



The

NATURALISTS' CLUB

NEWSLETTER

Springfield Science Museum at the Quadrangle, Springfield, Massachusetts

July to September ~ Calendar of Events

JULY

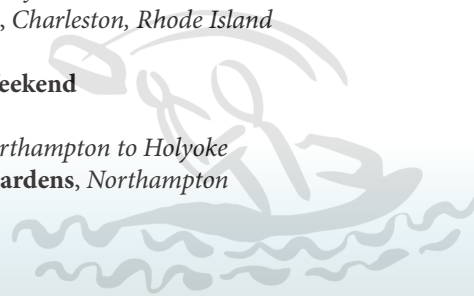
- 9 Sunday, **Wooded Wetlands**, *Westfield*
 16 Sunday, **Connecticut River Paddling Trip I**, *Northfield to Turners Falls*
 29 Saturday, **Ninigret Conservation Area and Beach**, *Charleston, Rhode Island*

AUGUST

- 7 Monday, **Registration Due for Stump Sprouts Weekend**
 19 Saturday, **Laughing Brook**, *Hampden*
 20 Sunday, **Connecticut River Paddling Trip II**, *Northampton to Holyoke*
 26 Saturday, **Mill River and Smith College Flower Gardens**, *Northampton*
 27 Sunday, **Native Shrubs**, *Westfield*

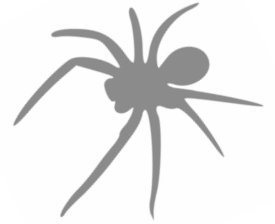
SEPTEMBER

- 16 Saturday, **Monument Mountain Hike**, *Great Barrington*
 17 Sunday, **Connecticut River Paddling Trip III**, *Holyoke to West Springfield*
 20 Wednesday, **SEPTEMBER MEETING: What's the Buzz about Honeybees?**
 23 Saturday, **Bear's Den Reservation**, *New Salem*
 30 Saturday, **Hiking at Robert's Hill Conservation Area**, *Leeds*



NATURALIST'S CORNER

The Misunderstood Wasp



Like most people I do not like wasps. I especially disliked them when my grandkids got stung multiple times on a hike and ended up in the hospital. So why do I feel it is important to write about them here?

Wasps are fascinating animals that do wondrous things. Our speaker this coming September is a beekeeper. We all know that bees are important for pollination and honey. We would not have any bees if there had not first been wasps.

Insects were the first animals to start living on land rather than in the ancient sea. They arrived at the same time that land plants got their start and, ever since, have had a close relationship with plants. Insects predate the dinosaurs by more than 200 million years. Indeed, fossils reveal that wasps have existed for more than 400 million years. One branch of wasps has evolved vegetarian habits, preferring to get nitrogen by eating pollen rather than other insects. This branch consists of the insects we today know as bees. Later on, another wasp lineage lost its wings, giving rise to ants. The rest of the wasps carried on, becoming even more diverse than the beetles.

Many wasp species have evolved an amazing diversity of life strategies enabling them to avoid competition with other species of wasps. Some species — called hyperparasites — live inside other wasp parasites! Most wasps are so small that science has had a difficult time settling on a species count. To date, scientists have classified ~100,000, but many researchers believe that these represent only 10% of all living wasp species. By way of comparison, there are only ~6000 species of mammals.

Other lineages of organisms have evolved in concert with the tremendous diversity of wasps. Figs, for example, are exclusively pollinated by wasps. There are 700 species of figs, and each depends on a different species of wasp for pollination.

For many of us, the mere mention of “wasp” conjures up thoughts of that pesky picnic pest that likes to land on sandwiches — the yellowjacket — or one of those paper nests up in the eaves that must be removed with great caution. These conspicuous wasps are the exception. Most wasp species are much smaller and lead solitary lives. As a result, even when wasps live close to our own homes, we may never notice them.

