



The Yellowthroat

Voice of the

Oconee Rivers Audubon Society

April 2016

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

For the 7:00 p.m. presentation:

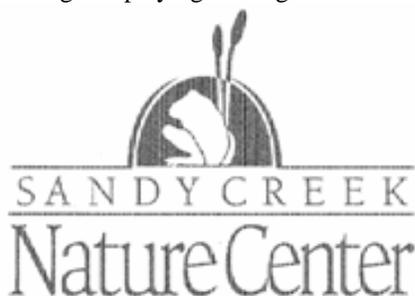
The Prescribed Burn Results at SCNC

J. Michael Wharton, Athens-Clarke County Leisure Services Department Administrator for Operations, will discuss results of a prescribed burn conducted last month for the long-term Managed Forest Project designed to improve wildlife habitat in the woodland tract at SCNC.

The project features five demonstration forest plots managed with best-practices wildlife and forestry techniques to create living outdoor exhibits that will allow visitors to “walk through time” and experience the successional stages of a 50-year-old forest in a short hike.

Wharton, a certified wildlife biologist, has worked in the recreation, natural resource, and environmental education field with Clarke County and the Athens-Clarke County Unified Government since 1980. He has served as an environmental educator, Leisure Services Natural Resources Division administrator, and since 2011 as the Leisure Services Department’s operations administrator.

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 ENSAT building is a short way down the road on your right.

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 and snacks/water as desired. Also, check ORAS announcements and website for any last minute changes to this schedule. (Note that **April 30 bird walk begins in Sandy Creek Park due to the closure of the boardwalk on Cook’s Trail**).

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

- Apr. 02: **Sandy Creek Park (SCP)**
- Apr. 09: **Lake Herrick/Oconee Forest Park**
- Apr. 10: **Sandy Creek Nature Center (SCNC)**
- Apr. 16: **Whitehall (S. Milledge & Whitehall Rd.)**
- Apr. 17: **ACC Landfill**
- Apr. 24: **State Botanical Garden (Day Chapel)**
- Apr. 30: **SCP-Cook’s Trail - clean-up**

(Attendees for the Whitehall walk need to be right on time).

Spring Field Trips (out of town) *

- Apr. 23 6:00 a.m. Kennesaw Mountain
- May 07 7:00 a.m. Charlie Elliott Wildlife Center
- May 14 7:00 a.m. Ivy Log Gap Rd/Sosebee Cove

* Please check listserv announcements for any late changes.

The Moth and the Gardener *interview by Liz Conroy with entomologist Nancy Miorelli*

1) Some people think of moths as mostly pests in the garden and around porch lights, yet they are important.

a) Why are moths important in the web of life?

Butterflies and moths are in the order Lepidoptera which are comprised of ~180,000 species. Moths alone make up ~160,000 of these species. When there are 160,000 of anything they're important in many aspects of our planet. They help keep plant populations under control as larva, pollinate flowers as adults, and are a food source for many other animals.

b) Why are moths important to those who love birds?

Lots of birds eat insects and moths make the perfect snack, especially the ones that are relatively defenseless. Even if a bird doesn't directly eat insects, usually things that birds eat—lizards, frogs, snakes—do eat insects to survive. Moths are an important stepping stone in literally feeding the food web.

c) In what ways are moths important as pollinators?

It depends on the moth! Moths in the silk worm family don't have mouths so they don't feed. Therefore, they don't make good pollinators! But most of the other moths are nectar feeders and pollinate a lot of night blooming plants.

An interesting example is that two genera of moths, *Parategeticula* and *Tegeticula*, are required for the pollination of the Yucca plant. The female moth pollinates the flower with the pollen stuck to her tongue, after depositing her eggs in the ovary. The caterpillars feed on some, but not all of the growing seeds. The flower is pollinated, and the caterpillars get room and board.

d) In what other ways are moths important?

The most obvious example is the silkworm moth, although several species are farmed for their silk.

