

2022 HOWARD COUNTY BUTTERFLY YEAR

BY KEVIN HEFFERNAN

Last year we completed the ninth year of the Howard County Butterfly Survey. We had by far the highest number of observers (104) and the second highest in surveys submitted (1,044) and duration in the field (56,668 minutes). We found 23,083 butterflies of 70 species. This was the second year in a row that we exceeded 1,000 butterfly reports submitted. We have now seen 195,916 individual butterflies in the nine year survey and will easily break 200,000 next year. The 388,935 minutes in the field = 6,482 hours or 162 40-hour work weeks equivalent to 3+ years of effort.



Linda Hunt

One doesn't succeed in a project of this size without a lot of help and dedication. So, some big thank you's are in order. First thank you to Linda Hunt who ran this survey and kept it going for several years after Dick Smith passed away. She stepped away from the data gathering this year but still led walks, gave talks, and submitted the largest number of surveys. Another big thank you to Kathy Litzinger for assisting in the data gathering after Linda stepped away and for co-leading several butterfly walks. *Without her, the survey this year would not have happened.* Another thank you to Bob Solem for providing the tools to get the data from emails to a spreadsheet where it can be analyzed, the photo gallery, posted trip reports, and a host of other things. Also, thank you to Woody Merkle and Annette Allor for leading several butterfly walks this year. Also, a long overdue thank you to Clayton Koonce and Jim Wilkinson for their years of active participation in this survey. Finally, a thank you to all 104 participants in the survey this year.

Early Season: The first date that a butterfly was seen last spring was February 21st. Annette Allor found an Eastern Comma at Western Regional Park. Two days later, another Eastern Comma (see photo) was found at Henryton Area of PVSP again by Annette. On February 28th, Annette found a Mourning Cloak at Rockburn Park. Annette basically owned February. By the end of March, 62 butterflies of five species (Mourning Cloak (13), Eastern Comma (9), Question Mark (1), Azure species (13), and Cabbage White (26)) had been reported. For the second year in a row, the first Azure was reported by Kathy Kaberle; this year on March 7th.



Eastern Comma
Annette Allor

Sue Muller reported the first Cabbage White on March 11th. Question Mark numbers went from 28 in 2020, to 54 in 2021 and back down to 29 in 2022. The first was reported by Lisa Colangelo on March 15th. The first skipper of the year was a Juvenal's Duskywing reported by Linda Hunt on April 12th. Other early first of the year sightings included: Falcate Orange-tip (Bonnie Ott, April 8th), Clouded Sulphur (Linda Hunt, April 12th), Meadow Fritillary (Linda Hunt, April 13th), Eastern Tiger Swallowtail (Heidi Osterman), Gray Hairstreak (Karen Heffernan) and Orange Sulphur (Jim Wilkinson) all on April 14th, and Black Swallowtail (Kathy Kaberle, April 15th). No spring brood White M Hairstreak was reported and, for the second year in a row, no Eastern Pine Elfins were found.

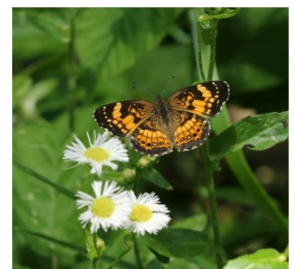
Peak Years: Twelve species had nine year high counts for the survey: Northern Cloudywing (22), Horace's Duskywing (131), Southern Broken-Dash (37), Little Glassywing (733), Hobomok (33) and Broad-winged (25) Skippers, Spicebush Swallowtail (500), Harvester (14), Banded Hairstreak (51), White M Hairstreak (24), Mourning Cloak (33), and Viceroy (45). An additional 12 species had second highest counts in the survey including Common Sootywing (7), Fiery Skipper (274), Dun Skipper (48), Black Swallowtail (192), Giant Swallowtail (3), and Eastern Tiger Swallowtail (1,780), Sleepy Orange (396), Meadow Fritillary (83), Silvery Checkerspot (170), Eastern Comma (84), Appalachian Brown (55), and Monarch (934). Overall, 34% of the 70 species found had peak or second highest count years.

