New Hope Audubon Society Newsletter

Volume 32, Number 6: November-December 2006



Admirable Grasshopper

September 2006 Field Trips by Tom Driscoll

We had two exciting field trips in September. One was to the Flat River Bottomlands to check out butterflies, and the other was to the Bynum/Haw River area to watch birds.



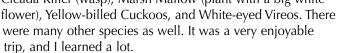
Monarch Caterpillar
PHOTO BY WILL COOK



Viceroy Butterfly PHOTO BY WILL COOK

The butterfly trip on September 9 at the Flat River impoundment (north of Durham) was led by Will Cook, who works at Duke University and is an excellent butterfly identifier and photographer, as well as a bird watcher. Will has a butterfly picture in the recent Kenn Kaufman Butterfly Guide. There were other excellent butterfly identifiers on the walk, including Randy Emmett and Patrick Coin. Will advertised the walk on the Duke Natural History Society website, so attendance was good. Participants, in addition to those mentioned above, included Alex Van Nievelt, Lorie McLennan, Anne Trainor, Lindsey Burke, Jennifer Maher, Rachel Harden, Greg Dodge, Roger Rittmaster, Carl Rothfels, Julie Demeester, Allison Appling, Bill Boyarsky, Nathan Buchanan, Chad Carbone, and Tom Driscoll.

One of the nice things about butterfly watching is that the butterflies don't get going until the sun is shining and the temperature warms up. Thus, we started after 9:00 am and saw numerous butterfly species, including Red Admiral, Variegated Frittilary, Cloudy Skipper, Monarch, E. Tiger Swallowtail, Red-spotted Purple, Pearl Crescent, Common Buckeye, Cloudless Sulphur, Hackberry Emperor, Viceroy, Sleepy Orange, Question Mark Anglewing, and several others. In addition to identifying butterflies, we had other experts along who knew insects, dragonflies, birds, plants, and amphibians. So many species were named, such as Green Tree Frog, Cricket Frog, Soldier Beetles, Hover Flies, Cicada Killer (wasp), Marsh Mallow (plant with a big white





Striped Blister Beetle
PHOTO BY PATRICK COIN



Six-Spotted Flower Strangalia
PHOTO BY PATRICK COIN

The bird watching trip to the Bynum Bridge and Haw River State Park area was led by Tom

Driscoll on September 17. Patrick Coin, Chad Carbone, JD Wilson, and Ken Hardy joined me on the bird walk. We hoped to see some migrants and confusing fall warblers; however, we did not see many. The highlights were on the pedestrian bridge over the Haw River where we were able to see many birds. We did see Red-eyed Vireos, a Yellow-

throated Warbler, several female/juvenile Rose-breasted

Grosbeaks, and many Cedar Waxwings. We saw some juveniles, so it seems they breed in the Bynum area. Patrick Coin also identified some insects, such as vespid and ichneumon wasps and some blister beetles. We also learned some different species of mantises, katydids, and grasshoppers. Another great trip where I learned a lot.



Golden Stowaway Moth

CONSERVATION CORNER

North Carolinians and Visitors Love Our State's Natural Environment by Joanna Y. Hiller

Where do visitors like to go for vacation in North Carolina? Do they go to the mountains, the seashore, or somewhere in between? A recent review from **http://www.environmentnorthcarolina.org** indicated the following:

- ♦ Blue Ridge Parkway 15 million
- ♦ North Carolina State Parks 13 million
- ♦ Great Smoky Mountains National Park 9.3 million
- ♦ North Carolina Historic Sites 1.8 million
- ♦ Kerr Lake State Recreation Area 1.6 million

- ♦ Jordan Lake State Recreation Area 1.5 million
- ♦ Fort Macon State Park 1.3 million
- ◆ Cape Hatteras National Seashore 1.1 million
- ♦ Mount Mitchell State Park 0.6 million
- ♦ Morrow Mountain Park 0.4 million

When outdoors what activities do North Carolinians like to participate in?

