<u>The</u>

NATURALISTS CLUB

Springfield Science Museum at the Quadrangle, Springfield, Massachusetts

April to June Calendar of Events

	14, 11 to 111110			
APRIL	2	Saturday	22nd Annual Westfield River Watershed Association Symposium: Citizen Scien	ıce
	2	Saturday	Looking at the SMALL Signs of Spring, Russell	
	3	Sunday	Hiking the Hubbard River Gorge, <i>Granville</i>	
	17	Sunday	Hike at Fannie Stebbins Nature Refuge, Longmeadow	
	20	Wednesday	APRIL MEETING: Polar Bears: Ecology and Management	
	23	Saturday	Amphibian Walk at Broad Meadow Brook, Worcester April 29	
	24	Sunday	Exploring Conant Brook Dam, <i>Monson</i> - It's Arbor Day!	-
	30	Saturday	BioBlitz at Chicopee Memorial State Park, Chicopee	
MAY	1	Sunday	Chapel Brook Falls and Hike to the Summit of Pony Mountain, Ashfield	
	8	Sunday	Healthful Hike, Westfield	
	14	Saturday	Birding and Nature Trail Walk, <i>Hadley</i>	
	14	Saturday	Hiking Alander Mountain, Mt. Washington	
	18	Wednesday	MAY MEETING: Avian Opera: What the Birds Are Saying	
	19	Thursday	A Spring Walk in Mittineague Park, West Springfield	
	21	Saturday	Hike at High Ledges, Shelburne	
	22	Sunday	Big Pond Kayaking or Canoeing, East Otis	
JUNE	11	Saturday	A Hike to Ice Glen through an Old-Growth Forest, Stockbridge	
	18	Saturday	Marsh Birds on the Housatonic, Milford, CT	
	26	Sunday	Biking on the Columbia Greenway Rail Trail, Westfield	

NATURALIST'S CORNER



Image from Diane Gerereux

THE MATHEMATICS OF SPRING PEEPERS

My grandmother was very fond of spring peepers. She would lower her car windows in the sunny-but-still-cold days of early spring, seeking out roads lined with wetlands, in hopes of hearing the mating calls of male peepers, which are also known as chorus frogs. When eventually my grandmother did hear the frogs, she would mention them to everyone she knew, sometimes attempting to give her own rendition of their choruses — an ambitious undertaking for one human, as the spring-peeper choristers calling together in a given pool typically number in the hundreds.

I never learned of the exact origin of my grandmother's great enjoyment of spring peepers, but I did inherit it. To my delight, the peepers' genus — currently, *Pseudacris* — is widely distributed through the United States. I've been very fortunate to hear the calls of *Pseudacris* species starting in January in Atlanta, February near Seattle, and March in Westfield, where, as in much of the Northeast, the local species is *P. crucifer*, which are so named in reference to the tiny cross-shaped coloration on their backs. (The photo at left features a peeper I saw at Wolf Pit Meadows in Westfield in April of 2015.)

Even my limited observations in various parts of the US would suggest that the timing of the frogs' first spring calls is related to the conditions they use as cues for emergence. But which factors are most important? Chorus frogs overwinter in a state of near-dormancy amid leaf litter and under the bark of trees. My grandmother's searches were inspired by sunshine and climbing temperatures, both of which would seem to predict conditions appropriate for the move from the comparative isolation of the winter forest to the frenzy of the wetlands. But is temperature alone sufficient to explain the timing of peepers' move to wetlands, and the beginning of their calls? Or could other factors be more important?

It was this question that motivated Gary Lovett, an ecologist at the Cary Institute of Ecosystems in Upstate New York, to undertake a systematic study of potential associations of chorus-frog emergence with temperature, day length, sunshine, and rainfall. In a 2013 EcoFocus column for the *Poughkeepsie Journal*⁽¹⁾, summarizing data that he had previously published elsewhere⁽²⁾, Lovett noted that, for years, ecologists had offered only speculative explanations — for example, that frogs routinely emerge "after the first spring rain". This and other claims may be generally reliable, but they fail to explain how frogs distinguish the cold first rain of spring from the cold last rain of winter.

