2016 HOWARD COUNTY BUTTERFLY YEAR by Linda Hunt In Memory of Dick Smith

R ichard (Dick) Smith, Jo Solem, and Sue Muller initiated the Howard County Butterfly Survey in 2013 as a joint project of the Howard County Bird Club and the Howard County Department of Recreation and Parks. The general purpose was to gather information about the status of species historic to Howard County. With digital photography, greater numbers of people might be able to more easily document the butterflies they observed, providing "more eyes in the field." Even though this year completes only three years since the initial pilot effort in 2013, it is clear that the survey is providing a framework enabling an increasing number of participants to provide information about butterflies from diverse countywide locations.

This 2016 summary will include some comparisons to past years as a testament to Dick's, Jo's, and Sue's vision. Hopefully these comparisons will also provide some information addressing questions I am often asked. And, possibly, the information may spur some thought about future efforts.

2016 Survey Results Compared to Previous Years.

With Bob Solem's creation of an on-line "Incidental Butterfly Survey" form for the 2016 season birders, photographers, gardeners, and others documented more than 244 random sightings and counts from more than 35 parks, natural areas, and others. In addition, nine participants completed more formal season-long surveys at 17 geographically diverse locations throughout Howard County. Twenty-eight homeowners submitted five season-long surveys and over 60 Incidental reports of butterflies in their gardens. Reports from the annual Howard County Dragonfly Count and Fall Bird Count as well as butterfly walks at MPEA (Sue Muller) and Mt. Pleasant, Robinson Nature Center, and Elkhorn Gardens (Linda Hunt) also contributed counts.

All these efforts confirmed anecdotal reports such as Sue Muller's comment, "I know with monarchs it was the first time in 3 years I had seen them in my yard and I had a bunch of caterpillars, it was wonderful." The 2016 survey documented a yearly high count of 21,437 individual butterflies of 74 species. This compares to 17,457 of 70 species in 2015; 10,340 of 68 species in 2014; and 3,943 of 59 species in 2013 (pilot year). Eastern Tiger Swallowtail numbers, of concern in 2014, continued to increase in 2016 to 1,495 (2015: 846; 2014: 307; 2013: 435). A high 620 Monarch adults (plus 24 caterpillars and 7 chrysalises) were reported as compared to 400 in 2015, 172 in 2014, and 23 in 2013.

An important question is often asked, "Are the numbers of butterflies and species going up because we have more people looking and more time spent counting, or do we really have more butterflies?" The answer is probably yes and no. Some rare and unusual or difficult to identify species totals have remained unchanged while more common species totals have significantly increased. Unique species, such as the Monarch, may have increased. The <u>chart</u> on page 6 gives examples of year to year occurrence of selected common and unusual species. More analysis of the data we've currently compiled and another year or two with participation similar to this year may provide some tentative answers.

2016 Butterfly Highlights

With Dick Smith's sudden death in August, all this effort and success is bittersweet. Dick was especially interested in documenting the status of species historic to the various regions of Maryland and had started to dedicate retirement time to this purpose. In Howard County, he constantly prodded us to "keep an eye out" for certain butterflies unseen for many years. Finally, this year, three of those species appeared.

Spring sightings of Checkered White in Anne Arundel County and, unbelievably, but typically, the appearance of a single Tawny Emperor ovipositing in a tree in Kathy Litzinger's yard in mid-June, elevated hope that 2016 would be a "good butterfly year." Demonstrating incredible determination and patience (and using a ladder) Kathy located a single egg in her single, newly identified, Hackberry tree. By late July, Dick and Kathy were discussing the process of raising a Tawny Emperor from egg to caterpillar to chrysalis to adult. A healthy Tawny Emperor emerged from that single egg and flew away the day before Dick's funeral. In September, Kathy documented three more individual Tawny Emperors in her yard, possibly from the same brood.





Checkered White Top: female, *by Jim Wilkinson* Bottom: male, *by Kathy Litzinger*

Next in September, Jim Wilkinson, known for his patient, methodical surveys of Howard County's sliver of Coastal Plain along the Anne Arundel border, discovered not only a small colony of Little Yellows but a Checkered White female. Kathy, casually walking her dog at Meadowbrook Park, demonstrated her "eagle eye," spotting a small Checkered White male, only slightly marked, cold and motionless on a Heath Aster.

Sometimes finding the rarest of the rare species is a combination of patience and methodical search with a knowledgeable eye for detail, but often a dash of happenstance is involved. On September 18, again from a paved path at Meadowbrook Park no less, Bonnie Ott, known for her detailed knowledge and photography of many aspects

of the natural world, for some unknown reason took probably her thousandth picture of an "American Copper" and posted it on her Flickr site. Tim Reichard happened to view Bonnie's picture that day and supplied his knowledgeable eye for (Butterfly Year continued on page 4) (Butterfly Year continued from page 3) detail. Bonnie writes,

"I made the mistake of assuming the expected and did not realize my copper from yesterday is a Bronze! I had it at Meadowbrook in the wet "grass" that is planted around the sediment pond below the pavilion. I thought it was big when I photographed it but it didn't "click" to think it was anything different. Tim from Flickr corrected me. :)"

Tim documented the extent of Bonnie's find in the Piedmont:

"Dick had Bronze Copper listed as "U" (Unknown status) for Howard County in his latest version of his Butterflies of Unknown Status chart. That means it hadn't been reported in the county for what, >10 years? And it looks like all the surrounding counties, Baltimore, Carroll, Montgomery, Anne Arundel, and Prince George's, have it marked either U Unknown or X Extirpated with no recent records. So this copper was in the middle of a void in its recent range."