- ♦ Backpacking 478,000
- ♦ Road biking 1,570,000
- ♦ Mountain biking 1,040,000
- ♦ Bird watching 447,000
- ♦ Camping 226,000

- ◆ Canoeing 422,000
- ◆ Rock climbing 170,000
- ♦ Fly fishing 340,000
- ♦ Hiking 1,820,000
- ◆ Sea kayaking 195,000

- ♦ Whitewater kayaking 113,000
- ♦ Rafting 340,000
- ◆ Cross country skiing 170,000
- **♦** Trail running 1,260,000

In view of the above figures, one can easily surmise that there are a large number of nature lovers taking part in these NC outdoor activities. Now the question arises, how many of these outdoor participants know how committed their NC legislators are to help preserve these regions? Will these areas still be there ten years from now? Twenty years from now? Fifty years from now? To answer these questions, a brief review of the environmental issues can be found at: http://www.environmentnorthcarolina.org. Are our representatives environmentally supportive of the areas that are so appreciated by North Carolinians and state visitors? Do not hesitate to write to your legislator indicating your stand on those issues. In the newsletters to follow, we shall take a closer look at the specific conservation issues facing our state and our legislators.

Join Our Listserv!

New Hope Audubon has a listserv that is available through Yahoo. We will send out notifications and reminders of programs, field trips, festivals, conservation news, counts, etc. If you already have a Yahoo userid and password, you may just sign in and follow the directions in order to join the group. The link is:

http://groups.yahoo.com/group/newhopeaudubon/

If you don't have a Yahoo account you need to create a userid and password by following the directions on the screen to make these. You will receive email confirmation of your account and group membership. The suggestion to promote the list in the upcoming newsletter is great. This could really become a useful tool for communicating all field trips, programs, conservation efforts, festivals, counts, etc., including opportunities that arise at short notice.

Still Looking...

For individuals interested in working on Membership and Publicity for the chapter. We've already begun to organize contacts to disseminate our chapter activities and projects. Now we need a few volunteers to make sure we keep it going. If you like working with people and are good at organizing, please call Marsha Stephens at 732-4014.

Pittsboro Fall Street Festival

New Hope Audubon will have a booth at the annual Pittsboro Fall Street Festival which is Saturday, October 28, 10:00 am to 5:00 pm. Come join us for the fun! We'll have birdhouses and hats for sale, and will have educational materials, including bird feathers, nests and other displays. If you would like to help set-up, break-down, or actually be present at the booth during the festival, give Marsha a call at 732-4014.

Mini-Breeding Bird Survey 2006 Results

The results for this year's surveys in Orange, Durham and Chatham counties are in and posted on the web:

http://www.unc.edu/~rhwiley/mbbs/

You can check out the results for this year, as well as compare those from past years. Some totals of note for Orange include: all-time lowest numbers for Canada Goose, Northern Bobwhite, Chimney Swift, Eastern Wood-Peewee, Wood Thrush, Common Yellowthroat, and Chipping Sparrow; all-time high numbers for Rock Dove, Yellow-billed Cuckoo, Downy Woodpecker, Acadian Flycatcher, Carolina Wren, Yellow-breasted Chat, Eastern Towhee, Northern Cardinal, and House Finch. It's fun to examine the year-by-year comparisons for each route which are reported on the website. Within the next two years, we will do a comparative analysis of the data of routes over time. Stay tuned for more details regarding our local breeding birds! Contact Marsha Stephens if you are interested in participating in the upcoming 2007 MBBS.

Web Developments

You may have noticed that we're in the process of updating the NHAS website! More complete information will be accessible soon. If you have any suggestions for changes or additions, please let us know!

Adopt A Highway



2007 Annual Meeting in Charlotte, NC

The 2007 Audubon North Carolina annual meeting will be held April 27-29, 2007 in Charlotte. More details to come, but go ahead and reserve the dates and start pushing the meeting at your events!

Chapter Day 2007

Chapter Day 2007 will be held Saturday, February 3, 2007 at the Asheboro Zoo.

