

On The Wing

Newsletter of the Tennessee Valley Chapter,
North American Butterfly Association

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Photo by David Spicer

WANTED: Winter Butterfly Reports

This is being written on December 22nd. Despite a very cool, foggy start this morning, it has become a beautiful warm and sunny afternoon. In 30 minutes I will be walking home from work and I'm going to keep an eye out for a butterfly. You just never know when one might decide to venture out on a nice winter day!

Please report any winter butterfly sightings to Bill Haley at wgh@tnaqua.org, or you can send it in writing to: Bill Haley, Tennessee Aquarium, P.O. Box 11048, Chattanooga, TN 37401-2048.

Happy New Year!



**May 2010
be filled with
beautiful
butterflies!**

*It may be cold right now, but we are past
the winter solstice and the days are getting
longer. On cold, dreary January days,
look on the bright side.*

There will be butterflies soon!



.....
Can you identify the butterfly pictured at the top
of this page? Answer on page 2.



Photo by Jeff Basham

Puddle Party: Appalachian Tiger Swallowtails (bottom two), compared to Eastern Tiger Swallowtails. Why do butterflies puddle? See story on page 4.



Sure Sign of Spring: Thanks to Mike O'Brien for his lovely photo, taken at his home in early spring 2009. Crocus will begin blooming in early to mid-February. A sure sign spring is not far behind!

Around The Puddle

by Bill Haley

What I'd Like to See

In 2010, there are certain things I'd like to see. I've made a list:

1). I'd like to see a good crowd of excited butterfly watchers on a field trip where we find all our target butterflies. Impossible? Nope. We actually did it last May on our Checkerspot / Golden-banded Skipper field trip....and many more "good species" as well. (*Are there any that aren't good?*) It was great fun for all who were present.



Photos: (l.) David Spicer, (m.) David Spicer, (r.) Susan Schott

2). I would like to see an early spring field trip to Polk County with the weather cooperating. We had very bad luck last spring with cold weather and clouds for every scheduled trip. Jeff and Stephen know where some butterfly species can be found in Polk Country that we'd ALL like to see!

3). I would like to see a new population of American Coppers found in Hamilton County. Currently there is no reliable population known in this area. Wonder what one looks like? There is a photo somewhere in this newsletter. (*Hint, Hint.*)

4). I would like to see an Early Hairstreak. I have a place in mind and I'll be looking. Lots of beech trees there! Watch for a spring field trip.

5). I would like to see many more folks get out in the field by attending field trips, BioBlitz, etc. and work on their butterfly identification skills.

6). On a related note, I'd like to see more folks who are willing to help with butterfly counts, even when it is hot and a bit uncomfortable.

7). I'd like to see good attendance at our NABA monthly meetings, which will be held at Outdoor Chattanooga again this year.

8). I'd like to see YOU at the places listed above.

NABA Appalachians Region Report, 2009

APPALACHIANS REGION (TN, KY, WV)

William G. Haley, Jr., Regional compiler

A total of 24 counts were reported in Tennessee, Kentucky and West Virginia in 2009. 16 were Fourth of July counts, two were spring seasonal counts and 6 were fall counts. Tennessee reported a total of 21 counts, followed by West Virginia with two and Kentucky with one. It is hoped butterfly watchers in those two states will expand their efforts in the future with more counts. I welcome Decatur County, TN, reporting for the first time. Only two count circles reported counts in all three seasons, Owls Hill (Nashville), TN and Tennessee River Gorge, TN.

Lower individual numbers were noted on many counts although species totals seemed on par with other years. Highest species totals were: Spring - Tennessee River Gorge (24), Fourth of July - Tennessee River Gorge (48), and Fall - Grindstone Mountain, TN (56).

Spring counts help document species not found later in the year. Among them were Falcate Orangetip (62), West Virginia White (41), Pepper and Salt Skipper (6) from Tennessee River Gorge, TN. Owls Hill notables included Dusted Skipper (1) and Little Wood Satyr (36 - with possibly one Viola's subspecies documented by photo.)

One of the best finds of the summer was a Funereal Duskywing, only the second Tennessee record, documented at Land Between the Lakes, South, TN with a good photo. Pink-edged Sulphur (21) was found on only one count, Canaan Valley, WV. Soddy-Daisy, TN reported the only Southern Dogface. Oldham county, KY reported 24 Edwards' Hairstreaks, Lower Hatchie, TN saw 477 American Snouts and Sewanee, TN found the first Hickory Hairstreak in their 13 year history. Tennessee River Gorge had high numbers of both Coral (66) and Banded (67) Hairstreak. Appalachian endemic Diana Fritillary was reported on 6 counts, all in Tennessee: Elizabethton, Putnam Co. East (fall), Sewanee, Soddy-Daisy and Tennessee River Gorge (summer and fall). Aphrodite Fritillary was reported by Canaan Valley, WV, Arthur Dale, WV, Roan Mountain, TN and Soddy-Daisy, TN. Great Spangled Fritillary was found in good numbers. Examples are: Tennessee River Gorge, TN (207), Soddy-Daisy, TN (158), Decatur Co., TN (139), Land Between the Lakes, TN (129) and Oldham County, KY (109). Unusually low numbers of Little Yellow were reported across the region with only 3 found, one individual per count.

