



Enjoying Nature in the Time of COVID-19



Snail Kite and apple snail, Newton Park. Photo: Sam Mitcham

Orange Audubon Society (OAS) will have to wait until next year to hear about the Comeback of the Snail Kites by Tyler Beck of Florida Fish and Wildlife Conservation Commission, as the April 16th program has had to be cancelled.

OAS may also have to cancel the May 21st program on Birds of Lake County by Gallus Quigley. The May OASis will have that information.

What's Open and What's Not

Please follow county (or state) COVID-19 stay-at-home orders. When these are lifted, OAS will post information on its Facebook page as to places to get out in nature. As of press time, Canaveral National Seashore and our state parks and preserves are closed. The Lake Apopka Wildlife Drive is closed to vehicular traffic, but the Lake Apopka Loop Trail and roads of the North Shore are open to walking and bicycling. Entrances with parking are available at Magnolia Park, McDonald Canal, Clay Island, and the Green Mountain Scenic Overlook. While Oakland Nature Preserve and Orlando Wetlands Park are closed, Newton Park and Joe Overstreet Road, favorites of birders and photographers, are open. As of press time, [Orange County's Green PLACE](#) properties are still open. OAS' Facebook page is at [this link](#).

Ethos 5% Day

Ethos Vegan Kitchen is a small mom-and-pop restaurant with a large community ethos. On March 28th, Ethos had planned to donate 5% of its total sales to Orange Audubon Society (OAS), marking the seventh year that OAS was to benefit from Ethos' generous 5% Day for Charity program. Unfortunately, COVID-19 caused closure of sit-down restaurants and lay-off of employees, which led to cancellation of the event this year. Yet in typical caring fashion, Ethos suggested to its patrons that they might donate directly to OAS in lieu of the 5% Day, and indeed they did! Although closed for dine-in, Ethos still offers take-out and delivery options. In appreciation of their support of OAS and many other local nonprofits, we encourage you to take out delicious vegetarian meals from Ethos Vegan Kitchen, located at 601-B South New York Avenue, Winter Park, FL 32789. See hours and menu at [this link](#) or call (407) 228-3899.

Thank you, Ethos Vegan Kitchen and owners Laina and Kelly Shockley!



Spring Bird Walks at Mead Botanical Garden April 4, 11, 18 & 25, 2020

For the past 9 years, Orange Audubon Society (OAS) has hosted bird walks at Mead Botanical Garden in Winter Park each Saturday in April. Songbirds pass through Central Florida en route to forests of the Appalachians, the Eastern Seaboard or Canada, after wintering in the Caribbean or Central or South America.

Mead is a great migrant trap because it supplies insects and berries to eat and provides shelter in a variety of habitats — including open water, wetlands, and uplands with oaks and tall pines. Over 160 species have been documented at Mead, including 23 species of warblers, most of which should be in their colorful breeding plumage by April.



Male Hooded Warbler, Orlando backyard. Photo: Mary Keim

Unfortunately, the earliest scheduled walks must be cancelled and we are uncertain if we can hold the later walks because of the social distancing requirement and Orange County's stay-at-home order. Before heading to Mead on any date, check the Orange Audubon Society Facebook page ([link](#)). If allowed to go forward, the walks will start at 8:00 a.m. in the parking lot, and will last 2 to 3 hours. The walks are free and there is no need to preregister. Address: 1500 S. Denning Drive, Winter Park.

For information, contact me at lmartin5@msn.com or (407) 647- 5834 (in advance, not day of walk).

Larry Martin, Field Trips Chair

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

Programs are the 3rd Thursday of each month (September–June) and all but January and 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/



In Defense of Intact Habitats and Bats

There is so much to say regarding the human and societal cost of the COVID-19 pandemic, including impacts on our own Orange Audubon Society (OAS) members. As an organization dedicated to habitat conservation and natural history education, OAS must focus on the way that [destroying habitat has repercussions](#) and speak up for bats.

The Wuhan, China wet market (where live animals, including illegally harvested wildlife, are stacked closely together in cages) is believed to be the source of the COVID-19 outbreak.

A zoonotic disease spreads from an animal population to humans. A pathogen (for example a specific type of virus or bacteria) may occur naturally in a 'reservoir' animal population with little to no ill effect on the animals carrying it. A "spillover" event occurs when the pathogen is transmitted to a novel host, such as another animal species or directly to humans. These spillover events usually require close contact with bodily fluids of animals in unsanitary conditions.

COVID-19 shares 96% of its genome with Severe Acute Respiratory Syndrome (SARS) of which China experienced a severe outbreak in 2002-2004. Bats, specifically horseshoe bats in China, are the natural reservoirs for SARS-like coronaviruses, although another "intermediate" species could have been involved with transmission to humans (January 23, 2020, Wuhan Institute of Virology, cited by [Bat Conservation International](#)).

Bats carrying coronaviruses in the wild undisturbed by people are not a threat to human health.