One key evolutionary innovation was the wasp waist. This cinching at the middle makes the wasp body flexible. It also improves the accuracy of egg placement by enabling the insect to aim its ovipositor. Over time, the ovipositor evolved the ability to deliver venom and numb prey into compliance. These innovations enable wasps to protect the nest against giants like my grandkids. Social living is a more recent development. Roughly 1% of extant wasp species are social. These species live communally and have exquisite divisions of labor. Among the other social insects descended from wasp ancestors are some bee species and all ant species.

The typical solitary wasp dines on flowers and fruit until it is time to reproduce. Then, the female digs a hole and uses the venomous cocktail in her stinger to paralyze a grasshopper or spider, but not kill it. She then drags the immobilized animal to the hole and lays her eggs inside the hapless creature. Her eggs hatch and her progeny dine on the paralyzed, still-living victim, eating it from the inside out. I once saw a wasp species known as the tarantula hawk do exactly this with a very large desert spider. The tarantula hawk paralyzed the spider, then dragged the spider into a hole, setting her offspring up with a good start to life inside of a still-living tarantula!

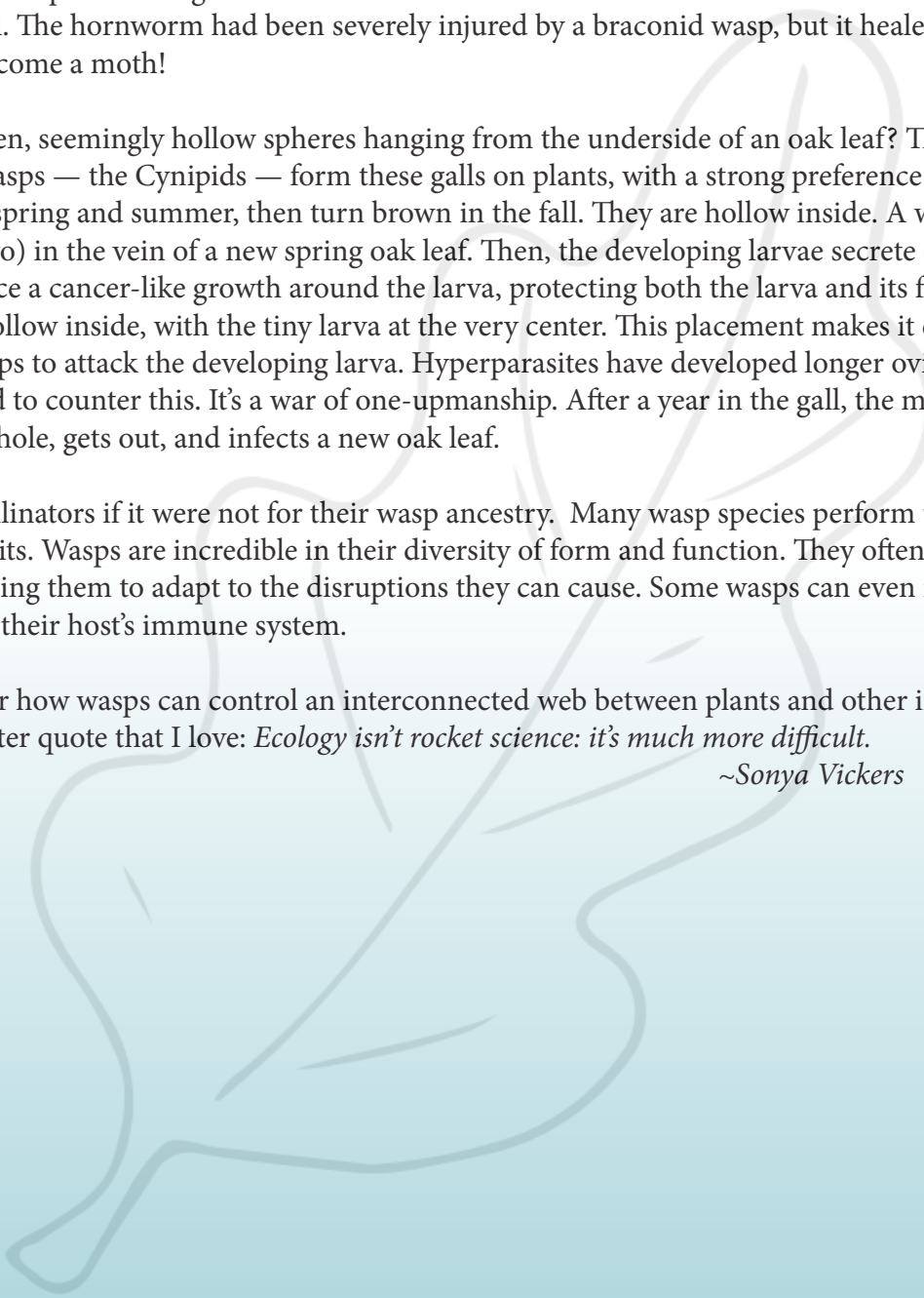
Have you ever seen a garden caterpillar with what looks like white grains of rice protruding from it? If so, you've spotted a caterpillar being eaten from within. In this case, a wasp laid her eggs inside the living caterpillar and the young then went about developing inside while the caterpillar continued to move and eat. The developing wasps first eat parts that the caterpillar can survive without, ensuring that fresh meat remains available for some time. They then chew a hole in the caterpillar and wiggle out. Sometimes, one hundred wasps emerge from a single caterpillar! Only then does the caterpillar die. I got to see this firsthand in a tobacco hornworm and drew the sequence of events in my journal. The hornworm had been severely injured by a braconid wasp, but it healed the 20 or so holes and went on to become a moth!