Lovett's findings revealed that peepers' mathematics are substantially more intricate than a threshold value for rainfall or single-day temperature. In Lovett's analysis of longitudinal climate data, thermal sum emerged as the strongest quantitative predictor of chorus-frog's emergence time in Upstate New York. In essence, thermal sum measures the extent to which days within a defined interval exceed a defined base temperature. Frogs seem to hold out for a stretch of days in which temperatures climbed above 37°F. Calculating thermal sum therefore requires storing temperature data over multiple days.

Lovett suggested peepers' impressive freeze tolerance as a possible mechanism for recording longitudinal temperature data. Like the winter moths highlighted in a 2015 Naturalist's Corner piece and in an April 2015 talk by University of Massachusetts biologist Jeff Boettner, *Pseudacris* spp. can survive winter temperatures fatal for many other ectotherms. For peepers, it is glucose that serves as an antifreeze molecule, ensuring a close interaction between freeze tolerance and metabolic processes.

As temperatures drop in the fall, frogs' livers increase the rate of gluconeogenesis, liberating stored glucose into the blood stream through a process similar to the one that goes awry in humans with Type II diabetes. Elevated high blood glucose can harm blood vessels and organs in humans; in frogs, it provides crucial protection. As glucose accrues in the extracellular space, water moves by osmosis out of frogs' organs, reducing the risk of organ damage and cell rupture upon freezing. Also, just as salt ensures that brackish rivers freeze much later than fresh ones, glucose reduces the freezing point of frogs' blood, keeping it fluid for a while after the onset of winter cold. Glucose thus enables the heart to pump glucose-rich blood around for a little while longer, ensuring that accumulating glucose can be distributed through the body. Experimental findings have confirmed the value of these physiological responses in fostering freeze tolerance, revealing that food-limited frogs, which have reduced glucose stores, are more vulnerable to rapid temperatures declines, and that direct injection of extra glucose can permit frogs to survive temperature drops even more precipitous that those typical in nature.

When the weather warms in the spring, freeze-tolerant frogs literally thaw out, their blood becoming less viscous, and their hearts eventually beating quickly enough to support the move from upland to aquatic areas. It is at least plausible that frogs track the rate of these "thawing" processes in their own calculations of the thermal sum, resulting in an exquisite tuning of emergence time to the conditions of a given year. Indeed, Lovett's analysis ^(2,3) revealed that the timing of the first peeper calls currently averages 11 days earlier than it was in 1949, suggesting that peepers' first calls have largely kept pace with shifting temperatures.

Peepers' ability to tune their timing to the temperatures of a given year would seem to bode well for their capacity to adjust to climate change. Perhaps confidence is especially warranted in light of Lovett's finding that, following the warm winter of 2002, which included several runs of days with temperatures greater than 37°F, frogs didn't start calling until after a strong rainstorm, suggesting that they are not fooled by the occasional warm winter.

But there are worries still, owing in part to peepers' reliance on the timing of the other organisms. For instance, *Pseudacris* tadpoles dine on diatoms and tree pollen, and are preyed upon by large aquatic insects. Adult peepers hunt spiders, beetles and ants, and are prey for skunks, snakes, and even some large frogs. If this diverse set of organisms were to respond in parallel to climate change, peepers might persist essentially unscathed. But what if these other organisms cue into alternate signals, such as day length, winter snowfall, etc.? In an animal for whom glucose functions as antifreeze, anything increasing the risk of turning in for winter on a less-thanfull stomach, for example, could jeopardize prospects for surviving to spring. Any such perturbation could be especially harmful in the context of the chemical⁽³⁾ and noise ⁽⁴⁾ pollution already well established as threats to amphibian populations worldwide. One such threat — rapid habitat loss — has already inspired a conservation project focused on Illinois's chorus frog, *P. streckeri illinoensis* ⁽⁵⁾.

On a warm afternoon in mid-March of this year, just the sort of day on which my grandmother would have rolled down her car windows and sought out wetlands, I walked through the Broad Meadow Brook Audubon Sanctuary in Worcester (see p. 4 for information on a planned trip to this site). Once I had walked by three or four suitable-looking pools, encountering no calls, it occurred to me that I

might be listening for peepers too early in the season. Compared to *P. crucifer*, I am poorly attuned to thermal sum. Surely, the frogs had thawed already; but perhaps not enough days had reached 37°F?

