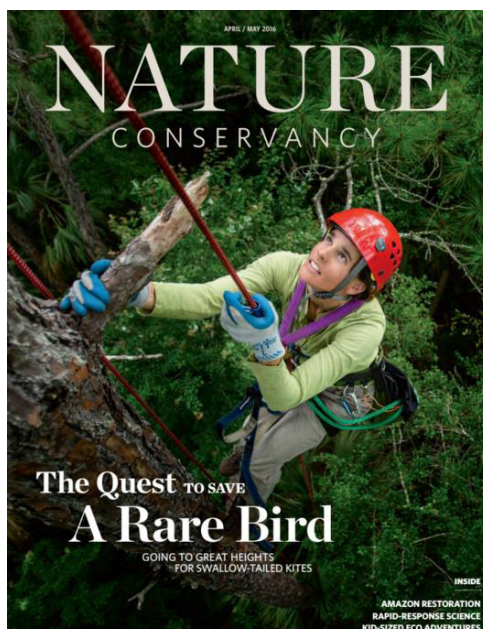
For Orange Audubon Society's May program, attendees had the opportunity to learn from Gina Kent of the Avian Research and Conservation Institute (ARCI) in Gainesville. ARCI specializes in research on rare and imperiled birds, including the Swallow-tailed Kite, who was the star of the show for the night. With stunning pictures and detailed maps, Kent kept the audience captivated with stories of this species.

ARCI uses telemetry, or remote data collection devices, to track the paths and habits of Swallow-tailed Kites. In contrast to other raptors, these kites are very social. This means that they roost, forage, and nest in "neighborhoods" consisting of hundreds of individuals; these neighborhoods are frequently located on private lands. The data captured from just one kite can help researchers learn about the environmental conditions that are impacting these neighborhoods.

As ARCI researchers learn more about kites, they are able to piece together migration stories that reveal the victories and challenges of the birds as they migrate to and from South America. Stories and pictures of the notable and beloved "Apopka" elicited a series of intrigued "ooh"s and endearing "aww"s from the audience.



Carol McCorkle, Director of the Avian Reconditioning Center in Apopka, with Scooter. Photo: Milton Heiberg



Gina Kent climbing tree to research a Swallow-tailed Kite nest. Photo by Mac Stone on cover of Nature Conservancy magazine, courtesy ARCI.

Apopka was found injured and taken to Audubon's Center for Birds of Prey (CBOP) in Maitland before being transported to the Avian Reconditioning Center (ARC) in Apopka. At the program, staff of both CBOP and ARC were in attendance, and Carol McCorkle, director of ARC brought Scooter, an unreleasable Swallow-tailed Kite for the audience to see.

Before Apopka was released back into the wild, dedicated community members and organizations came together to support the funding of a transmitter to keep up with and continue learning from Apopka. Most recently, researchers had the opportunity to track Apopka and many other individuals through Hurricane Irma.

Aside from hurricanes and other extreme weather events, migration is already a daunting experience for kites. Flying over wide expanses of water offers few opportunities to land for rest, and strong wind patterns threaten to blow them off track. They spend weeks in preparation for their grand flight, fattening up and storing energy from feeding on insect swarms. Once they begin their trek, they strategically funnel through Florida in order to stay over land for as long as possible and to follow a trail of potential roosting sites. In these migration roost sites, over 1,000 birds can be found at one time. These migration roost sites are

prime opportunities for researchers to conduct bird counts and observe changes in population.

Over time, researchers have noticed kite populations facing trouble due to habitat loss and degradation. The time that kites spend in North America provides a chance for conservationists to be proactive in combating these issues and to help contribute to the survival of the species.

In addition to ARCI's efforts to understand and conserve "rare and imperiled" species like the Swallow-tailed Kite, Kent wrapped up the program by calling on the audience members to take personal action.

Kent encouraged the audience to understand environmental issues in their local areas, to share the unique and valuable stories of these species, and to engage in citizen science to support ARCI's work. You can support ARCI's efforts by filling out the Sightings Report Form on the [organization's website](#) and/or contributing to this worthy non-profit.

