



THE NEWSLETTER OF THE *Sharon Friends of Conservation*

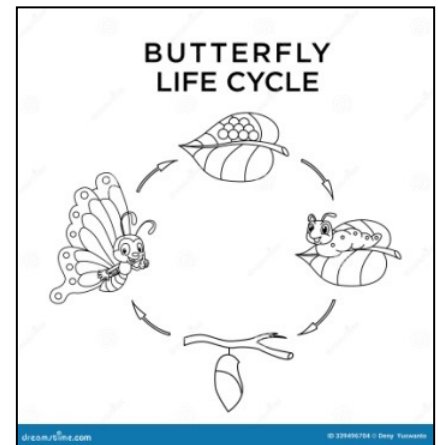
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What do Massachusetts butterflies and moths do in the winter?

By Madeline Champagne

There are 4 stages in the life cycle of the butterfly – Egg, Caterpillar (larva), Chrysalis (pupa), and Butterfly (adult). It is called a cycle because the butterfly lays eggs, then the caterpillar comes out of the egg, then the caterpillar becomes a chrysalis, then a butterfly comes out of the chrysalis, then the butterfly lays eggs, then the caterpillar comes out..... A moth life cycle is the same – Egg, Caterpillar (larva), Cocoon (pupa) and Moth (adult).

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Exoskeleton Safari: Caddisfly Larvae

By Gaurav Shah



Go to the boardwalk at Moose Hill in spring, and peer into the shallow water. What do you see? Nothing unexpected: leaves, twigs, other debris.

Keep looking. There's a truism in nature: keep looking and you will be rewarded. That little clump of twigs and leaves is waving slowly in the current, except: there's no current in the marsh! So, *why's it moving?*

We're going to back up a bit. The caddisflies (Latin name: Trichoptera) are an order of insects mostly closely related to moths and butterflies. The adults are very easy to confuse with moths, which can be frustrating when you spend a lot of time poring through guidebooks trying to identify what kind of moth an insect is, only to realize that it is no kind of moth. Not just the adults, though, the larvae are also similar to moth caterpillars, except for one large difference. Namely, many caddisfly larvae live underwater.

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Is No-Till Gardening For You?

by Josh Philibert

Does this sound familiar? It's April, and you bring out your tiller, fluff up your garden soil, and rake it into planting beds. You might even spread compost over the soil before tilling to incorporate some organic matter. Your rows are smooth, level, and easy to seed. If you are careful to plant in perfectly straight rows, it will be easier to identify your seedlings and weed around them. It's spring, and your garden is neat and weed free, for now.



Josh's Garden, April 2021 with rows ready for planning. The X is the frame above my blueberry patch.

This was how I gardened for over twenty years, and I was good at it. I had fresh vegetables throughout the summer and more to store for the winter. Gardening this way kept me busy spring, summer, and fall. Once the soil warmed up, the weed seeds I had brought to the surface sprouted in my tidy planting beds. They were easy to hoe, if I kept on top of it, but I had to be careful not to disturb my delicate seedlings. If the soil stayed moist, it accepted the rain, but over time it could develop a crust that needed breaking up to help the water soak in. As my plants grew bigger, it became easier to weed around them, but the weeding never stopped. By mid-summer, my garden paths often had piles of weeds waiting to go into the compost bin. Every time it rained, or I had to water, that brought a new crop of weeds. Heavy rain might not even soak in completely, ponding in my foot paths. By August my plants would be big enough to shade out many of the weeds, but there were always a few that would escape notice and go to seed.

Several years ago, I started reading about no-till gardening. As the name implies, this method eschews tilling and, in a home garden, includes liberal applications of mulch. No-till gardening can be scaled to commercial farming, but in that setting it relies more on cover crops than mulch. Proponents of no-till gardening highlight the slower breakdown of organic matter, increased beneficial soil organisms, and improved soil structure. I have dug enough holes in my life to understand what natural soil structure looks like, but the soil in my garden didn't break into clumps, it broke into crumbs.

I didn't make the switch all at once. I started by mulching my pathways. The next year I was mulching beneath my squash plants where it was hard to hoe without disturbing the plants. Then I tried mulching around rows of seedlings once they were tall enough. Finally, I went all in. I stopped tilling. I stopped raking fluffed up soil into planting beds and started putting down layers of mulch everywhere. As with all gardening, I still have successes and failures, but the overall experience has been a big improvement over my old practices. I don't see myself going back. In fact, a couple years ago, I sold my tiller. Continued on p. 5



Peas that were started indoors and then planted into the mulch, April 2025.

