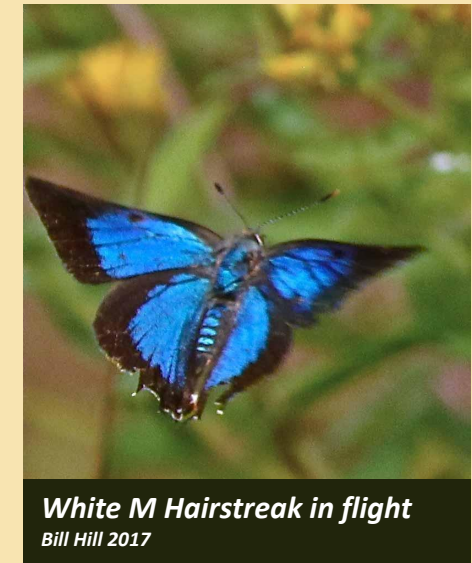
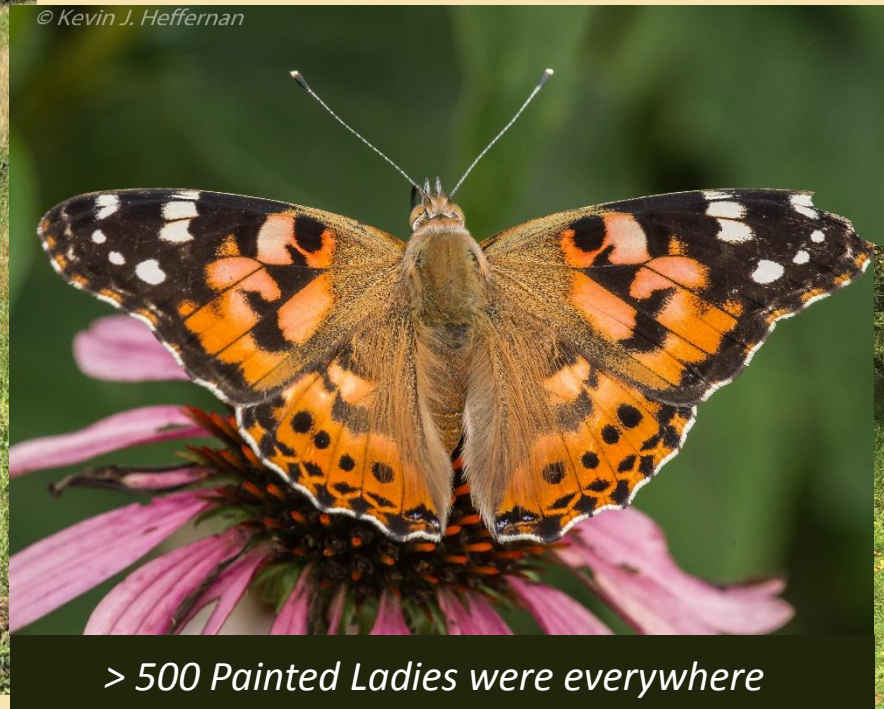
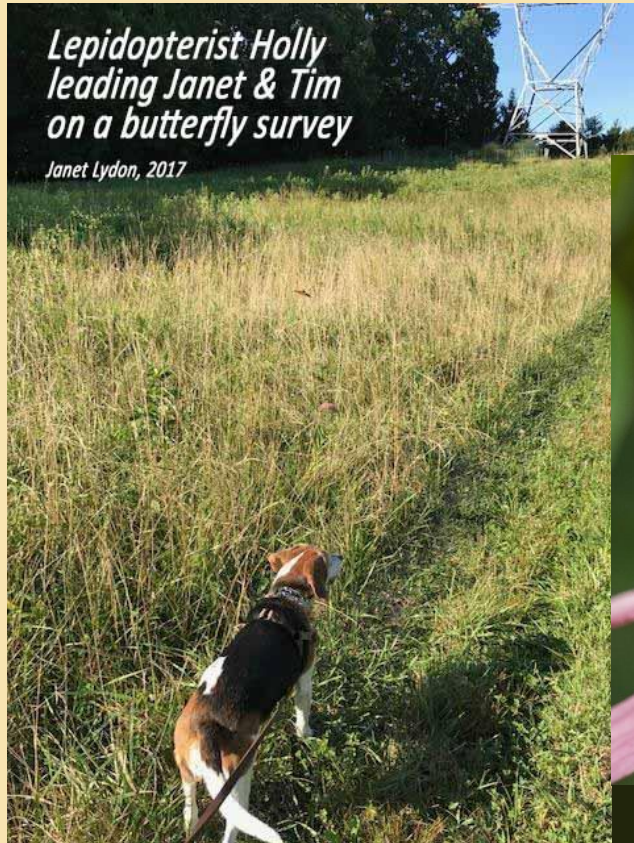


# 2013-2017 Howard County Butterfly Survey



Co-sponsored by the Howard County Bird Club and the Howard County Department of Recreation and Parks, Originated by Richard H. Smith, Jo Solem, Sue Muller

# Thank You Volunteers!

## 2017: 66 surveyors & contributors/89 locations

**Bob Solem** for his continuing help creating and modifying data collection forms and streamlining the data compilation process. His technical expertise is essential.

**Field Trip Leaders (Karen and Kevin Heffernan, Linda Hunt, Kathy Litzinger, Sue Muller, Woody Merkle) and Participants** for their enthusiasm and eagle eyes.

**Surveyors & Gardeners** who spent so many hours walking parks, searching utility easements, and checking their gardens and then taking the time to submit reports (**Full season Site Surveyors in bold**): Annette Allor, Paul Bade, Kathy Barylski, Gill Bentley, Jonathan Blithe, Karen Blum, Wes Earp, Sherry Fisher, John Fisher, **Timothy Foard**, Mary Fox, Jeff Friedhoffer, Ralph Geuder, **David Gillum**, Patricia Greenwald, Carrie Harlow, John Harris, John Hayes, **Karen and Kevin Heffernan, Bill and Gayle Hill, Linda Hunt**, Kathy Kaberle, Suzanne Klick, **Clayton Koonce**, Nancy Lawson, Jill Levin, Kathie Lillie, **Kathy Litzinger**, Emily Loghmani, Felicia Lovelett, Brigitte Lund, **Janet Lydon**, Nancy Magnusson, Joe Mankowski, Grazina and Mike McClure, John McKitterick, **Woody Merkle**, Michael Osborne, Richard Orr, Bonnie Ott, Siobhan Percy, Gregg Petersen, Norma Petersen, Paul Petkus, Ann Phillips, Tim Reichard, Linda Roberts, Eugene Scarpulla, Kurt Schwarz, Gloria Smith, Sharon Smith, Warren Smith, Jo and Bob Solem, Jessee Standbridge, Elizabeth Starr, Tim Thompson, Robin Todd, Kate Tufts, Barbara White, **Jim Wilkinson**, Michele Wright.

