



Dr. Jennifer Korn, tracking a panther at Archbold Biological Station. Photo: Dustin Angell

This Month's Program:

October 18, 2018 Coexisting with Panthers

by Dr. Jennifer Korn

Although the Florida Panther is still highly endangered, it is making a comeback, thanks to conserved land and conservation efforts. Most of the estimated 120 to 230 Florida Panthers live in South Florida. Orange Audubon Society's October speaker, Dr. Jennifer Korn, focuses on the ones in the rest of the state.

Previously only a few adventurous males crossed the Caloosahatchee River and traveled north in search of territory and mates, but in March 2017 a mother and kittens were documented on Babcock Ranch Preserve in Charlotte County — the first clear evidence of a female north of the Caloosahatchee River in over 40 years. Then Florida Fish and Wildlife Conservation Commission (FWC) biologists documented a second female north of the river, Highlands

County, just a few miles from Archbold Biological Station.

Dr. Korn previously worked as a Florida Panther specialist for FWC and is now a wildlife biologist with Johnson Engineering, Inc. She is placing cameras under bridges and wildlife crossings from Alligator Alley to I-4 to monitor use by panthers, Florida black bear, white-tailed deer, and other species that cover large distances and rely on wildlife corridors. Building new wildlife crossings to minimize panther deaths on the roads is very costly. If Dr. Korn can figure out which bridges are already important corridors for panthers, FDOT can retrofit these bridges to assist their movements. Her work involves partnerships with private landowners and non-governmental organizations.

Florida Defenders of Wildlife, sponsor of her presentations, believes that the more that Floridians learn about this rare and elusive animal, the greater their curiosity and commitment to its survival will be. Visit the [Path of the Panther Facebook page](#) to learn more. Join us October 18th at 7:00 p.m. for a great program. Location below.

Rick Baird, Programs Chair

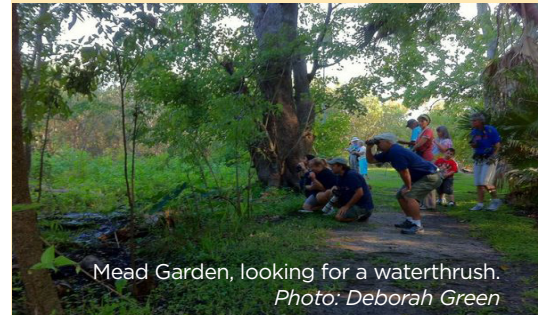
Fall Bird Walks:

October 6, 13, 20, & 27, 2018, Mead Botanical Garden

To celebrate fall migration, Orange Audubon Society (OAS) will host bird walks at Mead Botanical Garden on Saturdays, October 6, 13, 20 & 27, 2018.

The October 20th walk will replace the monthly field trip. The walks are free and open to the public with no registration needed. Each walk will be led by an experienced birding leader.

Walks start at 8:00 a.m. and will last 2 to 3 hours. The pace is slow with lots of stopping to look at birds.



Mead Garden, looking for a waterthrush. Photo: Deborah Green

Loaner binoculars will be available. If you need to borrow a pair, please arrive early to sign them out and to be shown how to use them for the most enjoyable experience.

We will meet in the parking lot at Mead Botanical Garden, 1500 S. Denning Drive, Winter Park. For information, contact me at (407) 647-5834 or lmartin5@msn.com.

Florida Native Plant month event October 2, 2018

The Tarflower Chapter, Florida Native Plant Society (FNPS) is celebrating October Florida Native Plant month and [hosting native plant cultivation author Rufino Osario](#). To learn more about creating wildlife habitat through native plantings, don't miss this free presentation, October 2nd, 6:45 p.m. at Leu Gardens.

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/





Election Critical for the Environment

National Audubon Society urges us all to “Vote for the Birds,” because birds can’t vote. We need to elect officials who will actually work to protect the environment.

Registration Deadlines and Other Voting Information: Florida’s General Election is November 6th, and the deadline to register is Tuesday, October 9th. Do you have any family members or friends that you can encourage to register? The League of Women Voters and other groups register voters at various locations. One can register online at RegistertoVoteFlorida.gov up until October 9th, or send in a voter registration application by mail if post-marked by October 9th.

