



The Yellowthroat

*Voice of the
Oconee Rivers Audubon Society*

April 2007

Vol. 17 No. 4

Next Meeting: Thursday, April 5, 7:00 p.m. Sandy Creek Nature Center

Dr. David Dallmeyer, UGA Professor of Geology, will talk about "Coastal Processes and Conservation: What Will Be Left for Future Generations?"

Topics will include

- the natural processes that help shape the Georgia coast,
- the potential impacts of global warming and sea level rise,
- the effects of attempts to "stabilize" the Georgia coast,
- how the Georgia coastal legal system works,
- current and near-future "development" pressures and their potential effects on the Georgia coast.

If you want to get a head start thinking about the coast, you can take an audio tour of Jekyll Island with Dr. Dallmeyer at the Georgia Sea Grant web site: <http://www.marsci.uga.edu/gaseagrant/Jekyll%20Island.html>. Dr. Dallmeyer has talked to ORAS several times, about global warming in 2004 and about penguins in 2001.

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 will be a short way down the road on your right.

Upcoming Spring Bird Walks

Have you heard the birds starting to sing? Time to get outdoors and join the spring bird walks, which ORAS sponsors jointly with Sandy Creek Nature Center. Whether you are an experienced birder or a beginner, come join us as we witness the miracle of the northward migration.

Call Ed Maioriello at 208-8504 for details.

- **April 7, UGA Whitehall Forest:**
Meet at gate for caravan in at 8:00 a.m.
(Don't be late!)
- **April 14, Sandy Creek Nature Center**
Meet at Allen House at 8:00 a.m.
- **April 21, Botanical Garden**
Meet in upper parking lot at 8:00 a.m.
- **May 5, Sandy Creek Nature Center**
Bird walk and Cook's Trail Cleanup
Meet at Allen House at 8:00 a.m.

Upcoming Spring Field Trips

Come to the April meeting for additional information. Or call Ed Maioriello at 208-8504 for details.

- April 28 Field trip to **Kennesaw Mountain**
- May 12 Field trip to **Georgia International Horse Park** (Conyers)
- May 19 Field trip to **Ivy Log Gap Road/Sosebee Cove**

April Raffle

Marian and Bill Van Eseltine have donated a beautifully crafted redwood bird feeder for the April raffle. Remember that one dollar buys you a chance.

Giff Beaton

Giff Beaton will speak at the May meeting on the subject of his new book, *Dragonflies and Damselflies of Georgia and the Southeast*.

Global Warming

excerpted from

<http://www.audubon.org/globalWarming/index.php>

According to the latest United Nations scientific report, leading scientists around the world agree that man-made greenhouse gases from fossil fuels are causing global warming. Effects are already being seen worldwide. And long-term consequences are devastating, pointing to a darker future each day we fail to act.

How do we know global warming is really happening?

Over the last several decades, scientists have carefully studied patterns of climate change around the world. In its most recent assessment, the IPCC reviewed hundreds of these studies on such topics as past climate changes, observations of retreating ice, warming and rising seas, and other changes, as well as a wide array of supercomputer simulations to model how the planet has and will be affected by increasing amounts of greenhouse gases. Together these studies offer a stark portrait of a rapidly changing world:

- Temperatures have risen about 1.3 degrees F since the late 19th century. Greenhouse gas levels in the atmosphere have increased by 18% (nitrous oxide), 35% (carbon dioxide), and 148% (methane).
- Mountain glaciers and snow cover are declining in most parts of the world.
- The Greenland and Antarctic ice sheets are melting and breaking up.
- The area covered by Arctic sea ice in winter has shrunk about 2.7% each decade since 1978, with even greater summertime reductions.
- Global sea levels rose between 5 and 9 inches during the 20th century.
- The North Atlantic has shown increased hurricane intensity since 1970.
- Precipitation amounts have increased in northern Europe, the eastern Americas, and parts of Asia. Elsewhere, droughts have become longer and more severe.

What are the likely impacts of global warming if it continues at current rates?