Bats have been implicated in hosting a significantly higher proportion of zoonotic diseases than all other mammalian orders, [not surprising considering that bats are the second largest group of mammals on Earth](#). A chapter in a 2015 book [disputes the hypothesis](#) that bats are "special" in their relationship with viruses. Sadly, as COVID-19 has spread people in China have started requesting that hibernating bats in or near their houses be expelled. A March 27, 2020, article by an ecology researcher at Wuhan University explains why this would not help and would further upset [the ecological balance](#).



Mexican Free-tailed Bat. Photo: Mary Keim

Outside Magazine columnist David Quammen's 2012 book, *Spillover: Animal Infections and the Next Human Pandemic*, predicted our current situation. [In his January 28, 2020 New York Times article](#), Quammen points out that unsustainable ecological destruction and the dangerous and devastating trafficking and illegal trade of wildlife for human consumption is how we made the pandemic. Closing and cleaning up wildlife markets would both protect species that are harvested from the wild and reduce spillover of new viruses.

Science says take this seriously

Experts' graphs of COVID-19 cases and epidemiological mapping showed us what lay ahead depending on our response to the warnings of catastrophes elsewhere — notably in China, Korea, Italy, and Spain. Unchecked, the virus was forecast to kill millions in the US.

Fortunately, Mayor Demings on March 24 issued [ORANGE COUNTY, FLORIDA EMERGENCY EXECUTIVE ORDER NO. 2020 regarding COVID-19](#): Non-Essential Travel and Safety Measures and Non-Essential Businesses and Essential Businesses. Among other things, the order provides for the continuation of essential services such as food and medicine, deliveries, emergency care, and trash pick-up; both public and private construction; and outdoor exercise including travel to exercise sites for sports that allow for the required 6' distancing between people. Schools and universities had already gone on-line, and bars and restaurants had closed their seating.

Now is the time to tuck in and edit through all your images filled with amazing experiences. Relive all those wonderful memories and let them inspire you to do what needs to be done, so we can move forward in a healthier world.

OAS Conservation Committee



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 OAS's (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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2020 Legislative Session's Water Bill

Audubon members made a direct and positive impact during this year's policy-making session in the Florida capital. The actions taken during the 2020 Florida Legislative Session will have significant public policy impacts on conservation, growth management, home rule, budget, and a host of other issues important to Florida's environment and wildlife.

The most important issue the Audubon Florida policy team worked on this session was SB 712, The Clean Waterways Act, sponsored by Senator Mayfield and Representative Payne.

Our team diligently worked to remove provisions that were not protective and were successful in getting some protective measures added to the bill; and aided by your emails and phone calls to your legislators in support of this, SB 712 was unanimously approved by all members of the legislature.

Excess nutrients in our waters come from urban and agricultural run-off, wastewater, septic tanks, and biosolids sludge spreading on our rural landscapes (see [OASis November 2018](#), p.6-7). The bill presents a grab bag of first step solutions to address these varied sources of pollution. Importantly, SB 712 lays the foundation for further improvements that we will advocate for to improve water quality and quantity in Florida.

SB 712 addresses septic tanks by permitting them for the first time as a source of nutrient pollution; it requires wastewater facilities to develop maintenance plans for their infrastructure and to inspect; it requires the Department of Environmental Protection to update stormwater treatment regulations; it immediately puts into place protections that eliminate the spreading of sewage sludge in certain sensitive areas; and it requires the Department of Agriculture to inspect and verify implementation of best management practices by farmers. SB 712 also requires DEP to develop rules for potable use of reclaimed water based on the Potable Reuse Commission's report.

While much more remains to be done, it is important that Governor DeSantis sign this bill and put these protections into law, as Florida's waterways will benefit from the regulatory improvements in SB 712.

There will be rulemaking that follows after this bill is signed.

It is important that you stay engaged to ensure that the rules developed are strong and protective.

Thank you for your advocacy and thank you for caring about Florida's environment.

Audubon Florida staff

April is Water Conservation Month

In April, May and June, Florida's temperatures increase but the state's rainfall tends to lag behind irrigation requirements. April is typically Florida's driest month. Particularly as temperatures rise, so does outdoor water use.

Use a hose nozzle when hand watering. It saves water by keeping the water from running constantly.

In earlier issues, we have promoted reducing your lawn in favor of site-specific Florida native plants, which should need water only during establishment and the worst dry periods. But if you have a lawn,

Water only when necessary. Visual clues to determine when your grass needs watering are: 1) When you walk on the lawn, footprints appear briefly because the bent blades don't spring back for several minutes, 2) grass blades appear blue-gray in color, or 3) grass blades are folded in half lengthwise on at least one-third of your lawn.

If you have an automatic irrigation system, make sure you know your irrigation days. Go to the St. Johns River Water Management District [watering restrictions](#) to find out when it's okay to water.

Use a rain sensor device or turn the system off when it rains or has rained.

Need your irrigation system tuned up? Make sure the contractor is

Orange Audubon Society Heroes

Many of those who become active in Orange Audubon Society (OAS) believe that working through the chapter is a way to help conservation locally, and these volunteers may continue involvement for many years. Among OAS' longest term volunteers are Loretta Satterthwaite and Bob Stamps.



