This will be your last “On the Wing” newsletter of 2016. Newsletters will resume, probably in either February or March 2017.

Butterflies are still out there to be seen. I always welcome your photos, so please continue to send them in.

Butterfly Counters, 2016
Listed below is everyone who helped with any of the ten butterfly counts Bill Haley compiled in 2016, and the number of counts they participated in. Thank you all!

Bill Haley............................. 10 counts
Tommie Rogers..................  9 counts
David Spicer .................  8 counts
Scott Spicer.....................  4 counts
Harold Birch.....................  4 counts
Nancy Williams...............  4 counts
Mike O’Brien....................  4 counts
Libby Wolfe.....................  4 counts
Susan Schott...................  2 counts
Anita Greenwell...............  2 counts
Christine Bock...............  2 counts
Beverly Swafford.............  2 counts
Carl Swafford..................  2 counts
Candy Haley....................  1 count
Judee Spicer...................  1 count
Julius Basham..................  1 count
Tom Howe.......................  1 count
Amy Zarzecki..................  1 count
Jazmond Zarzecki...............  1 count
Bob Hulse......................  1 count
John Diener....................  1 count
Sally Wencel...................  1 count

Answer to September: What caterpillar is that?
The caterpillar pictured atop the front page of the September issue was the Black Swallowtail, *Papilio polyxenes*. The female Black Swallowtail above visited Bill’s zinnia patch. Note the distinctive black spot inside the orange dot at the corner of the hindwings - a key identification feature.
Finally!
by Bill Haley

The Monarch is possibly our most well-known butterfly. Usually if a non-butterfly person knows no other butterfly, chances are they are familiar with the Monarch.

This summer we experienced an almost complete absence of Monarchs in our area. This caused some alarm, as historically we've found a handfull on our butterfly counts throughout the summer months. Their numbers have slumped to new lows in the past decade.

We had to wait until our eighth count, on July 27 in Williamsburg, Kentucky, to see our first Monarch of the year. The next count in the Tennessee River Gorge turned up nary a one. On September 1, I managed to find 3 during our 10th count of 2016 in the large field along Hwy. 27 in Bakewell, which is within the Soddy-Daisy count circle.

By the time you receive this newsletter, the story of the Monarch will be clearer for the year. The majority undertake their epic migration southward towards the mountains of central Mexico each September. They will continue to move south in the first couple of weeks in October, so keep your eyes open as these tough butterflies head south.

A large number of Monarchs moving through Chattanooga this fall probably means they had a successful breeding season further north. As I write this column the day after Labor Day, I certainly hope this will be the case.

I often walk out in my yard to “see if there is anything to photograph”. On Labor Day, it turns out there was. A female Monarch, the first one I’ve seen in my yard all year, was nectaring on my zinnias. She proceeded to visit every blue silk vine, a member of the milkweed family, in the front yard. This invasive vine completely takes over my garden, and I routinely cut it back all summer long, but when in bloom the Monarch and other butterflies, moths and bees love it!

Photos From a Bakewell Field Full of Ironweed!
Bill Haley hit the jackpot on blooming New York Ironweed in this Bakewell field during the Soddy-Daisy fall count.

American Lady, Vanessa virginiensis. (Two large eyespots)

Painted Lady, Vanessa cardui. (Four smaller eyespots).

Silvery Checkerspot, Chlosyne nycteis

All three of the butterflies on this page were the only ones of their species tallied during the count. It took a lot of wading through tall grasses to get to where they were, but the effort paid off for Bill. He also found 3 Monarchs in the same area. More photos from this field to follow.
More shots from the ironweed field:
1. Common Buck-eye, ventral
2. Fiery Skipper, male, ventral
3. Common Buck-eye, dorsal
4. Crossline Skipper, ventral

All photos this page by Bill Haley

Red-banded Hairstreak
One found on Soddy-Daisy count.