Butterflies cont. from p. 1

Here's (to the right) a common caterpillar – we know as the Woolly Bear, the Isabella Tiger Moth caterpillar. We see this caterpillar all summer, and in the fall it walks around looking for a safe place to spend the winter – often in a pile of leaves, maybe near a stone wall that might warm up in the sunshine. It has chemicals in it to keep from freezing. When plants start growing in the spring, it finishes eating for a few weeks and then makes its cocoon.



This (to the left) is a Black Swallowtail chrysalis. In the late fall, the caterpillar climbs up on a plant stalk, and forms this chrysalis. You can see that there is a little string of silk that keeps it attached, along with some silk at the bottom. The butterfly will come out when spring flowers start to bloom.

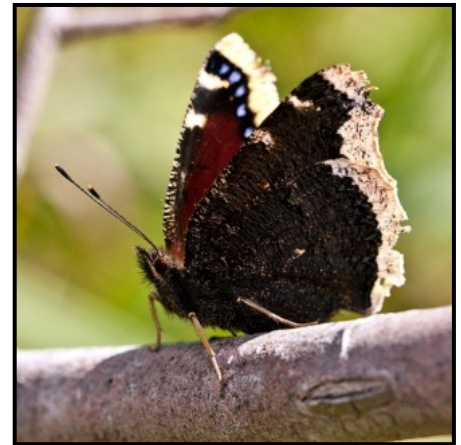


This (below to the right) is a Mourning Cloak butterfly – one of the butterflies that spends the winter in Massachusetts as a butterfly! Late in the fall, when it gets cold and there are no more flowers for the butterfly to get nectar from, it crawls into a safe place, like loose bark on a big tree, and sits there all winter. It is one of the first butterflies we see in the spring. Early in the spring there aren't many flowers, so this butterfly can drink sap from a broken tree branch.



The Monarch (left) butterflies don't spend the winter here – they migrate all the way to Mexico in the fall!

Photos courtesy of Madeline Champagne.



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I would guess that the reason for evolving to live underwater is to escape predators, because the larvae are slow moving and good eating. But there are still dangers, and the caddisfly larvae have come up with their own way to improve their odds. Just like their lepidopteran cousins, caddisfly larvae are capable of excreting silk to form casings to protect themselves. Remarkably, they then crank up the level of protection by adding any of the available twigs and leaves into their casing.

Do you see how this casing may be difficult to see? Once you see your first one, you start seeing more and more of them; the caddisflies are doing pretty well for themselves at Moose Hill. This is good news, because the presence of caddisfly larvae is an indicator of good water quality and not too much pollution. Mayflies, stoneflies and dragonflies are similar water quality indicators. The larva protrudes its head from the casing, and uses its legs to pull itself around, eating debris and growing fatter. I think the one in this photo may be in Limnephilidae, based on the structure of the casing.

There's a saying: a chicken is an egg's way of making another egg. This saying is especially true in the world of insects. The adults of the caddisfly often do not even have mouths, because eating would be a distraction from what really matters: finding a mate and creating another generation. There are lots of insects in lots of different orders who are similarly focused on this very clear priority.

Here's a coda: humans have taken advantage of the larva's architectural prowess. There are artists [wikipedia mentions the French artist Hubert Duprat as the first to do this, but there are many others now] who take caddisfly larvae and rear them in an environment of gold flakes and semi-precious stones. The larvae, of course, construct their casings with the materials at hand. The artist then sells the casings as jewelry – but there's no record of the caddisflies getting a cut of the profits.

SFOC Potluck, 2025

by Kurt Buermann

The Sharon Friends of Conservation Potluck Supper (and General Meeting) has been a tradition for 25 years. I, with the help of many others, have been organizing this event. This will be my last year as organizer-in-Chief. I have noticed that no matter what I do, my age has been increasing every year and, along with it, some limitations. My hope now is that new folks may take over staging this event. I will be assuming only an advisory capacity but most of all, do want to see the SFOC Potluck be in capable hands and continue into the future .

At the general meeting our President, Gaurav Shah, asked the members to vote on several items. Last year's slate of officers was renewed. Two new board members were added, Kathy Farrell and Al Mollitor.