Have you seen those spotted green, seemingly hollow spheres hanging from the underside of an oak leaf? The ~800 species in one lineage of wasps — the Cynipids — form these galls on plants, with a strong preference for oak trees. The galls are green in spring and summer, then turn brown in the fall. They are hollow inside. A wasp lays a single egg (occasionally two) in the vein of a new spring oak leaf. Then, the developing larvae secrete chemicals that cause the oak to produce a cancer-like growth around the larva, protecting both the larva and its food supply. These galls are mostly hollow inside, with the tiny larva at the very center. This placement makes it difficult for other hyperparasitic wasps to attack the developing larva. Hyperparasites have developed longer ovipositors to try to infect the larva and to counter this. It's a war of one-upmanship. After a year in the gall, the mature tiny wasp, if it survives, chews a hole, gets out, and infects a new oak leaf.

Bees would not have become pollinators if it were not for their wasp ancestry. Many wasp species perform this service, too, in figs and other fruits. Wasps are incredible in their diversity of form and function. They often drive the ecology of other species, forcing them to adapt to the disruptions they can cause. Some wasps can even inject viruses that change their host or their host's immune system.

We are just beginning to discover how wasps can control an interconnected web between plants and other insects. Wasps epitomize a Steve Carpenter quote that I love: *Ecology isn't rocket science: it's much more difficult.*

~Sonya Vickers



In nature, nothing exists alone.
-Rachel Carson

Wooded Wetlands, Westfield

Sunday, July 9, from 1 to 3 p.m.

Leader: Dave Lovejoy

Meeting Place: 400 Western Avenue, across from recreational field by the main entrance sign to the Frank Stanley Beveridge Wildlife Sanctuary

Registration: Not required

Of the half dozen or so forested wetland plant communities found in southern New England, three are well-represented in the Park: shrub swamp, wooded swamp, and floodplain forest. Although there is overlap among these communities, we will discuss their differences and see species typical of each. Wear summer hiking attire, sturdy boots, and bring water. Heavy rain cancels. This workshop is sponsored by Stanley Park.

Connecticut River Paddling Trip I, Northfield to Turners Falls

Sunday, July 16, from 9 a.m. to 4 p.m.