Gabbie Buendia

Lake Apopka Wildlife Drive Fourth Anniversary

To celebrate the 4th anniversary of the Lake Apopka Wildlife Drive (LAWD) opening, Orange Audubon Society (OAS) volunteers were along the drive on May 4th with binoculars, bird books, and spotting scopes to help visitors enjoy some of the area's most interesting birds. Thanks to the following volunteers who made this event successful: Rick Baird, Gabbie Buendia, Mia El-Khazen, Lynn Marie Folts, Deborah Green, Marah Green, Susan and Charlie Kirby, Susan Ledlow, Larry Martin, Jennifer McCleary, Sam Mitcham, Lee Posavad, Kathy Rigling, Bob Sanders, Loretta Satterthwaite, Flo and Bob Sena, Steve Shaluta, Mary Soule, Gail Spratley, Bob Stamps, Joyce and Bill Stefancic, Michelle Dill Wilson, and Christina Wray.

OAS continues developing interpretive signage, and volunteers are now helping District staff by cleaning and stocking the North Shore's kiosks with brochures. We share sightings and information through the LAWD [Facebook page](#). OAS appreciates access to this birding hot spot. See you out there! *Deborah Green*

Another Fascinating Flycatcher!

Great Crested Flycatchers have arrived for the summer. I look forward to their return to my neighborhood where I see them during early morning and evening walks, usually in pairs cavorting in treetops.

Although kingbird size, these splendid birds can be difficult to see because they are secretive and blend with sunlit foliage. Their frequent call—a loud whistled wheep—alerts me to their presence. I then look for a flash of bright yellow breast, cinnamon wings and tail, bushy crest on a large gray head and a short, broad, flattened bill distinctive to flycatchers.

It is the most richly colored of four similar flycatchers belonging to the genus *Myiarchus* and included in the Tyrant Flycatchers, the largest family of birds in the New World with approximately 425 species. Many of these are similar and require careful attention to identify.

I sometimes find a Great Crested Flycatcher perched in clear view on a telephone wire searching for insect prey. They mainly eat butterflies and moths, beetles, grasshoppers and crickets, bees and wasps, flies, and other bugs, plus spiders. Swift and agile, they swoop down, brake abruptly, hover, snatch a prey and fly off. Are flycatchers amazing birds or not?

Great Crested Flycatchers will swoop down from high perches to solicit females for mating. If the female retreats to a cavity, the male will hover before returning to a perch, then repeat the maneuver and try again.

Males jealously guard mates during nest building and egg-laying by confronting intruders. If a loud call doesn't work to dissuade an unwanted visitor, the protective mate raises his crest, leans forward, pumps his head, and snaps his bill. He may even chase and attack an intruder and pull out his feathers!

These flycatchers nest in the cavities of dead trees, abandoned woodpecker holes, hollow posts, even buckets, pipes, cans and boxes. Last spring one checked out a four-inch



Great-crested Flycatchers in and on nest box.
Photo: Mary Keim

cavity in my dying holly tree, but did not settle there. Disappointed, I had hoped to observe them nesting and nurturing chicks.

Great Crested Flycatcher populations have remained stable across their breeding range from 1966 to 2014. Partners in Flight estimates the global breeding population is 6.7 million, with 91 percent spending part of the year in the U.S., 23 percent in Mexico, and 9 percent breeding in Canada.

Clean forestry practices, where dead snags are removed from woodlands, have reduced the number of suitable natural cavities for breeding however.

And there could be competition for nesting cavities from Tree Swallows, House Wrens, Eastern Bluebirds, or squirrels.

You can help with conservation by not removing dying trees and snags and by providing manmade cavities. Great Crested Flycatchers are resilient and will nest in a variety of cavities in diverse habitats. They tolerate human presence and readily accept hanging nesting boxes.

Consider putting one up in your yard to attract a breeding pair. Do it well before breeding season and attach a guard to keep predators from raiding eggs and young.

Maybe you will be lucky enough to attract a breeding pair of handsome Great Crested Flycatchers to entertain you all summer long!