Do you have any registered family members or friends that you can encourage to vote this election? The three options are: 1. Vote-by-mail (used to be called absentee ballot — check the Supervisor of Elections website for details and deadlines); 2. Vote during Early Voting; or 3. Vote at the polls on November 6th. Orange County Early Voting dates are Monday, October 22nd to Sunday, November 4th (9 a.m. – 7 p.m. each day), [mostly at the public libraries.](#)

A recent example of why voting matters: Audubon Florida and your local chapter worked hard to secure passage of 2014’s Amendment 1 that required state officials to set aside 33 percent of the money from real estate “documentary stamp” taxes to reboot state purchases of environmentally sensitive areas over a 20-year period. But within a few months, it was clear that the legislature did not intend to follow the will of the voters. Advocates — including the Florida Wildlife Federation and Sierra Club — sued, citing that lawmakers wrongly appropriated money for, among other things, “salaries and ordinary expenses of state agencies” that were tasked with executing the amendment’s mandate rather than renewing purchase of conservation lands already on the approved Florida Forever list. When in mid June a Tallahassee judge ruled in favor of the environmentalists’ suit, the legislature quickly appealed the ruling. If we all research the candidates and vote, maybe the new legislators we elect will respect the will of the public.

Constitutional Amendments on the ballot: Voting this November will be slowed by 12 constitutional amendments on the ballot. Florida’s Constitution Revision Commission (CRC), which convenes every 20 years, put forward 8 of the amendments; legislators put forward 3; and citizen initiatives put forward 2. The League of Women Voters (LWV) challenged 3 of those put forward by the CRC based on their being confusingly misleading; the challenge resulted in the removal of Amendment 8, dealing with school choice, from the ballot. The CRC is allowed by law to bundle more than one issue into each question, in a practice known as “logrolling.” For example, the CRC’s proposed Amendment 9 asks voters to decide to ban offshore oil drilling and e-cigarettes at workplaces, with the two unrelated items in the same amendment. Each of us needs to learn about the constitutional amendments through a little Internet research and mark our ballots before going to vote. This is a critical election for the environment and, as National Audubon says, for the birds.

Deborah Green, Orange Audubon Society President

North Florida Birding, Buffalo Hunt & North American Wolf Encounters, December 6-9, 2018

Once again Orange Audubon Society (OAS) has organized a trip to the Florida Panhandle. This year’s pilgrimage includes a private, hands-on tour at Seacrest Wolf Preserve and birding at Tall Timbers Research Station (TTRS) and Greenwood Plantation in the Red Hills Region, St. Marks National Wildlife Refuge and Paynes Prairie Preserve State Park.

Costs are: Weekend, \$100 members or students/\$115 non-members (M-4/1); Birding only, \$65/\$80 (M-3/1); Seacrest private tour only, \$45/\$55 (M-1/0), which includes local expert guides, field trip fees and some meals (M-lunches/grill night). For registration, lodging and other details contact Teresa: mwilliams@cfl.rr.com or (407) 644-0796



The purpose and dedication of Orange Audubon Society (OAS) is to promote public understanding of, and an interest in, wildlife and the environment that supports it.

OAS’ education programs 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 and the services that they provide for the health of the planet.

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The OASis (Orange Audubon Society information source) newsletter is published monthly from September through June. The newsletter is posted on the OAS website, and the link is e-mailed to OAS members.

To add your email address to our distribution list or report a change in email address, contact newsletter@orangeaudubonfl.org.

For other membership information, contact: Mike Daley
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**Beginners' Bird Watching Class
October 6, 13, & 20, 2018**

Orange Audubon Society offers a Beginners' Bird Watching Class, taught by Bob Sanders this fall. An "outdoor" classroom session and mini-field trip are both on October 6th at Orlando Wetlands Park (OWP) and 2 field sessions are on October 13th and 20th at OWP and Lake Jesup, respectively.

All sessions are 8:30 a.m.-12:30 p.m. If you miss a fall session, you may make-up the class in spring 2019. The class is limited to 20 students and registration is required.

Total cost for all three sessions is \$30 for Audubon members, \$45 for non-members and \$10 for children through age 12 with a registered adult. Non-members wishing to join will be given instructions upon registration. Contact Teresa at (407) 644-0796 or mwilliams@cfl.rr.com. For questions about the class, contact Bob at (407) 459-5617.