Following the General Meeting, Tom Holman and Paul Lauenstein both gave presentations. Tom, author of the book *Landscape with Reptile: Rattlesnakes in an Urban World*, spoke about the plight of Massachusetts rattlesnakes whose habitat and reproductive success are increasingly infringed by development and roadways. Continued on p. 7

A Note on Wildlife Sightings

By Paul Lauenstein



I got my brother interested in wildlife photography. Now he's taking better pictures than mine, such as this awesome photo of a golden-crowned kinglet in Greensboro, NC on December 30, 2024. Golden-crowned kinglets exist in Sharon, but nobody has yet submitted a photo of one in Sharon (we do have photos of ruby-crowned kinglets in Sharon). Although we have recorded over 600 species on the SFOC web site, there are many species of plants and animals in Sharon yet to be recorded.

Let me share some of the pros and cons of no-till gardening, and you can decide if it is for you.

First the downsides:

1. You need to have some good sources of mulch. This can be aged wood chips, compost, straw, or shredded leaves. You might need to pay to have mulch delivered.
2. Like many gardening chores, spreading mulch is hard work, and there isn't a machine that can help. You'll need a grain shovel, a mulch fork, and a good wheelbarrow. If you already mulch flower beds, you know what it takes.
3. It is difficult to create a new garden bed without tilling. There are techniques, but making the switch is easier than starting from scratch, especially in compacted or heavily vegetated soil.
4. It's not easy to sow small seeds directly into the garden. I used to plant basil seeds in my planting beds, and now I start basil and other tiny seeds indoors and then transplant them into the mulched beds. (I recently made some large patio containers for growing small-seeded plants like lettuce and basil, but that is another topic.)
5. This will not be a change for many gardeners, but you need to purchase seedlings or have a place to start seeds.
6. Some pests are more prevalent. I had fewer problems with slugs when my garden was mostly exposed dirt.
7. The soil surface takes longer to warm up in the spring.
8. Unlike tilling, it takes a few years for the organic matter to make its way down into the soil.

Now for the benefits

1. Much of the hardest work is during the cooler spring and fall. Rather than tilling in April, I am spreading mulch over every part of my garden. In the fall, after pulling my plants, I mulch and bag my leaves with the mower and spread the chopped leaves and grass on my garden.
2. Weeding during the hottest months is greatly reduced
 1. The few weeds that do show up pull out of the mulch easily. There aren't enough weeds to make a pile, so most are just left to dry on top of the mulch.
 2. While it still helps to have a relatively flat garden, it is not critical to have level rows. The mulch layer slows erosion and promotes infiltration. Runoff and ponding are not an issue.
 3. I water much less. Mulch slows evaporation, and the soil beneath is better able to absorb even heavy rains.
 4. Caring for tiny seedlings is easier when they are in containers indoors. By the time they are transplanted to the garden, the plants are bigger and need less care.
 5. I am still able to direct seed larger seeds like squash and beans. These have no trouble growing up through the mulch.
 6. The soil stays warmer into the fall, and it is less subject to temperature fluctuations. This may balance out the slower warming in the spring.
 7. My soil is healthier. In addition to the increased organic matter in the upper layer of the soil, I can also see fungal hyphae (the underground portion of mushrooms), earth worms, and blocky soil structure.

No-Till Gardening continued from p. 5

If traditional gardening is working for you, and you are good at it, it can be a big decision to try something new. No-till gardening might feel like fixing something that isn't broken, but in some ways traditional gardening practices are broken. Tilling is hard on the soil and the soil organisms that plants need to thrive. Perhaps more importantly, traditional gardening is hard on the gardener. If less weeding and watering during the heat of summer sounds good, no-till gardening may be right for you. Remember, you can start small, one row at a time, and see how it compares. Happy gardening!



One of the same beds in April 2025 with garlic coming up through wood chip mulch, and more mulch waiting to be spread.



My largest vegetable bed covered in leaf mulch and ready for planting, April 2025. In the foreground are tulips and chives. To the right is a bed covered in aged wood chips where Gladiolus and Dahlias will go.