Leaders: Tom and Nancy Condon

Registration: Please contact Tom (science@condon.net; or 413-454-2331).

Meeting Place: Pauchaug Brook Boat Ramp, one mile north of Northfield Center on Route 63

Join us in this first of three beautiful stretches of the Connecticut River that we will paddle this summer. This reach is one of Massachusetts's most remote sections of the Connecticut River. We will paddle along riparian forests and through bucolic landscapes. Find yourself in the French King Gorge, a geological fault separating the once-connected continents of North America and Africa. The trip will end in Barton's Cove, a beautiful birding hotspot. A pair of bald eagles has nested here for many years — perhaps we will catch a glimpse of the new brood. Dress for the weather, and bring your boat, paddling gear, lunch, and plenty of water to drink.

Ninigret Conservation Area and Beach, Charlestown, Rhode Island

Saturday, July 29, all day, starting at 9 a.m.

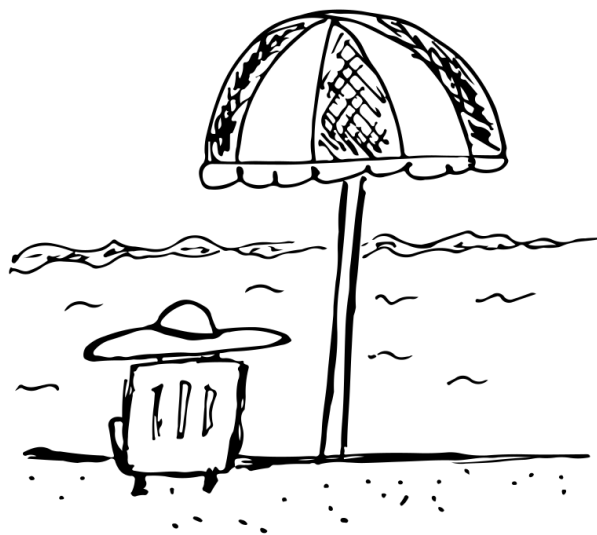
Leader: Sonya Vickers

Registration: Please call Sonya (413-218-7742)

Meeting Place: Table and Vine parking lot, West Springfield

We are so used to walking through New England Forests — how about a beach walk? Ninigret Beach is a three-mile stretch of ocean beach with much to delight the naturalist. Since it is a conservation area, there are no houses from the start of our walk all the way to the Charlestown Breachway. Ninigret Pond lies on the other side of the dunes and is an ecosystem unto itself. Nesting sites of the endangered piping plover are protected, but we may catch a glimpse of these remarkable birds feeding at the surf line. In a typical year, ~250 different species of bird are observed here. On the other side of the pond there is the Ninigret National Wildlife Refuge, which has many shaded trails.

We will plan to spend the entire day in the area. Bring a lunch, water, sunscreen, and wear beach attire, with sandals good for walking in water. It's a 2 ½ hour drive each way, so we will plan to stop for supper on the way home.



Our task must be to free ourselves by widening our circle of compassion to embrace all living creatures and the whole of nature and its beauty.

-Albert Einstein

Register by Monday, August 7

Stump Sprouts Weekend, West Hawley

Friday September 8 to Sunday, September 10
 Leaders: Sheila and Richard Paquette, Kevin Kopchynski
 Registration: Reservations with a 50% deposit should be sent for receipt by August 7. The trip may be canceled if not enough people have paid by that date. For further information, contact Sheila (413-262-8994; or spaquette139@gmail.com). The all-inclusive cost, including tax for two nights' lodging and six meals, is \$202. Make your check payable to 'The Naturalists' Club, and mail to Sheila Paquette, 62 Brentwood Drive, Westfield MA 01085.