Loretta Satterthwaite and Bob Stamps. *File photo.*

Loretta served as OAS president from 1987 to 1989 and again from 2002 to 2006, in addition to serving as treasurer, newsletter editor, and other officer roles starting in 1985. Bob served as president from 1994 to 1996 and again 2008 to 2010, in addition to serving in other officer roles and as a committee chair. After retiring from the University of Florida IFAS Mid-Florida Research and Education Center (MREC) in Apopka, Bob and Loretta each in turn went off the OAS board but continued to stay involved as committee members and advisors.

Bob co-chairs the Nature and Environmental Education Center committee. This OASis newsletter, which we are now considering calling a *magazine*, benefits greatly from Loretta's skilled editing. Her long-time job for MREC involved editing scientific papers, so she is a professional. The content editing team for the OASis also includes Bob, Mary Keim, and Teresa Williams.

Thanks Bob and Loretta for staying involved!

Deborah Green, OASis editor

a certified member of the Florida Irrigation Society. Go to www.fisstate.org for more information.

Elections Postponed

Orange Audubon Society (OAS) annual officer elections were planned for our April 16th meeting; however, that meeting has had to be cancelled. I serve as chair of the nominating committee with members Maureen (Mo) Cortese (mocor1129@gmail.com) and Jack Horton (jhorton@mac.com). We will hold the elections on the next meeting date that we are able to schedule.

The OAS board is comprised of twenty volunteer members: 5 officers who serve two-year terms and 15 non-officer members of the board of directors who serve staggered 3-year terms. The nominating committee has received nominations for the five officer positions, as follows:

- President: Deborah Green
- 1st Vice President: Kathy Rigling
- 2nd Vice President: Terry Piper
- Secretary: Linda Gaunt
- Treasurer: Teresa Williams

All board members of the 2020–23 term are up for election/re-election, and OAS has one unfilled seat for the 2018–2021 term (one year remaining) and two unfilled seats for the 2019–2022 term (two years remaining).

To serve on the board, you must be an OAS member, have an interest in wildlife and the environment, and be able to attend monthly, one-hour board meetings on the third Thursday of each month (except July and August) at Leu Gardens. There is also an all-day summer planning meeting, usually in late July, that board members are expected to attend.

As “a baby step” prior to applying for the board, we encourage you to join one of OAS’ committees. OAS’ greatest need is for help with conservation, education, and outreach. Other committees are Birdathon, brochure, Chertok photography contest, climate, field trips, finance, hospitality, membership, nature and environmental education center, nominating, OAS*is* (newsletter), programs, publicity, sanctuaries, silent auction, speakers’ bureau, website, and wildlife surveys. Committee chair contact information is at [this link](#) in case you want to chat with the chair about getting more involved.

The OAS board application lets you know volunteer options and OAS’ service and donation expectations and collects information about your interests and skills to align them with OAS’ needs.

OAS is an all-volunteer organization. Your financial donations are always appreciated. If you can also donate time, please do! Contact me at lmartin5@msn.com or (407) 647- 5834 to discuss. Thanks!

Larry Martin, Nominating Chair

The Dainty Downy

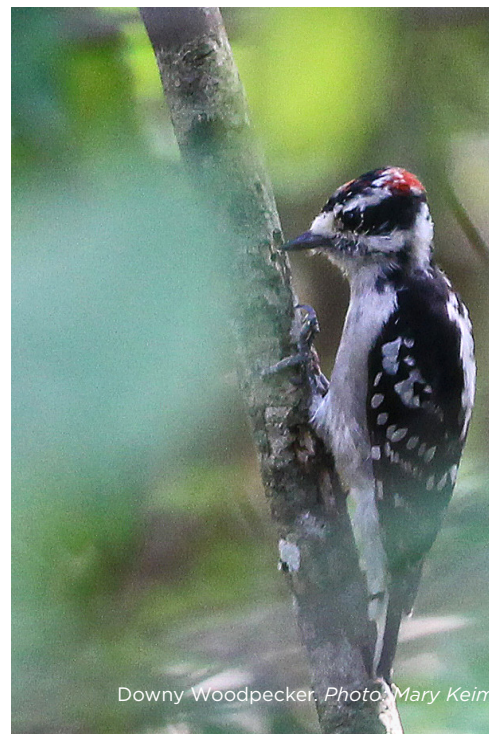
I look forward every morning to finding Downy Woodpeckers in my backyard. They arrive to feed on the suet and to cavort among the crepe myrtle and magnolia trees. With their bold black-and-white patterns, striped head, red patch on their head (male), and white-on-black spotted wings, they are exceptionally attractive birds. Because of their nimble, silent flight, small size, and small voice, they can be difficult to find, however—unless you have a suet feeder.

A tiny marvel about 6.75 inches long, this bird is North America’s smallest woodpecker. (Smaller ones—such as the piculets of South America—live elsewhere.) Downys feed on insects and plant materials such as berries, acorns, and grains. They also eat black oil sunflower seeds, drink from oriole and hummingbird feeders and enjoy peanuts and chunky peanut butter!

These birds move horizontally and downwards on trees much more readily than other woodpeckers. I have seen an adult pair with two wee chicks moving horizontally on a large oak tree searching for larva, ants, or caterpillars. How thrilling to see Downy chicks foraging! They are so small you have to look twice to make sure you are actually seeing a living bird.