Linda Carpenter

Jay Watch

Jay Watch volunteers contribute to preservation of the threatened Florida Scrub-Jay through citizen science research. Volunteers will conduct a statewide survey from June 15 to July 15, 2019. The closest Jay Watch sites are Lyonia Preserve, Blue Spring State Park, North Peninsula State Park, and Lake Monroe Conservation Area (all in Volusia County), and Buck Lake Conservation Area in Brevard County. For information, contact Audubon Florida's Jacqui Sulek at jsulek@audubon.org.

Three Lakes Trip Report

Orange Audubon Society's May 25th Limited Edition Field Trip to Three Lakes Wildlife Management Area was last of the season and another good one. Fourteen intrepid souls made the trip and saw 64 species, including Red-cockaded and Red-headed woodpeckers, Bachman's Sparrow, Eastern Meadowlark, Snail Kite, Bald Eagle, and Purple Gallinule among others. Thanks to all who participated this year.

Bob Sanders



Wekiwa Springs State Park Bird Survey, May 11, 2019. Photo: Kathy Rigling

Wekiwa Springs State Park Bird Survey June 8, 2019

Orange Audubon Society's (OAS) bird surveys at Wekiwa Springs State Park have been a lot of fun and have brought in some new birders to our community. Wekiwa has an impressive diversity of habitats that makes for a diversity of birds. In the well-burned sandhill habitat in particular it has been easy to find Bachman's Sparrows, Brown-headed Nuthatches, and Red-headed Woodpeckers. The surveys are generally held on the second Saturday of the month and we will now be starting at 6:30 a.m.. If you would like to join us, please contact me at riglingk@aol.com or (407) 488-9559.

Kathy Rigling

The Magical Birding Trip to South Carolina

After a 6-7 hour drive, a refreshing hike along an old-growth forest boardwalk, and a quick picnic supper, our Orange Audubon Society group of 17 awaited darkness at Congaree National Park in South Carolina. There from 9-10 p.m. thousands of fireflies (*Photuris frontalis*) would begin to flash synchronously.

Along with hundreds of other firefly-watchers, we were treated to the synchronous flashing of the *P. frontalis* males along the forest floor, as they attracted their female counterparts in a most magical way. It was a lovely way to end a long day. We were very impressed with how this little known national park rolls out the red carpet for visitors.

Our second day began early at the Audubon South Carolina Mizell longleaf pine restoration area. Our Audubon South Carolina host and brilliant birder Matt Johnson guided us through this restricted-access property, pointing out many birds by sound. This site provided plenty of opportunity to practice our auditory birding skills, as did most of our other stops.



Leader Matt Johnson with part of OAS group at Beidler Swamp, looking up at Swallow-tailed Kites and Mississippi Kites. Photo: Deborah Green

We followed Matt to Audubon South Carolina's Francis Beidler Forest, an 18,000-acre virgin cypress-tupelo swamp forest, featuring a 1.75-mile boardwalk. We marvelled as Prothonotary Warblers chased each other, visited a nesting box, and snagged a dragonfly before our eyes. At the only water hole in the "Four Hole" area, we were treated to the appearance of at least nine, and maybe as many as a dozen, Mississippi Kites soaring overhead, accompanied by a few Swallow-tailed Kites. In addition, we saw and heard several Acadian Flycatchers calling "Pizz-ah," along with Kentucky

and Hooded Warblers, mud turtles, brown water snakes and a posing cottonmouth, a strolling deer, and an iridescent-green tiger beetle. We were also greeted by the Audubon South Carolina Executive Director, Sharon Richardson, who has been instrumental in South Carolina's remarkably successful conservation and acquisition efforts. In that area of the state, 350,000 acres of habitat have been protected.



Prothonotary Warbler at Beidler Swamp. Photo: Robert Sena

Late afternoon birding was at a well-known coastal site north of Charleston, the Pitt Street bridge. There we were treated to close views of Clapper Rail, American Oystercatcher, Black Skimmer, and various shorebirds.

