## Butterflies in Massachusetts

By Bill Benner, Editor, Massachusetts Butterflies, the journal of the Massachusetts Butterfly Club

"Butter-fly!" It's one of the first long words a toddler might learn, and repeat, while they're being read a picture book. Bright and bold, they quickly capture the child's attention. Later, when they see one flying outdoors, they're fascinated and delighted, and happily repeat and point: "Butter-fly! Butter-fly!"



American Lady

For most people, butterflies remain a lifelong source of simple pleasure, eliciting a smile and a lift of the spirit whenever they're seen. They have a familiarity and lilting flight that seems to crystallize the freedom of the outdoors into a quick, perfect moment of happiness. Their fourwinged form is simple and

recognizable, and this is expanded into a wide variety of sizes and a dazzling array of colors. Gardeners devote entire plantings to attracting them, both with nectar-rich flowers as well as with various food plants to nourish their caterpillars. Photographers spend a great deal of time, energy, and money capturing their exquisite details and rainbow colors. Of all insects, butterflies are undoubtedly one of the most popular and well-loved.

In Massachusetts, we have a little over 100 species of butterflies, many of which are residents, and some of which migrate or wander into our state at various times throughout the warmer months. There are more than 700 species in North America north of Mexico, so they are wellrepresented in the Bay State. Those that occur here can be divided into six major groups:

• The swallowtails are some of the biggest and most spectacular, such as the Black Swallowtail, a current candidate for our State Butterfly.



Black Swallowtail

Whites and sulphurs • include such familiar species as the Cabbage White, that pale wisp that flies around the yard from earliest spring until the frosts of fall.

The Lycaenid family includes the blues, like the familiar and well-loved Spring Azure, a tiny piece of shining sky that also is one of our first spring butterflies.

- The biggest family in Massachusetts is the brush-footed butterflies, so named for their reduced forelegs. This catch-all family contains such well-known butterflies as the Monarch and the Painted Lady.
- The satyrids are a group of mostly brown and gray medium-sized butterflies that often prefer shaded and wooded habitats.
- And finally, there are the skippers, the Little Brown Jobs of the butterfly world. There are many species of skippers, often difficult to tell apart, but a fun challenge for a lot of butterfly enthusiasts.



The best place to get a comprehensive look at all our state's butterflies is at the website of the Massachusetts Butterfly Club (MBC), at: https:// massbutterflies.org/.There, you can click on links that will show you every butterfly species in the state, with photos, as well as the

Baltimore Checkerspot

best times to look for them, information about gardening, etc. Other great sources of web-based information about Bay State butterflies can be found at https:// www.butterfliesofmassachusetts.net/ and https://www. butterfliesandmoths.org/identify/region/Massachusetts.

But all is not well in the butterfly world. As with so many other native species of animals and plants, dangers to their populations and distributions may be on the rise. Climate change and habitat loss, that pair of threats to biodiversity we hear about daily, are likely the biggest problems. Pesticide use can be seriously detrimental to local populations. Introduced species, particularly pests and diseases, might also play a role.



Eastern Comma

in 1992, club members have been actively looking for butterflies throughout the season and the state. They report their sightings, including actual numbers of individuals, and the hard-working records



As an example of how

global warming is affecting our native butterflies, we

can look at some research

extensive data set that the

that was done using the

Massachusetts Butterfly

Since the MBC started

Club has collected.

compiler (currently Mark Fairbrother) has been building a detailed citizen science database that now has three decades of information for each of our many species. About 10 years ago, university researchers used this data set to publish statistical analyses showing how Massachusetts butterfly populations are changing, with southern butterfly species expanding into our state over time, just as the northern

ones seem to be retreating. You can follow this link to read more about that study, including links to media responses as well as the complete scientific paper: https://harvardforest. fas.harvard.edu/news/ new-study-massachusettsbutterflies-respondingclimate-change.



Coral Hairstreak

## What can you do to help?

- 1. Create a butterfly habitat in your own back yard. As mentioned above, butterfly gardening is becoming an increasingly popular hobby, and you can make a real difference, particularly by planting larval food plants to nourish the next generation.
- 2. When buying plants for your garden, advocate for pesticide-free plants from your local nurseries, so that you're not harming the very creatures you are trying to help. Avoid the use of pesticides in your own lawn and garden as much as possible.
- 3. Join the Massachusetts Butterfly Club. There are many rewards. If you follow this link (https://naba.org/ membership/), you can join the North American Butterfly Association, of which MBC is a state chapter, and if you are a Massachusetts resident, you will automatically become a member of the MBC as well. Then, you will receive the publications of the national organization (*American Butterflies* and *Butterfly Gardener* magazines) as well as the MBC journal, *Massachusetts Butterflies*. The club holds many field trips and butterfly counts throughout the season; they are listed on the

website (again, https://massbutterflies.org/), and you don't have to be a member to participate in these activities. All are welcome.

- 4. Sign up for the Massachusetts butterfly listserve at massleps@googlegroups.com, and join the Massachusetts butterfly Facebook group at https://www.facebook. com/groups/MassButterflyGroup/. There, you will get daily reports throughout the season of which butterflies people are seeing, and where.
- 5. Take photos, not butterflies. While there is ongoing discussion about whether butterfly collecting significantly impacts populations, taking of specimens for individual collections is controversial and perhaps best left to those who will be donating the specimens to a scientific institution, where they will be permanently preserved.
- 6. Invest your time and energy into the groups and activities that you believe will give us the best chance of building a better tomorrow. Take a child out for a nature walk and learn more about the butterflies with them, helping to foster a love of the outdoors that might inspire them in the future. Let them help plant your butterfly garden seeds, too. Kids love watching seeds sprout and taking care of "their" plants.
- 7. Consider submitting your photo observations to iNaturalist through its mobile application to aid in butterfly identification and add them to its worldwide citizen science database. To gain experience with iNaturalist, consider participating in a Newton Conservators' BioBlitz (see p. 8)



The world of nature is infinite in its variety and beauty. Butterflies are an important part of this diversity, and they hold a special place in the hearts of many of us who appreciate our great Massachusetts outdoors. **Enjoy.** 

Eastern Tiger Swallowtail

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