**Backyard Biodiversity Day
Mead Botanical Garden
October 20, 2018**



For the 5th year, Orange Audubon Society (OAS) is teaming up with the Florida Native Plant Society and Mead Botanical Garden, Inc. to sponsor Backyard Biodiversity Day. This year's event will be Saturday, October 20th from 9:00 a.m.-4:00 p.m. at Mead Botanical Garden in Winter Park.

Come early to buy the best selection of native plants to attract birds, butterflies and other pollinators to your landscape. Walks, talks, vendors, music, and food trucks add to the fun. If you would like to help at the OAS table at the event, contact riglingk@aol.com or (407) 488-9559.

**Wekiwa Bird Survey
October 6, 2018**

Orange Audubon Society is repeating bird surveys done at Wekiwa Springs State Park in the 1990s. The park has been a leader statewide for its prescribed burn program, and anecdotal evidence indicates that birds dependent on well-burned pine habitats, like Brown-headed Nuthatch and Bachman's Sparrow, have increased in population. Most survey dates are the second Saturdays, with a few exceptions, like October 6th, which was scheduled to avoid the Festival of Flight and Flowers (below).

You do not have to be an expert birder to join, but willingness to walk in sandy and possibly wet areas is required. If interested, contact Kathy at riglingk@aol.com or (407) 488-9559.

**Festival of Flight & Flowers
October 12-14, 2018**



Oklawaha Valley Audubon Society (OVAS) is Orange Audubon Society's (OAS) sister chapter in Lake County with whom OAS collaborates on issues affecting Lake Apopka and the Wekiwa River Basin. OVAS is hosting the three-day Festival of Flight and Flowers on October 12-14, 2018. The festival features guided field trips each day—advanced registration is [required through this link](#).

On Saturday, October 13th, from 10 a.m.-3 p.m., enjoy a free festival in downtown Eustis with food vendors, entertainment, speakers, kid-friendly activities, plus artists, photographers and crafters displaying and offering their works for sale. If you would like to help at the OAS table at the event, contact riglingk@aol.com or (407) 488-9559.



The [Florida Birding & Nature Festival](#) is October 12-14, 2018 at Hillsborough Community College in Brandon, co-sponsored by Tampa Bay Audubon.

**EagleWatch Training
October 7, 2018**

Is there an eagle nest near your home or office, or would you just like to get involved in a great citizen science effort? The Audubon EagleWatch Program will be hosting several trainings around the state. The nearest training will be Sunday October 7th from 2:00-4:00 p.m. in the Discovery Center, Central Florida Zoo, 3755 Hwy 17-92, Sanford, FL 32771. To register, visit [this link](#). Contact Shawnlei Breeding, EagleWatch Coordinator, at (407) 644-0190 or eaglewatch@audubon.org for more information.

**Limited Edition Field Trip
to Three Lakes Wildlife
Management Area
October 14, 2018**

On Sunday, October 14th, popular birding guide Bob Sanders will lead a Limited Edition Field Trip to Three Lakes Wildlife Management Area in Osceola County. Three Lakes and nearby Joe Overstreet Road host very interesting birds, including Red-Cockaded Woodpecker, Bachman's Sparrow, Brown-headed Nuthatch, Short-tailed Hawk, Snail Kite, Crested Caracara, Burrowing Owl, Sandhill and Whooping Cranes, and lots of Bald Eagles. Participants should plan on a long day. Definitely pack a lunch! Limited Edition Field Trips are limited to 15 people. Cost is \$10 per person per trip for members and \$15 per person for non-members. Reservations (required) will be taken on a first-come, first-served basis the week prior to the trip. Contact Bob at (407) 459-5617.

**Creatures of the Night,
Orlando Wetlands Park,
October 27, 2018**

Take a trailer tour at Orlando Wetlands Park to see creatures of the night on October 27th. The 1 1/2 hour tours start at 5:30, 6:00, 6:30, and 7:00 p.m. Children over 4 are welcome but must be accompanied by an adult. Cost is \$6 per person. Reservations are through [this link](#). Orlando Wetlands Park is at 25155 Wheeler Road, Christmas, FL 32709. If you have questions, email orlandowetlandspark@cityoforlando.net or call (407) 568-1706.

A warbler for all seasons

Fall means warblers!

