



Ocola Skipper
*Panoquina
ocola*

Photo by
Mike O'Brien

On The Wing

Newsletter of the Tennessee Valley Chapter,
North American Butterfly Association

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All 2015 NABA Counts Have Been Completed.

We began our 2015 butterfly counts in the uncertain cool and rainy weather of early April, continued through the blazing hot summer months, and completed our last count on August 22. As a count compiler, I'd like to personally thank everyone who helped with any count in 2015. The Tennessee Valley NABA Chapter has a great core group of experienced butterfly counters, and these counts would not be possible without your help. You have done yourselves, and the state of Tennessee (3rd most total counts in the U.S. last year), proud with your efforts. We completed 8 counts in 2015; two spring seasonal, four July 4th, and two fall seasonal. Despite a couple of weather glitches, it was a successful counting season. Thank you again.

Bill Haley



Tennessee River Gorge, TN fall count totals

The fall seasonal Tennessee River Gorge count was conducted on Thursday, August 13. Butterfly numbers were high and it was a great day for counting. Participants were Bill Haley, Tommie Rogers, Libby Wolfe and Jonnie Sue Lyons. They counted from 9:15-5:30 in 2 parties for 16.5 hours of count effort. It was a sunny day with temperatures ranging from 76-85 F.

Species and Numbers: Pipevine Swallowtail 1, Giant Sw. 1, E. Tiger Sw. 59, Spicebush Sw. 23, Checkered White 1, Clouded Su. 1, Orange Su. 3, Cloudless Su. 43, Little Yellow 9, Sleepy Orange 10, Gray Ha. 6, E. Tailed-Blue 85, Summer Azure 7, Am. Snout 2, Gulf Fritillary 8, Variegated Fr. 2, Silvery Checkerspot 3, Pearl Crescent 23, E. Comma 1, Red Admiral 1, Com. Buckeye 27, Red-sp. Purple 33, Goatweed Leafwing 1, Hackberry Emp. 10, Tawny Emp. 2, Southern Pearly-Eye 1, Carlina Satyr 42, Silver-sp. Sk. 33, Hoary Edge 3, S. Cloudywing 1, N. Cloudywing 3, Horace's Duskywing 21, Clouded Sk. 1, Least Sk. 6, Fiery Sk. 12, Crossline Sk. 7, Southern Broken-Dash 6, Northern Broken-Dash 10, Little Glassywing 4, Sachem 71, Delaware Sk. 3, Zabulon Sk. 21, Dun Sk. 9, Ocola Sk. 10.

Unidentified: 11 dark sw. sp.

Total: 46 species, 645 individuals

Immatures: Red Admiral 1 caterpillar on nettle, Spicebush Sw. 4 caterpillars on spicebush, Pipevine Sw. 9 caterpillars on dutchman's pipevine, Sleepy Orange 2 eggs, 1 caterpillar on American Senna, Silver-sp. Sk. caterpillars (5 on kudzu, 2 on black locust, Silvery Checkerspot 19 pupae.

Soddy-Daisy, TN fall count totals:

A good number of counters turned out for the fall seasonal Soddy-Daisy, TN count on Saturday, August 22. Participants were Mike O'Brien, Libby Wolfe, Harold Birch, Bill Haley, Tommie Rogers, David Spicer and Scott Spicer. There were three parties who contributed to an excellent combined 19.5 hours of count effort. Everyone was happy that David Spicer felt well enough to spend 4.5 hours with his son Scott in the area of the count circle that spills over onto the east side of the Tennessee River. They got some good numbers, added to our species total and took several excellent photos, some of which you'll see later in this issue. Tommie Rogers, who has embraced the importance of splitting away from the other groups to cover different areas within the count circle, also added three species nobody else found. I really appreciate Tommie's gung-ho attitude! It was a fantastic day for butterflies, and we saw more individuals than any other count this year. Best find of the day was an Aphrodite Fritillary on Bakewell Mountain. Sunshine varied from only 20% in the morning to 75% in the afternoon and the temperature ranged between 72 and 86 F.