High on the side of a mountain with a magnificent view, Stump Sprouts ski lodge provides a beautiful setting for walking, hiking, or relaxing in solitude. A ninety-minute drive from Springfield, the property consists of a 450-acre tract surrounded by Dubuque, Savoy, and Mohawk State Forests. Guests need to bring their own bedding, towels, and toiletries; bathrooms are shared. Our hosts will provide superb family-style garden-fresh meals, complete with homemade breads and cookies. There is usually a choice of meat or vegetarian fare. Bring along binoculars, good footwear, and optional Friday and Saturday night snacks/wine. Registration is limited to 20 people, and early registration is encouraged. If you have a canoe or kayak, please indicate to Sheila if you are interested in a paddle.



To say it was a beautiful day would not begin to explain it. It was that day when the end of summer intersects perfectly with the start of fall.

-Ann Patchett

Laughing Brook, Hampden

Saturday, August 19, from 10 a.m. to 2 p.m.
 Leader: Sonya Vickers
 Registration: Please call Sonya (413-218-7742)
 Meeting Place: Laughing Brook parking lot on Main Street

The loop trail at Laughing Brook stretches for almost three miles, with some gentle rises. We have had many activities at Laughing Brook, but it has been a while since we did the entire loop trail. This area was once the home of Thornton Burgess, author of children's stories about nature. As we walk, we will get to observe how the forest reclaims farmland. Bring a snack and water. Bug spray may be useful, too.

In all things of nature there is something of the marvelous.

-Aristotle

Connecticut River Paddling Trip II, Northampton to Holyoke

Sunday, August 20, from 9 a.m. to 4 p.m.
 Leaders: Tom and Nancy Condon
 Registration: Please contact Tom (science@condon.net; or 413-454-2331)
 Meeting Place: Barnes & Noble, by Holyoke Mall

Imagine Western Massachusetts 65 million years ago. Dinosaurs roamed in a climate much more tropical than today's. We will find evidence of this when we stop at the dinosaur footprints along Route 5 in Holyoke. About 200 million years ago, volcanoes and earthquakes endeavored to tear this valley apart. Our paddle will offer evidence of these dramatic events along this stretch. This 11-mile section will take us from Mt. Tom to the Holyoke Range, ending up near the historic Holyoke Dam. We will talk about geology and the impact of The Paper City on the development of the Connecticut River. Call ahead to reserve your space. Bring your boat, paddling gear, lunch, and plenty of water to drink. Dress for the weather. We'll let registrants know if bad weather forces a cancellation.

Mill River and Smith Flower Gardens, Northampton

Saturday, August 26, in the morning

Leader: Carole Dupont

Registration: Please contact Carole (413-896-0124; or at carole0136@gmail.com) for meeting place and start time.

We will hike along a very pleasant, flat stretch of the Mill River, observing rock formations, wildflowers, and likely some wildlife, too. Soon, we'll reach the adjacent Smith College flower gardens, which should be overflowing with wonderfully colorful summer blooms.

The Botanic Garden of Smith College is set on a 125-acre campus landscape. It is at the edge of Paradise Pond and offers an outstanding view of the mountains nearby. Exhibits include a plant systematics garden, a wildflower garden, a Japanese garden, and a rock garden, as well as perennial gardens, hardy xerophyte and herb gardens. Overall, there are more than 7,000 plants labeled and mapped. We will enjoy the wide array of beautiful end-of-summer flowers before heading back to our cars. Bring water, snacks and proper attire depending on weather.

Native Shrubs, Westfield

Sunday, August 27, from 1 to 3 p.m.

Leader: Dave Lovejoy

Meeting Place: 400 Western Avenue, across from recreational field, by the main entrance sign to the Frank Stanley Beveridge Wildlife Sanctuary

Registration: Not required

A complete count of the native shrubs in this region could include more than 50 species and would vary depending on whether or not woody climbing species like grapes were included and whether species were counted as "large shrubs" or "small trees". We will focus our attention on the shrub species that are common and easily seen in the Park. Wear summer hiking attire, sturdy boots, and bring water. Heavy rain cancels. This event is sponsored by Stanley Park.