In 2020, 32 Silvery Checkerspots were found and that earned it the 2020 Butterfly of the Year. In 2021, an incredible 246 were found with 215 of these at a single location at Ilchester Elementary School (found by Kathy Litzinger) on Jerusalem artichoke. Unfortunately, that habitat was mowed and leaf blown so this time last year, we were concerned that the Silvery Checkerspots would not return in 2022.



Broad-winged Skipper
Linda Hunt

That concern was unfounded as 170 were reported this year, many of them from Ilchester Elementary. A total of two Broad-winged Skippers were reported in 2020 and one in 2021. This year 25 were reported, more than double the previous peak. Many of those were found at a new site that had common milkweed next to phragmites at Meadowbrook Park. There are certainly more pocket habitats like this for Silvery Checkerspot and Broad-winged Skippers around the county. We just need to find them (and try to preserve them).



Silvery Checkerspot
Kathy Litzinger

Low counts: The following four species had nine year low counts for the survey: Common Checkered-Skipper (14), Tawny-edged Skipper (28), Great Spangled Fritillary (23), and Hackberry Emperor (1). An additional five species had their second lowest count during the survey. These include Long-tailed Skipper (1), Southern Cloudywing (13), Falcate Orange-tip (12), American Copper (16), and Pearl Crescent (640). Overall, 13% of the 70 species found had their lowest or second lowest count during the survey.

Howard County Watch List: Common Checkered-Skipper numbers have dropped for five years in a row from a peak of 331 in 2017 to 14 this year. These are found in higher numbers in the western part of the county where fewer people survey. Their conservation status is S5 (secure) in Maryland, but they are on the watch list in this county. American Copper numbers had also dropped for five years in a row. The 16 found in 2022 was slightly higher than the 13 found in 2021 stopping that streak but barely. The peak number for this species was 86 in



American Copper
Pam Perna

2016. In the last four years, Great Spangled Fritillary numbers have dropped from 168 in 2018 to 39 (2019), 45 (2020), 32 (2021) and a low of 23 in 2022. These numbers reflect regional trends and could be global warming-related (disrupted timing of caterpillar emerging from diapause and violet emergence).

Of the 70 species found this year, 12 (~17%) had <10 individuals reported. These include *Crossline Skipper* (8), *Coral Hairstreak* (8), *Common Sootywing* (7), *Tawny Emperor* (7), *Swarthy Skipper* (6), *Clouded Skipper* (5), Northern Broken-Dash (3), **Giant Swallowtail** (3), *Common Wood-Nymph* (2), *Long-tailed Skipper* (1), **Mulberry Wing** (1), and Hackberry Emperor (1). Eight of these (italics) were also on last year's "<10 individuals" reported list. Two (bold) were not seen last year.

Notes from the year:

- No new species were seen this year leaving the species count for the survey at 80.
- Mt Pleasant added a new species, Zebra Swallowtail, found by Annette Allor. This location has 68 species, the highest number of species in the county.
- A new early date was established for Crossline Skipper (Annette Allor).
- New late dates were established for Appalachian Brown (Bill Hill), Hobomok Skipper (Annette Allor), and Broad-winged Skipper (Linda Hunt).
- This is the first year that Northern Cloudywing numbers exceeded Southern Cloudywing.
- The Giant Swallowtails seen this year were the first reported since 2019.
- The number of Pipevine Swallowtails has exceeded the number of Zebra Swallowtails during the survey.
- Monarchs had a good year with 934 reported, the second highest in the nine year survey.
- Appalachian Brown numbers this year exceeded the total of the last five years combined.
- We conducted seven butterfly walks last year, six at Mt Pleasant and one at the Elkhorn Garden Plots. We averaged 20 people and 23 species per walk. The walk on August 20th had 26 participants, 33 species and five leaders. The two walks in June successfully found both Coral and Banded Hairstreaks.
- The top six contributors in terms of number of surveys submitted accounted for >50% of the surveys submitted. They were Linda Hunt (186), Clayton Koonce (173), Kathy Litzinger (83), Jim Wilkinson (64), Annette Allor (53) and Woody Merkle (43).
- The Howard County Department of Recreation and Parks has established 12 pollinator meadows of over 65 acres in eight locations over the years. The list is on the bird club website.
- See the presentation given at the January bird club meeting for more information about the 2022 butterfly year.