A Triangle Naturalist's Almanac

Patrick Coin

Goldenrod Galls — Home for a Fly



Many a birder spends winter outings tromping through weedy fields, chasing flocks of sparrows. While pursuing those pesky passerines, take a moment to appreciate some insect ecology. Among the tall, stiff stems of goldenrod, note that a few have round swellings about æ inch in diameter. These are galls, abnormal growths stimulated by the larva of a Goldenrod Gall Fly living within.

The life cycle of these flies, as in many insects, takes one year. In spring, the female lays a single egg at the top of a goldenrod stem. The larva hatches and bores into the growing stem. Somehow, the action of the larva stimulates the abnormal growth that becomes a gall. The larva feeds on the plant tissue inside the gall through the summer. In late summer, it bores outward to just under the surface, forming an exit tunnel, and then becomes dormant. In spring, the larva pupates (transforms into an adult). The adult fly crawls through the exit tunnel, and punches through the thin covering, ready to mate and begin the cycle again.

The Goldenrod Gall Fly, Eurosta solidaginis, is a species in the family Tephritidae, or "fruit flies". There are several other species of related flies in our area, and some form galls in goldenrod, but Eurosta solidaginis appears to be the most commonly encountered. Other insects, including other species of flies and a caterpillar, form galls in goldenrod stems, but the shape of this one is distinctive. Galls are formed on just one species of goldenrod, Solidago altissima, sometimes listed as a variety of Solidago canadensis.

Look for goldenrod galls in old fields and on the edges of woodlands from late summer through the spring. Where allowed, it is great fun to collect the galls and rear the flies. In winter, after goldenrod stems are completely brown and dried, cut the stem a few inches on each side of the gall. Place several in a large clear jar topped with fine mesh. Keep this jar outdoors, but out of direct sun and rain. Check the jar every day starting in April and through May. The flies are about the size of a housefly, with a strong pattern on the wings. The exit holes, one per gall, are about the size of a thick pencil lead. You may also collect a few parasitic chalcid wasps, whose larvae feed on the larvae of the fly. While out collecting, watch for Downy Woodpeckers perching on the stems and pecking at the galls — they are fond of the larvae.

For further information on goldenrod galls, see: Eastman, *The Book of Field and Roadside*; Stokes, *Observing Insect Lives*; and bugguide.net.

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Feeder Watch by Tom Driscoll

With this article, "Feeder Watch" kicks off its second year of discussing feeder birds. Although I discuss the birds you can see at your feeders, I am hoping to receive reports and questions about the birds you are seeing. This will make the articles more interesting If you have ideas about what to write, want to report on the birds you are seeing, or have questions about the birds you are seeing, please send me an email at btdriscoll at bellsouth.net.

You should be receiving this newsletter in mid-October. The leaves are starting to fall which will make the birds easier to spot! The days are much shorter and the temperatures are colder. All these factors make birds feed intensively at feeders. The resident birds that don't migrate remain and our winter visitors, migrants from the north may be starting to show up.

Our year-round residents that frequent feeders include Carolina Chickadee, Tufted Titmouse, Northern Cardinal, House Finch, American Goldfinch, Blue Jay, White-breasted Nuthatch, and Brown-headed Nuthatch. Can you recognize these birds? Of course, the Northern Cardinal is the state bird and the male is very red. Although at this time of year, they may appear scraggly as they are molting. They shed their feathers for a new set. This is a gradual process that may take several months. During the winter, the juvenile birds will molt into their adult plumage for spring. These birds are chiefly seed eaters, so you can see them at your seed feeders. Eastern Towhees, a colorful black and orange bird, eat seeds as well, but usually on the ground. Sometimes, I put millet on the ground for towhees and some of our winter sparrows.

We have several species, including Red-bellied and Downy Woodpeckers, that regularly dine at suet feeders. Other woodpeckers, including the Pileated Woodpecker, and other residents, such as Eastern Bluebirds and Brown Thrashers may also eat suet. Some residents, such as American Robins and Eastern Bluebirds, eat berries from the Holly Bushes, Dogwood, and juniper trees in your yard. You may not be the only one watching the birds at your feeders. Hawks, such as Cooper's and Sharp-shinned Hawks, feed on small birds and may also be "feeding" at your feeders. Have you seen any smallish hawks?