Most experts agree that at current rates of greenhouse gas build-up, the climate could warm by about 3.5 to 8 degrees Fahrenheit sometime after 2050, and the average global temperature might rise even higher. The expected consequences of such warming include major disruptions to agriculture, water supplies, and the diversity of life on Earth. The

Greenland ice sheet could disappear in several thousand years. Hurricanes and typhoons are expected to become more intense. Precipitation is expected to increase at high latitudes and decrease in subtropical areas. Moreover, if greenhouse gases continue to build at even a moderate rate, experts predict that sea levels will be 7 to 24 inches higher by 2100, causing devastating erosion and flooding of the coastal cities and villages where millions of Earth's inhabitants live.

Is wildlife already being affected by global warming?

There is mounting scientific evidence that global warming is already having profound effects on birds, broader biodiversity, wildlife habitat, and ecosystems. Here are some of the ways that global warming is affecting wildlife:

Geographic range

The ranges of many plants and animals are moving toward the poles and toward higher elevations. For example, the ranges of many British breeding birds were, on average, more than 11 miles farther north in the period from 1988-91 than they were in the period from 1968-72, according to comparisons derived from breeding bird atlases. (British butterflies are also being found farther north.)

Reproduction timing

Egg-laying, flowering, and spawning are occurring earlier for many species, in some cases disrupting delicate cycles that ensure that insects and other food are available for young animals. For example, Tree Swallows across North America have advanced egg-laying by as many as nine days from 1959 to 1991.

Migration timing and patterns

Spring migration is occurring earlier and fall migration later in many species. For example, 25 migratory bird species are arriving in Manitoba, Canada, earlier than they did 63 years ago; only two are arriving later.

Frequency and intensity of pest outbreaks

Global warming increases droughts in some areas; and spruce budworm outbreaks frequently follow droughts, perhaps because dry weather increases the stress on host trees or allows more spruce budworm eggs to be laid. Spruce budworms can be lethal to spruce trees, and spruce-fir forests are a very important habitat type in the northern hemisphere for a wide variety of plants and animals.

What are some specific impacts on birds?

Under two scenarios of global climate change, there will be major shifts in the ranges and abundances of many of the 150 common bird species in the Eastern United States over the next 100 years or

so; 50-52% of species will decrease in abundance by 25% or more, while 37-40% of species will exhibit range reductions of 25% or more.

Long-distance migrants may be more vulnerable to global warming than other species. As winter temperatures increased between 1980 and 1992 at Lake Constance in Central Europe, the proportion of long-distance migrant bird species decreased while the number and proportion of residents and short-distance migrants increased. In North America, many of our favorite songbirds are long-distance migrants. Species such as Baltimore Oriole, Barn Swallow, Wood Thrush, and Scarlet Tanager could well be driven from the places where we expect to find them, more ominously, from the habitats to which they are best suited.

A 90% decline in Sooty Shearwaters (*Puffinus griseus*) off the California coast in just seven years (1987 -1994) has been associated with warming of the California Current, which flows from southern British Columbia to Baja California.

All of the remaining marshland in the Blackwater National Wildlife Refuge (an Important Bird Area in Maryland that provides important habitat for many birds, including Black Rail and Saltmarsh Sharp-tailed Sparrow, two of Audubon's Red WatchList species) is expected to disappear within 25 years as a result of both climate change and aquifer extraction.

Global warming and associated drought in the Prairie Potholes region (southeastern Alberta and northeastern Montana to southern Manitoba and western Minnesota) will lead to significant reductions in the populations of 14 species of migratory waterfowl; 30-50% fewer prairie ponds will hold water in spring by 2060, with an associated 40-50% decline in the numbers of ducks settling to breed in the area.

The ranges of many European and African birds are likely to shift by at least 600 miles, with a decline in species richness and reduction in average range sizes (based on simulations made for the impacts of a variety of late 21st century climate models on European and African birds).



CALCULATE YOUR CARBON FOOTPRINT

How much do your emissions add up to? You can calculate your household's greenhouse gas emissions by using a carbon calculator. See <http://www.safeclimate.net/calculator/>.