## 2016: 49 surveyors & contributors

Rene & Paul Bade, Kathy Barylski, Bowman, Alicia Buxton, Carol, Field, Fisher, Linda Giampalmo, Pat Greenwald, Karen & Kevin Heffernan, Gayle & Bill Hill, Linda Hunt, Suzanne Klick, Clayton Koonce, Krantz, Asuncion Lavind, Kathi Lillie, Kathy Litzinger, Lund, Lydon, Lyson, Grazina & Mike McClure, Sue Muller, Nancy Magnusson, John McKitterick, Woody Merkle, Richard Orr, Bonnie Ott, Parsa, Paul Petkus, Peterson, Suzanne Probst, Reeser, Tim Reichard, Rutter, Kurt Schwarz, Sikorski, S. Smith, Jo & Bob Solem, Strozyk, Stirrat, Kate Tufts, Wallace, Jim Wilkinson, Carol Zancan



## 2015: 41 surveyors & contributors

Rene & Paul Bade, Gill Bentley, Alicia Buxton, Carol, Ward Ebert, Field, Sherry Fisher, Linda Giampalmo, Pat Greenwald, Karen & Kevin Heffernan, Gayle & Bill Hill, Linda Hunt, Mike Kerwin, Suzanne Klick, Clayton Koonce, Jenny Krantz, Asuncion Lavind, Kathi Lillie, Kathy Litzinger, Grazina & Mike McClure, John McKitterick, Woody Merkle, Sue Muller, Bonnie Ott, Howard Peterson, Norma Petersen, Paul Petkus, Suzanne Probst, Tim Reichard, Kurt Schwarz, Richard Smith, Sharon Smith, Jo & Bob Solem, Strozyk, Kate Tufts, Jim Wilkinson

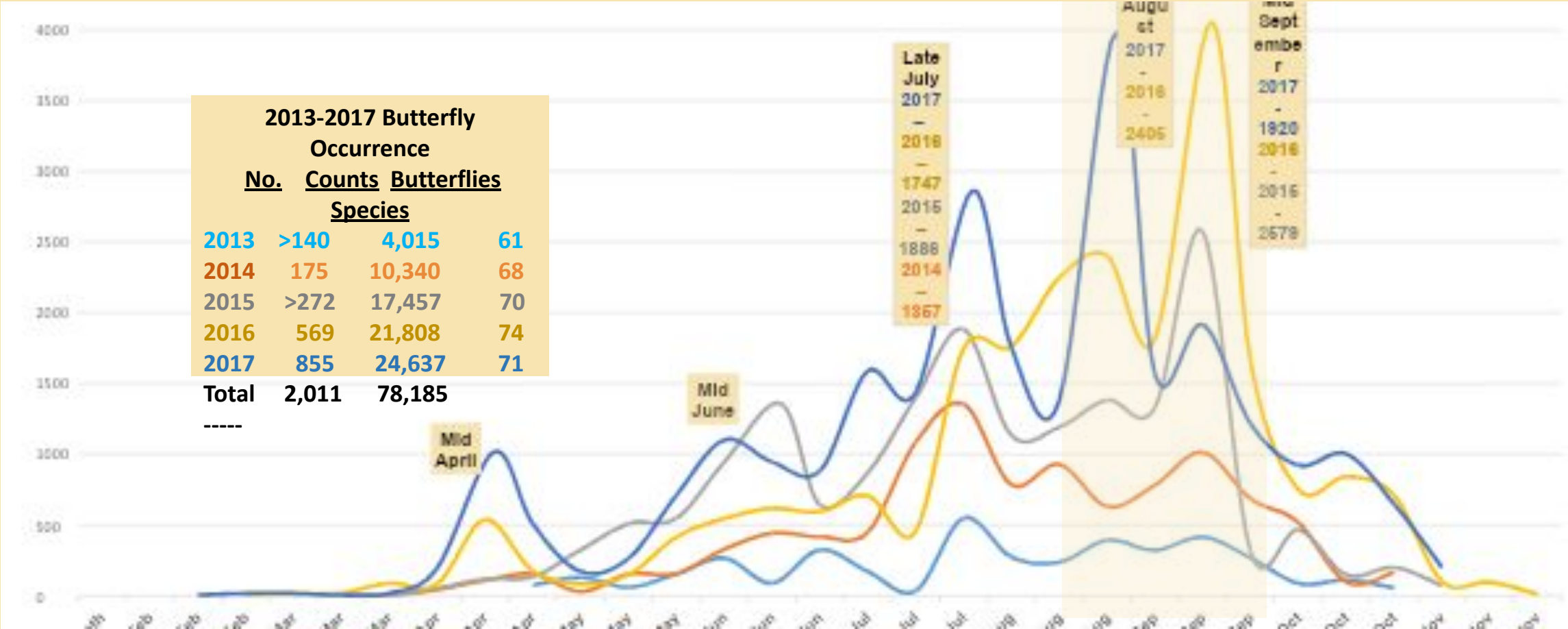
## 2014: 22 surveyors & contributors

Ann Coren, Jeff Friedhoffer, David Gillum, Karen & Kevin Heffernan, Emy Holdridge, Linda Hunt, Suzanne Klick, Asuncion Lavind, Allen Lewis, Kathy Litzinger, Grazina & Mike McClure, John McKitterick, Sue Muller, Richard Orr, Bonnie Ott, Suzanne Probst, Kurt Schwarz, Jo & Bob Solem, Jim Wilkinson

## 2013 (prototype year): 8 surveyors

Ann Coren, Linda Hunt, Allen Lewis, Kathy Litzinger, Suzanne Probst Jay Sheppard, Kate Tufts, Jim Wilkinson

# Survey Objective 1: to track changes in species and populations in Howard County over a long period of time (5-year period).