When a striking Yellow-throated Warbler flew into a large cabbage palm in my backyard in September, I was certain migration had begun. The bird lingered, probing for insects—much like a Brown Creeper or a Downy Woodpecker. And it was hopping about like a Black-and-white Warbler.

I was excited and wondered if this was the identical bird that visited my feeder over several months last winter to eat the suet. Upon researching it I was surprised to find this particular species is one of only a few warblers that spend the entire winter in the U.S. And they occasionally are seen year-round in Central Florida.

These warblers look for food in the tops of trees and “prefer pines in some areas, sycamores in others,” according to *The Sibley Field Guide to Birds*. But they winter in palms.



Yellow-throated Warbler in palm tree, Oct. 2014, Mead Botanical Garden. Photo: Frank Salmon

Many warbler species migrate in the fall as they fly from Canada to warmer climates of South America for food; Yellow-throated Warblers, however, are homebodies. Because they are often found in the tops of tree canopies, these birds may require an adjustment to your technique in order to identify them: craning your neck for example.

Look for the brilliant yellow throat, bright white belly and slightly notched white tail, distinctive black cheek adjacent to a white neck patch, white eyebrow, and white wing bars. During migration and winter they sometimes forage lower to the ground, which may give you an opportunity for a closer look.

In the late nineteenth and early twentieth centuries, Yellow-throated

Warblers disappeared from the northern part of their range, but since 1940 they have been expanding northward. Isolated breeding populations have been found as far north as New York, Michigan, and southeastern Ontario, Canada.

Experts say these warblers rarely visit bird feeders, so perhaps my experience last winter was an isolated one. But you can provide habitat for them by landscaping with native trees and shrubs. Creating a bird-friendly backyard can provide excellent stopover habitat for all warblers as they migrate to and from their breeding grounds.

If you can't attract them to your backyard, or you are impatient to see this beautiful species, visit Mead Botanical Gardens in October or April. You are certain to see this colorful warbler—and many others—during our Saturday Orange Audubon bird walks guided by experienced birders accompanied by enthusiastic bird lovers. Hope to see you there!

Linda Carpenter

It's Fiesta Time!! — Volunteers Needed

November 3 and 4, 2018 will be the Lake Eola Fiesta in the Park Arts and Crafts Festival, which is Orange Audubon Society's (OAS) biggest public outreach event. We really do need your help.

Set-up is on Friday evening November 2nd, starting around 5:00 p.m. Friday preparations will consist of helping to set up the tent, tables, etc. Saturday and Sunday (8:00–6:00 each day) mainly consists of setting up and taking down of merchandise and, the fun part—helping to sell merchandise and talking to people about OAS.

We hope volunteers can commit 3–4 hours, but if you only have two hours to volunteer, please do so. We need 3 or 4 people each day just for sales activities.

Please mark you calendar and commit to helping OAS meet its financial goals and reach out to new members. To volunteer or ask questions, please contact me at mwilliams@cfl.rr.com or 407-644-0796. Thank you!

Teresa Williams

In case you missed it ...

Chasing Warblers by Frank Salmon

Orange Audubon Society's (OAS) September speaker was Central Florida birder and outstanding photographer Frank Salmon, who has mastered how to use technology to assist him when birding. Frank mainly uses the mobile app eBird to locate birds in other states and even other countries.



Collared Redstart, Costa Rica. Photo: Frank Salmon

Frank really enjoys contributing to eBird by reporting his sightings because it not only helps other birders, but also helps Cornell's Ornithology Lab by providing bird distribution data for them.

Frank also enjoys sharing his photos on [FLICKR](https://www.flickr.com/photos/frank_salmon/). He has traveled to many countries to find “lifers,” such as the time he went to the Bahamas and saw the Olive-capped Warbler at Abaco National Park.

When he went on a trip to Costa Rica he used eBird to help him find 262 bird species, 8 of them warblers. His research led him to book a cabin in the highlands around San Gerardo de Dota, where he got a lifer, the adorable Collared Redstart, right outside of his hotel window.

It was Frank's fall and spring Mead Botanical Garden field trips with Orange Audubon Society that led him to develop his passion for warblers.

Join OAS at one of the fall migration walks at Mead (p.1) and, chances are, Frank will be there too taking more beautiful warbler photos.

