



The Yellowthroat

Voice of the

Oconee Rivers Audubon Society

August/September 2014

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Next Meeting:
Thursday, September 4, 7:00 p.m.
Sandy Creek Nature Center

For the 7:00 p.m. presentation:

Monitoring and Mapping Habitats with Flying Cameras on Amazing Drones

Tommy Jordan, Director of the Center for Geospatial Research (CGR) at UGA's Dept. of Geography in the Franklin College of Arts and Sciences, will discuss the use of drones in mapping habitats.

The Center's internationally recognized work in natural and cultural resources, terrain analysis, and spatio-temporal modeling, addresses critical and contemporary issues in human and environment relationships.

CGR is currently finishing the most detailed orthophoto and LiDAR mapping ever done for the Great Smoky Mountains National Park.

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. The Education & Visitor Center building is a short way down the road on your right.

Fall Field Trips (out of town)

Oct. 04, 6:00 a.m. Cochran Shoals. Check ORAS listserv announcements for where to meet and for any changes regarding the event.

Fall Bird Walks (in town)

Bird walks - **8 a.m.-11a.m. or noon.** Attendees may leave early. Dress for the weather: sturdy shoes, hat, sunscreen. Check ORAS listserv announcements for where to meet and for any changes regarding the event.

Sept. 06 International Vulture Awareness Day *

Sept. 13 Sandy Creek Nature Center (SCNC)

Sept. 20 State Botanical Garden (Upper Parking Lot)

Sept. 27 SCNC/Cook's Trail Cleanup (Bring a trash bag for picking up litter on the way out while still birding).

Oct. 05 Whitehall Forest (intersection of S.Milledge & Whitehall Rd.) Attendees for this walk must be on time.

Meet outside the gate and caravan to Flinchum's Phoenix.

You may leave at any time as the gate opens automatically from the inside.)

Oct. 18 State Botanical Garden (Upper Parking Lot)

Oct. 25 Sandy Creek Park

* Join the ACC Solid Waste Dept., Bear Hollow Wildlife Trail, and the Oconee River Audubon Society as they celebrate "International Vulture Awareness Day" on Sat. Sept. 6 from 8:00 a.m. until 1:00 p.m. at the ACC Landfill.

Vultures are vital to healthy ecosystems and face a range of threats in many areas that they occur. This day will celebrate nature's clean-up crew, the vulture, with the following local activities: bird walks, kids' activities, recycling opportunities, tour of the landfill, and a visit from a captive vulture.

This event is a free, fun family event! For more information, please call the ACC Recycling Division at 706.613.3512 or visit their website:

www.athensclarkecounty.com/recycling

Why Birds Have Feathers *by Nancy Miorelli*

First – Feathers:

In the beginning there was the Tyrannosaurus rex and its velociraptor companions. While Jurassic Park would have you believe that velociraptors were large, scaly, ravenous predators, in actuality they were small, feathered, ravenous predators. Scientists aren't quite sure why velociraptors were feathered, and best guesses range from attracting mates to keeping warm; but scientists are certain that the velociraptor couldn't glide or fly. Feathers are made from keratin, the same as reptilian scales and your fingernails.

Getting from Here to There:

After the velociraptor, around 150 million years ago, the microraptor appeared on the scene. The bizarre fossils that emerged in China baffled the scientists. The microraptor was completely feathered, but its asymmetrical feathers, typically used for flight, were on the hind legs (see photo). It was agreed that the microraptor probably couldn't fly, but scientists were confused as to how it could glide.

One team of scientists used a crushed fossil that they shaved from the rock and covered with acrylic to be able to see both sides of the bones. From this fossil, the scientists determined that the microraptor was more closely related to an alligator and could splay all four limbs. The scientists hypothesized that the microraptor would climb up a tree, jump, spread all the limbs, and glide to the next tree. These scientists made a model and determined that a biplane configuration, with the hind wings held slightly below the forewings, would allow the microraptor to achieve lift.

The second team of scientists analyzed the bones of the microraptor from fossilized bones and scientific articles describing all the bone measurements. The scientists then paid a forensic artist to sculpt and model what the living creature would have looked like. In contrast to what the previous team had found, this model suggested that the microraptor was more closely related to dinosaurs and could not spread its legs due to the construction of the hipbones.

This model was plausible to the scientific community, but there was debate on how it could glide with the flying limbs stuck underneath the animal. The scientists hypothesized that the microraptor would grab onto a tree, jump, spread its feathered forewings out, hold its hind legs back and slowly pull its hind legs forward before grabbing onto another tree.

This would give the microraptor a dipping gliding flight pattern as opposed to a slow linear descent as described by the previous model. To test the hypothesis, the scientists took the fully feathered model into a flight tunnel used to determine the lift capabilities of airplane wings. The scientists moved the microraptor model's legs into the different positions and found that it generated enough lift to sustain prolonged gliding.

Despite the advances, the debate continues about potential gliding capabilities of the microraptor and the orientation of the hind legs.

What Happened Next:

Around 120 million years ago, the animal Archaeopteryx (old wing) arrived on the scene. It looked very much like a cross between today's birds and a dinosaur. It is undetermined whether the archaeopteryx could fly or only glide, but it is one of the most important transitional fossils between dinosaurs and modern birds.

(Link for a video: The Four Winged Dinosaur:
<https://www.youtube.com/watch?v=tOZnk4jEJLQ>)



The 100th Anniversary of the Death of the Last Passenger Pigeon*

submitted by Eugenia Thompson

September 1, 2014 will be the 100th anniversary of the death of the last Passenger Pigeon.