Just when I'd begun to consider turning back, I walked around a bend in the trail and was greeted by a wonderfully strong and optimistic-sounding chorus. To me, the pool was indistinguishable from those I'd encountered earlier. It was of similar size, and, like the others, surrounded by low vegetation that could provide refuge from would-be predators. Somehow, though, these frogs had chosen this particular spot. Was this a random event — the result of a few frogs crawling out from under tree bark and hopping their way here, just by chance? Had latecomers simply following the early frogs' lead? Was there something special about conditions in this pool? Perhaps the other pools would soon be visited by frogs whose overwinter microhabitats took just a few more days to achieve the critical thermal sum? I stood there for a while, enjoying the sounds, and realizing that there's much more to learn before we can fully understand how well peepers' intricate calculations will accommodate the uncertainties of climate change.

~Diane Genereux

References

1. Lovett, 10 March 2013, Poughkeepsie frnl., p1.32. Lovett, 2013, Northeastern Naturalist, 20(2):333-340; 3. Tracie, 201Acta zoológica lilloana 54 (1-2): 3-10, 2010; 4. Layne and Lee, 1995. Climate Res. 5: 53-59;5. http://www.dur.illinois.gov/conservation

Westfield River Watershed Association 22nd Symposium: Citizen Science, Westfield

Saturday, April 2, from 8:30 a.m. to mid-afternoon Scanlon Banquet Hall, Westfield State University

The theme of the 22nd annual Westfield River Symposium is Citizen Science. The early part of the event will feature talks on monitoring and restoration of streams and rivers. At 1:30 p.m., Westfield State Professor Aaron Reyes will lead a demonstration of techniques for water sampling. For additional information on the symposium, please visit *westfieldriver.org*.

Looking at the SMALL Signs of Spring

Saturday, April 2, from 10 a.m. to 2 p.m.

Leader: Sonya Vickers

Registration: Please call Sonya for location (413-566-

3406)

We often notice the large signs of spring: flowers bloom, and trees take on a green tint. But spring gets its start on the small scale. This workshop will involve looking through a variety of magnifying devices to witness the awakening of spring. First, we will walk outside to collect samples. Then, we will return indoors to see everything up close and personal. There will be field microscopes, and microscopes attached to TV screens for all to view. We'll discuss how to transform your cell phone or simple point-and-shoot camera into a powerful close-up or macro device to record what you have discovered. Bring a sandwich; drinks and snacks will be provided. Wear suitable clothes and shoes for a short hike, and bring your camera and cell phone. This event will occur rain or shine.

"April hath put a spirit of youth in everything' (Sonnet XCVIII)" — William Shakespeare, Shakespeare's Sonnets

Hiking the Hubbard River Gorge, Granville

Sunday, April 3, from 9 a.m. to 2 p.m.

Leader: Bill Fontaine

Registration: Call Bill (413-533-2153) Meeting Place: Dunkin' Donuts parking lot,

Southwick, Routes 10/202

On this walk/hike, we'll explore the Hubbard River Gorge in Granville State Forest, formerly the hunting and fishing grounds of the Tunxis Native Americans. In 1749 the first white settler in the area, Samuel Hubbard, made his home along the banks of the river that now bears his name. This pristine, high-quality waterway is home to one of Massachusetts' native fish species, the brook trout. For much of its course the river flows through Granville State Forest. We'll begin our walk along a gated forest road and then follow the river south toward Connecticut, then go back the way we came. Dress appropriately and wear sturdy footwear.

Hike at Fannie Stebbins Nature Refuge, *Longmeadow*

Sunday April 17, starting at noon Leaders: Dave Gallup and Jack Megas Registration: Please call Dave (413-525-4697) Meeting Place: The end of Bark Haul Road off Route 5 Longmeadow Street, at the entrance to the Refuge.

Join us to explore this wonderful nature preserve that's right in our backyard!! Naturalists Dave Gallup and Jack Megas will lead a loop hike exploring the natural history and future of one of the few natural flood plains left along the Connecticut River. Join us to learn about the history and future of the Refuge!