Melissa Gonzalez, Education Chair

District Land Managers' Reports, September 2018

The St. Johns River Water Management District (District) owns or manages approximately 735,500 acres of land for water management, water supply, and the conservation and protection of water resources. Most are wetlands or historically wet areas, but some uplands provide critical buffers between wetlands and rapidly encroaching development.

The District's Central Recreation Public Meeting in September allows District land managers to share progress with other agencies and the public. Here is my summary of what was presented this September for the two Regions nearest Orlando:

Graham Williams, Land Manager, South Central Region, reported on his region of approximately 81,000 acres, including Seminole Ranch Conservation Area, Hal Scott Regional Preserve and Park, and others. Flooding from Hurricane Irma was significant last fall and extended into the new year, followed by a spring drought. But starting in mid-May, approximately 41 inches of rain fell in a 2-month period, and flood conditions returned.

In the past year, staff carried out 5 prescribed burns, covering 2,266 acres. Although experience has proved that prescribed burns reduce the chance of harmful wildfires, 158 additional acres were burned by wildfires.



Aerial burn on Seminole Ranch. Photo courtesy Graham Williams

Staff did roller-chopping as a management tool to mimic burning at Seminole Ranch and Canaveral Marsh, plus mulch mowing at Hal Scott to reduce the height and density of palmetto and to improve habitat for Red-cockaded Woodpeckers (RCWs). Longleaf pine seedlings planted years earlier were unharmed by the mulch mowing.

The RCW is an endangered species that has one of its last regional strongholds at Hal Scott. This woodpecker requires many acres of mature longleaf pine habitat, but longleaf ecosystems have been dramatically reduced from almost 90 million acres two hundred years ago to less than three million today.

Although in the past, RCWs have been reintroduced to Hal Scott, this past year there were no new RCWs brought in. Staff did help St. Sebastian Preserve in relocation of several families. The technique is to



Above, Red-cockaded Woodpecker, Hal Scott Regional Preserve and Park. Photo: Mary Keim.

relocate the woodpeckers into the prepared tree at night. There are now 10 breeding groups at Hal Scott, with 13 active clusters (a cluster is made up of a single-family group). This season Hal Scott was home to 32 adult birds and 15 fledglings, which is a promising ratio.

Regarding where the relocated birds come from (for example, the Apalachicola National Forest and Ocala National Forest both have good populations), Graham explained that it varies each year. There are annual RCW meetings of all the stakeholders and those with RCW populations strong enough to donate birds for relocation do so.

Graham also reported on the Lake Jesup Conservation Area, where sand cordgrass dominates the floodplain marshes with areas of coastal plain willow, wax myrtle and other shrub species. Hydrologic alterations, exclusion of fire, and excessive nutrients have impacted the Lake Jesup marshes and, as a result, portions of the herbaceous floodplain marsh are heavily encroached upon by shrubs. Additionally, in some areas the native common reed (*Phragmites* sp.) has become dominant, displacing sand



Common Reed (*Phragmites* spp.) on Lake Jesup, 2013. Photo: Deborah Green

cordgrass and limiting the efficacy of fire in those areas. *Phragmites* has been treated aerially in the Sweetwater Creek area near the Black Hammock and on the East and North shores. The Seminole Education, Restoration & Volunteer (SERV) Program volunteers have then planted marsh grasses.

In Salt Creek, staff has created ditch blocks to restore meanders in the previously canalized creek. Other efforts to protect and restore district lands have involved designating areas for airboat crossings at Seminole Ranch and controlling illegal palmetto berry harvesting.

Graham reported that there are cattle leases around Lake Jesup because the cattle graze on seedling trees and in this way keep the marsh herbaceous. Deer hunting will be done by Operation Outdoor Freedom, a Wounded Warriors project, on Seminole Ranch Conservation Area.

Graham also reported that the Everglades Foundation's George Barley Water Prize for reducing phosphorus in water bodies will be tested on Lake Jesup. The Everglades Foundation and its board of directors conceived the \$10-million George Barley Water Prize seven years ago in order to incentivize the private sector to develop more cost-effective technologies to remove phosphorus pollution from waterbodies.

The Florida Department of Environmental Protection and the District will provide \$1 million in funding, as well as the Lake Jesup host site and technical expertise to support the competition. The final four teams in the multi-year competition will travel to Lake Jesup from across the globe to see which company's or institution's technologies can tackle phosphorus in the most cost-effective and scalable way. This is an exciting project that can help lake pollution around the world.