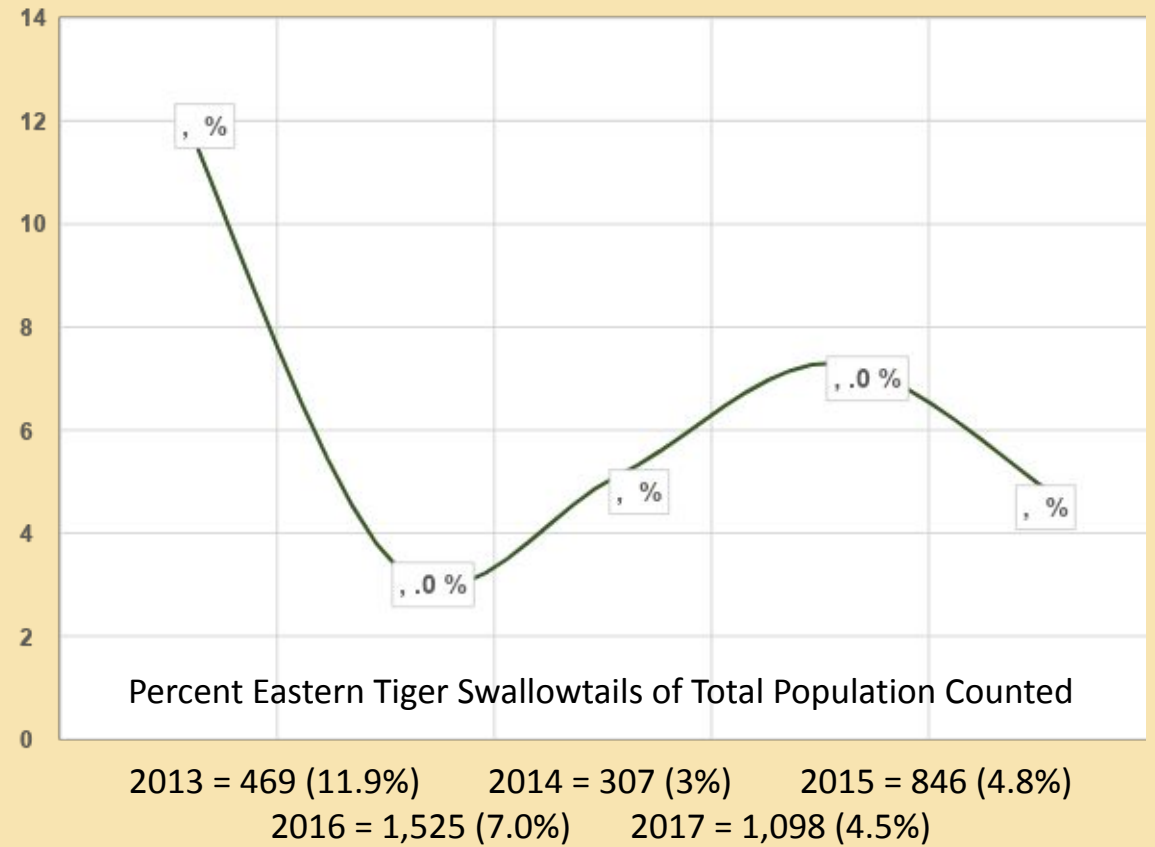


- 76 species recorded (27 are skippers)
- 6 species have occurred only once since 2012
- 6 historic species continue undocumented
- 6 historic species probably extirpated

Specific species occurrence levels may vary dramatically from year to year.

