



The Yellowthroat

Voice of the

Oconee Rivers Audubon Society

May 2018

Vol. 29, No. 5

Next Meeting:

**Thursday, May 3, 7:00 p.m.
Sandy Creek Nature Center**

For the 7:00 p.m. presentation:

Is the North Atlantic Right Whale a Canary in the Mine?

Hans Neuhauser, retired Executive Director of the Georgia Land Conservation Center, will discuss the North Atlantic Right Whale--the most endangered large whale in the world. There are only an estimated 451 individuals remaining. When the whale's only known calving ground was discovered off the coast of Georgia in 1982, a recovery effort was undertaken in the U.S. and Canada to help bring them back from the brink of extinction. Combined efforts of scientists, fishermen, the shipping industry, conservationists, U.S. and Canadian government agencies helped to increase the numbers from about 300 animals in 1990 to the present 451. But recovery is not assured. While no longer hunted for their oil and baleen plates, right whales continue to be hit by ships and become entangled in fishing gear. Last year, 16 right whales died, 4 in U.S. waters and 12 in Canadian waters. Reproduction rates have fallen; only 5 calves were born in 2017. So far this year, no calves have been sighted in southeastern waters. His talk will explore these concerns.

Meetings are held...the first Thursday of the month at 7:00 p.m. To get to the Nature Center, take Highway 441, exit # 12, off the north side of the perimeter, go north on 441 approximately one mile, and turn left at the Sandy Creek Nature Center sign displaying this logo:



Go left at the end of this short road. Bear right on the road to the parking lot and the Education and Visitor Center.

Spring Bird Walks – Think Spring!

Bird walks are from **8 a.m.-11a.m. or noon**. However, attendees may leave early. Please dress for the weather, wear practical shoes, hats and bring insect repellent, snacks and water as desired. (Please check ORAS announcements and website for any last minute changes to this schedule.)

If you have other questions please contact Ed Maioriello at: fieldtrip@oconeeriversaudubon.org

- Apr. 28: **SCP-Cook's Trail (clean-up)**
- Apr. 29: **ACC Landfill**
- May 06: **Hardigree Wildlife Sanctuary**

Spring Field Trips (out of town) *

May 05 7:00 a.m. Charlie Elliott Wildlife Center

* Please check ORAS announcements for any late changes.



Photo of Great Egret by Kathy Parker, central Florida—February 13, 2011

“Star Watches” at Sandy Creek Park

by Liz Conroy

Dr. Maurice Snook, local amateur astronomer, encourages everyone to attend stargazing events whenever the night sky is clear. He helps Sandy Creek Park (SCP) host their quarterly program, “Star Watches,” and whenever special astronomical events occur.

“Several area amateur astronomers and I bring telescopes and allow the public to view the night sky. I usually give a short talk on the mythology of the constellations that are visible. Many parents bring their children to these events especially for the August Perseid Meteor Watch. They bring blankets and lay on the ground watching for meteors and enjoy the night sky,” he notes. Along with blankets, bring your binoculars, too.

Snook adds, “We have no limit to participants at our SCP Star Watches. Usually, if there is inclement weather, they will have a lecture.”

Star Watches at Sandy Creek Park scheduled for this year (with descriptions of objects that will be visible) include:

Friday, May 18 9:00-11:00 p.m. "Night of the Giant Planet" Jupiter will just be past opposition and closest to us so will appear as large and bright as it can get. Besides the four Galilean satellites, dark cloud bands straddle the ball will be visible. Venus will be blazing in the west looking like a brilliant egg (gibbous shape) in the telescope.

Sunday, Aug. 12 9:00-11:00 p.m. “Planets Galore and Perseid Meteor Watch” On parade will be (west to east) Venus, Jupiter, Saturn, and Mars just past opposition. In addition, one of the year’s best meteor showers peaks this night. Venus will be at half phase. This is the closest Mars will be to earth in many years and we may be able to see its polar cap.