You may also find them perched on tall weeds in late summer, hammering away at a plant gall to obtain the larva inside.

Downy Woodpeckers have the undulating flight pattern typical of many woodpecker species as they alternate quick wing beats with folding their wings against the body. During spring courtship males and females fly between trees with slow, fluttering wing beats sort of like a butterfly.



Downy Woodpecker. Photo: Mary Keim

These birds nest in dead trees or the dead parts of live trees, often choosing a small stub about 7 inches in diameter. Cavities are 6 to 12 inches deep and widen toward the bottom to make room for eggs and the incubating birds.

Downys are numerous and their populations were stable between 1966 and 2015. Partners in Flight estimate a global population of 14 million with 79 percent living in the U.S. and 21 percent in Canada. The clearing and thinning of forests that is taking place worldwide has not had a detrimental effect on their survival because they appear to do well in young forests.

Downy Woodpeckers closely resemble Hairy Woodpeckers, and it is difficult to tell them apart. The Downy, however, is two inches shorter than the Hairy, and has a shorter bill. Both can be found throughout the U.S. and Canada all year around, but Hairy Woodpeckers tend to be less numerous and are found mainly in mature woods. Voice experts note the Downy’s unmistakable voice: a short, high, gentle, flat *pik*. The Hairy’s voice, a *peek* or *peeck* is much sharper, stronger, and higher than the Downy’s.

Although both species can be found year-round in Florida, you are much more likely to encounter the Downy Woodpecker, and a suet feeder is a way to increase your probability of seeing one. Check it out! You will fall in love, as I did, with this extraordinary woodpecker!

Linda Carpenter

Plants for Birds

Love Letter to Oaks and Their Caterpillars

As I write this in late March, the oaks around our house are still dropping leaves. We bemoan the leaves accumulating in the gutters and on walkways, but in our compost bins together with kitchen scraps, they make a rich compost. Left on the ground, the oak leaves foster the proliferation of earthworms and enrich our sandy soil with organic matter. The oaks shade our house, but unfortunately make installing solar panels out of the question. Most importantly, these trees make our yard a bird haven. And this is all because the oak leaves are eaten by many species of caterpillars, which the birds love!



White-eyed Vireo looking for small caterpillars in the new leaves of an oak. Photo: Steve Shaluta

University of Delaware entomologist Doug Tallamy, author of the best-selling book, *Bringing Nature Home*, has specifically researched the native plant/caterpillar/bird connection. Tallamy's research shows that native oaks support more than 530 species of butterfly and moth caterpillars, more than any other type of tree! Oaks also host other insects such as beetles.

Think about it—when you start your migration bird walk at Mead Botanical Garden, where do you look first? Right there in the parking lot in the oak trees, the favorite haunt of insect-gleaning birds like warblers and vireos.

Yes, the oaks have other benefits, including their signature acorns, which



Florida Scrub-Jay with acorn. Photo: Mark Meifert

provide forage for jays, woodpeckers, turkeys, deer, and squirrels. Oaks are also incredibly durable (even when dead) as the wood has high resistance to insects and diseases. They are perfect nesting locations for breeding birds (including cavity nesters). With Spanish Moss festooned from their branches, oaks are where the Northern Parula warbler nests (right in a clump of moss). When it comes to attracting and sustaining songbirds, oaks are the best.

Northern Hemisphere trees, the oaks—genus *Quercus*, family Fagaceae—include deciduous and evergreen species. They inhabit temperate to tropical latitudes in the Americas, as well as Asia, Europe, and North Africa. The U.S. and Canada have approximately 90 species, with 160 species native to Mexico. Oaks readily hybridize with each other, so the exact number of species is debatable.

Trees similar to oaks first appeared in the fossil record 32–35 million years ago, and trees related to existing species appeared about 25 million years ago. Oaks were the dominant species of the great oak-hickory woodlands that stretched from New York to Georgia and from the Atlantic seaboard to Iowa and northeastern Texas before human populations spread across the area.

This wide distribution and long period of existence have allowed a diverse herbivore fauna to develop on oaks through natural selection. Caterpillars—the larvae of butterflies, skippers, and moths (insect order Lepidoptera)—have speciated to take advantage of highly palatable new spring leaves and other parts of the oak.

Some of the caterpillars that feed on oaks are *polyphagous*, which means they feed on a fairly wide range of host plants, while others are *monophagous*, feeding only on oaks.

Tallamy points out that over ninety percent of insect species co-evolved with a specific plant species or a group of related plant species—that means that through natural selection they were able to overcome the chemical defenses of those plants, which then could be utilized as their host plants.



Consular Oakworm Moth caterpillar (*Anisota consularis*) on Myrtle Oak, Seminole State Forest, August 2019. Photo: Mary Keim

The diversity of insect species on native plants and how it allows survival of the Carolina Chickadee has been profiled in the [February OASis](#) (p. 3).

[In 2015 Tallamy wrote:](#) “I compared a young white oak in my yard with one of the Bradford pears in my neighbor’s yard. Both trees are the same size, but Bradford pears are ornamentals from Asia, while white oaks are native to eastern North America.