Noteworthy fall finds included a remarkable 14,000 Sachems, as well as Eufala and Dion Skippers at Grindstone Mountain, TN. Owls Hill, TN reported a Yehl Skipper.

Photos from the field, 2009



Photo by Susan Schott

May 21, 2009: Bill Haley and Jeff Basham look at a Reversed Roadside Skipper. Bill has just netted it for a close look in his bug box. This location is the only currently documented population of this species in Hamilton County. After a brief moment to let everyone have a good look, the small butterfly was released unharmed.



Photo by Susan Schott

June 28, 2009: A butterfly walk attended by over 50 people at Head of Sequatchie, part of the Cumberland Trail system in Cumberland County, TN, was one of the high points of the season. This is the spot where the Sequatchie River comes bubbling from the ground. A spectacular lightning storm started the day and a hike to Devil Step Hollow Cave, featuring a ranger talk about the archaeological features discovered there made the day memorable. (In between we found 19 species of butterflies.)

Join NABA, the North American Butterfly Association

The North American Butterfly Association was started in 1994 to popularize the study of butterflies through observation and identification through use of field marks rather than collecting.

The Tennessee Valley NABA chapter was formed in 2008. The chapter's territory is centered around southeastern Tennessee, but also encompasses parts of northwestern Georgia and northeastern Alabama. Anyone who joins the national organization within a zip code area beginning with 374, 373 (with the exception of 37355 which is allocated to the Middle Tennessee NABA chapter), 307, 357 or 359 will automatically become a member of the chapter.

It is also possible for persons living outside this zip code area to become a member of the Tennessee Valley chapter. When you join or renew your NABA membership, be sure to specify that you'd like to be affiliated with the Tennessee Valley chapter. Joining online is easy. Go to their website at <http://www.naba.org> and click on Membership. Individual membership is \$30. Family membership is \$40 and an institution/library can join for \$50.

July 28, 2009: Stevenson, AL butterfly count. Jennifer Linger, a student at Soddy-Daisy High School did her senior project on butterflies. She wanted to see what butterfly counts are all about. Here Bill Haley looks on as she adds the latest numbers.



Photo by David Spicer



Photo by Susan Schott

August 21, 2009: Blacklighting for night insects at the end of our August program at Reflection Riding was really fun. Shaylee Trently, from Knoxville, holds a large Rhinoceros Beetle that was attracted to the lights.

Why Do They Do That? PUDDLE PARTIES



We've all seen it and wondered about it. Why is that beautiful butterfly down on the ground sipping from a muddy spot, or even worse - visiting rotten fruit, a stinky dead fish or a pile of dog poop? All these things can be like a magnet to butterflies, and smart butterfly watchers have learned to check them out carefully when searching for their winged friends.

When butterflies visit non-nectar sources, there is a name for that behavior. It is called puddling. Many adult butterflies cannot live on nectar alone. They need something to "spice up" their diets. They are searching for certain substances, such as particular



amino acids, alkaloids, or even simple sodium to be able to successfully accomplish key life functions which include courtship, migration, egg laying, manufacturing of pigments, and in some cases, diapause. To make up for a lack of needed substances in "clean" nectar from a flower, which is composed of water and dissolved sugars, they resort to "dirty" sources, such as the ones listed above. These sources contain traces of amino acids, proteins and minerals.



In a beautiful mirror-image, this Hackberry Emperor is using its proboscis to gather liquid, or another substance (maybe sodium?), off a car window frame. Hackberry and Tawny Emperors are famous for landing on sweaty humans to stock up on sodium.

Butterflies may puddle simply because they are thirsty, but scientific research has shown that puddling behavior is induced by the presence of specific chemicals, particularly sodium. Significant quantities of water may be pumped through their bodies to get at dilute substances they seek.

Often more than 95% of butterflies found puddling are males. It is thought that they are obtaining certain substances that they later pass on to females when mating occurs. During the mating process, males transfer a flexible sac, called the spermatophore, to the female. The spermatophore also contains a "gift pack" of nutritional substances which the female's body absorbs. These extra nutrients benefit the female during egg production.

When you see a group of butterflies puddling, there will sometimes be several species together. Interestingly, some scientists speculate that each species might have very specific needs that are unlike the species puddling right beside it. One may be after proteins, another may seek sodium, etc.

You will notice more puddling behaviors from butterflies found near woodlands, where nectar can sometimes be scarce. Many of them may overwinter as adults. They have adapted to rely on alternate food sources at times of the year when nectar is not available. Many of these species are sap feeders. If a source of tree sap, such as a broken branch or damaged trunk are not available, it is conceivable they might even visit a Yellow-bellied Sapsucker's horizontal "wells" around the trunk of a tree in wintertime. It is not uncommon to see sap oozing from these horizontal holes made by sapsuckers, and they are utilized by many different animals.