(Possible watch) Friday, Sept. 14 7:30-9:30 p.m. "Good-bye to Venus" Venus is fast heading for inferior conjunction (passing between the earth and the sun) and appears tonight as a slender 30% lit crescent. The moon will also be a 30% lit crescent; the contrast between them will be striking.

Friday, Dec. 14 8:00-10:00 p.m. “Geminid Meteor Watch” Last year everyone at the Star Watch saw two or more meteors.

For more information call Sandy Creek Park: 706-613-3631

Backyard Wildlife Sanctuary Program

Become a Certified Backyard Wildlife Sanctuary Homeowner by providing habitat for birds, wildlife, and native plants in our community! For more information: <http://www.oconeeriversaudubon.org/sanctuary> Or email: oconeeriversaudubonsociety@gmail.com



Photo of Full Moon on Easter by David Lindsay, near Tallassee Road, Athens, GA —April 1, 2018



Photo of Crescent Moon at 7:07 a.m. by David Lindsay, Brasstown, NC —March 19, 2012

Eco-Haiku by Neal Priest

Briny dark water
mixing with cool, clear river
collision of worlds

Moonlight, shooting stars
brighten the wine dark sea
stillness reflected

Secretive Marsh Birds

summary of the April meeting by Liz Conroy

Thanks to Betsy Kurimo-Beechuk for her talk on “Secrets of the Marsh—a Brief Overview of the Natural History of Secretive Marsh Birds.”

She listed rails, coots, gallinules, grebes, bitterns, snipes, and limpkins as marsh birds but explained that some of these birds—especially rails—are far more secretive than others.

She also pointed out that these are just general orders (most cranes, grebes, herons are typically not secretive marsh birds):

Gruiformes: cranes, coots, gallinules, rails, sora, limpkins

Pelicaniforms: herons, bitterns

Podicipediforms: grebes

The cranes and herons and grebes are not really secretive, Kurimo-Beechuk noted. During the breeding season, however, the Pied-bill grebes do become secretive and go under water or into vegetation if disturbed or frightened.

She explained what makes a bird a secretive marsh bird. Cryptic coloration (camouflage colors) and behavior are important. Some birds are also marsh “obligates,” meaning that they require marshes in order to live.

She continued with descriptions of the general behavior of secretive marsh bird. Their foraging strategies or “how they make a living” varies. Bitterns are “ambush style hunters,” but Clapper Rails spend their time foraging during the low tide and are visual hunters. Grebes are “fishing birds” and will dive after their prey.

Common Gallinules [split from the Common Moorhens—which is *G. chloropus* and found in the Old World; the Common Gallinule is *G. galeata*] may exhibit cooperative behavior at nesting time. Parents often receive help raising their young from a cooperative older sibling. This is an unmated, unpaired family member that stays around to help the parents and learns parenting skills at the same time.

Rails generally split parenting responsibilities. For example, nest-site selection, nest construction, and brooding/rearing activities are often shared between both sexes. American Bittern females, however, typically do all the work.

Kurimo-Beechuk described the young of secretive marsh birds as mostly precocial. This means when the young birds hatch they are not naked and helpless like most passerine hatchlings. Instead, precocial chicks are covered in down, have their eyes open and can even leave the hatching nest within hours to a day. After all, many marsh birds such as Clapper Rails live with the rise and fall of tides and must be able to move quickly. Tides also help keep predators at bay.

Although having a nest by the water makes it safer from those predators which tend to prefer higher, drier land, it is still risky since water can get into the nest. Fortunately, even

if marsh bird eggs tumble into the water and get chilled, they can still hatch if the parent is able to roll the eggs back into the nest quickly and sit on them again.

Secretive marsh birds live near estuaries (Clapper Rails), brackish waters, and fresh water. Brackish environments include taller plants than salt water marshes because there’s less salt stress on the plants. Meanwhile, fresh water marshes have dense vegetation; including floating plants such as lily pads on which Purple Gallinules like to walk.