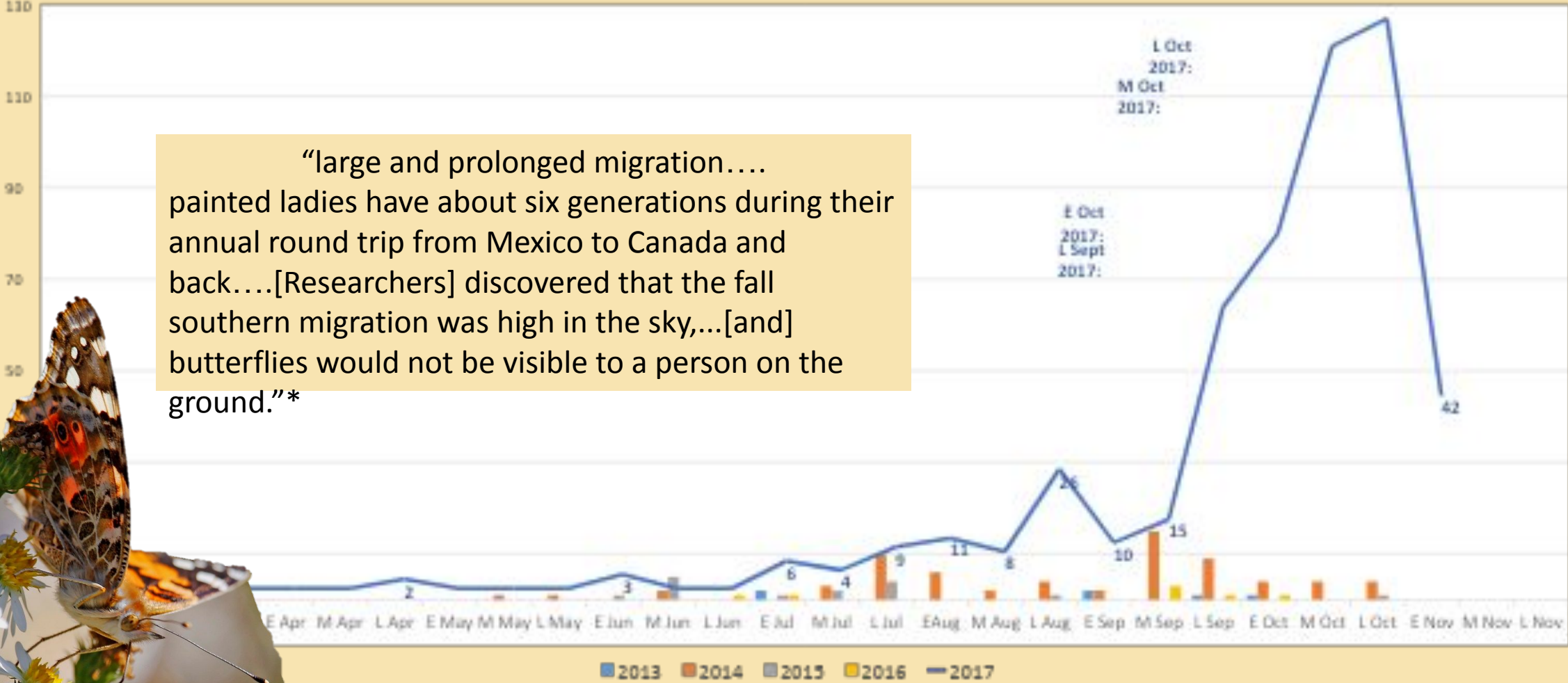


## Eastern Tiger Swallowtails



# > 500 Painted Ladies: Profile of a Major Irruption & Migration

“large and prolonged migration.... painted ladies have about six generations during their annual round trip from Mexico to Canada and back....[Researchers] discovered that the fall southern migration was high in the sky,...[and] butterflies would not be visible to a person on the ground.”\*



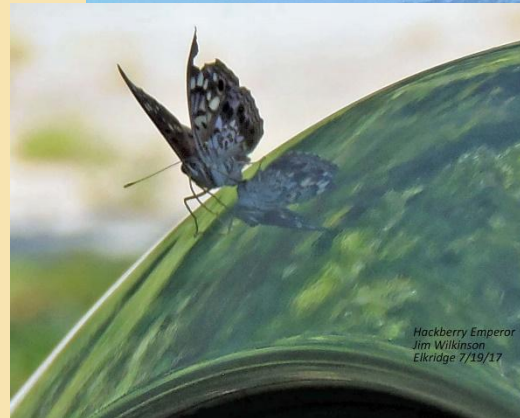
prolonged migration of Painted Ladies, Jeff Mitton, Updated October 20, 2017 [http://www.dailycamera.com/science\\_columnists/ci\\_31388262/jeff-mitton-prolonged-migration-painted-ladies](http://www.dailycamera.com/science_columnists/ci_31388262/jeff-mitton-prolonged-migration-painted-ladies)  
<https://www.mnn.com/earth-matters/animals/blogs/massive-butterfly-migration-denver-picked-radar>

A few species were found in locations new for the species.



The Wandering Harvester

- 2013 Rockburn Branch Park: 1 caterpillar
- 2014 PVSP - Morning Choice Tr & Marriottsville, Wincopin Trails: 8 adults & caterpillars
- 2014 Rockburn Branch Park & PVSP Hollofield: 3 adults
- 2014 Rockburn Branch Park: 1 adult
- 2015 HOCO Conservancy 1 adult



The Hackberry Saga

- 4 years of Howard County Bird Club members looking for a good location with hackberry trees
- Surveyors discovering Hackberry trees at 2 private homes, 3 parks & 2 other locations
- HOCO Recreation & Parks planting a 12 hackberry trees at 3 county parks in memory of Dick Smith
- In 2017 Kevin & Karen Heffernan and Bonnie Ott found multiple trees in addition to 2 previously identified in the hedgerows around the Howard County Conservancy fields. From mid-July to mid-August they documented 15 Hackberry Emperors.
- Jim Wilkinson discovered 2 Hackberry Emperors sitting on his car in Elkridge on July 19.



Unfortunately, development has now encroached on most, if not all, of Howard County's sliver of Coastal Plain habitat along the Anne Arundel border. Development & commercial herbicide spray continues to decrease farm meadow habitat in western Howard County. During the survey time period there have been fewer or no sightings of familiar and rarer species dependent on these habitats.



Farm fields prepared with potent herbicide spray or lost to development  
Meadow Fritillary, skippers



Oxford Square, coastal plain  
Checkered White, Little Yellow



Little Yellow  
L. Hunt  
Oxford Square 2016



Checkered White, female  
Haver, 9/12/16  
Jim Wilkinson

However, parks, private gardens, farms and rights of way are important sources of butterfly habitat.



Barbara White had multiple broods of Pipevine Swallowtail on pipevine.



Monarch emerging in Sue Muller's garden.

Broad-winged Skippers visited Kathy Litzinger's garden (neighbor's yard has host plant phragmites).



Richard Orr saw this year's single American Snout in his yard (no picture).



2 Long-tailed Skippers appeared, 1 at Lake Kittamaqundi (Clayton Koonce) and 1 in Linda Hunt's garden.



Cloudless Sulphur

Maryland Senna supported broods of Sleepy Orange and Cloudless Sulphur at Robinson Nature Center, Daisy Meadow & Linda Hunt's garden.