The next morning, we met our new guides, Craig Watson and Pamela Ford, at the Edisto Nature Trail, a magnificent forest saved from phosphate mining. Many birds were heard in the tops of trees rather than seen, like the elusive Swainson's Warbler and the Yellow-throated Vireo. Some of us saw our lifer Kentucky Warbler, Summer Tanagers, and others.

Craig and Pam next guided us to the Bear Island Wildlife Management Area, part of the Ashepoo, Combahee and Edisto (ACE) Basin, one of the largest undeveloped estuaries along the Atlantic Coast. As a Bald Eagle flew past us over the freshwater lake, Craig mentioned that only two species of duck breed there, the Mottled Duck, which hybridizes with its non-native sister species, the Mallard, and the Wood Duck.

As we drove to the tidal location, we passed the unusual sight of three species of swallow sitting together on an electric wire. From this close distance, Craig pointed out three species, Northern Rough-winged, Tree, and Bank Swallows.

At the tidal location, we found lots of peeps and other species of shorebirds. Highlights were Black-



Yellow-crowned Night-Heron and Gray Treefrog at Beidler Swamp. Photos: Joy Fox. Clapper Rail, Dunlin, and Whimbrel at Pitt Street. Photos: Alice Horst

necked Stilts, Dunlins in breeding plumage, and Gull-billed Terns. When the heat became overwhelming, we called it a day, and most of us headed home after a marvelous weekend of birding and fun.

Terry Piper

Book Reviews for Your Summer Reading



Sunrise on the Lake Apopka Wildlife Drive. Photo: Lynn Marie Folts

The Nature Fix by Florence Williams

When journalist Florence Williams moved from Boulder, Colorado to Washington, D.C., she missed the mountains and her outdoor lifestyle. She felt “disoriented, overwhelmed, depressed” and she wondered if a deficit of nature was to blame. Williams believed that the problem wasn’t unique to her. She set out on a quest to find out.

Over two years she interviewed social scientists, participated in their studies and traveled to the sites of innovative programs where nature took center stage. In Japan, she hiked one of the official “Forest Therapy” trails. In South Korea, she visited a “healing forest.” In Sweden, she spent time in a glass-domed therapy garden. In Scotland she learned about its “ecotherapeutic” approach to caring for the mentally ill.

In the U.S. she participated in a river trip in Idaho with Iraqi vets suffering from PTSD. In the West Virginia mountains she discovered how being outside helps children with ADHD.

The book is well written and a good read. It includes a lot of scientific information but is written at a lay person level. Her conclusion is that spending time in nature helps us de-stress. Five minutes is good, 30 minutes better. Unplug electronics. Be in the moment to pay attention to sounds and scents around you.

Reviewed by Phyllis Hall

Abundant Earth by Eileen Crist

“Civilization does not need to be saved, but reinvented” writes Eileen Crist in her Epilogue in *Abundant Earth: Toward an Ecological Civilization* (University of Chicago Press, 2019).

Ours is a civilization of expansion expressing our ultimately destructive belief in human supremacy, relentlessly and violently converting the nonhuman world into “wealth” and commodities, our “anthromes” overtaking biomes. Crist writes: “Wendell Berry pins colonialism precisely as an ambition to ‘impoverish one place in order to be extravagant in another.’” We practice “nature colonialism.” We push against limitations. Maybe, as is so often said, with tech and managerial innovations we can feed 10 billion.

But what the “nature-parasitizing project” we have created cannot avoid is “the disfigurement and impoverishment of nature.” Many nonhumans are no longer free to “live in accordance with their natures and to experience flourishing” (p. 162). Wild nature’s fragmented parts struggle to survive. And for this reason, our current civilization makes a mockery of our claim that freedom is one of our highest values.

Crist writes, “should civilization’s nature-parasitizing project be successfully sustained, humanity will have arrested its moral evolution; and should civilization’s nature-

parasitizing project fail, humanity will fall into a pit of conflict, violence and suffering that is unbearable even to contemplate” (p. 245).

To avoid both of these alternatives, we need to honor all life and reinvent civilization by processes that Crist describes at length that involve scaling down (for example, scaling down human population size and global trade) and pulling back (for example, restoring waters and lands to wildness again along the lines E.O. Wilson proposes in *Half Earth*).

