



Photo by  
Mike O'Brien

# On The Wing

Newsletter of the Tennessee Valley Chapter,  
North American Butterfly Association

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## No October Meeting

*At our September meeting we voted that no meetings would be held between October and March each year. See page 3 for other changes for the coming year.*

**Our next Tennessee Valley NABA meeting will be  
Tuesday, March 27, 2012  
Mark your calendar!**

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## **Monarch Migration, 2011 Bad News for Monarchs?**

*The following excerpts are taken from a report titled "Monarch Butterfly Population Status". It was put out by Jim Lovett and Monarch Watch, the organization that supplies monarch tagging kits across the nation.*

"As many of you know, we attempt to follow the monarch population closely. Based on our experience, and ongoing data analysis of monarch numbers, we offer opinions/projections on what to expect in the near future based on our understanding of how the monarch populations have been affected by patterns of temperature and rainfall in the preceding months.

Late in the spring I started predicting a small migration this fall. In the Premigration Newsletter sent out with the Monarch Watch Tagging Kits, I predicted that overwintering population in Mexico would be similar in size to that of the low populations recorded in 2004 (2.19 hectares) and 2009 (1.92 hectares). It was clear that the monarch numbers in New England and recorded at Cape May would be low this fall, and that the numbers originating in the central region would be slightly better than those of the eastern Dakotas

- (cont. pg. 4, Monarchs)

## **Images from 2011**

### **Zebra Swallowtail "puddle party"**

*Our official Tennessee State Butterfly!*



Photo by  
Jeff Basham

### **Eastern Tailed-Blue**



Photo by  
Mike O'Brien

*One of my favorite images of the year!  
A very tiny butterfly can be huge in beauty.  
- Editor*

*A great comparison photo of an "old favorite" and a recently split new-comer!*



Photo by  
David Spicer

**Eastern Tiger Swallowtail (left)  
Appalachian Tiger Swallowtail (right)**

### Around The Puddle

by Bill Haley

### Winding Down

As I write this column in late September we have had some cool snaps, but warm days are still abundant. My garden continues to produce blooms and nectar for the butterflies, and a number of species continue to visit.

The Gulf Fritillary has been particularly abundant lately. Their caterpillars certainly had their way with my passionflower vines, eating them down to completely bare and sad-looking stems. Many of the caterpillars tended not to wander far from the vines when they prepared to pupate. It was fun to look for and find their spiky chrysalids nearby.

I checked yesterday and no occupied chrysalis could be found. It appeared adults had already emerged. I can't help but wonder if some of the adults I've been seeing out front are home-grown, raised right in the backyard.

October is somewhat melancholy for the butterfly gardener. Most flowers - and butterflies - are packing it in for the year.

Late-blooming asters will continue to throw splashes of blue and lavender amid the seed heads and stems of the spent garden. I can even count on my old friend, the Aromatic Aster, to continue strong into early November. I love it's prolific blooms, and it is worth growing just because it extends the flowering season by 2-3 weeks each fall.

When all blooms have faded, you are faced with the big question: How much should I clean up in the flower garden? Many garden books recommend a very thorough cleaning of garden spaces, with the old plants burned or thrown into the compost pile. Many wildflower books and the National Wildlife Federation's Backyard Wildlife Habitat program advocate leaving this year's stubble, seeds and stems as a refuge for beneficial insects and possible bird food. What it boils down to is that everyone must make their own decision.

I'll divide many perennials and move things around. I'll definitely do something to clean up the unruly mess my garden has become and attempt to put things in order, but I'll also leave some of the clutter untouched as refuge for my friends, the insects and spiders.

### Eastern Black Swallowtails Galore!

Mike O'Brien reported that he had over 100 Eastern Black Swallowtail caterpillars on parsley plants in his yard in late September. They consumed all his parsley and he had to go buy more! Here are some photos from Mike.



Eggs on Parsley leaf



Eggs prior to hatching.

(Note dark-colored eggs)



Caterpillars (Early instar)



Late instar caterpillar showing osmoteria.



**TENNESSEE VALLEY NABA MEETING MINUTES  
Tuesday, September 27, 2011**

The September meeting was held at the Tennessee River Gardens and Mark Lawrence hosted. Present were Mark Lawrence, Bill Haley, Mike O'Brien, Jennifer Taylor, Nancy Williams and David Spicer. The meeting began at 7:00pm Eastern.

To begin the meeting Mark led everyone on a walk around the grounds of the Tennessee River Gardens. We all enjoyed the large expanses of blooming zinnias and recently installed fern gardens by the pavilion and trout pool. Over 95 species of ferns have been planted and there are more to be installed in the future. This area will be beautiful when the ferns reach maturity and spread.

Upon returning to the house, Bill Haley conducted a business meeting. Several decisions were reached during this meeting:

1. Bill asked Jennifer Taylor to give a treasurer's report and she said the Tennessee Valley NABA chapter currently has \$388 in our treasury. Bill explained that we receive \$5 from NABA every time someone joins or renews a membership. We have only been using this money to buy stamps to mail newsletters for people who don't have e-mail. He recently received a mailing from NABA asking for donations to go towards various ongoing projects, such as the National Butterfly Center, Miami Blue fund, Swamp Metalmark fund, butterfly count program and butterfly gardens program. Bill felt it would be a good idea for our chapter to make a donation to NABA to help fund these efforts. A donation of \$100.00 was agreed upon, and all in attendance decided the money should go where NABA deemed it most useful. (There was a box to check for that contingency. Jennifer Taylor will send our donation to NABA.)