Our hummingbirds are leaving now or will leave soon. However, keep your feeders up for another month or so because we sometimes have "western" hummingbirds, such as Rufous or Calliope Hummingbirds, spend the winter. More about this phenomenon in the next newsletter.

Upcoming New Hope Audubon Society Membership Meeting Presentations for 2006-2007

Our November 2, 2006 speaker will be Rick Albrecht who will give a presentation on the Birds and Animals on East Kenya. Rick is an excellent photographer and we will see many animals, such as Lions, Wildebeests, Impalas, and many others, as he describes his trip.

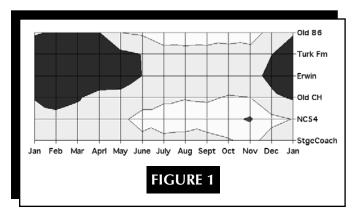
On December 7, 2006, our own Karsten Rist will speak on the Everglades: Past and Promise. Karsten is our treasurer and spent many years in Southern Florida. We will learn about the Everglades and its intricate water system.

As always, our membership meetings are held at the Totten Center at the North Carolina Botanical Gardens on the first Thursday of every month (except June, July, and August). The gardens are on Highway 15-501 at the intersection of Old Mason Farm Road on the southeast corner. The parking lot is on the southeast corner too. The meetings start at 7pm (please note that the first meeting in September begins at 6:30pm) with refreshments, chatting with friends, and meeting visitors or new members. There is chapter business at 7:20 or so and the presentations start at approximately 7:45 and run through 9:00. Everyone, even non-members, is welcome! See you at a meeting!

I am always looking for speakers or nature/environmental topics. If you have a good nature or environmental presentation, or know of a good speaker or a topic that you would like to hear, then please contact me at btdriscoll@bellsouth.net.

New Hope Creek's Dissolved Oxygen and Temperature

by John Kent



In checking the water quality of a flowing body of water, the dissolved oxygen is probably the most important test, since animals that breathe with gills depend on it, but taking the temperature is also important.

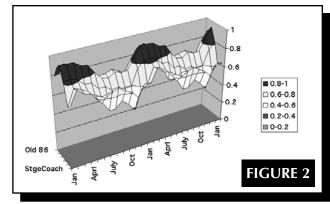
The graphs were done with the results of the monthly Stream Watch monitoring at six sites along New Hope Creek. Stream Watch for NHAS started in November of 1990. Of the present six sites, the four down stream sites are sponsored by NHAS and the upper two by the Office of the Duke Forest.

To understand the graphs one might think of a topographic map (see Figure 1) of some unknown world with north at the top, west to the left and east to the right. Actually the map is not of a whole

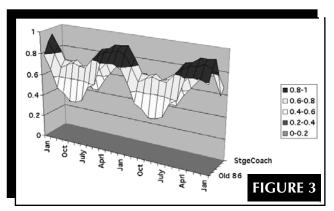
world, but only of a band of that world extending, let's imagine, 30 degrees above and below its equator. As such if one were to cut out the rectangular form of Figure 1, it would make perfect sense to tape the east edge of the cutout to the west edge and rotate it like a cylinder. On Figure 1, as a topographic map, one finds a high "Mountain of Goodness" (above the tree line), shown

in the upper left and right hand corners, split by the "international date line," "Jan." There are also two low areas of not so goodness, one to the north and the other in the southern and eastern realm. One might think of these as being below sea level. The one to the south east also has a small abysmal trench in it. The deepest hole of the latter low area is at the coordinates "NC54" and "Nov."

Figures 2 and 3 also show this equatorial band but in three dimensions. Actually in each of Figures 2 and 3, one sees two 3D copies of the equatorial band glued together at the "international date line," so that the area on both sides of that line (especially the "Mountain of Goodness") can be seen as one. Figure 2 shows a bird's eye view from the southwest (the march of time is to the right), and Figure 3 shows one from the northwest (the march of time is to the left).