Another less obvious example is that they vastly improved our understanding of physiology (how bugs work on the inside) in the 40's and 50's. Tobacco hornworm caterpillars and silk worm moths are really big. When our machines and techniques weren't as sensitive back in the day, using these big caterpillars made it possible to measure hormone levels and help us understand how insects develop and function.

2) I understand that we can garden for moths the way we do for butterflies.

a) What flowers, herbs, shrubs, and trees can gardeners plant to attract adult moths?

Adult moths are mostly nocturnal (there are a few exceptions). Of those that are feeding, they're not picky

about their nectar sources although usually hone in on plants that have obvious odors. Hawk moths usually search for trumpet shaped flowers. The Snowberry Clearwing Moth is a day-flying moth that's attracted to generally the same things which attract butterflies. Witchhazel is pollinated by Cuculiid moths.

b) What are some flowers, herbs, shrubs, and trees that larval moths—common in the Athens area—need?

The great thing about moths, is that most of their names suggest what the larval stages feed on. For example, the Catalpa Sphinx Moth eats the leaves of the Southern Catalpa tree. If you want to attract moths, it's best to have what they eat in your backyard. For large moths like Luna Moths and Polyphemus Moths, they have a wide variety of host plants including walnut, maple, birch, and oak trees. If there's a moth that you're particularly interested in, you should research its host plant.

3) Do moth larvae always become pests to the gardener? If so, should one plant a separate "moth garden" away from vegetable gardens or flower beds?

No, they don't! Of all the moths, only a small fraction attack plants. And some of the culprits are actually butterflies like the Cabbage White which feeds on cabbage and mustard plants. Most moths target a fairly narrow range of host plants limited to a few species or a genus. Even if you plant everything together, the moths will only target their host plants to lay their eggs on. It's best to research what sorts of pests your plants will attract before you plant them.

4) Can you put soap or some other deterrent on your special plants that you don't want moth larvae to eat?

Soap and detergents are not good to put on plants because they can leach into the soil and harm the animals and other microorganisms that are helping your plants grow. Again, it's best to know the biology of your plants and of the moths you're looking to attract; you can plant a wide diversity of plants which will prevent your moth larvae from eating the things you don't want them to eat. If you're still looking for something to spray on your plants, we use a mixture of alcohol (Ecuador's version of moonshine), cinnamon, and lemon juice in our orchid garden in Ecuador.

5) Is there any way to keep moths in the garden and not on your porch around the porch lights at night?

Not really. Moths use the moon to navigate and accidentally use your porchlight instead. You can minimize the problem by only turning on your porchlights when you need them, or replacing traditional white light bulbs with lights that are more yellow.

6) What is your favorite moth in Georgia?

My favorite moth in Georgia is the Rosy Maple Moth. It is bright yellow and pink, and I think it's adorable. It feeds on various maple trees if you're looking to attract it.



Photo of Rosy Maple Moth by Nancy Miorelli, Athens, Georgia—August 2015

7) What is your favorite moth where you are living in Ecuador?

My favorite moth here is a silkworm moth (*Rhescyntis hippodamia*) that doesn't have a common name. It's about the size of a dinner plate and has what looks like cartoon snake heads on its wings.



Photo of *Rhescyntis hippodamia* by Nancy Miorelli, Maquipucuna Reserve, Ecuador, December 2015

Sightings Reported at March Meeting

Purple Finch, Jefferson, Georgia, Cynthia Boswell, 2/21/16

Sora, Ruby-crowned Kinglet (male), Savannah National Wildlife Refuge, Mike & Liz Conroy, 2/28/16

American Wigeon, (2 male, 1 female), Crawford, Georgia, Leila Dasher, 3/1/16

Northern Harrier, Astondale Rd., Watkinsville, Georgia, Carole Ludwig, 2/29/16

Downy and Red-bellied Woodpeckers, Ella Conway



Photo of Ash-throated Flycatcher by Richard Meltzer, State Botanical Garden of Georgia—Oct. 30, 2013

New Sighting Reported: Ash-throated Flycatcher at State Botanical Garden

by Richard Meltzer

I wanted to let the Oconee River Audubon Society know of a new bird sighting for Clarke County of an Ash-throated Flycatcher that I had submitted to eBird has recently been accepted by the GBRC (Georgia's Birds Records Committee).