Continued next page

District Land Managers' Reports, September 2018, cont.

Maria Zondervan, Land Manager for Lake Apopka, spoke about management efforts in the past year in the Southwest Region, which includes the Lake Apopka North Shore (LANS) and Lake Harris Conservation Area. Staff carried out six prescribed burns in the area, covering 3,656 acres.

The District has an agreement with USDA to remove hogs from LANS four times a year, but hog damage is still evident. The USDA is used on the Apopka property due to legacy pesticide issues. There continues to be some illegal poaching of hogs. Alligator hunting is not permitted in Lake Apopka



Breach in farm levee south of the Lake Apopka North Shore historic pumphouse. Photo: Deborah Green

nor in Lake Beauclair, but there are problems with illegal take of alligators from the Apopka-Beauclair Canal.

A lot of staff and contractor effort went into repairing the Lake Apopka Wildlife Drive and Lake Apopka Loop Trail after damage from Hurricane Irma. The original farm levees were just built of muck, and they had breached during severe storms back in farm days also. The farmers had filled the breaches with whatever material they had, even old school buses!

The District's repairs after this worst hurricane in decades included building the levee up two feet and armoring it with rock.

Other efforts included control of invasive exotic plants, with emphasis on hydrilla, castor bean, and Johnson grass. Herbicide treatments covered 3,826 acres. New plantings of site-appropriate native plants included cordgrass and sawgrass, mixed wetlands, bald cypresses and Dahoon hollies.

A Citizen Science effort is having visitors report sightings of the Limpkin, a snail-eating wading bird. Limpkins appear

to be utilizing the exotic apple snails present on the North Shore.

Rosi Mulholland, also with Lake Apopka, reported on restoration efforts in the 400 acres of uplands on the northwest side of the Lake Apopka North Shore. This area is part of the Lake Wales Ridge; it has Candler yellow soil. Castle Hill is an area in Clermont that has many rare sandhill and scrub species, and which was long slated for state conservation land acquisition but was never acquired through the Florida Forever program.

The Florida Native Plant Society is doing plant rescues in the area, and the North Shore is one of the recipient sites. Now 120 plant species have been transplanted — including 23 Florida endemics and 9 endangered species. Natal grass continues to be a problem in the plantings, along with the native, but weedy, dog fennel.

Those of us who enjoy the District's conservation lands, wherever they are open for recreational use, appreciate how much work it takes to manage these lands. *Deborah Green*

Plant Kiosks Installed

It has been two years since the second round of interpretive kiosks developed by Orange Audubon Society (OAS) were installed on the Lake Apopka Wildlife Drive (LAWD) and Loop Trail. This September three new kiosk designs — on the topic of plants — were installed.

With each of the 3 rounds of kiosks, OAS has secured a Collaborative Grant from National Audubon Society and Audubon Florida. For the new kiosks, grants were also secured from the Florida Wildflower Foundation and Florida Native Plant Society Tarflower Chapter. Each time construction and installation of the kiosks has been by Magnolia Park staff, led by Site Supervisor Fred Wilson.

OAS thanks these and the following contributors: OAS member and LAWD fan Joyce Stefancic suggested the topic of plants. Plant experts Catherine Bowman, Lorne Malo, and Mary Keim checked our plant identifications and choice of plants to include based on those most likely seen at LAWD. As we did for the Raptor and Waterfowl kiosks, we were

able to secure use of wonderful photos from photographers who frequent LAWD and post their photos in the Lake Apopka Wildlife Drive Facebook Group, managed by photographer Phoebe Gonsalves.

For the second and the latest rounds, the graphic designer who wove it all together is Edward Feldman, profiled as a Chertok contest judge in the September *OASis*. Maria Zondervan and Rosi Mullholland of the St. Johns River Water Management District supported the project and found the great locations for the kiosks.

You may have seen the “Common Wildlife of Lake Apopka” kiosk halfway to the pumphouse, where you can pick up an OAS brochure and LAWD bird checklist. The “Raptors of the Lake Apopka North Shore” sign is on LAWD at Laughlin Road. The “Waterfowl of the Lake Apopka North Shore” sign is on the Loop Trail in the Clay Island area and at Magnolia Park near the boat ramp.