Zebra Swallowtail
Annette Allor



Group photo from August 20th walk.

Last Butterfly of the Year Contest: We again had the "Last Butterfly of the Year" contest with the winner receiving a *Butterflies of the Mid-Atlantic* field guide. The winner this year was Bill Hill who sent in a photo of a Common Checkered-Skipper seen on November 12th. Congratulations Bill.

Butterfly of the Year: Each year we award a "Butterfly of the Year" to a species that had an outstanding year. This year the award goes to the Harvester. The seven Harvesters seen in 2014, the first year of the survey, were the first adult Harvesters seen in the county since 1996. In the seven years between 2015 and 2021, a total of only 11 Harvesters were reported. This year alone, 14 Harvesters were seen. In addition, we had photos from several photographers of female Harvester ovipositing, and photos from Bonnie Ott of Harvester caterpillars in amongst their aphid prey. Finally, after many hours of searching, **Bonnie found a Harvester chrysalis, a first ever sighting for the county.**



Common Checkered-Skipper
Bill Hill



Harvester – Annette Allor



Harvester ovipositing
Kevin Heffernan



Harvester chrysalis – Bonnie Ott

Photos and Videos from participants: This year again we have received many excellent photos of butterflies. Some of the photos are proof of a sighting. Others are to request help with an ID which we enjoy receiving. Please do not hesitate to reach out with a request for an ID. Some of the photos we receive are simply eye-popping. Many of these photos are in the PowerPoint presentation given at the January Howard County Bird Club meeting and now on the website.

New Data / Tools for the Butterfly Survey: In the nine years that the butterfly survey has been taking place, you surveyors have reported over 195,000 butterflies. With this vast amount of data, last winter we were able to publish flight times, early and late dates, and overwintering strategies for each of the 80 species that we have found. These are all on the Howard County Bird Club website. They are in PDF format and can be downloaded to your phone for use in the field. This winter, we hope to publish host plant information and to update Dick Smith's latest version of "The Butterflies of Howard County."

What you can do to help butterflies:

- Provide a Pocket Habitat for butterflies
- Plant a native plant pollinator garden and landscape for caterpillars
- Leave the leaves
- Reduce the size of your lawn (or mow less frequently)
- Reduce mosquito spray and insecticide usage
- Get rid of invasive plants
- Embrace the wild in your garden

Thank you all again for another very successful year for the Howard County Butterfly Survey. Keep your eyes open. By the time that this newsletter is sent out, we may have already seen the first butterfly of 2023.



Harvester caterpillars – Bonnie Ott



**Tawny Emperor ovipositing
Kathy Litzinger**



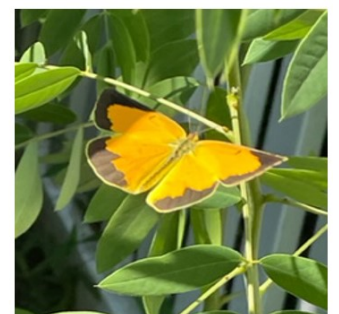
Giant Swallowtail - Linda Hunt



Cloudless Sulphurs – Kelsey Wellons



Red-spotted Purple – Clayton Koonce



**Sleepy Orange – dorsal side
Barbara White**