I walked around each tree and counted the caterpillars on their leaves at head height. I found 410 caterpillars on the white oak (comprising 19 different species), and only one caterpillar (an inchworm) on the Bradford pear. Was this a fluke? Hardly. The next day I repeated my survey on a different white oak and Bradford pear. This time I found 233 caterpillars on the white oak (comprising 15 species) and, again, only one on the Bradford pear.

Why such huge differences? It’s simple: Plants don’t want to be eaten, so they have loaded their tissues with nasty chemicals that would kill most insects if eaten. Insects do eat plants, though, and they achieve this by adapting to the chemical defenses of just one or two plant lineages. So

continued next page

Love Letter to Oaks, continued

some have evolved to eat oak trees without dying, while others have specialized in native cherries or ashes and so on.”

These insects, however, have not had a chance to develop a tolerance for the chemical defenses in many recently-introduced plants, and are therefore unable to consume them. This is why Florida native plants are what we all need in our yards to attract birds.

Some of the caterpillars on oaks are microlepidoptera, tiny moths of which the small caterpillars may roll the leaves, skeletonize the leaves, or feed in between the upper and lower surface of the leaves as leaf miners.



Oak Beauty Moth caterpillar, *Phaeoura quernaria*, April 2011. Photo: Mary Keim

Others are larger and will become more showy moths and a very few will become butterflies. These soft caterpillars are protein-rich food for nestlings and are easy for insectivorous songbirds to find.

Because oaks are relatively slow-growing and require quite a bit of water to grow from small plants, preservation of existing oaks in our urban landscapes is an important bird preservation strategy. Bird lovers should always speak up for tree protection ordinances and their enforcement.

Whether it is the three oaks of Florida's scrub habitat (Chapman's Oak, Myrtle Oak, and Sand Live Oak), the three oaks of the sandhill habitat (Turkey Oak, Sand Post Oak, and Bluejack Oak) or the common Live Oak and Laurel Oak of our mesic and suburban habitats, all of our Central Florida oaks should be treasured for the way they foster caterpillars eaten by birds.

Oaks are nature at its best.

Deborah Green

Backyard (and Maybe Beyond) Birdathon—April 18, 2020!

A Birdathon is like a Walkathon—sponsors pledge donations based on the number of bird species seen during a 24-hour period instead of the number of miles walked, respectively. People can pledge 10¢, 25¢, 50¢, \$1.00, etc. per species, or a flat amount (and write their check on the spot).



Female Indigo Bunting, Orlando yard, November 2018. Photo: Mary Keim

Will you please ask friends, neighbors, relatives, doctors, vets, and every Girl Scout mom you bought cookies from to sponsor you by donating using [the pledge sheet posted on the Orange Audubon Society \(OAS\) website?](#)

Although OAS' special field trip on April 18th, and Bob Sander's April 19th Limited Edition Field Trip — both to Fort De Soto Park during the peak of migration — had to be cancelled, other birding venues are still available.

OAS will monitor stay-at-home orders in local counties in hopes that parks will reopen by then, but meanwhile we have a new strategy — Backyard (if not Beyond) Birdathon. On April 18th, everyone please record birds seen around your homes and neighborhoods and accessible public spaces. The combined tally may not be as high (150–200 species has been typical), but we will have a list and a reason to go birding. If you appreciate Orange Audubon Society and can afford it, please make your own Birdathon donation. All Birdathon 2020 funds will benefit OAS' nature and environmental education center fund. To participate as a donor, a birder or both, contact me at riglingk@aol.com.

Kathy Rigling, Birdathon Chair

Children at Home

For children going stir-crazy being cooped up inside, here are a few ideas: Audubon Center for Birds of Prey is doing daily Lunch and Learns on raptors at the Center and posting these short videos on [its Facebook page](#).

The Cornell Lab of Ornithology K-12 Education provides resources and training that help educators and students participate in the Lab's popular citizen science projects. BirdSleuth is a growing series of educational resources that promote inquiry and science learning in the classroom and at home by focusing kids on observations of birds and the natural world. Through BirdSleuth, kids become real scientists! ([see link](#)).

Bird cams are video recordings of bird behavior, usually bird nests, a virtual window into the natural world of birds. Here is a link to some [bird cams from Cornell Lab of Ornithology](#).

Even before Cornell developed the BirdSleuth educational materials and eBird, which tracks migration, Journey North was a Citizen Science program for students reporting sightings of birds, like hummingbirds, American Robins, and monarch butterflies. Check out [Journey North](#) at this link.

[Audubon Adventures](#), which National Audubon has produced for many years as print classroom materials, now is now offered in digital form (free). Audubon for Kids can be accessed [at this link](#).

The Chertok Florida Native Nature Photo Contest has a [Youth Category](#). If the youth in your life (age 17 or under) have taken photos they might enter in the contest, take this inside time to pick out photos to enter (see contest article p.8).



Young photographer enjoying Youth and Family Trip at North Shore Birding Festival, Photo: Tina Pruitt

Audubon's Conservation Leadership Initiative and Knighthawk Audubon News



Birding and habitat conservation has a future, and Orange Audubon Society is proud to be a part of it!