Sleepy Orange

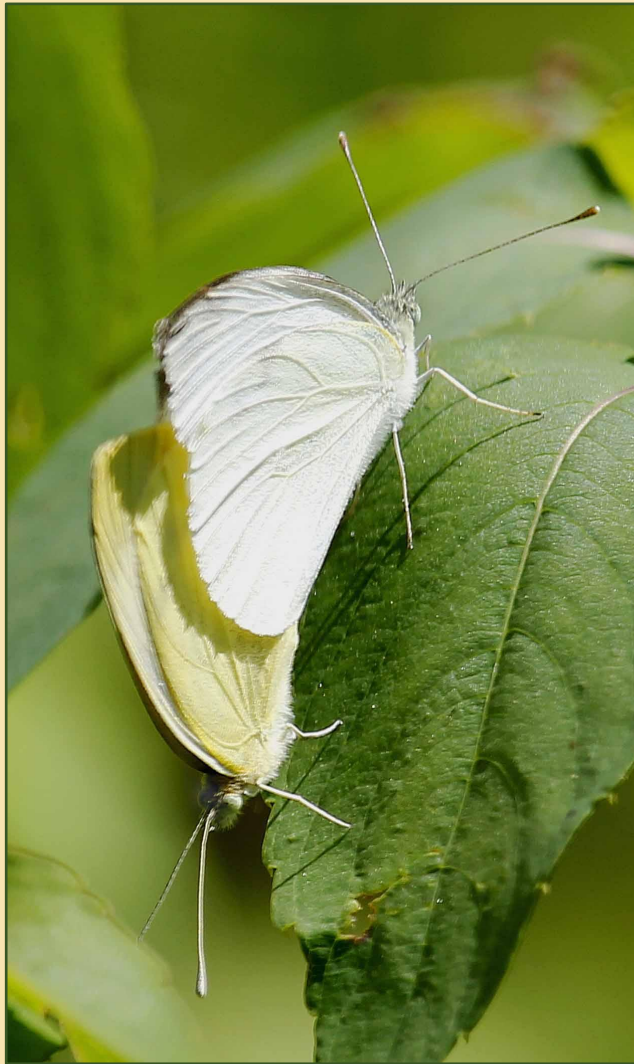


Cloudless Sulphur Ovipositing Daisy Meadow 7/17/17



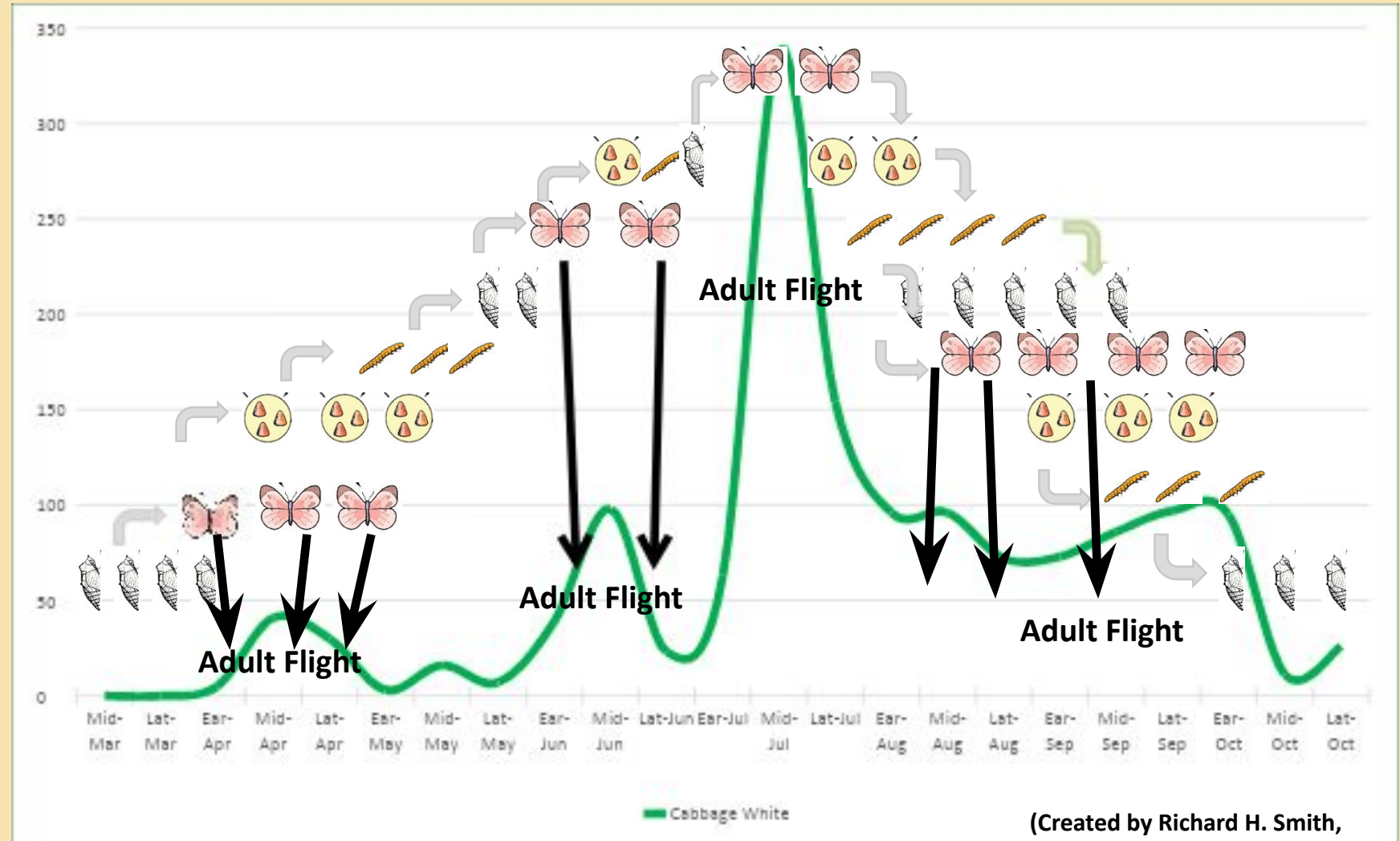
3 distinct Giant Swallowtail individuals stopped to nectar at Grazina McClure's, Linda Hunt's, & John McKitterick's gardens (lantana shown).





**Phenology: Broods and Adult Appearances – Cabbage White**

## Survey Objective 2: to establish local species brood peaks and gaps



(Created by Richard H. Smith, 2014)