The new kiosk on “Wetland Plants of

the Lake Apopka North Shore” is at the pullout on the Loop Trail, in the short section where driving is allowed, past the pumphouse. The “Aquatic Plants of the Lake Apopka North Shore” is on the Loop Trail at the Picnic Pavilion (accessible by bicycle) and the same one is in the boat ramp area of Magnolia Park. The “Upland Plants of the Lake Apopka North Shore” is where Interceptor joins Lake Level.

OAS is most appreciative of the photographers whose work was used this year. For Uplands, thanks go to Sonia Durrance, Phoebe Gonsalves, Suzi Harr Hanson, Jennifer Hew, Liz Kearley, Mary Keim, Susan Kirby, Kathy Rigling, and Michelle Dill Wilson.

For the Wetlands kiosk, thanks go to Lynn Marie Folts, Phoebe Gonsalves, Leigh Kalfakis, Mary Keim, Susan Kirby, Kathy Rigling, and Michelle Dill Wilson.

For the Aquatics kiosk, thanks go to Steve Coleman, Lynn Marie Folts, Mary Keim, Susan Kirby, Jan Pewsey, Kathy Rigling, and Michelle Dill Wilson. Kiosks photos appear on p. 7.



Three plant kiosks installed on the Lake Apopka North Shore in September 2018. Top, Upland Plants; Middle, Wetland Plants; Bottom, Aquatic Plants. Photos: Deborah Green

Watching Hawks

The Florida Keys Hawkwatch, in the Middle Florida Keys at Curry Hammock State Park, is Florida's only consistently operating hawkwatch over the past twenty years. If you have time and are considering a trip to South Florida, this hawkwatch will be active through the end of October. You can learn a lot by visiting and helping for awhile.

Because each group of raptors flies differently and has a distinctive shape, hawkwatchers learn to distinguish them in flight.

The Hawk Migration Association of North America lists over 1,000 hawk migration sites, and most have websites where you can view count totals, weather conditions, site history, and directions to the site.

Most hawkwatches are concentrated in the northeast in locations where hawks are known to pass through in large numbers. Negative 'barriers', such as large bodies of water that hawks are reluctant to cross, make for good hawk watching, including at Cape May Point in New Jersey. Mountain ridges offers updrafts, providing lift for a more energy-efficient journey.

People have been counting migrating raptors since 1934, when the first official count site was established at Hawk Mountain Sanctuary in Pennsylvania. Rachel Carson's research toward her monumental book *Silent Spring* was, in part, stimulated by Hawk Mountain's data by the 1970s on the decline in juvenile Bald Eagles migrating past. Carson was able to link this decline to DDT and other organochlorine pesticides consumed by this top predator; this led to laws banning these insecticides. Unfortunately, other insecticides used today are sprayed over big farms throughout the midwest, and American Kestrel numbers are down at all the hawkwatches because kestrels eat dragonflies, which are killed by the insecticides.

The Florida Keys Hawkwatch is important for three reasons: 1. It is situated where there are few avian monitoring sites; 2. The Florida Peninsula funnels birds that are generally reluctant to cross large bodies of water. Thus, some of the most concentrated flights of southbound migrants in the world traverse the Florida Keys; 3. It is the last place along the Atlantic Flyway where birds may be seen leaving the U.S. Once in the Caribbean, flocks disband and well-defined flyway boundaries become unclear, thus most avian monitoring efforts cease. Peregrine Falcons (the fastest birds on the planet) as well as Northern Harriers, Broad-winged Hawks, Short-tailed Hawks, Merlins, American Kestrels, Ospreys, Bald Eagles, and others are seen.

Strong-flying falcons, such as Peregrine Falcons, follow the coast, as the most direct route. In 2015, the best year so far, 4,559 Peregrines were recorded. Buteos, such as Red-tailed Hawks and Broad-winged Hawks, use thermals to assist their migration and tend to hesitate before crossing water bodies, over which thermals don't form. Broad-winged Hawks, which are incredibly abundant across the northeastern U.S. and Canada, generally follow the spine of the Appalachians and then veer west to cross through Mexico and Central America, rather than going down the Florida peninsula and across the Caribbean. According to Chris Payne of Pennsylvania, employed as one of the hawkwatchers this year, the Broad-winged Hawks they see are mostly juveniles and, after reaching the end of the peninsula, many turn around and fly back north to find the land route through Mexico. 2012 was the best year for Broad-winged Hawks, with 1,398 seen in a single day. About 4,000 is average for this species per year at this hawkwatch.