The University of Central Florida (UCF) Knighthawk Audubon chapter has embarked on some great projects, under the guidance of UCF Biology professor Dr. Anna Forsman, who serves as the group's campus advisor.

When OAS Education Chair Melissa Gonzalez was still a student and had tried to start a campus chapter around 2015, she met resistance from Student Government. Now the effort has the support of National Audubon Society (NAS). There are currently over 30 newly formed student chapters around the country. Each chapter loosely affiliates with a local chapter, and Knighthawk is affiliated with OAS. We are very proud of its progress and the enthusiasm of its members.

Dr. Forsman's Wild Symbiosis Lab, where several recent graduates are starting advanced degree programs and undergraduates also assist in research, has a focus on Purple Martins. The students built artificial Purple Martin colony nests and have put them up around campus to provide these swallows with a place to safely breed. The group hopes to attract as many breeding pairs as possible as these have recently arrived from South America. The group had previously started going to the Wekiva Bird Banding Station at Lake Lotus Park. Several members attended and volunteered at the 2020 North Shore Birding Festival.

One of the conservation actions that NAS recommends for student chapters is to plant a native Plants for Birds garden. Knighthawk secured a \$10,000 NAS grant this winter to plant such a garden in the UCF Arboretum area.

Knighthawk was spearheaded by its first president Stephanie Gaspar, who is also president of Kissimmee Valley Audubon Society, along with some of the past and current participants of Audubon Florida's Conservation Leadership Initiative (CLI). CLI participant Lauren Puleo is current president.

Started in 2011, CLI is "a unique, intergenerational experience uniting Audubon's leaders with some of the best and brightest college students." Students are funded to attend the Audubon Assembly in October, where they participate in activities with fellow students, Audubon Florida staff and with their assigned chapter leader mentors. Students and leaders both are called "co-mentors," as the students are introduced to Audubon conservation initiatives while chapter leaders learn how to better engage, communicate with, and develop the next generation of leaders. Audubon Florida is demonstrating this exemplary program to other parts of the country.

CLI, based out of the Audubon Center for Birds of Prey, has received generous grants from Darden Sustainability, the Jessie Ball DuPont Fund, and NAS. A full time staff person, Kristen Kosik, is now in place, and this year's CLI cohort of 25 students is funded for a year-long program. The students have a budget that they can use to defray costs of workshops, overnight field trips, and festival registration. My 2019-2020 co-mentor Jeremy LaPlanche was able to go on one of the Ocklawaha River drawdown trips thanks to this funding (and a ride from OAS' Linda Gaunt, another CLI co-mentor).

The COVID-19 shut-down comes at a rough time for many of these students, as their campuses are closed and planned events are now cancelled. My 2018-2019 co-mentor Brian Cammarano will graduate this month online and hopefully be traveling to Alaska to assist in collecting data on Hudsonian Godwits — monitoring nests and attaching radio transmitters to chicks. We hope this opportunity isn't cancelled because of COVID-19. Brian is an avid birder and e-Birder, and through participation in OAS' monthly Wekiva surveys, he now knows and goes birding regularly with some of our best local birders. We wish these bright young students all the best and trust they will carry on our conservation efforts.

Deborah Green



Top to bottom: Knighthawk Audubon members with Purple Martin houses they assembled for UCF campus, with advisor Dr. Anna Forsman on right; At Wekiva Bird Banding Station Jenny Bouche-not, Knighthawk Programs Chairperson, holding Tufted Titmouse; Knighthawks on field trip to UCF Arboretum; Knighthawks on Orlando Wetlands Park field trip; CLI students and campus chapter members at North Shore Birding Festival. Photos courtesy Knighthawk Audubon and Melissa Gonzalez.

Puerto Rican Adventure with Wildside Nature Tours

On March 11, 2020, fourteen mostly Orange Audubon members embarked on a 5 day/6 night birding tour of the beautiful, tropical island of Puerto Rico. It was our first “abroad” trip as a chapter, and we chose Puerto Rico for its reasonable pricing and superb leaders and because there’s such a big Puerto Rican presence in Central Florida. Everyone on the trip loved it, and we’ll be going somewhere else next year when travel resumes.



Puerto Rican Lizard-Cuckoo. Photo: Lorri Lilja

On this private tour, guided by Gabriel Lugo and Alex Lamoreaux of Wildside Nature Tours, we circumnavigated the entire island.

On the first day we were treated to birding in several diverse Puerto Rican habitats—starting with the unique Northern Karst region with its unusual topography of eroded limestone hills. At a pond, we saw the rare West Indian Whistling-Duck and White-faced Pintail.

We then traveled to the cliffs of the northwestern coast where we watched elegant White-tailed Tropicbirds glide over the sea, and ended the day’s travels in the subtropical dry forest on the southwestern side of the island. In the early evening we heard and saw two Puerto Rican Screech Owls.

We spent more time exploring the southwestern side of the island on the third day, including an enchanting visit to a private garden full of hummingbird feeders and flowers where we soaked in the beauty of the Puerto Rican Emerald, Antillean Mango and Green Mango hummingbirds and Bananaquits.