Now that we know the landscape (see here especially Figure 1), in fact, all intersections of lines represent the results of monitoring in a particular month of the year (a vertical line) at a particular one of the six monitoring sites (a horizontal line labeled with a road name). The monitoring sites are: Old 86, Turkey Farm Rd., Erwin Rd., Old Chapel Hill Rd., NC 54, and Stagecoach Rd. Monthly



monitoring has continued for sixteen years but was started with only two sites. That continued for the first fourteen months at which time two additional sites were added. A second expansion, to six sites, was started two months thereafter. As a result not all sites have sixteen years of data associated with them, but most have near that.

Each vertical line is a straight line representation of the New Hope Creek as in flows down hill, the Old 86 monitoring site is the highest in elevation (shown at the top of Figure 1) and the Stagecoach Rd. site is the lowest (shown at the bottom of Figure 1). Each intersection of a vertical and horizontal line in the figures has its "elevation" determined by the average of the "percent saturation" data (see below) associated with that site over the life of the project.

The basic data used from a particular site in a particular month consists of the amount of oxygen dissolved in the water and the temperature of the water. Both are used because the amount of oxygen dissolved in the water is affected by the temperature of the water. The higher the temperature of the water the less dissolved oxygen it can contain. Basically one expects to get high dissolved

Continued on page 6.

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New Hope Creek's Dissolved Oxygen and Temperature continued from page 5

oxygen readings in the cold months because it's cold and low readings in the summer because it's hot. There is a formula that given the water temperature will predict what the dissolved oxygen should be at that temperature. So knowing that one compares it against what one actually found via the chemical test for dissolved oxygen. Such a comparison (temperature predicted dissolved oxygen as against actual) is known as "percent saturation." Each intersection of lines on the graphs has up to sixteen percent saturation results (one for each year that the site was monitored in a particular month) averaged to determine its "topographic elevation." One can also see it as a sort of averaging of exam scores: a 100% test average is better than anything lower.

Some interesting questions: If the temperature says the dissolved oxygen should be at a certain level and in fact the chemical test shows it isn't, then WHY NOT? Why aren't all sites the same? (Note, however, that as the months of the year go by the sites do stay in the same relative position to each other.) Why, if we are controlling for temperature, do the sites differ as they march through the seasons? We have some strong hunches, but space does not permit their inclusion here. Finally, it should be noted that a lot of wonderful volunteers have helped with this project over the years, but space does not permit their inclusion at this time either.

DATE/TIME	ACTIVITY	CONTACT	
October 28 7:00 AM	Sandhills Natural History Trip Location: NC Sandhills (Southern Pines area) Come enjoy some of the unique flora and fauna of the Carolina Sandhills. We will look, especially, for butterflies and other insects. We will not ignore any interesting flowers or birds seen on the way, of course. Rendezvous at 7:00 AM at Glen Lennox Shopping Center, Highway 54 and 15-501 Bypass in Chapel Hill. We will carpool to the sandhills and return in late afternoon. Bring water and lunch, as well as binoculars. Please e-mail nature@cotinis.cor if you need more information.		
October 28 0:00 AM	Stream Watch Trip Leader: John Kent		
November 2 7:00 PM	Meeting at NC Botanical Gardens The speaker will be Rick Albrecht. The topic will be the Birds and Animals in East Kenya.		
November 12 7:30 AM	Birdwalk led by Tom Driscoll Meet at the Mardi Gras parking lot at 7:30 AM. The bird watching site to be determined, but we may go to Butner Gamelands to look for early winter arrivals.		
December 7 7:00 PM	Meeting at NCBG. Speaker: Karsten Rist The topic will be the Everglades.		
December 2 9:00 AM	Stream Watch	Trip Leader: John Kent	
December 16	Adopt A Highway at Stagecoach Road	Trip Leader: Phil Johnson	

are no pre-registrants, the field trip may be cancelled.