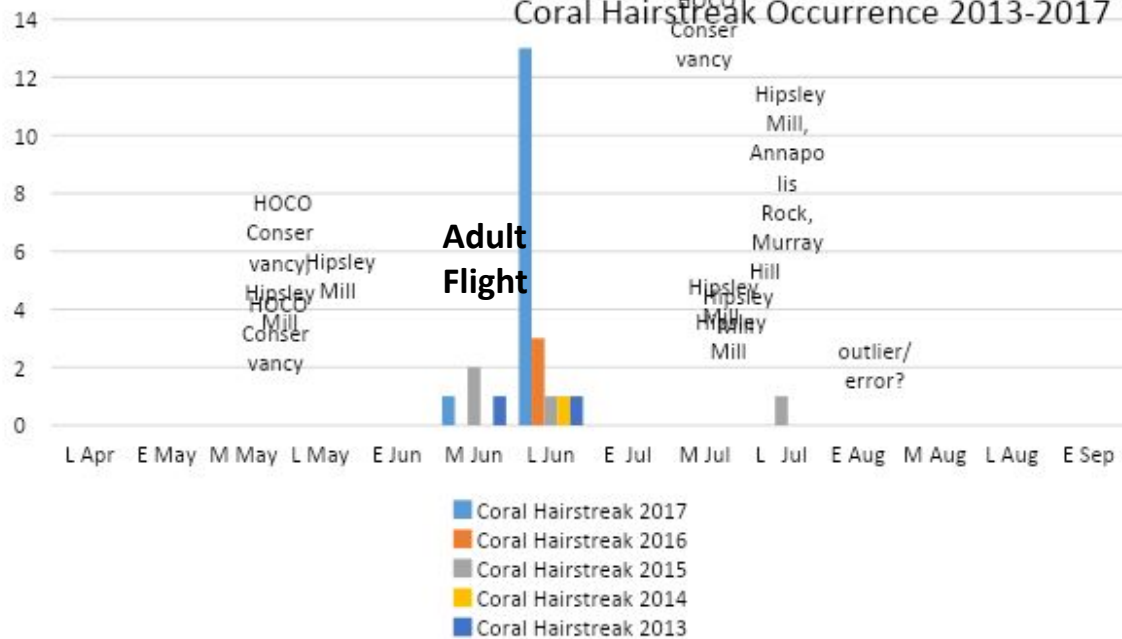
Coral Hairstreak  
HOCO Conservancy K Litzinger 6/24/17

Many common and uncommon species were found in now predictable locations during predictable time periods.

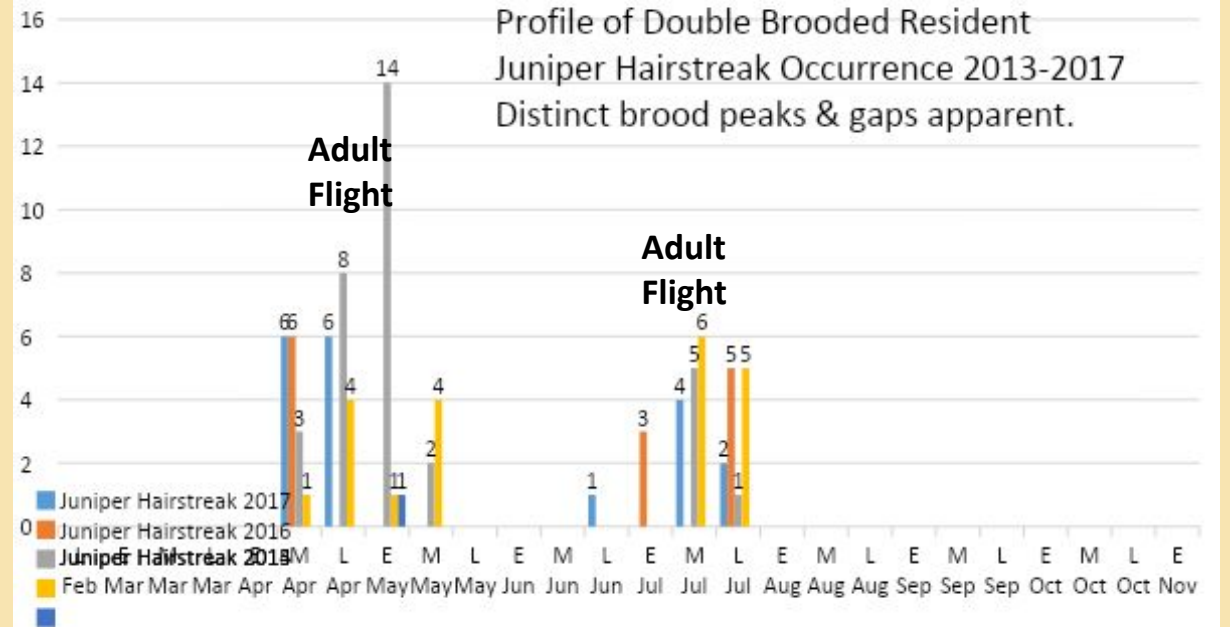


Juniper Hairstreak  
Hipsley Mill L. Hunt 4/14/14

Profile of a Single Brooded Resident  
Coral Hairstreak Occurrence 2013-2017



Profile of Double Brooded Resident  
Juniper Hairstreak Occurrence 2013-2017  
Distinct brood peaks & gaps apparent.