Later that day we stopped at La Parguera on Puerto Rico’s southwest coast where we saw a few of Puerto Rico’s endemic endangered Yellow-shouldered Blackbirds. We stopped near the coast for great views of Clapper Rails and shorebirds. Then



Above, Orange Audubon Society Puerto Rican Trip. Photo: Gabriel Lugo. Below, Pearly-eyed Thrasher. Photo: Lorri Lilja

at dusk we ventured to a forest near the edge of town where we heard and saw the ghostly form of the endemic Puerto Rican Nightjar, while ghostly Yellow-crowned Night Herons flew by.

The next morning we set out for nearby mountains in which we successfully found our target, the beautiful Elfin-woods Warbler, a species that was first observed in 1968. We also found other endemics including the Puerto Rican Vireo and Puerto Rican Tanager.

That evening we had another view of Puerto Rican Nightjars, including one hunting insects. Then we all took a boat ride to the amazing Bioluminescent Bay, with great views of the stars including the Milky Way.

On Saturday, March 14th we traveled to Hacienda Juanita, a beautiful resort in which we sipped delicious local coffee and ate amazing homemade plantain soup while we watched hummingbirds, orioles and Pearly-eyed Thrashers visit the nearby trees.

Later that day we descended to the Salt Flats at Cabo Rojo where we were treated to great looks at a West Indian flycatcher, the Caribbean Elaenia.

On the last full day we explored the Cartagena Lagoon National Wildlife Refuge, finding familiar wetlands species such as Purple Gallinule

along with Puerto Rican/West Indian specialties like Puerto Rican Woodpecker and Loggerheaded Kingbird. Lastly we stopped at an undisclosed location where, after patiently waiting, we spotted a rare Caribbean endemic, the Plain Pigeon.

On the grounds of our final accommodation, the Fajardo Inn, we were treated to views of the gorgeous Green-throated Carib hummingbird, our final Caribbean endemic.

I highly recommend Wildside, as our guides were very knowledgeable not only about birds, but also about the local natural history. Our accommodations were clean, comfortable and scenic, and the abundant local foods were delicious.

The birding was above my expectations, as we observed all possible Puerto Rican endemics. I saw 39 life birds and was able to photograph most of them! It was truly amazing to see Bananquits, Gray Kingbirds, and Smooth Billed Anis as common sights as we traveled.



Puerto Rican Tody. Photo: Lorri Lilja.

My favorite was the diminutive Puerto Rican Tody, a cheeky emerald green, white, yellow and red bird closely related to Kingfishers.

Puerto Rico is a wonderful place to explore. The people are very friendly and the birding is fabulous. Taking a guided tour is the best way to experience all the island has to offer.

We hope to see Gabriel and Alex when they return to Central Florida for the 2021 North Shore Birding Festival and/or Space Coast Birding and Wildlife Festival.

Kathy Rigling

What is iNaturalist, Who Uses It and Who Contributes to It?

iNaturalist is a joint initiative of the California Academy of Sciences and the National Geographic Society. Participants record observations of plants, animals and other living things.

iNaturalist hopes to increase awareness of biodiversity and promote exploration in nature. As of this writing, in Florida 39,573 observers have made 834,068 observations of 13,626 species identified by 13,460 people ([see this link](#)).

Focusing on Florida's vertebrates, as of this writing 24,043 observers have made 280,357 observations of 1367 species identified by 8793 people ([see this link](#)).

iNaturalist is used by university botany professors to do research, by elementary school classes to do nature education and by Audubon members trying to figure out what they photographed on their last field outing.

By using iNaturalist's "Explore" feature, you can learn, for example, that [thirteen New World Sparrows](#) have been documented in Orange County.

By looking at the "Community" feature's "Projects," you can search for topics or places of interest and find "Projects" such as Florida Fish and Wildlife Conservation Commission's "Herps of Florida" [link](#) and "Florida WMA: Tosohatchee Wildlife Management Area" [link](#). If you don't find a project for the taxonomic group or place of interest, you can start your own. Instructions are at [this link](#).

You can help make iNaturalist an even better resource by contributing your observations. A cell phone camera (and iNaturalist app) or any other camera is fine. Instructions for getting started are [at this link](#).

In addition, most of us have some knowledge of plants and/or animals and we can help identify organisms on iNaturalist. For example, I don't know many beetle species, but I know a beetle from a true bug. So I am able to improve the ID of an unlabeled insect from "Unknown" to "Beetle (Coleoptera)" or to "True Bug (Hemiptera)." Then experts in those insects, who subscribe to those observations will be alerted and can identify the observation more specifically.



Savannah Sparrow. Photo: Mary Keim

Similarly, you could improve an "Unknown" observation by identifying it as a "Flowering Plant" or a "Fish" to whatever more specific taxon you know. So far, 877 people have helped identify my iNaturalist observations. Part of my motivation to do ID work is that I appreciate the help of those who have identified my observations.

An organized way to contribute to iNaturalist is by participating in a bioblitz. Bioblitzes are events at a particular place and time, for example at Split Oak Forest Wildlife and Environmental Area, managed by Florida Fish and Wildlife Conservation Commission (see [link](#)) or at Econ River Wilderness Area, managed by Seminole County Natural Lands (see [link](#)).