Mafia Cowbirds

from abstract at <http://www.pnas.org/> for article by Jeffrey P. Hoover and Scott K. Robinson

Why do many hosts accept costly avian brood parasitism even when parasitic eggs and nestlings differ dramatically in appearance from their own? Scientists argue that evolutionary lag or equilibrium can explain this evolutionary enigma. Few, however, consider the potential of parasitic birds to enforce acceptance by destroying eggs or nestlings of hosts that eject parasitic eggs and thereby reject parasitism.

A March 5 article (written by Jeffrey Hoover and Scott Robinson and published online ahead of a print version in the *Proceedings of the National Academy of Sciences*) presents experimental evidence of mafia behavior in the Brown-headed Cowbird.

Researchers manipulated ejection of cowbird eggs and cowbird access to predator-proof nests in a common host to test experimentally for mafia behavior. When cowbird access was allowed, 56% of "ejector" nests were depredated compared with only 6% of "accepter" nests. No nests were destroyed when cowbird access was always denied or when access was denied after we removed cowbird eggs, indicating that cowbirds were responsible. Nonparasitized nests were depredated at an intermediate rate (20%) when cowbirds were allowed access, suggesting that cowbirds may occasionally "farm" hosts to create additional opportunities for parasitism. Cowbirds parasitized most (85%) re-nests of the hosts whose nests were depredated. Ejector nests produced 60% fewer host offspring than accepter nests because of the predatory behavior attributed to cowbirds. Widespread predatory behaviors in cowbirds could slow the evolution of rejection behaviors and further threaten populations of some of the >100 species of regular cowbird hosts.

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 _____

Georgia's Important Bird Areas

Mary Elfner, the new Georgia Important Bird Areas (IBAs) Coordinator, talked to the March 1 ORAS meeting about the importance of volunteers in identifying and nominating areas that provide critical habitat for birds. Georgia currently has 48 sites including the Georgia Botanical Gardens/UGA Whitehall Forest. Then she called on us to continue our support of Georgia IBAs as the organization moves beyond identification to an "on-the-ground conservation" phase.

For additional information, see the following sites:

<http://www.audubon.org/bird/iba/>

<http://www.atlantaudubon.org/aaswww/iba/iba.htm>

And Birding on the Web

Bill O'Grady and Ed Maioriello, during a short session at the beginning of the March meeting, demonstrated how to use the eBird.org web site both as a tool to help collect data for nominating areas as IBAs and as a fun and efficient way to build and share multiple personal bird lists.

For additional information about this superb Citizen Science tool, visit <http://ebird.org/content/>. If you missed Bill's and Ed's presentation, the web site has a tutorial so that you can set up an ongoing bird list specifically for your own yard.

Oconee Audubon Society
P.O. Box 81082
Athens, Georgia 30608-1082

Oconee Rivers Audubon Society

President	Edwige Damron	613-9875
Vice-President	Mary Case	548-3848
Treasurer	Jim McMinn	
Secretary	Albie Smith	
Field Trip Chair	Ed Maioriello	208-8504
Program Chair	Gary Crider	353-0383
Conservation Chair	Linda Russell	
Education Chair	Kate Mowbray	613-3615 ext 221
Membership Chair	Gordon Ward	
Hospitality Co-Chairs	Marianne Happek & Sarah Cliett	
Volunteer Coordinator	Gabriella Gardenas	254-3086
Yellowthroat Editor	Maggie Nettles	543-8823
Web & Publishing	John Posey	769-1417

The Yellowthroat

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

Submit information by e-mail to maggie_netles@charter.net or mail to PO Box 81082 Athens, GA 30608. Articles, artwork, notices, and sighting reports welcomed. The deadline for submissions is the first Thursday of each month. All articles and artwork are copyrighted, and all rights are reserved by the authors. Opinions expressed in articles are those of the respective authors and do not necessarily reflect the official views of Oconee Rivers Audubon Society.

Visit our website at <http://www.oconeeriversaudubon.org/>

Non Profit Org.
U.S. Postage Paid
Athens, GA
Permit No. 41