The Christmas Bird Count

The Christmas Bird Counts will be coming up in mid-December to early January. Hope you can come out to help count. Don't feel you have to be an expert. If you don't feel comfortable counting on your own, the contact person can team you with other counters. It's a lot of fun and sometimes we see some great surprises. So pick the counts you want to do and call or e-mail the contact person for information. You'll be glad you did.



DECEMBER 16, 2006 Raleigh Christmas Bird Count

Contact: John Connors John.Connors@ncmail.net 919-755-0253 (h)

DECEMBER 17, 2006 Durham CBC

Contact: Mike Schultz ross.gull@verizon.net (919)490-6761

DECEMBER 24, 2006 Chapel Hill CBC

Contact: Will Cook cwcook@duke.edu (919)382-9134

DECEMBER 31, 2006 Jordan Lake CBC

Contact: Carol Williamson cncbrdr@yahoo.com (919)383-2364

JANUARY 3, 2007 Falls Lake CBC

Contact: Brian Bockhahn Brian.Bockhahn@ncmail.net or cbockhahn4@earthlink.net (919)676-1027

JANUARY 4, 2007 Kerr Lake CBC

Contact: Brian Bockhahn Brian.Bockhahn@ncmail.net or cbockhahn4@earthlink.net (919)676-1027



My mother, Ellen French Spalt, grew up in Concord, Massachusetts with an interest in natural history largely inspired by her father. As we grew and she had more time, she took up birding: watching, reading, and travelling around the country and the globe to follow her hobby. She lived the middle part of her life in New Jersey where she was one of the 'little old ladies in tennis shoes' who fought to save habitat and stop a major jetport in its Great Swamp. When she moved to Chapel Hill in 1980 at seventy-two, it was as natural as unpacking for her to join New Hope Audubon to meet friends and follow the birds. It was also natural for her volunteer, and she was membership secretary for several years. She had an extensive life list, though she counted not primarily the numbers but the memories. When she died at Carolina Meadows in May, 2000, we found a number of items neatly placed in a folder to help us with her memorial service. We read the following (author unknown) then, and I have thought about it more recently as its star's survival is confirmed. She would be very pleased.

"An Optimistic Birder's Prayer" (author unknown)

Oh, Lord, who helps the battle tossed, Hear my prayers on bended knee, Send me a Bachman's Warbler, please.

I took a trip way out yonder

And saw the California Condor.

I ask to see, before I go,

The Curlew, first name Eskimo.

I mind the time when things were dull You sent us down a Ross' Gull. Now, before my voice is stilled, Let me see an Ivory Billed!



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New Hope Audubon Society 2006-2007 Officers

OFFICE	NAME	TELEPHONE	EMAIL ADDRESS
President	. Marsha Stephens	. 732-4014	stephens@mail.fpg.unc.edu
Vice-President	. Robin Moran	. 383-3514	robomo@earthlink.net
	. Pat Reid		
Treasurer	. Karsten Rist	. 490-5718	karstenrist@verizon.net
Director	. Philip Johnson	. 933-0144	pjphilip@earthlink.net
	. Martha Girolami		
	. Stewart Pearce		
Conservation Chair	. Joanne Hiller	. 451-3128	Jyhiller@yahoo.com
	. Kate Finlayson		
Field Trip Chair	. Dianne Byrne	. 929-8266	DianneByrne713@aol.com
	. Martha Girolami	. 362-5759	Mgirolami@mac.com
Membership Chair	. Vacant		
	. Tom Driscoll		
	. Pat Reid		
	. Patrick Coin		
	. Phillip Johnson		
	. Judy Murray		
Eagle Count	. Stewart Pearce	. 942-7660	spearce@yankelovich.com
	. Judy Murray		
	. Marsha Stephens		
	. Tom Driscoll		
	. Marsha Stephens		
	. John Kent		
Wildathon	. Tom Driscoll	. 932-7966	btdriscoll@bellsouth.net

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