Dark Night Skies

By Jana Katz

There is an international event taking place in late April. Across the world people will be celebrating nature at night from April 21st to the 28th. Festivities range from meaningful actions like encouraging a community assessment of light pollution, to memorable group hikes, revering the nocturnal nearby creatures. The effects light pollution have on ecosystems are artfully described in *The Alchemy of Us*, by Ainissa Ramirez. Ramirez describes how a local favorite – fireflies – also known as Lightning Bugs, seeks out mates with their glow. Their blinking lights are like a morse code of courtship.

Streetlamps and other types of light pollution compete with the males' flash of bravado, signaling to females in proximity that he is looking to mate. Blocking his shine, the streetlamp effectively prevents the female from lighting up in response and making her presence known. The declining populations are a direct result of light pollution.

Dark Sky initiatives seek to raise awareness about the negative effects artificial light have on the land. In 2023, Massachusetts Governor Maura Healey designated April 2-8, "Dark Sky Week," with a proclamation. Subsequent legislation has been filed to establish requirements for state and municipality-funded lighting projects.

DarkSky International dedicates space on their webpage: darksky.org to list "DarkSky approved products." It was updated in March.

DarkSky International's Capture the Dark photo contest returns in 2025! Submissions open in June. Visit the website: www.darksky.org. for details.

The local chapter of DarkSky International is DarkSkyMass.org. Visit the website for regional collaborations, legislative initiatives, and ways to get involved.

Astronomer Ames Lowenthal of Smith College presented a TEDx talk, "City Lights, Beautiful Nights."

<http://tiny.cc/CityLightsBeautifulNights>

DarkSkyMass is on social media. Follow @darksky mass

The Young Fiddlehead Ferns

By Yomono Akara

The young fiddlehead ferns
lift up their tight fists,
in the spring wind
shaking them
right in the face of the mountain

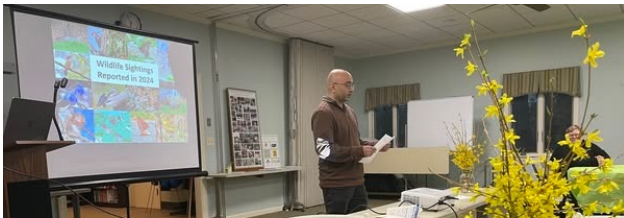
Potluck continued from p.4

Paul Lauenstein talked about SFOC's website feature, *Wildlife Sightings*. Usually, it includes data from an area that may contain several towns. Some years ago, we decided to find out how many species could be found just within Sharon's borders. So far, we are up to about 1400 submissions of plants and animals. In most cases a photo is included. We encourage Sharon residents to submit their own sightings to the list on our website at:

sharonfoc.org/sightings-major-categories/animal-and-plant-sightings-in-sharon

Take a few minutes and check out the critters! Wildlife Sightings is very searchable.

As usual, attendees enjoyed good food and good conversation. Sharon businesses donating to the event included Carriage House Pizza, Ward's Berry Farm, Alice's Mandarin Taste Restaurant and Coriander Bistro.



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To submit an item for the newsletter, e-mail:
newsletter@sharonfoc.org



"Young ones", 2024 by Jana Katz

Community Gardens Relocation

By Jana Katz

On May 5th at the Annual Town Meeting, residents will be asked to allocate funding to support Sharon Community Gardens' relocation. The town is moving forward with a plan to convert the current Community Gardens' location into multipurpose playing fields.

Town Meeting will be held at Sharon High School. Doors open at 6:30 PM. The meeting will begin at 7:00 PM. Article 16 could be taken up at any time should there be a move to take the articles out of order. The matter will be taken up collectively with other Capital Outlay expenses. The specific language is in part "A. Development of multi-purpose athletic field at Deborah Sampson Park & Community Gardens Relocation."

A lack of support for funding the move would be disastrous for Sharon Community Gardens. For decades garden plots on E. Foxboro have brought residents and neighbors together. The Recreation Department has prioritized working with the gardeners to find an appealing new location.

For almost 50 years, the gardens have been on the corner of E. Foxboro St. and Gunhouse St. An average of 80 families a year tend plots at that location.

Sharon Friends of Conservation
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Sharon Friends of Conservation was started in 1986 “ to promote, encourage and foster the preservation care and maintenance of all public lands waters and wildlife in the town of Sharon in order to further the recreation and enjoyment of the towns residents.” We are a nonprofit 501(c)(3) organization.

We welcome all contributions to our Newsletter and we are eager for more— especially those of young people. Please write about a conservation issue of importance to you. We welcome art work, stories, and poetry.

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