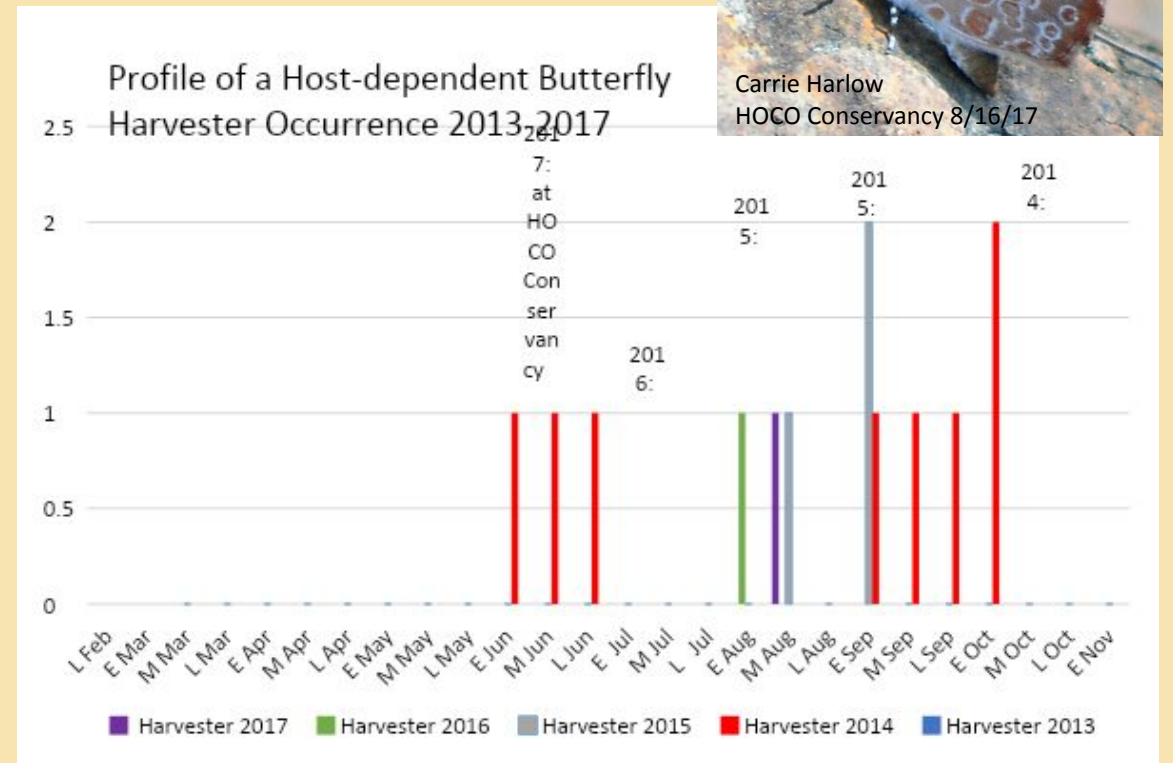
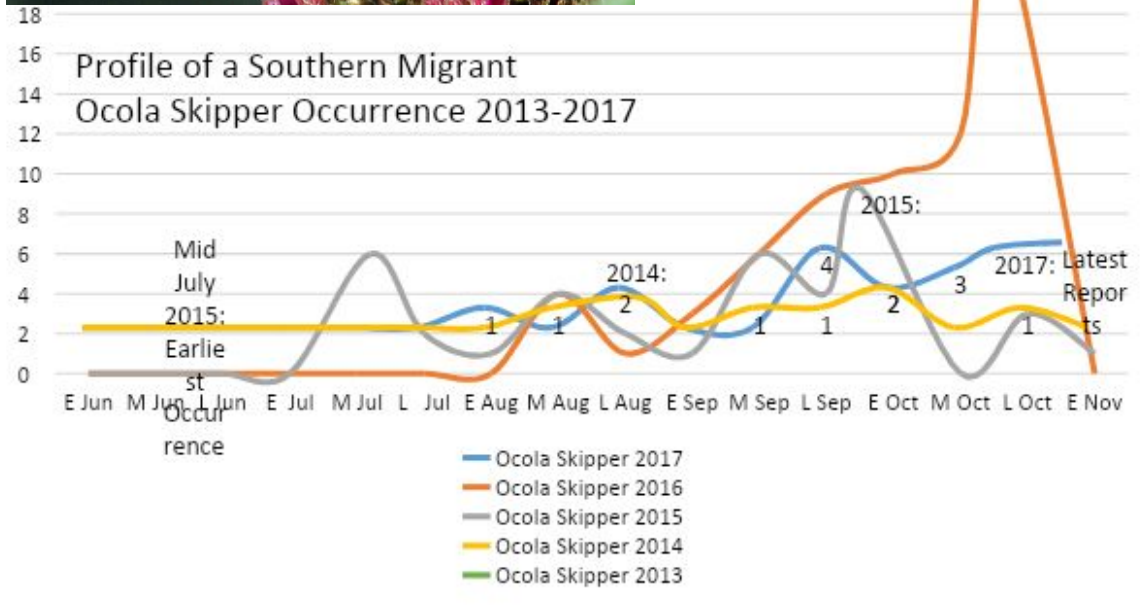


Linda Hunt  
Columbia garden 8/9/17

Other species were found randomly around the county but during predictable time periods.

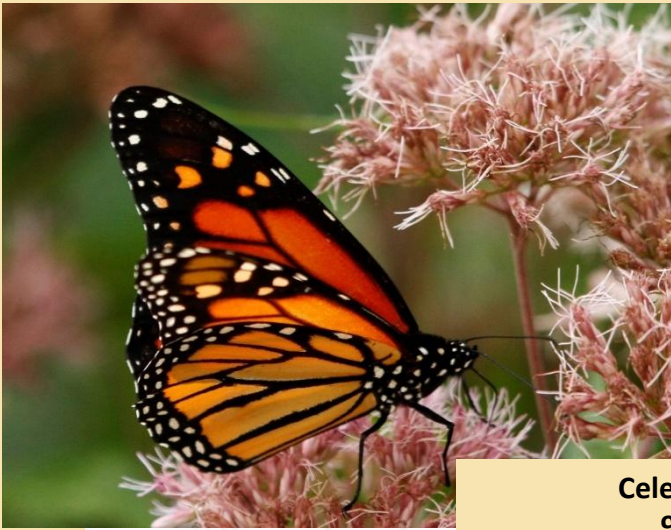


Carrie Harlow  
HOCO Conservancy 8/16/17



The normally unusual/rare Ocola Skipper, abundant in 2016 (63), migrates northward each year and may occur in any habitat with nectar flowers.

After an abundance of sightings of beech aphids, caterpillars, and Harvester butterflies in 2014 (Rockburn, PVSP, Wincopin Trails), the Harvester lived up to its reputation and seemingly vanished from previous sites, randomly appearing at new sites each year.

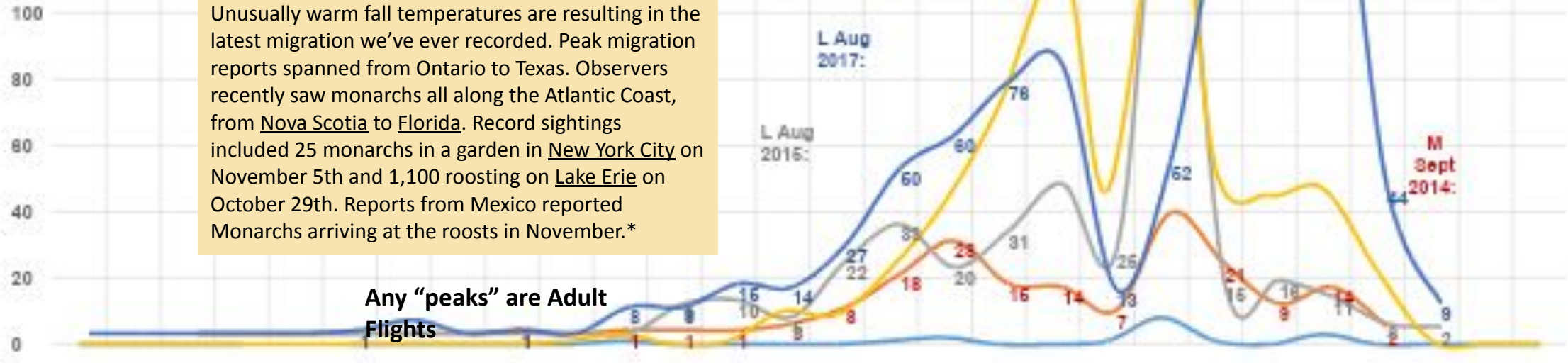


Local surveys can be helpful for butterfly conservation planning, such as meeting the needs of the complex brood and migration cycle of the Monarch. In Howard County most Monarchs occur during fall migration and need nectar plants.