Bronze Copper

by Bonnie Ott

The answer to the question, "Does spending the time to take a picture and send in a report of the butterflies really matter?" is a resounding "YES." While Dick is no longer with us to confirm our sightings, all those in the butterfly "community," to whom he constantly explained the detailed intricacies of identification and the need for an "eye" for the slightly unusual, are here to carry on his efforts.

Historic Species and Habitats

The Bronze Copper vanished (there was a vigorous Wheel Bug in the same area) before many could see it, but quite a few other unusual butterflies appeared this year. In 2013 the status of many of these butterflies was uncertain and many were not even included in the initial survey list. This multiyear survey has demonstrated that many of these species do appear in Howard County each year, sometimes in now predictable locations containing the species host plant; others appear randomly. Some of the species that have been added since 2013 are included in the <u>chart</u> on page 6.

I am often asked two questions involving these unusual species and butterfly habitat:

"Does Howard County still have places/habitats that sustain species that previously existed here?"

"Does planting native host and nectar plants for butterflies and bees really help them survive?" As demonstrated by the number of species reported, surveyors are identifying parks and natural areas each year as possessing the diverse host and nectar plants attractive to a variety of species. Enhancing existing habitat by planting meadows for pollinators and including host and nectar plants in private gardens also appears helpful. Howard County Dept. of Recreation and Parks has planted two butterfly/pollinator meadows with a mix of nectar and host plants suggested by Dick Smith: one at Centennial Park (Emy's Meadow) and the other at the intersection of Daisy Road and Union Chapel Road. Kate Tufts, Kathie Lillie, and others who encouraged the creation of the new Daisy Meadow have documented numerous species attracted to the milkweed and nectar plants. The managed meadows at Daisy (1st year late summer only, 504 individuals/17 species), Centennial (439/29) and Mt. Pleasant (2,254/41) as well as public gardens at Robinson Nature Center (911/34) and the Elkhorn Meadow and Community Garden Plots (1,664/35) are attracting a variety of species. In addition, the 28 homeowners submitting surveys from privately owned meadows and gardens accounted for 3,534 total butterflies of 50 species, including 188 Monarchs and unusual species such as the Giant Swallowtail (on Lantana each year, McKitterick), Pipevine Swallowtail and Zebra Swallowtail, Tawny Emperor and Hackberry Emperor, Long-tailed Skipper (Heffernans), Broad-winged Skipper (Litzinger), and many Ocola Skippers and Cloudless Sulphurs.



Long-tailed Skipper

by Kevin Heffernan

Future Surveys

"Does the information we have now change how we should/could approach butterflying in future years?"

Obviously, more analysis is needed of the information we have, but Dick Smith had thought that completing five full years of the survey would provide more reliable data. There are still at least ten historic species we have not found. We have also not completed any regular surveys at many locations in Howard County. And there are probably interesting butterflies appearing anonymously in someone's garden somewhere. Comments and suggestions for next year are welcomed.

I wish to thank all of the surveyors listed below who completed season surveys and those who sent in Incidental reports. Hopefully I haven't missed anyone. You completed over 30,285 minutes (that's over 500 hours!) documenting butterflies. Yes, the season once again started as slowly as usual this year, but you even found a few days in late May when it wasn't raining to find some butterflies. And you continued as the season extended through October. To those of us who knew Dick, all these efforts and successes may seem bittersweet. However, I see these as a living legacy to Dick's efforts to encourage and mentor all those interested in protecting butterflies and their habitats.

2016 Formal Survey locations: Daisy Meadow (Kate Tufts), David Force NRA (Linda Hunt), Elkhorn Gardens (Jim Wilkinson), Elkridge (Jim Wilkinson), Gateway (Jim Wilkinson), Lake Kittamaqundi area (Clayton Koonce), Mt. Pleasant (Karen and Kevin Heffernan), Murray Hill (Linda Hunt), Oxford Square (Jim Wilkinson), Rockburn Branch Park (Kathy Litzinger), Warfield's Pond Park (KateTufts), Western Regional Park (Gayle and Bill Hill).

