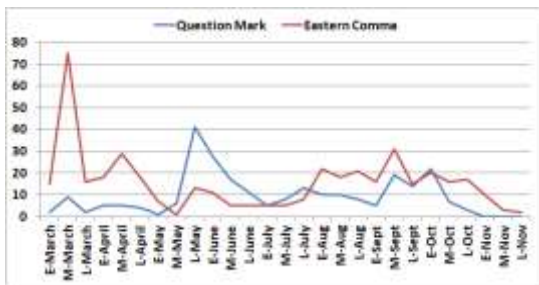


2021 Howard County Butterfly Year

By Kevin Heffernan and Linda Hunt

This past year was the second year of the Covid-19 global pandemic. You would think that getting out in the fresh air and sunshine would be a great (and safe) way to spend time during these difficult days. Apparently, a lot of people thought the same thing. Of the eight years of the butterfly survey, 2021 had the highest number of participants (73), the highest number of surveys (1,144), and the highest number of hours in the field (61,027). Together, we reported 25,897 individual butterflies (second highest) of 69 species. We are amazed and very grateful at the level of participation that we are getting for this survey. Thank you, observers!

Early Season: The first date that butterflies were seen was March 9. Eric Metzman found and photographed a Question Mark at MPEA; Steve Luke saw an Eastern Comma at River Hill High School; and Bonnie Ott had an unidentified anglewing at Henryton. Thirteen additional Eastern Commas were seen over the next two days. On April 15, we equaled the 21 found for the entire year in 2020. The total for the 2021 year was 79. By April 6, we also exceeded the 2020 total of nine Mourning Cloaks, finding a total of 27 in 2021. We now have enough data that we can plot the flight times of each species. We have learned that while some Question Marks overwinter as adults, many migrate south. Their totals tend to peak in late May to early June when the southern migrants return. This is clearly shown on the anglewing flight times plot at left. So if you see an anglewing in March, chances are good that it is an Eastern Comma.



Question Mark (Linda Hunt)

Question Marks also had a good year. We saw 54 in 2021 compared to 28 in 2020. The first of the survey-record 6,032 Cabbage Whites in 2021 was seen by Kelsey Wellons on March 10. The first Azure was seen by Kathy Kaberle on March 22. Kathy also saw the first Eastern Tiger Swallowtail on April 6. Other firsts for the year include Orange Sulphur (Kathy

Litzinger, April 3), Falcate Orangetip (Linda Hunt, April 5), Juniper Hairstreak (Karen Heffernan, April 6), Juvenal's Duskywing and Eastern Tailed-Blue (both on April 6 by Linda Hunt), and Clouded Sulphur (Woody Merkle, April 7). Only seven of the difficult-to-identify Juvenal's Duskywings were reported this year. A single, spring brood White M Hairstreak was reported by Kathy Litzinger on April 26. For the second time in the survey, no Eastern Pine Elfins were reported.



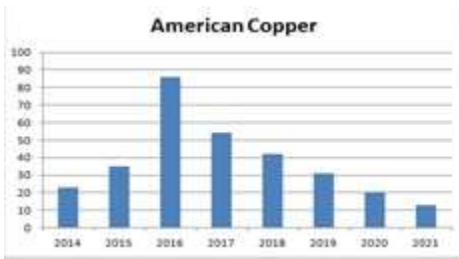
Mourning Cloak (Annette Allor)

Peak Years: The following 13 species had eight-year high counts: White M Hairstreak (24), Red-banded Hairstreak (166), Northern Broken-Dash (17), Little Glassywing (576), Hobomok (33), Zabulon (1,232) and Dun (50) Skippers, Black Swallowtail (200), Cabbage White (6,032), Silvery Checkerspot (246), Viceroy (36), Northern Pearly-eye (305), and Summer Azure (446). An additional 14 species had second highest counts. Overall, 39% of the 69 species logged peak or second highest count years. Silvery Checkerspot's peak count during the first six years of the survey was 13 in 2014. In 2020, 32 were found and that earned it the 2020 Butterfly of the Year. In 2021, an incredible 246 were counted with 215 of these at a single location at Ilchester Elementary School (Kathy Litzinger) on Jerusalem Artichoke. Unfortunately, that habitat was mowed and leaf-blown so the Silvery Checkerspot colony may not be back next year. There are certainly more pocket habitats like this for Silvery Checkerspot around the county. We just need to find them (and try to preserve them).

Low Counts: The following five species had eight-year low counts: Silver-spotted (776), Crossline (4), and Broad-winged Skipper (1), American Copper (13), and Great Spangled Fritillary (32). An additional seven species had their second lowest count. Overall, 17% of the 69 species found had their lowest or second lowest count during the survey. Silver-spotted Skipper numbers have dropped for three straight years and bear watching. Crossline Skipper numbers are never high and are probably grossly undercounted due to the difficult identification (ID). Broad-winged Skipper uses phragmites as a host plant which is unusual as it is a non-native plant. It had one main location where it was found in the county (Kathy Litzinger's backyard); however, another phragmites patch in the same neighborhood was removed and no Broad-winged Skippers have been found in that area since 2019. There are certainly other



Silvery Checkerspot (Susan Tucker)



spots in the county with phragmites where Broad-winged Skippers should be; we just need to locate them. American Copper numbers have dropped every year since 2016 (see American Copper graph) which is very concerning and needs to be watched. In the last three years, the Great Spangled Fritillary numbers have been 20-25% of the 2018 count. These numbers reflect regional trends and could be global warming related (disrupted timing of caterpillars emerging from diapauses and violet emergence). Common Checkered-Skipper (second lowest count) numbers have dropped each year since 2017. Dusted Skipper was not found for the third year in a row; we fear that it has been extirpated from the

county.