Orange Audubon Society's own Bob Sanders years ago volunteered at Chimney Rock Hawkwatch in New Jersey and is skilled at raptor identification. Bob will be leading Birds of Prey Identification field trips on the Lake Apopka Wildlife Drive on December 2nd, January 6th and February 3rd (details in next month's OASis). We can all enjoy learning to recognize raptors in the field! *Deborah Green*



Sharp-shinned Hawk. Photo: Mary Keim. Florida Keys Hawkwatcher from lookout. Photo: Deborah Green



Audubon Adventures

Audubon Adventures is an excellent nature education resource for grades 3-6, after-school programs, and other groups; it comes packaged as a Classroom Kit (serving 32 students with teacher materials, four times a year). Developed by environmental educators and National Audubon Society staff, contents include hands-on activities and scientifically accurate information about birds, other wildlife, and their habitats. Teachers report that students look forward to using the fun activities, which are correlated to the Sunshine State Standards.

Last year Orange Audubon Society (OAS) supplied kits to 25 classrooms, at just under \$50 with shipping for a kit. Can you help OAS do so again this year? As the financial support that we hope you will send in response to OAS' Letter Appeal, you can indicate you would like to sponsor one or more classrooms with *Audubon Adventures*. The teacher of your own child or grandchild might appreciate these materials and you can specify which classroom you wish to sponsor. Thank you for supporting this education effort. Contact me at education@orangeaudubonfl.org for more information. *Melissa Gonzalez*

Youth Field Trip

The first Youth Field Trip of the season will be on November 10, 2018 at Mead Botanical Garden. Note that this is a week later than the date listed in the Orange Audubon Society brochure. We will start the walk at 9:00 a.m. in the parking lot.



Cost is free and loaner binoculars are available. No reservations are required. If you have any questions, contact me at gonzalezm94@outlook.com or (239) 404-9248.

Melissa Gonzalez, Education Chair

North Shore Birding Festival Now Registering

To learn about Orange Audubon Society's (OAS) own birding festival on the Lake Apopka North Shore, visit [the website](#) and [Facebook page](#). Registration opened October 1st. The website contains the link to register. Registration donations go toward OAS's nature and environmental education center fund. *Deborah Green*

OCTOBER/NOVEMBER CALENDAR OF EVENTS

Beginners' Bird Watching Class:

Orlando Wetlands Park and Lake Jesup

October 6, 13, & 20, 2018

Contact Teresa at (407) 644-0796

Mead Botanical Garden Bird Walks, Winter Park

Oct 6, 13, 20, & 27, 2018

Contact Larry at (407) 647-5834

Festival of Flight and Flowers, Eustis

October 12-14, 2018

Contact Kathy at (407) 488-9559

Limited Edition Field Trip to Three Lakes Wildlife Management Area, Kenansville

October 14, 2018

Contact Bob at (407) 459-5617

October Program: Coexisting with Florida Panthers - Jennifer Korn

October 18, 2018

Contact Rick at (407) 277-3357

Audubon Assembly, West Palm Beach

October 19-20, 2018

Contact Deborah at (407) 637-2525

Backyard Biodiversity Day, Mead Botanical Garden

October 20, 2018

Contact Kathy at (407) 488-9559

Fiesta in the Park, Lake Eola

November 3-4, 2018

Contact Teresa at (407) 644-0796

November Wekiwa Springs State Park Bird Survey

November 10, 2018

Contact Kathy at (407) 488-9559

Youth Field Trip to Mead Botanical Garden

November 10, 2018

Contact Melissa at (239) 404-9248

Limited Edition Field Trip to Lake Apopka North Shore, Clay Island

November 10, 2018

Contact Bob at (407) 459-5617

Green Place Nature & Photography Hike to Lake Lucie Conservation Area, Apopka

November 10, 2018

Contact Beth at (407) 836-1481

November Program: Nature Photography Tips - Wayne Bennett

November 15, 2018

Contact Rick at (407) 277-3357

November Field Trip: Lighthouse Point Park

November 17, 2018

Contact Larry at (407) 647-5834