Gray Hairstreak
Record total 43 found on Soddy-Daisy count!
Color Saturation You Simply Can’t Ignore!

Some colors just seem to jump out at you. I especially like the stunning photo Mike O’Brien took of a female Clouded Skipper climbing down into the throat of a purple morning glory! The other shots were taken in my front yard flower beds.

- editor
A collection of non-butterfly photos, 2016

1. Ambush bug  2. Bee mimic fly
eating digger wasp  5. Bobcat swimming
Tennessee River  6. Soldier beetle

Photos: 1,2,3,6: Bill Haley; 4. Mike O’Brien; 5. Betsy Bowden
Early September is for Skippers!
In late summer we experience the largest diversity of skipper species of the entire year. We found 21 species on the Soddy-Daisy fall count. Several memorable shots are shared on this page.

Bill couldn’t count this **Clouded Skipper**, *Lerema accius* on Bakewell Mountain. It had run afoul of an ambush bug hidden in the thistle bloom.

A **countable one**! This fresh **Clouded Skipper** was found along the bank of North Chickamauga Creek.

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**Delaware Skipper**, *Anatrytone logan*

**Swarthy Skipper**, *Nastra lherminier*

**Fiery Skipper**, *Hylephila phyleus*

dorsal views
Female (left)
Male (right)

**Little Glassywing**, *Pompeius verna*

*Photos: Left column, Dave Spicer.*
*Right column, Bill Haley*
More shots from the fall Soddy-Daisy, TN count!

On Soddy Mountain Tommie Rogers made one of the best finds of the day, an **Aphrodite Fritillary**, *Speyeria aphrodite*.

**Spines Anyone?** Tommie Rogers photographed this very spiny caterpillar, a **Common Buckeye**, *Junonia coenia*.

**Cloudless Sulphur**, *Phoebis sennae*, was the most abundant butterfly of the day. They were absolutely everywhere! 425 were counted, which was probably a conservative number. Photo by David Spicer.

**Left:** This strange, scary-looking creature was found rolled inside a sassafras leaf by Bill Haley. It is the caterpillar of the **Eastern Tiger Swallowtail**, *Papilio glaucus*.

Libby Wolfe took this photo of the well-named **Long-tailed Skipper**, *Urbanus proteus*. It was one of two that were found nectaring on the tiny blooms of a native verbena by Libby and Bill near North Chickamauga Creek. Dave Spicer also found one of these late-season visitors, for a total of 3 on the count.
Sometimes you get lucky! While Bill Haley was taking a photo of a day-flying moth visiting his bur marigold blooms, this fresh **Eastern Tailed-Blue, Everes conyntas**, flew onto a nearby flower. Bill had tried unsuccessfully for two years to get a decent shot of this species. This time he finally succeeded, as it obligingly posed for this photo.

**Menage a trois?** This photo of a mated pair of **Eastern Tailed-Blues** with another male “onlooker”, taken by David Spicer on the Soddy-Daisy count illustrates that there is a lot of competition for mates this time of year. Eastern Tailed-Blue was the second most common species on this year’s fall count, with 314 individuals documented. These tiny butterflies use a wide variety of host plants and they were found practically everywhere we stopped to look.

**Sachem pair:** Bill Haley photographed this male and female **Sachem**, *Atalopedes campestris*, on a zinnia bloom. The photo to the right shows what the male was up to.

### Monarch & Cloudless Sulphur Migration Totals

The following totals are from the Soddy Mountain hawk lookout, on Jones Gap Road near Soddy-Daisy, TN, elevation 1400 feet. (Type Soddy Mountain Hawk Watch into your computer’s search engine to read about the hawk migration, or do a Facebook search - Soddy Mountain Hawk Watch.) - Bill Haley

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* On Oct. 2 between 12:30 and 4:30, 21 Monarchs were counted. Between 4:30 and 6:00, 26 were counted. The late Monarchs were trying to get in an extra mile or two before calling it a day.
Soddy Mountain Hawk Lookout Observations
I’ve been counting passing Monarchs and Cloudless Sulphurs while scanning the skies for migrating hawks. However, we often see other very interesting things up on the hawk lookout. One of the most interesting has been the Thread-waisted Wasp. I had to share its story with all my butterfly friends.