Species and Numbers: Pipevine Swallowtail 5, E. Black Sw. 3, Spicebush Sw. 17, E. Tiger Sw. 82, Checkered White 1, Cabbage White 1, Clouded Sulphur 8, Orange Sulphur 21, Cloudless Sulphur 266, Little Yellow 15, Sleepy Orange 26, Gray Hairstreak 18, E. Tailed-Blue 64, Summer Azure 13, Am. Snout 4, Gulf Fritillary 38, Variegated Fr. 10, Gr. Spangled Fr. 8, Aphrodite Fr. 1, Silvery Checkerspot 1, Pearl Crescent 38, Com. Buckeye 203, Red-sp. Purple 24, Hackberry Emp. 13, Tawny Emp. 12, Carolina Satyr 60, Com. Wood Nymph 1, Monarch 12, Silver-sp. Skipper 21, Horace's Duskywing 5, Wild Indigo Du. 43, Com. Checkered Sk. 2, Com. Sootywing 1, Clouded Sk. 4, Least Sk. 2, Fiery Sk. 8, Tawny-edged Sk. 8, Crossline Sk. 2, N. Broken-Dash 8, Little Glassywing 8, Sachem 320, Delaware Sk. 18, Zabulon Sk. 24, Dun Sk. 15, Ocola Sk. 2, Unidentified: 8 dk. sw. sp.

Total: 45 species, 1464 individuals

Immatures: Gulf Fritillary, 4 eggs laid near passionvine, Delaware Skipper, 1 egg laid on grass species.

Around the Puddle

by Bill Haley

Who is Eating Who?

While searching for caterpillars in my front yard I stumbled upon the "crime scene" below. This large female Green Lynx spider was dining on a recently-caught male Sachem.



Something fascinates us about scenes like the one above. All I can say is I'm happy I'm not the size of a Sachem! Images of those corny movies from the 1950's and '60's about spiders, ants and other creepy crawlies made gigantic, usually by ill-timed nuclear blasts, come to mind. We would probably be extremely tasty to the butterfly predators of the world.

Yes folks, it is a bug-eat-bug, or in this case, a spider-eat-bug world out there! Everyone is part of the big food chain.

Think YOU are not involved in that food chain? Better think again.

Have you been bitten by a mosquito or perhaps scratched an itching chigger bite? Has a Hackberry Emperor landed on you and sipped your sweat? It was probably a male, using your body's minerals to make him more attractive to the females. How about ticks? Let's not go there! You are an important part of all their life cycles. Welcome to your place in the food chain.

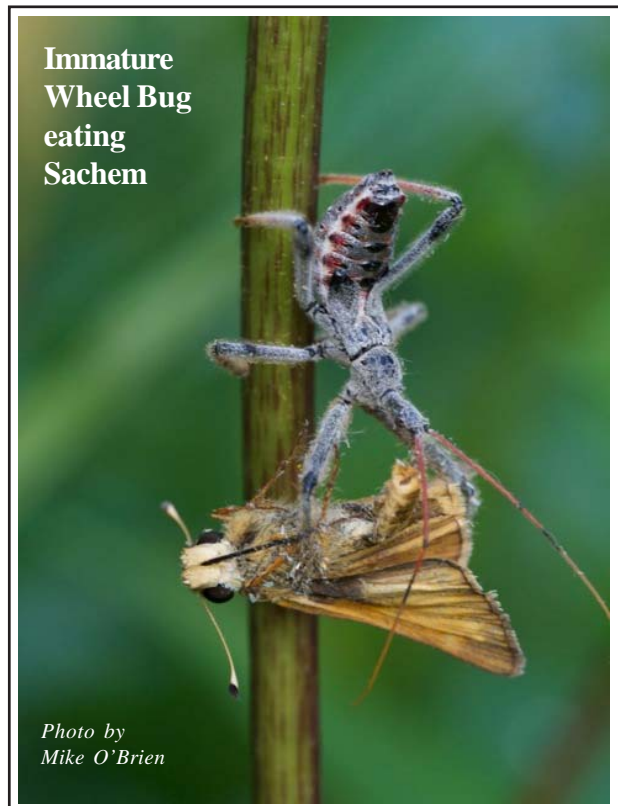
As proof that we all share a certain fascination for predator-prey interactions, the last issue of *American Butterflies* featured an interesting photo spread showing various critters eating butterflies they had captured.