To join the "Fold the Flock" project and help make one million origami Passenger Pigeons, visit: foldtheflock.org.

*(source: Aug./Sept. 2014 Nature Conservancy magazine)

Message from the President *by Richard Hall*

Welcome to the start of another year of Oconee Rivers Audubon Society (ORAS) events!

We already have some exciting speakers lined up for the fall program, on topics ranging from the use of drones as conservation tools, Bald Eagles in Georgia and youth birding. Visit: <http://www.oconeeriversaudubon.org/> for the full schedule of field trips we're offering as well as other information.

We're particularly excited to announce that parts of the Athens Landfill are open to birders again. After signing in (and out) at the scale house, drive back to the parking area located near the landfill entrance (look for the cool bird sculptures and recycling art), and follow the signed walking trail to view the two ponds behind the recycling center.

To celebrate the opening of the trails and International Vulture Awareness Day, the landfill is hosting its first Vulture Festival from 8am-1pm on 6 September. This family-friendly event will feature an ORAS bird walk, activity booths with food and games, a Scavenger Hunt and a visit from a vulture ambassador.

We seek volunteers to help out at the Oconee Audubon stand and with setup and cleanup; if you can help, please email me at president@oconeeriversaudubon.org.

Finally, our outgoing president Clark Jones recently moved to Colorado to start a new job. I'd like to thank Clark for the enthusiasm, leadership and hard work he brought to the role—he will be missed!

In the interim, I will be serving as president, but I strongly encourage anyone who is interested in birds, conservation and engaging the public to consider joining our board. New board members bring new ideas, energy and creativity, and help ensure that we are serving our members and the Athens community to the best of our abilities!

Give the Gift of Audubon!

For an introductory National Audubon Society membership

(which includes *Audubon* magazine, local membership, and a subscription to *The Yellowthroat*), mail this form with a \$20.00 check payable to **NAS** to:

Oconee Rivers Audubon Society
PO Box 81082
Athens, GA 30608

Name _____
Street _____
City, State, Zip _____



Gardening for the Fireflies: An Interview with UGA Entomologist Dr. L. Paul Guillebeau

by Liz Conroy

Fireflies or lightning bugs (Family Lampyridae) are soft-bodied brownish or blackish beetles. These nocturnal insects blink their green or yellow light organs to attract mates during summer nights. (*The Audubon Society Field Guide to North American Insects and Spiders*).

Dr. Guillebeau suggests ways for gardeners to help fireflies:

1) How do gardeners attract fireflies to their gardens?
“Fireflies are predators as larvae. They eat about anything that is small enough, including insects, slugs, and snails. It is not clear what adults eat. Some are probably predators; some eat pollen/nectar; some probably do not eat as adults.

You can add a variety of flowering plants with available pollen, but building firefly populations is more about habitat modification. During their lifetime, fireflies spend a lot of time in or near the soil, and they need moisture. Low hanging shrubs, taller grass, etc. provide dark places to hide and help retain soil moisture. We had a tremendous number of fireflies this [last] year in my yard because we had a lot of rain, and we were not in town to cut the grass.

Avoid the use of chemicals on the lawn as much as possible, especially broad spectrum insecticides. It is very important to reduce the use of chemicals when adults fireflies are mating and laying eggs. When you see them flashing all around, they are mating and laying eggs.

Reduce lighting in the yard. The darker it is, the easier they can find one another.”

2) Is there any gardening reason not to attract fireflies to your garden -- is there damage done by them or are they mostly beneficial?

“I know of no reason not to attract fireflies. They help control slugs, snails, and some insects; they do not damage any plants; and they add beauty and mystery to yard at night”.

3) Which birds and spiders prey on fireflies?
“There a lot of things that eat fireflies, including one species of female that attracts and eats a male of another species. Toads, frogs, some spiders, some birds, etc. are all predators of fireflies.”

<http://www.hindawi.com/journals/psyche/2012/634027/> provides some interesting details about invertebrate predators.

Here a couple of other tidbits. If you get the timing right, you can attract a male firefly right to your hand. Flash back at them [with your flashlight] a couple of seconds after they flash, wait a few seconds and repeat the flash. This pattern does not work for all species.

Also, scientists have been able to place firefly genes into plants that will make the plants glow.

Oconee Audubon Society
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A Sad Farewell to Glyn Hatchell

by Mary Case

Glyndon (Glyn) Hatchell—a longtime ORAS member—was born in Louisiana where he began his love of nature and especially birds.

We began birding together many years ago. His house was our home base for the Christmas Bird Counts. He lived in our count area. I'd join him early on count day. After all, I had learned over the years that the Wood Cock would begin displaying between 6:45 a.m. and 7:15 a.m. rain or shine.

He was interested in collecting early American furniture and pottery and visited auction houses in north GA as well as Asheville, N.C. adding to his collection over 100 pieces of furniture at the time of his death. His first wife Dorothy (Dot) died two years ago. He retired from the U.S. Forest Service in Athens where he studied the role of mycorrhizal fungi and the establishment and growth of the long leaf pine.

Glyn Hatchell passed away on July 22, 2014. He is survived by his second wife, Elizabeth Hatchell.

Oconee Rivers Audubon Society

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Submit information to address above or e-mail *The Yellowthroat* editor Liz Conroy: yellowthroat@oconeeriversaudubon.org
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