Of the 69 species found this year, 14 (~20%) had ≤ 10 individuals. These include Long-tailed Skipper (2), Juvenal's Duskywing (7), Common Sootywing (3), Swarthy Skipper (3), Clouded Skipper (5), Crossline Skipper (4), Broad-winged Skipper (1), Little Yellow (1), Harvester (3), Coral Hairstreak (9), Banded Hairstreak (8), American Snout (10), Tawny Emperor (8), and Common Wood-Nymph (5).

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, Tawny Emperor, found by Annette Allor. This location has 67 species, the highest number of species in the county.
- Other locations with a high diversity of species include Gateway Business Park (55), Patapsco Valley State Park (55), Elkhorn Garden Plots (55), Rockburn Branch Park (54), Murray Hill powerline (53), Kathy Litzinger's garden (53), Robinson Nature Center (51), Lake Kittimaquundi (50), and Linda Hunt's garden (50).
- The Howard County Bird Club (HCBC) is working with Howard County Bee City to try to create habitat, to provide information on good pollinator habitat and practices, etc. This year, the HCBC helped finance talks by Doug Tallamy and Heather Holm. We also contributed funds toward the planting of a pollinator garden at Howard County Community College and donated \$300 to Bee City.
- Monarchs had an average year with 840 reported, almost identical to 2020. The last Banded Hairstreak of the year was found by the McClures on July 21, a new late date for this species.
- Maryland HB322 went into effect on October 1, 2021. This law codifies the right to have pollinator/habitat gardens and specifically encourages attracting wildlife and pollinators.
- The law says that HOAs cannot require homeowners to plant turfgrass and "may not impose or act to impose unreasonable limitations on low impact landscaping."
- Two new special projects, which are perfect examples of what we should be doing, were started this year:
 - MPEA Butterfly Survey had nine participants, 1,177 surveys, and 39 species. The goal is to determine what actions are necessary to provide habitat for a diversity of species at MPEA.
 - Robinson Nature Center Master Naturalist Survey had eight participants, 31 surveys, 1,153 butterflies and 34 species. Ally Rogan stated, "My goal was to help Robinson attract and support a greater diversity of butterflies... I put together a list of butterflies which could be encouraged at Robinson by adding specific additional host plants in suitable locations."



Tawny Emperor, Mt. Pleasant
(Annette Allor)



Banded Hairstreak (McClures)

Last Butterfly of the Year Contest: Annette Allor suggested that we have a "Last Butterfly of the Year" contest with the winner receiving a *Butterflies of the Mid-Atlantic* field guide that she would provide. That created some excitement in the waning days of the butterfly year. Three Orange Sulphurs were found in December. Pam Perna found one on December 1, Bonnie Ott on December 3, and Amy Fine-Dugas and her son Tyler Dugas found one on December 16 to claim the prize. Congratulations Amy and Tyler and thank you, Annette.



Amy Fine Dugas and Tyler Dugas

Butterfly of the Year: Each year we select a “Butterfly of the Year,” naming a species that had an outstanding year. This year the award goes to the White M Hairstreak. In the first seven years of the survey, the peak count was seven individuals in 2016. This year we had 24, one in the spring brood and 23 in the fall. For a few weeks, it felt like someone was finding a White M every day. We hope this trend will continue for this difficult-to-find species.



White M Hairstreak
(Clayton Koonce)

Photos and Videos from participants: This year surveyors submitted many excellent photos of butterflies. Some of the photos were proof of a sighting. Others requested help with an ID (which we enjoy receiving). Please do not hesitate to send us a request for an ID. Some of the photos we received were simply eye-popping. Many of them were included in the PowerPoint presentation given at the January HCBC meeting that is now on the website. This year we have also received several excellent videos. The one thing that was different this year was the number of caterpillar, chrysalis, and butterflies eclosing photos. Several of these are shown below.



Gray Hairstreak (Bill Hill)

New Data / Tools for the Butterfly Survey: In the eight years that the butterfly survey has taken place, surveyors have reported over 170,000 butterflies. With this vast amount of data, we plan to make some tools available. In the winter of 2021-2022, we hope to publish flight times, early and late dates, overwintering strategies, and possibly host plant information for each of the 80 species found on the survey. With any luck, we will also attempt to update Dick Smith’s latest version of “The Butterflies of Howard County.” We will let people know when these tools are available.

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.



Mourning Cloak eclosing (Kathy Litzinger)



Variegated Fritillary
chrysalis (Kevin Heffernan)



Hackberry Emperor eggs
and caterpillars (Bonnie Ott)

Again, thanks to all of you for another very successful year for the Howard County Butterfly Survey. Watch for the first butterfly of 2022!