- Bill Haley

1. On October 1, we spotted a slender wasp, maybe 1 1/4 inches long, carrying a large, fat caterpillar. The wasp was using its mandibles to hold onto the caterpillar and was dragging it forward. We watched the wasp drag the caterpillar about 4-5 feet over grass and other obstacles. Here it reaches the final destination. Note, no hole is visible.

2. We were surprised when the wasp removed a cap off a previously-constructed hole. It placed the cap (in circle) a short distance away.

3. The wasp goes into the hole to do some more excavating. The caterpillar was very plump!

4. This photo shows the wasp carrying a rock in its mandibles out of the hole. It deposited it on a little pile of soil located about 4 inches away.

5. Here is a photo of the pile of dirt the wasp created from the diggings. I wish we could have seen the wasp when she originally dug the hole before the caterpillar was caught. Who knows how many trips had to be made from the excavation to the dirt pile? After she made several trips, the wasp came out of the hole and again straddled the caterpillar - it seemed she was measuring it to see if the hole was wide enough. She went back to excavating and made a few more trips.

6. The next phase took me by surprise. Notice that the caterpillar is no longer in sight. The wasp came out and grabbed one end of the caterpillar in its mandibles and quickly pulled it into the hole. I was so fascinated I forgot to take a photo!

7. After laying an egg on the caterpillar, she came out of the hole and began filling it in with small stones and dirt from the vicinity of the hole, never once using any of the dirt she put in the pile earlier. Sometimes she’d back up to the hole and using her legs, would dig like a dog, sending a shower of dirt flying into the hole. She occasionally used her head to tamp down the fill dirt.

- continued on next page
8. Final photo in the Thread-waisted Wasp saga. This shot shows where the hole was located. Before the wasp finished, we were astonished when she picked up a larger rock than the ones she’d carried away to the pile and began using it to further tamp down the dirt where the opening of the hole had been. It was a clear example of an insect using a tool! Also notice that before calling it a completed task the wasp drug some dried grasses over the excavation and filled-in area to camouflage it even better. If we hadn’t seen the entire sequence, we’d never know a hole had been there. The total time elapsed for the whole project - maybe 20 minutes.

I know this is not a wasp newsletter, but the story does feature a caterpillar. It was a type of cutworm, which is considered a pest in a garden, and it would have become a small brown moth.

- all photos by Bill Haley

A favorite late summer nectar source for many butterflies is the bur marigold, also known as tickseed sunflower. An annual wildflower, one plant will become quite large and wide, and is covered with hundreds of blooms every September. Beware - it reseeds really easily! If you let it drop seeds, you are guaranteed to have many more plants next year. Despite this liability, it is a welcome addition in Bill Haley’s yard and is spectacular when blooming. Bill will gladly supply seeds if you want some! A Common Checkered Skipper, *Pyrgus communis*, was a welcome visitor on September 16.

**Long proboscis!** A number of photos of Clouded Skippers are featured in this issue, but when I saw the length of the tongue (proboscis) in this shot, I had to add one more. Mike O’Brien commented, “It is longer than the skipper’s body!” This helps explain why we often see them in deep-throated flowers, such as morning glory.

**Common Buckeye, Junonia coenia,** from a bird’s perspective. Imagine you are a hungry bird who has just come up behind the butterfly above. What image do the wing markings suggest to you? The eyespots very clearly resemble the eyes and nostrils of a frog or lizard and possibly even a snake!

Another Soddy Mtn. hawk lookout visitor. This Gray Hairstreak landed on Cynthia Wilkerson’s foot and stayed there for over 15 minutes. It didn’t seem to mind posing for numerous photos.