Read *Abundant Earth* for its scientific knowledge base with a list of nearly 500 references; stark portrayals of the dystopia “at our doorstep”; its moral compass, guiding priorities and choices; its rich analyses—set in historical context—of the relationship of humans and nature; and evocative descriptions of free and thriving human and nonhuman life in an ecological civilization.

Crist looks forward toward an ecological civilization by ending *Abundant Earth* with these words: “... there are so many reasons to wager that under the accreted armor of human supremacy lies an ocean of tenderness and love for the living world.” *Reviewed by Bettie Sommer*



Pair of Hooters - Barred Owls. 2018 Chertok Photo Contest, Honorable Mention, Novice Category. Photo: John Bailey

Outpost: A Journey to the Wild Ends of the Earth by Dan Richards

It all began with the bleached white pelvis bone of a polar bear. As birders, we understand better than most how curiosity about one thing can lead to traipsing out into the wilds and planning trips that have our loved ones shaking their heads in despair. For author Dan Richards, this piece of the Arctic brought home by his father just before his birth, instilled in him

(continued next page)

Outpost (Continued from p.7) a lifelong romance for those lonely shelters found at the ends of the earth. Across the globe there are huts in remote locations that act as leaping off points for and refuge from grand adventures. In *Outpost*, Richards takes us on a tour, full of digressions, to ten of these locations.

The book starts by describing a shelter known as “Hotel California” in Ny-Ålesund, Svalbard where long ago Richards’ father was stationed on a research expedition. From there he takes readers along on journeys to Iceland, the Pacific Northwest, Mars (or at least a simulation of the Red Planet located in the Utah desert), Scotland, France and Switzerland before circling back around to Svalbard.

At each stop Richards introduces readers to the landscapes, people who care and maintain these remote locations, as well as fellow travelers along the way. The focal point of this book is not so much the structures themselves, as it is what drives us to visit such places.

As a travel companion, Richards provides context with humor and curiosity. At the same time, many of the places in this book are being hit hardest by the effects of climate change, and he doesn’t shy away from the role visitors have in amplifying the changes occurring at an alarming rate.

In the Introduction he acknowledges that nature might be better off if we stopped exploring, however he believes “the more deeply we engage with [our world], understand its nature, the more likely we are to be good custodians and reverse our most selfish destructive behaviours” (loc. 153).

Outposts is an ideal armchair adventure during a hot Florida summer, not only because many of the locations are surrounded by snow and ice, but also because Richards is an avid reader and shares the titles of the books that influenced his adventure along the way. By the end of this book, you will have a full list of what to read next. This book is currently available for Kindle readers and will be out in Hardcover on July 2, 2019. *Reviewed by Christina Wray*

A Season on the Wind: Inside the World of Spring Migration by Kenn Kaufman



Waterfowl on the wing. Photo: Milton Heiberg

Kenn Kaufman’s new book, *A Season on the Wind: Inside the World of Spring Migration*, weaves together the author’s lifetime fascination with bird migration, current knowledge of this amazing phenomenon and updates related to climate change. One of our best known birders, Kaufman lives near Toledo, Ohio on Lake Erie. He moved there after marrying Kimberly, a bird bander, researcher, and now executive director of the Black Swamp Bird Observatory.

The western Lake Erie marshes, home to abundant waterfowl, were channelized and drained from the 1850s to 1890s, along with the Black Swamp. Working extensively with the original director of the Black Swamp Bird Observatory, who worked for the Ohio Division of Wildlife in waterfowl management, Kaufman states “Whether the birders like it or not, it’s a fact that our birding today in northwest Ohio rests on a foundation of habitat built by duck hunters.”

The Magee Marsh, the last extensive patch of trees with adjacent marsh on Lake Erie, is where warblers and other songbirds stop over by the millions in spring migration—to the delight of birders. To celebrate this occurrence, the Kaufmans and others created the Biggest Week in American Birding festival ten years ago.