2016 "Incidental" Survey locations: MPEA, PRSP, PVSP, Race Road Wetlands, Haviland Mill, Patuxant Branch Trail, Wincopin Trails, Gorman Stream Valley NRA, WSSC, Triadelphia Reservoir area, Alpha Ridge Park, Atholton Park, Belmont Historic Park, Cedar Lane Park, Centennial Park, Meadowbrook Park, Schooley Mill Park, Font Hill Wetland Park, West Friendship Park, Secretariat Way, Ilchester area, UMD Central Farm, Jennings Chapel area, Roger Carter Community Center, West Side Garden Plots, Willow Springs Golf Course, HOCO Rec & Parks Headquarters, Wilde Lake, Gerwig Lane area, Sharps at Waterford, Hammond Village, three private farms, and various utility easements (Kathy Barylski, Pat Caro, Tom Feild, Karen and Kevin Heffernan, Gayle and Bill Hill, Linda Hunt, Clayton Koonce, Suzanne Klick, Kathie Lillie, Kathy Litzinger, Janet Lydon, Nancy Magnusson, Grazina and Mike McClure, Woody Merkle, Sue Muller, Richard Orr, Bonnie Ott, Paul Petkus, Rondalyn Reeser, Tim Reichard, Roberta Reichwein, Kurt Schwarz, Barbara Sikorski, Sara Smith, Sharon Smith, Jo and Bob Solem, Charles Stirrat, Ann Strozyk, Kate Tufts, Mark Wallace, Jim Wilkinson, Carol Zancan).

Formal Home Garden Surveys were completed by Gayle and Bill Hill, Linda Hunt, Kathie Lillie, Kathy Litzinger, and Kate Tufts.

The following sent in Incidental reports of butterflies in their gardens: Rene and Paul Bade, Gill Bentley, Jan Bowman, Alicia Buxton, Sherry Fisher, Linda Giampalmo, Pat Greenwald, Karen and Kevin Heffernan, Jenny Krantz, Ascuncion Lavrin, Janet Lydon, Brigitte Lund, John McKitterick, Woody Merkle, Sue Muller, Bonnie Ott, Carolyn Parsa, Norma Petersen, Kim Egan Rutter, Sharon Smith, Jo and Bob Solem, Jim Wilkinson, and Carol Zancan.

(Also see <u>chart</u> on page 6)

Selected Howard County Rare/Unusual Species

*Not on 2013 Howard County Butterfly Survey "expected" list **On Maryland State Conservation List: Maryland Department of Natural Resources Rare, Threatened and Endangered Animals. <u>http://dnr2.maryland.gov/wildlife/Pages/plants_wildlife/rte/rteanimals.aspx</u>

Species	2013	2014	2015	2016	# sites	Comments
Total Counts/ Total Butterflies	94/ 3,943	175/ 10,340	393/ 17,457	530/ 21,437		Does not include # of season-long home garden counts which are often every day.
*Long-tailed Skipper	0	0	0	6	5	Southern fall migrant occasionally appears in gardens.
*Dusted Skipper**	0	1	6	4	1	Linda Hunt, others at Murray Hill area; only one early spring brood observed to date
Ocola	0	9	32	60	many	ALL OVER the county! 2015 1st sighting mid-July; 2016 mid-Aug
*Giant Swallowtail**	0	3	0	1	2	John McKitterick, home garden; Emy Holdridge at Mt. Pleasant
Eastern Tiger Swallow- tail	435	307	846	1495	many	2016 reported larger numbers puddling along river banks in 2016 but still short of 2012 anecdotal reports
Cloudless Sulphur	26	0	39	85	many	Reliable locations: Robinson NC, Daisy Meadow, Centennial Emy's Meadow, Mt. Pleasant, many others
Little Yellow	0	0	1	6	1	Coastal Plain areas, Jim Wilkinson & others
*Harvester	0	8	3	1	many	Rockburn Branch Park, Wincopin Red Trail, PVSP Morning Choice Trail & Hollofield by Allor, Ott, Solem, Hunt, Litzinger, Heffernan, McClure
*Eastern Pine Elfin	1	1	3	2	3	Hunt & Ott at Rockburn Branch Park, Hunt at Hipsley Mill PRSP; 2016 Wilkinson at Oxford Sq. & Muller, Oakland Mills Rd office.
*White M Hairstreak	0	6	4	7	2	Wilkinson at Gateway, 2016 Hunt on Patuxent Branch Trail (6 individuals)
*American Snout	1	1	0	8	7	Southern Fall migrant; wanderer; host Hackberry; Gateway, Ox- ford Sq, Lake K, gardens, Murray Hill, Hammond area
*Silvery Checkerspot	1	13	1	4	2	First sighted in numbers in 2012 irruption. Linda Hunt & Bonnie Ott at David Force NRA and Murray Hill
Painted Lady	6	67	15	7	many	2016 Wilkinson at Elkhorn, Oxford Sq, & Gateway in Oct; Tufts garden July; Meadowbrook June
Viceroy	4	18	34	4	many	2016 Aug & Oct at Meadowbrook, Western Regional
*Hackberry Emperor	1	1	4	1	3	Private Sykesville garden with 2 Hackberry trees, Hunt at David Force (Hackberry tree now dead), Bonnie Ott near Ellicott City private farm
Monarch	23	172	400	620	many	#s probably represent far fewer than actually occur.