Monument Mountain Hike, Great Barrington

Saturday, September 16, starting at 9 a.m.

Leaders: Dave and Suzy Gallup (413-525-4697)

Meeting Place: West Springfield in the Table and Vine parking lot

On our way up Monument Mountain, we'll catch sight of colossal white granite that breaches the landscape like a whale and served as Herman Melville's inspiration for Moby Dick. Other famous authors and poets, including Nathaniel Hawthorne and Oliver Wendell Holmes, also visited this area for inspiration. Please bring some of your favorite writings to share, if you wish.

A moderately strenuous hike up the trail leads to the summit's captivating view of the valley below. Following lunch, we will descend the mountain. Hikers who wish will have the afternoon to explore nearby Stockbridge with its famous Red Lion Inn and Norman Rockwell Museum. Wear sturdy hiking shoes. Bring water and a lunch. Rain cancels.

Connecticut River Paddling Trip III, Holyoke to West Springfield

Sunday, September 17, from 9 a.m. to 4 p.m.

Leaders: Tom and Nancy Condon

Registration: Please contact Tom to register (science@condon.net; or 413-454-2331)

Meeting Place: Barnes & Noble by the Holyoke Mall

Paddling through the cities of Holyoke and Springfield may not sound very appealing, but you will be surprised by the pleasantness of this stretch. This stage of the journey starts below the Holyoke Dam. From here down to the ocean, the river encounters no more dams. We will put in below the exposed rocks, where the current will give us a nice boost. From there, the water is calm, pleasant, and wide, offering the opportunity to observe various birdlife. We will take out at the Thomas A. Lagodich access point on Route 5 in West Springfield. We'll travel ~9 miles, total. Bring your boat and paddling gear, as well as lunch and plenty of drinking water. Dress for the weather. We'll let registrants know in the event that bad conditions force a cancellation.

SEPT.
Meeting

What's the Buzz about Honeybees?

Wednesday September 20, starting at 7 p.m.

Tolman Auditorium, Springfield Science Museum

Speaker: Sue Kendrick

Have you ever wondered what happens in beehives and how beekeepers access the honey without being stung? When Sue Kendrick retired, she inherited some hives and equipment. She also found herself a sweet new hobby. While honeybees work to make honey, Sue makes sure they are safe. She keeps an eye on their health, deals with any parasites, and makes sure the bees are able to get through a cold New England winter, long after flowers have disappeared. Although we have many native bees that also pollinate flowers, the honeybee is not a native — it's a welcome import from Asia, by way of Europe.



Bear's Den Reservation, New Salem

Saturday, September 23, starting at 10 a.m.

Leader: Dori Dittmer

Please contact Dori to register (dordittmer@gmail.com; or 917-346-0969)

Meeting place: Parking lot at the Stop & Shop of Route 5 in West Springfield. From there, we'll carpool for the hour-long trip to Bear's Den.

The short, easy trails at Bear's Den lead to steep granite cliffs overlooking the Swift River. We will explore the 70-foot gorge and the cascades. Expect some steep drops. This Trustees of Reservations property is where local Native people celebrated victories against white settlers in the late 1600s and where Metacomet (King Philip) and other area chiefs met to plan attacks on local towns who threatened their safety and way of life. In days gone by, this was also the location of pastures and a mill. Wear sturdy hiking boots and dress for the weather. Be sure to bring bug spray, camera, water, and a snack or lunch.



Hiking at Robert's Hill Conservation Area, Leeds

Saturday, September 30, in the morning

Leader: Carole Dupont

Registration: Please contact Carole (413-896-0124; or carole0136@gmail.com) for meeting place and time.