With climate change a reality, wind energy is making inroads in Ohio. Kaufman, Kimberly and allies researched wind energy and learned that wind farms at Altamont Pass, California, installed in the 1980s, killed birds of prey. “Golden eagles were being killed at a rate of 75 to 110 per year, a dangerous level of mortality for a species that was never numerous in the first place. Golden eagles are magnificent fliers, masters of the air, with incredible eyesight; if they couldn’t navigate safely around the turbines,

what birds could?” Bats also are vulnerable to wind turbines.

“One pleasure of watching spring migration in a single place is becoming familiar with the timing of things,” he states. But the year he began writing the book was a year of weird weather. He wonders how changes in weather patterns will affect different bird species—the only migratory birds that are flexible in arrival dates are species that travel short distances. The long-distance migrants are very regular.

First to arrive in Ohio are the Yellow-rumped and Palm Warblers. Both have migrated further north by the time the influx of different warbler species occurs. Orioles, tanagers, buntings, and other songbirds arrive with the last of the warblers. Flycatchers arrive last of all, a result of natural selection since the insects they capture in midair are only abundant in late spring.

In addition to arriving at the right time in regard to leafing out of the trees and suitable weather, the bird must arrive in good physical shape. “Hence the importance of stopovers, where it can rest, feed, and build up its strength and fat reserves.” Successful males arrive early enough to claim the best territories, while successful females arrive while males holding good territories are still unmated. But if they arrive too early, “Harsh weather and lack of available food may be fatal.”

Kaufman outlines what has been learned about bird migration and bird populations from banding studies and how use of increasingly smaller radio transmitters and light-level indicators allow real time data on bird movements. Nexrad radar allows prediction of best days to see migration at a particular location. A new technique is recording flight calls and later identifying species and numbers from the recording.

Kaufman is proud of the increase in visitation to the Magee Marsh and the increasing diversity of birders who visit, as well as the success of the Biggest Week. His and Kimberly’s fight to keep wind power out of this migrant hot spot continues. It is a pleasure to “virtually bird” with this great birder and conservationist through this book.

Reviewed by Deborah Green

Silent Auction Donations

As of press time these generous merchants and other friends have given or pledged donations for Orange Audubon Society's 2019 silent auction.

Admission Tickets for Boat Tours, Museums, Theaters & Theme Parks

- *Albin Polasek Museum, Winter Park – Admission tickets
- *Busch Gardens Tampa Bay – Admission tickets
- *Bok Tower Gardens, Lake Wales – Admission tickets
- *Disney World: one 1-Park Per Day ticket (donated by Kathy Rigling)
- *Disney World: two 1-Park Per Day tickets and two Park Hopper tickets (donated by Joyce Stefancic)
- *Orlando Shakespeare Theater – Two tickets to a 2018-2019 Signature Series production
- *Orlando Science Center – Admission tickets
- *Premier Boat Tours, Mt. Dora – Gift Certificate for Tour-for-2
- *Universal Orlando Resort – Admission tickets
- *Winter Park Scenic Boat Tour – tickets

Art & Photo Notecards

- *James Carter framed artwork: Bird House #2 (donated by Sarah Whitaker)
- *John Furches set of 10 bird notecards (donated by Maggie DeVane)
- *Milton Heiberg photography print
- *David Hunter framed etchings (donated by Maggie DeVane)
- *Susan Kirby original notecards; matted and framed photo
- *Jim Urbach nature prints, plaque-mounted, 16" x 24"
- *Richard Evans Younger framed, 8-piece set The Vanishing Species of Birds (donated by Christine Price)

Books & Other Media

- **The Birdlife of Florida* by Henry M. Stevenson and Bruce H. Anderson (new) (donated by Bruce Anderson)
- **THE CROSSLEY GUIDE Waterfowl, THE CROSSLEY GUIDE Eastern Birds and Natural Gardening for Birds – Create a Bird-Friendly Habitat in Your Backyard*, by Julie Zickefoose (new) (donated by Kathy Rigling)
- *Collection of 10 birding books (donated by Karen Hamblett)
- *Audio and regular books including *AUDUBON GUIDE - All the Birds of Eastern and Central North America*. 1953 (donated by Kathy Rigling)