I plan to include in this issue some shots of various butterfly-eating predators. It gives me a chance to showcase some good shots I don't normally get to use in this newsletter. I hope you enjoy them - while you cringe just a little!



Wheel Bug Eating Silver-spotted Skipper

Photo by Mike O'Brien



Immature Wheel Bug eating Sachem

Photo by Mike O'Brien

Wheel Bugs are ambush predators. They possess a long, sharp proboscis which is used to pierce their prey. They first inject a toxin which paralyzes the victim and begins to break down its tissues. They then drink the resulting "butterfly soup". Note, the Sachem is almost sucked dry.



This photo of a large robber fly holding a Variegated Fritillary was taken by Bill Haley during the Nature Nuts field trip that was part of the Lookout Mountain, GA count on June 25. What made this very ironic is that we'd counted our one and only Variegated Fritillary of the day in this same field several hours earlier. Could this unlucky butterfly have been the same one we saw flying around, now become food for a hungry robber fly?



Photo by Nancy Williams

Nancy Williams took this photo on the Stevenson, AL count last year. The large green preying mantis had just captured this Black Swallowtail. We knew it had just caught it because we'd counted this same butterfly when it flew past us less than a minute before we encountered this scene! The preying mantis was obviously a very efficient predator, as there was a large pile of butterfly wings on the ground underneath it's perch. The majority were of smaller butterflies, mainly Sleepy Orange. The Black Swallowtail was a trophy catch for the mantis!



Photo by Mike O'Brien

Another robber fly with "lunch".



Photo by Jeff Basham

Julius Basham 2010

Robber fly eating a Coral Hairstreak.

Other potential butterfly predators

Black-shouldered Spinyleg dragonfly eating Silver-spotted Skipper



Photo by Libby Wolfe

Crab Spider on Purple Coneflower



Photo by Mike O'Brien

Black-shouldered Spinyleg



Photo by Mike O'Brien

Jumping Spider



Photo by Bill Haley

Ambush Bug



Photo by Audrey Hoff

Green Anole



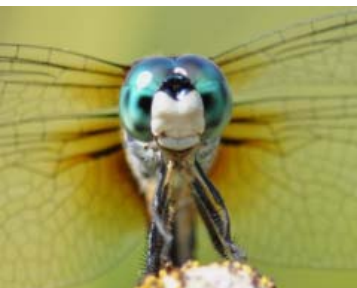
Photo by Mike O'Brien

Treefrog



Photo by Carol Wolf

This close-up photo of a Great Blue Skimmer dragonfly's face, taken by Tommie Rogers, shows the very strong mandibles used to eat prey after capture. Dragonflies have long, basket-like legs for catching flying insects in mid-air.



Reptiles, like the Green Anole above, and amphibians, such as the treefrog to the left, would certainly be counted among butterfly predators, catching and eating any butterflies they come across.



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Photos from the Summer Butterfly Counts



Eastern Tiger Swallowtail, *Papilio glaucus*, was especially abundant on the fall Tennessee River Gorge (59) and Soddy-Daisy counts (82).

Both photos above are of the same species, the Checkered White, *Pontia protodice*. As you can see, markings on the sexes are very different. The top photo of a female was taken in the Stevenson count circle by David Dodd on the day we originally scheduled the Stevenson, AL count, but it was cancelled due to rain. We conducted the count the following day (and didn't find a single Checkered White). The male has far fewer markings than the female. Libby Wolfe got this shot during the Tennessee River Gorge count August 13.

Pictured here are both the light color form, (top left) and dark color form (two righthand photos). Note that you can clearly see the tiger stripes on the underwing of the dark form female. (All dark form Tigers are females). Photos by Bill Haley.



8-13-15

Eastern Tailed-Blue, mated pair

Photo by Libby Wolfe



Gulf Fritillary, mated pair

8-11-15

Photo by Mike O'Brien



Cloudless Sulphur, mated pair

8-22-15

Photo by Bill Haley



Pearl Crescent, mated pair, with another male "onlooker"

7-23-15

Photo by Mike O'Brien



Delaware Skipper laying an egg on grass blade

8-22-15

Photo by David Spicer

Late summer butterflies are very busy - making MORE butterflies! We often see butterflies mating or ovipositing (laying eggs) during our butterfly counts. On the Soddy-Daisy count David Spicer was very lucky to catch the Delaware Skipper female at left at exactly the moment she laid an egg.