2. Bill asked for input on ways we might spread the workload of the chapter a bit. He has always had to do much of the work of the chapter, being president and newsletter editor, as well as lining up programs, seeing that refreshments were available and sending out reminders about upcoming meetings and counts. The group made several decisions:

- Jennifer Taylor volunteered to contact members with meeting and count reminders.
- There was general consensus that some meetings do not need to have food or refreshments. We'll continue with what we've done this year, asking everyone to bring something to snack on, but this will only be done occasionally. We agreed that it might be nice to have a more substantial potluck meal at the last meeting of the year, and may try that next year.
- It was agreed that we probably don't need so many programs each year and Bill asked anyone in the chapter who had programming ideas to please let him know. We will continue with a plant swap each spring, a possible blacklighting trip, butterfly counts, and maybe a potluck meal to end the season. Short meetings in June, July and August will take place when participants gather before one of the annual NABA counts.
- Our current meeting schedule was discussed and it was decided that our chapter will not meet from October through February. Our future meeting schedule will go from March to September, coinciding with butterfly flight season. (Newsletters will still go out during the fall and winter, but some issues may be for two months, as there is scant butterfly news in the wintertime. This will be at the discretion of the newsletter editor.)

The business meeting was adjourned and we all enjoyed butterfly talk, gourmet cooking advice and fellowship while snacking on Nancy's chicken salad and pimento cheese sandwiches, Mike's excellent roasted red pepper hummus and chips and a fruit bowl that Bill brought. The last meeting of 2011 adjourned at 8:45pm.

Reporting,  
Bill Haley  
President, Tennessee Valley NABA

**Monarchs, (cont. from pg. 1)**

through Wisconsin but still low relative to long term numbers. The New England/Cape May projection appears to be correct as the numbers are down in this region. I was wrong about the central region (Ontario, MI, OH, IN, IL) - fewer monarchs appear to have been produced in this area than I expected. Wisconsin numbers also appear to be down.

The surprise is the eastern Dakotas and western MN. This area seems to be the source of a large number of the monarchs moving through the lower midwest at this time. Nevertheless, the overall numbers are down. But, it gets worse. The migration is just beginning to navigate a 1000 miles of hell - a nearly flowerless/nectarless and waterless expanse of central KS, OK, TX, and NE MX (see Drought Monitor at [droughtmonitor.unl.edu/](http://droughtmonitor.unl.edu/)).

It is too late for rains to change the situation in TX and northern MX. Monarchs will make it to overwintering sites but their numbers will be significantly reduced by these conditions. My expectation is that the overwintering numbers will be the lowest ever (previous low 1.92 hectares) and that the arriving butterflies will be in relatively poor shape with low fat reserves. If the average condition (mass) of overwintering monarchs is lower than average, mortality during the winter could also be high. Other scenarios could include low returning numbers next spring with a reduced reproductive capacity due to low fat reserves. Keep your fingers crossed that there are no winter storms in MX that could make matters worse.

It will be interesting to see how monarchs cope with the lack of nectar and water as they move through TX. Monarchs, like most insects, have hygrometers (sense organs that are sensitive to humidity gradients); therefore, when conditions are extremely dry, we might expect monarchs to seek out the darkest and most humid habitats. If this plays out, most monarchs will accumulate in drainages, along rivers, move in and out of forests, and concentrate around other water sources.

As I pointed out in the Premigration Newsletter (and the August Population Status blog article), there is a new reality, or expectation, regarding the size of the overwintering population in MX. It now appears that winter populations will be in the range of 2-6 hectares (down from the long-term average of 7.24) with 6 hectares being reached only during the most favorable conditions. In the near term, the average overwintering population will be close to 3 hectares. As we pointed out recently (Brower, et al. 2011), the decline is related to the loss of habitat, particularly the rapid adoption of herbicide tolerant (HT) crops. The majority of these crops are planted within the summer (June-August) breeding area for the monarch population. In spite of weed control methods prior to 1996, when HT crops



Photo by  
Jeff Basham

*A tagged female Monarch seen by Jeff Basham on Chilhowee Mountain in Polk County, Sept. 2010.*

were first introduced, milkweed persisted in these croplands at a low level where they provided an excellent resource for monarchs. With the planting of HT engineered corn and soy followed by the use of glyphosate to control weeds, milkweed has been almost completely eliminated from these crops. At present, the total area of HT crops is larger than that of any state except TX and AK, or about 4 times the state of IL). The decline in the monarch population first became noticeable in 2004, when the percentage of HT corn and soy acreage exceeded 50% of all acreage for these crops.

Low monarch numbers in MX this winter and in the future means that the integrity of the overwintering sites is now more important than ever and that planting milkweeds in gardens and incorporating these plants in restoration projects either as seeds or plugs should receive the highest priority."

**What Can YOU do to Help Monarchs?**

**Pledge support for Monarch Watch**  
<http://monarchwatch.org/chip>

**Create a Monarch Waystation habitat**  
<http://monarchwatch.org/waystations>

**Join the Bring Back the Monarchs campaign**  
<http://bringbackthe monarchs.org>