*Natural history books (donated by Deborah Green)

Enrich & Indulge Yourself

- *Audubon Center for Birds of Prey – Behind-the-Scenes tour & Raptor VIP Experience
- *Cooper's Hawk Winery & Restaurants – Tasting for Four
- *Rollins College Center for Lifelong Learning – Certificate for class

For Birds, Birders, Hikers & Pet Lovers

- *Dog chew toy & gift certificate (donated by Hounds & Kitties, Maitland)
- *Nestboxes (donated by Richard Poole)
- *Perky Pet Tube bird feeder and Stoker Platform feeder & bird seed (donated by Miller's Hardware)
- *Gift cards and Eliminator Squirrel Proof Bird Feeder and bird seeds (donated by Wild Birds Unlimited, Winter Springs, FL)

For Photo Hobbyists

- *Cool merchandise for photo hobbyists (donated by Colonial Photo & Hobby, Inc., Orlando)
- *Kiwi Camera Service – 2 gift certificates for professional camera and lens cleaning and testing
- *Orlando Camera Club – Annual individual membership
- **The Essentials of Nature Photography*, Second Edition (donated by Milton Heiberg)

Guided Birding Tours and Gardening Consultation

- *Archaeopteryx Birding and Nature Tours – Guided birding by owners Beck Smith and Gallus Quigley
- *Birding with David Simpson – Birding-for-4 certificate (donated by David Simpson)
- *Gardening Consultation – Certificate for 3-hour consultation by Dena Wild (donated by Dena Wild)

Lodging Gift Certificates

- *Oakland Manor House – 2-Day/1-Night stay with continental breakfast

Plants and Native Plant Nursery Gift Certificates

- *B. B. Brown's Gardens, Clermont – 11 native plants & gift certificate
- *Biosphere native plant nursery, Winter Garden – Gift certificate
- *Green Images native plant nursery – 10 plants, including Bee balm

*Green Isle Gardens native plant nursery, Groveland – Gift certificates

*White cascading *Phalaenopsis* orchids in white pots (donated by The Fresh Market, Winter Park)

Restaurant Gift Certificates

- *Armando's Pizzeria Cucina Italiana – Gift card
- *Bubbalou's BBQ, Apopka – Dining certificates and gift basket
- *BURGERFI – Gift cards
- *Dixie Crossroads, Titusville – Gift certificates
- *First Watch Restaurant – Gift cards
- *Keke's Breakfast Café, Winter Park – Gift Cards to participating locations
- *Panera Bread – Gift Card
- *Sonny's Barbeque, Apopka – Free dinner cards
- *Thai Basil Restaurant, Winter Springs – Gift certificates

This & That & Wear It

- *Avian Research and Conservation Institute – Swallow-tailed Kite inspired t-shirt
- *Banana bread large loaves & peanut butter cookies, fresh baked (donated by Betty & Dan Schnurr)
- *Crazy Bird Lady t-shirt (donated by Kathy Rigling)
- *Hand-crafted/hand-painted jewelry set made with hypoallergenic materials, in unique cloth bag (donated by Joy Fox)
- *Nature-inspired merchandise (donated by Atlas Screen Printing/Wild Cotton)
- *Peacock feathers from the birds of Genius Drive Nature Preserve (donated by Teresa Williams)
- *Coffee, gift cards and merchandise for java junkies (donated by Starbucks, Winter Park and Winter Springs locations)

Additional donations are expected before the June 20th event, so bring cash, checks and credit cards and be prepared to outbid even your best Audubon buddies! Florida sales tax of 6.5% will be added to the final bid price of taxable items.

Thank you for participating as a contributor, bidder or both to make YOUR chapter's auction a big success.

*Silent Auction Co-Chairs
Linda Gaunt and Lori Parsons
(with Teresa Williams)*

Thanks to All the OASis Contributors

Each month, September to June, Orange Audubon Society publishes its OASis newsletter to keep our members up to date on events and matters of interest. Many contributors this year helped make the OASis successful.