I believe that it has been observed a few times previously in Georgia, but this is the first sighting in Clarke County. I had made the observation at the State Botanical Garden of Georgia on October 30, 2013 but waited until 2014 to submit the observation until I had talked with a number of birders, some of them in ORAS, who encouraged me to submit the observation. . . . The bird was seen in the pine trees lining the large open field under the power line.

The Flap of a Butterfly's Wing *summary of March meeting by Liz Conroy*

Thanks to Jim Porter for his talk on "The Flap of a Butterfly's Wing" on March 3. Porter, a UGA professor in Ecology, discussed some local patterns, threats, and new discoveries in the biodiversity of butterflies, as well as conservation challenges for the future of these beautiful insects. His talk focused on butterflies in Georgia and especially on butterflies found within the Tallahassee Tract owned by Athens-Clarke County. Also, Porter brought along more than 1,000 specimens from his local butterfly and moth collection as a temporary display.

Porter showed many photos of Georgia's beautiful butterfly species, including the largest and smallest in the U.S., named the Giant Swallowtail and the Pygmy Blue, respectively.

Surviving for 12 months by hibernating in an open log in the winter, Georgia is also home to the Morning Cloak, the longest lived. "No other butterfly in the world lives longer," he noted. The most common butterfly is the Cabbage White which is an invasive butterfly from Europe. The Monarch flies the farthest of any butterfly in the world; the Viceroy is best at mimicry. In addition to these firsts for Georgia, its state butterfly, the Tiger Swallowtail was the first animal named from the New World (by Linnaeus in 1758).

Porter described how Georgia is becoming more like Texas as warming trends continue due to climate change. Georgians will see increases in average temperature and decreases in average rainfall. This trend means Georgia will have more Witch Moths which normally live in Florida but now are seen here as well. In the future, Tropical Zebra butterflies will arrive in Athens, while we are likely to see fewer Dogface Sulphurs.

Of particular concern is the Georgia Satyr which used to be locally common across Georgia. The only time it has been seen in recent years in the Southeast was in South Carolina (north of Charleston) in 2008. In terms of state protection of endangered species, Porter said, "Georgia does pretty well with plants but does a miserable job with animals."

Porter discussed how the "latitudinal diversity gradient" is changing. Butterflies in the tropics have pointed wingtips which is unusual in the temperate butterflies. They also frequently have dead leaf coloration on their underside. He noted that some of these kinds of butterflies are now seen in Georgia.

The presence of 'cryptic species' is another hallmark of the tropics. Cryptic species complexes occur when three or more species are morphologically indistinguishable. This phenomenon is common in the tropics but is almost completely absent from temperate zones. Yet such a phenomenon occurs here in Athens-Clarke County with

three Pearly Eye species, including the Northern, Creole, and Southern Pearly Eye Butterfly.

All three species were collected in the Tallahassee Forest right here in Athens. All have identical habitat requirements of moist woods. They can only be distinguished by the dots on the underside of their upper wings: Northern have five dots, Creoles have four, and Southern have 4 and a half.

The antennae are also slightly different, yet consider the uselessness of any of these "distinguishing" characteristics as they fly by! All three have two broods per year in the South, and all are on the wing at the same time. Porter said, "This is a cryptic species complex, thousands of miles from where butterflies should be exhibiting this [characteristic], and it's going on right here in Athens. As far as we can determine, nowhere else in the temperate zone."

River cane (*Arundinaria* spp.) is an important host plant for all three species. Two of the three (the Creole and the Southern Pearly Eye) are "river cane obligates." Porter encouraged everyone to remove invasive privet whenever possible, maintain open canopies in cane areas, and encourage the responsible reintroduction of fire [through prescribed burns].

Finally Porter recommended that everyone support our ACC Mayor and Commission whenever they take action to protect the environment.

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