Bioblitzes, and iNaturalist in general, can connect people with nature and generate useful data. Your observations can contribute to biodiversity science and can contribute to your knowledge of the environment.

iNaturalist can also introduce you to fellow naturalists. I have met at least nine Florida naturalists after seeing their work on iNaturalist. It has been very encouraging to see these (mostly) young people out in nature. Try iNaturalist and get in on the fun of discovery!

Mary Keim



Swamp Sparrow. Photo: Mary Keim

Swallow-tailed Kite "Apopka" Is Home!

The Swallow-tailed Kite named Apopka made it back to Altamonte Springs from his wintering grounds in Rondonia, Brazil on March 23rd.

The Avian Research and Conservation Institute (ARCI) in Gainesville now has 14 Swallow-tailed Kites mounted with solar-powered GSM/GPS transmitters. How Apopka was originally tagged and released is profiled in the May 2018 OAS*is* [at this link](#) (p.6).

Apopka flew across the Gulf of Mexico from the Yucatan Peninsula north to Mississippi, and took 4 additional days to fly "home." ARCI is hopeful that this year he will find a mate and breed.

See more at ARCI's Facebook page: <https://www.facebook.com/ARCIInst/>.



Apopka's route back to Florida. Map: Avian Research and Conservation Institute

32nd Annual Chertok Florida Native Nature Photo Contest—New Deadline April 30, 2020

Orange Audubon Society (OAS) announces its 2020 (32nd Annual) Kit and Sidney Chertok Florida Native Nature Photography Contest, themed: Florida Native Nature.



Oz—Sweat Bee on Dune Sunflower. 2019 Chertok Photo Contest, Honorable Mention Winner, Youth Category. Photo: Claire Goodowens

Competing will sharpen your photo skills, increase knowledge of Florida's amazing wildlife and wild places and teach valuable ethical field practices.

In addition, there are prizes valued up to \$1,300 from OAS and co-sponsors Colonial Photo & Hobby and Tarflower Chapter, Florida Native Plant Society.

Eligible photos may not include humans, human artifacts or introduced

plant or animal species—subject matter must be native to Florida—and entries must be taken in compliance with [the NANPA code of conduct](#).

The extended deadline is April 30, 2020 (postmarked or electronically submitted by date). Disqualified entries may optionally be replaced for no additional entry fee by following instructions provided upon notification.

The contest is open to all photographers (members of OAS' board and Chertok contest committee excluded) and there are three skill level competition categories: Youth—for photographers age 17 years or younger on April 30, 2020; Novice—for new and less experienced photo hobbyists; and Advanced Amateur/Professional—for experienced photographers who have practiced and honed their skills over time.

Entry forms are available on the OAS website at [this link](#). Contact me at mwilliams@cfl.rr.com or (407) 644-0796 if you have questions.

Teresa Williams,
Chertok Photography Contest Chair



Buttonbush. 2015 Chertok Photo Contest, Second Place, Youth Category. Photo: Arwen Paredes

Identify Your Plant Photos

Most entries to the Chertok Florida Native Nature Photography Contest are animals, but plants are also worthy subjects. Eligible photos cannot include introduced plants, so it is important that you identify the plant in your photo.

Orange Audubon Society suggests that you post your photo on iNaturalist (see p.9) to help you figure out the name of the plant. Then you can look up the plant on the [Atlas of Florida Vascular Plants](#). Based on that authority you will know if the plant is native or not. If you need help, feel free to email info@orangeaudubonfl.org.

APRIL/EARLY MAY CALENDAR OF EVENTS

Spring Mead Botanical Garden Bird Walks, Winter

Park – First 2 are cancelled; check Facebook for information on 3rd and 4th

April 4, 11, 18 & 25, 2020

Contact Larry at (407) 647-5834

April Wekiwa Bird Survey – Cancelled

April 11, 2020

Contact Kathy at (407) 488-9559

Chertok Nature Photography Contest

Deadline to submit all entries:

April 30, 2020 – *Deadline extended*

Contact Teresa at (407) 644-0796

April Program: Comeback of the Snail Kites – Tyler

Beck – *Cancelled*

April 16, 2020

Contact Rick at (407) 277-3357

April Field Trip: Mead Botanical Garden, Winter

Park – *Probably cancelled, see Mid-month Update*

April 18, 2020

Contact Larry at (407) 647-5834

Birdathon Fort De Soto Trip – *Cancelled*

April 18, 2020

Contact Kathy at (407) 488-9559

Backyard (and Maybe Beyond) Birdathon

April 18, 2020

Contact Kathy at (407) 488-9559

Limited Edition Field Trip to Fort De Soto Park, Pinellas County – *Cancelled*

April 19, 2020

Contact Bob at (407) 459-5617

Central Florida Earth Day, Lake Eola, Orlando – *Cancelled*

April 25, 2020

Contact Deborah at (407) 637-2525

Lake Apopka Wildlife Drive 5th Anniversary – *Probably cancelled, see Mid-month Update*

May 2, 2020

Contact Deborah at (407) 637-2525