Thanks to Rick Baird, Gabbie Buendia, Linda Carpenter, Linda Gaunt, Melissa Gonzalez, Deborah Green, Marah Green, Phyllis Hall, Susan Kirby, Larry Martin, Michelle Nardone, Linda Oliver, Terry Piper, Danny Raleigh, Kathy Rigling, Bob Sanders, Bettie Sommers, John Webber, Teresa Williams, and Christina Wray.

Exquisite wildlife photos have enhanced the text. For use of these, we thank past Chertok Florida Native Nature Photo Contest winners; Mary Keim, our most frequently used photographer; and the following: Dustin Angell, ARCI, Wayne Bennett, Andrew Boyle, Jim Cox, CBOP, Paul Eisenbrown, Sherry Fischer, FOLA, Lynn Marie Folts, Joy Fox, Melissa Gonzalez, Paul Gray, Deborah Green, Michael Gunter, Milton Heiberg, Alice Horst, Kate Mansfield, Larry Martin, Mark Meifert, Greg Miller, Sam Mitcham, Michelle Nardone, Linda Oliver, Orange County EPD, Lee Posavad, Kathy Rigling, Frank Salmon, Bob Sena, John Serrao, Steve Shaluta, Bob Stamps, Joyce Stefancic, Jacqui Thurlow-Lippisch, Laura VonMutius, Craig Watson, John Webber, Graham Williams, Teresa Williams, and Michelle Dill Wilson.

For careful and timely editing, we are most grateful to Mary Keim, Loretta Satterthwaite, and Teresa Williams. We will enjoy our two months off and then be asking for articles and use of your photos again for September. Have a good summer! *Deborah Green, OASis editor*

Update Your Membership

Please join Audubon at the rate of \$20 (students \$15) for your [3-way membership in Orange Audubon Society \(OAS\), Audubon Florida and National Audubon Society](#).

It takes a few months for a new membership to show up on our chapter roster provided by National Audubon. So please join now so we will have your correct mailing address for OAS' one print mailing of the year in September.

If you have questions about your expiration date, email membership@orangeaudubonfl.org.

OAS Membership Committee

Thanks for Hospitality

Laurel Roberts has been kind enough to serve as Hospitality Chair, and many people have brought goodies to make our programs more inviting. Thanks to all.

Mark Your Calendars for the 4th Annual North Shore Birding Festival, January 16-20, 2020

Orange Audubon Society's (OAS) North Shore Birding Festival is set for next January 16th-20th. This year's festival brought participants from 18 states, 40 Florida cities, 2 Canadian provinces, and the U.K.. Proceeds contribute to OAS' fund-raising toward a nature and environmental education center.

Since the Lake Apopka North Shore is now the top eBird spot in Florida with a growing reputation among birders, we expect the festival to grow each year. For those who have attended over the past 3 years, we have added new field trips and some great new leaders, adding to the superb leaders we already have. Please follow new developments on the [festival Facebook page](#).

Deborah Green, Festival Committee Chair



Ready to Bird New Hotspots?
JANUARY 16-20, 2020

Discover Central Florida's 20,000-Acre
Lake Apopka North Shore
370+ Bird Species Recorded
Affordable Birding & Photo Field Trips
No Added Registration Fee

NORTH SHORE BIRDING FESTIVAL

LEARN MORE AT
www.orangeaudubonfl.org/festival

SUMMER CALENDAR OF EVENTS

June Challenge Field Trip

June 1, 2019

Contact Kathy at (407) 488-9559

June Wekiwa Bird Survey

June 8, 2019

Contact Kathy at (407) 488-9559

Chertok Photo Contest and Silent Auction Event

June 20, 2019,

Contact Teresa at (407) 718-1977

July Wekiwa Bird Survey

July 13, 2019

Contact Kathy at (407) 488-9559

Summer Board Planning Meeting

July 20, 2019

Contact Deborah at (407) 637-2525

August Wekiwa Bird Survey

August 10, 2019

Contact Kathy at (407) 488-9559

September Wekiwa Bird Survey

September 14, 2019

Contact Kathy at (407) 488-9559

September Monthly Program

September 19, 2019

Contact Rick at (321) 239-2436