**Celebrating Dia de Los Muertos  
9 de Noviembre de 2017**

**Late, Great Migration Peak Spans 1,500 Miles**

Unusually warm fall temperatures are resulting in the latest migration we've ever recorded. Peak migration reports spanned from Ontario to Texas. Observers recently saw monarchs all along the Atlantic Coast, from Nova Scotia to Florida. Record sightings included 25 monarchs in a garden in New York City on November 5th and 1,100 roosting on Lake Erie on October 29th. Reports from Mexico reported Monarchs arriving at the roosts in November.\*



\*Journey North: <http://www.learner.org/jnorth/monarchs/news/fall-2017/101917-late-great-migration>



Zebra Swallowtail  
Kathy Litzinger, 8/20/17

## During 2018, the final year of the survey, you can help by . . .

- Attending a presentation on butterfly identification or gardening for butterflies and pollinators
- Counting butterflies in your garden once a week
- Counting butterflies at a park or other location
- Attending a butterfly field trip
- Using the [Online Incidental Survey](http://www.howardbirds.org/butterflies/Incidental_sighting.htm) to record butterflies you see when you are out walking/birding wherever you are:  
[http://www.howardbirds.org/butterflies/Incidental\\_sighting.htm](http://www.howardbirds.org/butterflies/Incidental_sighting.htm)

And who can resist  
the butterfly's song...  
Gentle ambassadors  
of sunshine and joy.



*Pipevine Swallowtail*  
Kathy Litzinger  
Ellicott City, 2017

Many butterflies species are often *not observed* outside their specific habitat

## Early Spring Butterflies

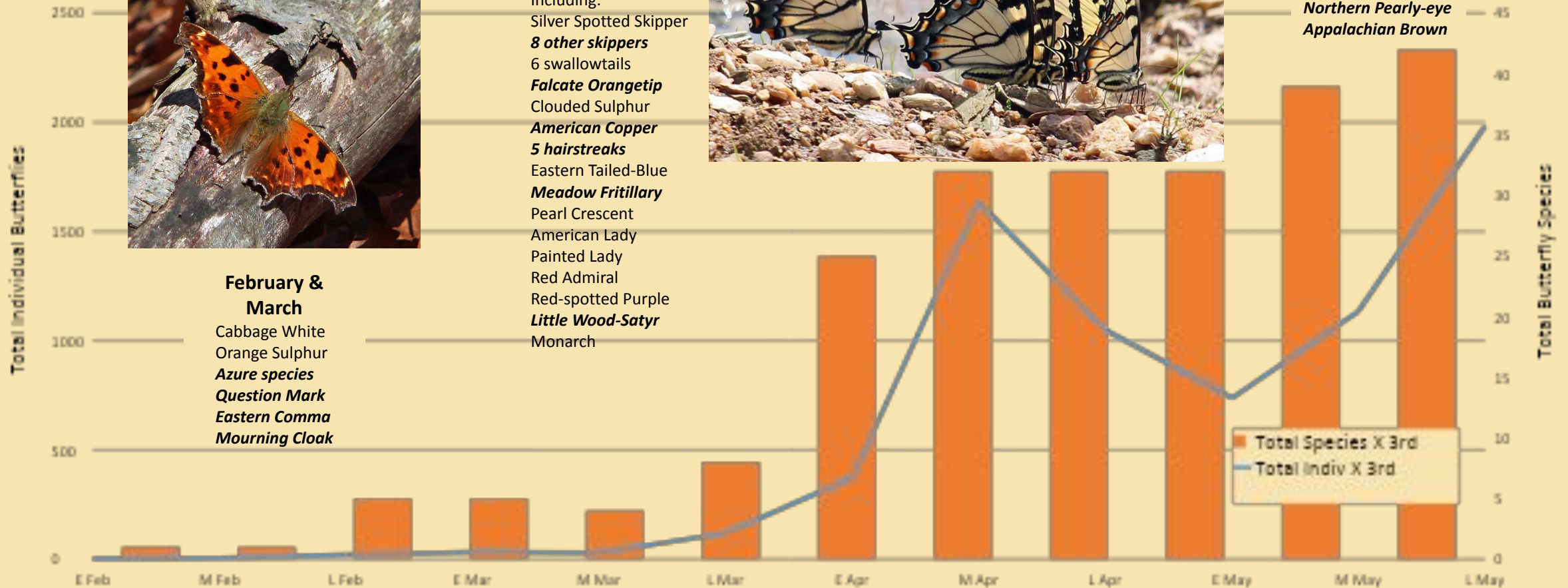


**February & March**  
 Cabbage White  
 Orange Sulphur  
*Azure species*  
*Question Mark*  
*Eastern Comma*  
*Mourning Cloak*

**April Additions**  
 Including:  
 Silver Spotted Skipper  
*8 other skippers*  
 6 swallowtails  
*Falcate Orangetip*  
 Clouded Sulphur  
*American Copper*  
*5 hairstreaks*  
 Eastern Tailed-Blue  
*Meadow Fritillary*  
 Pearl Crescent  
 American Lady  
 Painted Lady  
 Red Admiral  
 Red-spotted Purple  
*Little Wood-Satyr*  
 Monarch



**May Additions**  
 Including:  
*12 skippers*  
*Silvery Checkerspot*  
 Common Buckeye  
*Northern Pearly-eye*  
*Appalachian Brown*



2013-2017