Delaware Skippers on thistle bloom
8-22-15

Photo by David Spicer

The two Delaware Skippers, *Anatrytone logan*, to the left are not mating - but they may be thinking about it! The striking orange-gold of the skippers is such a lovely contrast with the pink thistle flowers that I just had to include it on this page!

Deforestation in Mexico Butterfly Reserve Nearly Triples

New York Times article, Aug. 25, 2015

MEXICO CITY - Illegal logging has almost tripled in the monarch butterfly's wintering grounds in central Mexico, reversing several years of steady improvements, investigators announced today.

Almost all the loss occurred in just one rural hamlet in the state of Michoacan. Loggers cut down 47 acres (19 hectares) of trees in San Felipe de los Alzate since last year's gathering of butterflies, while little was lost in the 31 other communities. A total of 52 acres (21 hectares) of forest was lost overall.

That's the highest figure since 2011, well above the 20 acres 98 hectares) lost a year earlier, according to an announcement by the World Wildlife Fund and the Institute of biology of Mexico's National Autonomous University.

The forest canopy is a sort of blanket against cold for the masses of orange-and-black butterflies that form huge clumps on tree branches during their stay in Mexico.

Loss of that habitat is just one of the threats to the butterflies' amazing migration across Canada and the United States to Mexico. The migration is an inherited trait: No butterfly lives to make the full round trip, and it is unclear how they find the route back to the same patch of pine forest each year. Some scientists suggest the butterflies may release chemicals marking the migratory path and fear that if their numbers fall too low, the chemical traces will not be strong enough for others to follow.

This year butterflies that reached the wintering grounds covered 2.79 acres (1.13 hectares), a 69 percent rebound from last February's 1.65 acres, which was the lowest since record-keeping began in 1993.

At their peak in 1996, the monarchs covered more than 44.5 acres (18 hectares) in the mountains west of Mexico City. But the overall tendency since then has been a steep, progressive decline. Each time the monarchs rebound, they do so at lower levels. The species is found in many countries and is not in danger of extinction, but experts fear the migration could be disrupted if very few butterflies make the 3,400 mile trip.

Largely Indian farm communities in the mountain reserve have received government development funds in return for preserving the 139,000 acre (56,259 hectare) reserve in teh mountains west of Mexico City that UNESCO has declared a World Heritage Site. Some of the communities earn income from tourist operations or reforestation nurseries to grow and plant saplings.

The fact that most of last year's loss also occurred on the San Felipe indicates a growing problem there, said Omar Vidal, head of the World Wildlife Fund in Mexico.

"The government has to step up enforcement and start talking more seriously with this community, to find the causes behind the logging.", Vidal said. Some communities have complained that outside loggers - sometimes armed - invade local forests without the consent of the community. Other logging, however, has been the work of locals who have few other job opportunities.

After illegal logging felled hundreds of acres of trees in the reserve between 2003 and 2006, authorities cracked down on illegal sawmills and stepped up incentives to encourage communities to preserve the woods.

"The main problem in Mexico is the lack of protection," said writer and activist Homero Aridjis, who noted that some officials at the reserve were re-

placed and that President Enrique Pena Nieto recently appointed his cousin, Alejandro del Mazo, to head the agency that oversees Mexico's nature reserves.



In September we expect to see many migrating Monarchs come through eastern Tennessee, all heading south for overwintering grounds in the mountains of Mexico. According to this recent story in the New York Times, this winter things may be a bit more difficult for the overwintering Monarchs in Mexico.



Tentative 2016 butterfly count dates*

- Thurs., March 31: TN River Gorge (spring count)
- Thurs., April 28: Soddy-Daisy, TN (spring count)
- Sat., June 4: TN River Gorge, (summer count)
- Thurs., June 16: Soddy-Daisy (summer count)
- Sat., July 9: Lookout Mountain (summer count)
- Thurs., July 21: Stevenson, AL (summer count)
- Sat., Aug. 13: TN River Gorge (fall count)
- Thurs., Sept. 1: Soddy-Daisy (fall count)

*(Note: These future dates are on my calendar, but they are tentative at this point and may be changed)