Federal, state, non-governmental organizations and various academic institutions study these birds, and there has been a push for a standardized protocol specific for marsh birds—the North American Marsh Bird Protocol. These studies are important since many marsh birds are game species and migrate. A playback or bird call method is needed because the secretive marsh birds do not advertise themselves and sing out, “Here I am – count me!” They are, however, very territorial during breeding season and more easily detected (and thus counted) when they respond to bird calls.

Studies are difficult to do, but populations of American Coots seem to be doing well and are currently of low concern. They’re habitat generalists, and this allows them flexibility.

Populations of Clapper Rails are of moderate concern. They must have salt marshes. With sea levels rising and so much ongoing development along the coast, they are potential candidates for suffering from habitat loss.

Meanwhile, of high concern are Purple Gallinule populations which are declining precipitously. They are vulnerable to pollutants and need healthy environments with lily pads and other vegetation. Their habitat is disappearing with loss of wetlands as big agricultural companies convert wetlands to farmlands. The Midwest in particular has lost much interior fresh water wetlands due to farming practices. Bitterns and King Rails in the Midwest have declined for this reason.

Contaminants in waterways can occur wherever dredging activities take place. Dredging can alter the hydrologic region and degrade marsh bird habitats in the area. Climate change will likely alter temperatures and precipitation in areas which may further degrade marsh bird habitats.

Yet it’s not just birds that need wetlands. These areas perform sediment control and soak up toxins, nutrients and other materials from water. Wetlands can serve as natural filtration and sequestration centers. Estuaries serve as nurseries for fish and other creatures.

Scientists can use birds to monitor wetland health and assess ecosystem integrity. Clapper Rails are a useful indicator species in such research since they eat benthic invertebrates (such as crabs) which live on the bottom of marshes and come into contact with sediments.

Trophic transfer of pollutants means the contaminants move up the food chain from the smaller invertebrates to the larger vertebrates such as marsh birds. These birds also are not a

nomadic species during the breeding season and have small home ranges while breeding, so this can give researchers an idea about more localized contamination.

This concept served as motivation for Kurimo-Beechuk's research project in northeastern Florida. She explained the title "HATMC in CLRA" means heavy and trace metals contained in Clapper Rails. The basic question she sought to answer, "If these birds have such contaminants, will we also find adverse health effects?"

Her research areas include City of Jacksonville's Timucuan Ecological & Historic Preserve which contains approximately 48 thousand acres of primarily estuarine wetlands. The Preserve is comprised of two watersheds: the Nassau (a rural, agricultural area) and the St. Johns—an urban area with a growing human population and an active shipping area which has been dredged.

She added that there is a history of the presence of industrial contaminants within and around the City of Jacksonville, and includes contaminants such as arsenic, chromium, lead, zinc, cadmium, copper, mercury, and nickel.

The challenge in her research was to capture the secretive Clapper Rails by using nets set up to the height of the nearby vegetation and then playing Clapper Rail songs through nearby speakers.

Blood was carefully drawn from the captured bird's right jugular vein for metal analyses, complete blood count, and biochemical panels. Fifteen Clapper Rails of two different age groups were captured (hatch year birds, and after hatch year birds). Various factors, such as age, can affect metal levels in an individual. After all, older birds typically have more exposure and their bodies can accumulate and store metals over time.

Kurimo-Beechuk also did a literature search on other species since there was only one other study on metal (mercury) in blood samples of California Clapper Rails (recently renamed Ridgway's Rail).

Various adverse effects from heavy and trace metal contaminants have been noted in avian species (depression, neurologic effects, reproductive abnormalities, death, etc.). Toxic thresholds, however, may vary by species. She noted that we may not know the effects of certain metal levels in birds because of the lack of comparable data. Due to the small sample size, variability in age, and lack of comparison data, more research is needed on Clapper Rails.



**Photo of Limpkin by Kathy Parker, central Florida
—February 13, 2011**

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The Yellowthroat
Published monthly by the
Oconee Rivers Audubon Society
PO Box 81082
Athens, GA 30608

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