Robert Lyman, for whom the hill is named, died sometime between 1691 and 1693. Robert's life ended while hunting here, the place he loved best. More than 330 years later, his name still graces some of the most beautiful areas in Leeds. We will hike along several trails of varying inclines, looking for interesting landmarks along the way. One of these trails served as a stagecoach route to Albany in the early 1800s, and a jumble of rocks marks the remains of the old quarry. Part of this area was owned and maintained as private hunting grounds for wealthy businessman Congressman Bowles, and remnants of his small hunting cabin can still be found. We will observe the end-of-summer flowers, including early color changes in trees and shrubs. Bring your binoculars, water, snacks, good hiking boots, hiking poles, and dress according to the weather conditions.

Events at Laughing Brook

These programs at Laughing Brook require registration with Mass Audubon (800-710-4550) and most require a registration fee. To register, please, visit the Mass Audubon website at www.massaudubon.org.

Finding Atlantic Puffins (Online)

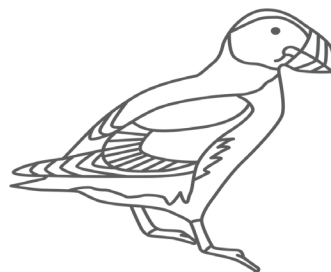
Thursday, July 6, from 7 to 8:30 p.m.

Summer is the perfect time to watch our common birds. Few birds are as recognizable as the Atlantic Puffin. A black and white seabird with a colorful bill, puffins are exciting animals to learn about and, if you're lucky enough, see along the north Atlantic coastline. Most New Englanders can enjoy seeing puffins in person by taking a day trip if you know where to go and when. Learn about their interesting lives from 'puffling' to adult, where they breed, what they eat, climate impacts, look-alike birds, and where to go to see them. To register, please visit massaudubon.org. Audubon members: \$20.00; Nonmembers: \$24.00.

Fledglings and Nestlings (Online)

Thursday, July 13, from 7 to 8:30 p.m.

Newborn chicks have a lot of work to do before they're ready for the world. Learn about their developmental journey from chick to fully functional yearling, and all the milestones along the way. In addition, we'll cover what to do if you find a baby bird out of its nest, including how to proceed with caution. To register, please visit massaudubon.org. Audubon members: \$20.00; Nonmembers: \$24.00.



Wherever there are birds, there is hope.

-Mehmet Murat Ildan

THE NATURALISTS' CLUB

FROM THE TREASURER

Those with a date of "22-23" (or later) on your newsletter mailing label have paid for this year. Otherwise, your dues are owed for the year that started in September 2022. You may renew by sending a check (payable to The Naturalists' Club), to

Tom Condon,
80 General Knox Road,
Russell, MA 01071

Note: If your contact information has not changed, the form below need not be completed. We would, however, like to have your email address if you haven't sent it previously.

Please direct changes or inquiries to Tom Condon, who maintains our mailing list. And please let Tom know if you would like to receive your newsletter electronically.

MEMBERSHIP LEVELS

- \$20 per year for Individual or Family Membership
- \$30 per year for Supporting Membership
- \$50 per year for Sustaining Membership
- \$300 for Lifetime Membership



Renew your membership

Name _____

Address _____

Phone Number _____ Email _____

Do you opt for electronic delivery of the Naturalists' Club Newsletter? Yes _____ No _____

Is payment for 2022/2023? Yes ___ No __ If back dues, please indicate relevant year(s): _____

Suggestions for programs/trips: _____

Please send to: Club Treasurer, Tom Condon, 80 General Knox Road, Russell, MA 01071



The NATURALISTS' CLUB was founded in 1969 for the purpose of actively promoting knowledge, appreciation, and preservation of our natural environment.

It is an all-volunteer non-profit organization.

Education is a main focus of The NATURALISTS' CLUB.

Programming, with an emphasis on local natural history, is designed to create camaraderie among people of diverse interests through experiences deepening their appreciation of nature.

Activities are geared to acquaint the layperson with the natural world, mostly through field trips. Monthly meetings are held at the Science Museum at the Quadrangle in Springfield, Mass. Most field trips and programs are free.

2023 JULY to SEPTEMBER

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