This program is in conjunction with the Springfield Science Museum's Earth Date celebration of Earth Day on April 22, a Friday. Participation from the Naturalists' Club and the Science Museum will surely fill this trip. Limited to 30 people.



Polar Bears: Ecology and Management

Wednesday, April 20, starting at 7 p.m. Springfield Science Museum, Tolman Auditorium Speaker: John McDonald

Dr. John McDonald, a wildlife biologist and Assistant Professor of Environmental Science at Westfield State University, will discuss polar bear management in North America. He will discuss some of the basic ecology of polar bears and trends in polar bear populations. He will also address some of the management issues surrounding a species that is listed as threatened under the U.S.



Endangered Species Act but is at a relatively high population level based on trends over the last half century. Dr. McDonald is currently the President of The Wildlife Society, studied black bears here in Massachusetts in the 1990s, and was the Deer and Moose biologist for MassWildlife from 1995-2000. He welcomes questions and discussion on local wildlife topics, too.

Amphibian Walk at Broad Meadow Brook, *Worcester*

Saturday, April 23, starting at 10:30 a.m.

Leader: Diane Genereux

Registration and Meeting Place: Please contact Diane (natclub-

newsletter@gmail.com; 413-388-2830) for details.

Join us for an Earth Week walk to listen and look for amphibians and other wildlife at MassAudubon's 400-acre Broad Meadow Brook Sanctuary in Worcester. Located in New England's second largest city, Broad Meadow Brook offers extensive opportunities to experience diverse habitats, including



upland forests, brooks, meadows, and ponds. Fishers are frequently spotted in the area, and choruses of peepers call from the Sanctuary's wetlands.

Exploring Conant Brook Dam, *Monson*

Sunday, April 24 from 9 a.m. to noon

Leader: Kevin Kopchynski

Registration: Please call or email Kevin (413-267-4757; kevin@

nature-explorations.com)

Meeting Place: See directions at nature-explorations.com

We will check out a location at the north end of the reservation where herons and owls have been nesting. If there is time we will go down to the actual location of the dam and explore there, too.

BioBlitz at Chicopee Memorial State Park, *Chicopee*

Saturday, April 30, from 9 a.m. to 3 p.m.

Registration: Please call Sonya Vickers (413-566-3406)

Do you remember Melanie Joy-Cooper's presentation last year about invasive insects that are threatening our forests? Melanie, who teaches at Elms College, is organizing a spring BioBlitz at Chicopee Memorial State Park. The goal of the BioBlitz is to provide a baseline inventory of the species that live in our area, a goal closely tied to the mission of the Naturalists' Club. The success of BioBlitz will depend on the contributions from both naturalists to identify species, and other volunteers to record their findings. This BioBlitz is funded by the Massachusetts Geographic Alliance under a grant from the National Geographic Education Foundation. Call Sonya for more details on how you can help out!

Chapel Brook Falls Hike to the Summit of Pony Mountain,

Ashfield

Sunday, May 1, from 10 a.m. to mid-afternoon

Leaders: Dave and Suzy Gallup

Registration: Please call Dave and Suzy (413-525-4697) Meeting Place: Table and Vine parking lot, Route 5, West

Springfield

Chapel Brook Falls is a ruggedly beautiful place of ridges and forest. Some old growth trees dot the landscape and wildflowers cover the forest floor. Streams surge and trickle for most of the year, but in spring, Chapel Falls will be in full roar! After we explore the falls, we will take a short and exhilarating hike along the summit trail to the top of Pony Mountain. The panoramic views of the highland forest and the foothills of the Berkshires are well worth the hike. All this in another Trustees of Reservations property! Don't forget to bring snacks or lunch and a camera. Rain cancels.

Healthful Hike Westfield

Sunday, May 8, from 9 to 10:30 a.m.

Leader: Nancy Condon

Registration: Call Nancy (413-297-0778) or

e-mail: spiderwoman@russellma.net

Meeting Place: Stanley Park, Western Avenue, near the children's

playground and pavilion

We intuitively recognize how good it feels to get out into nature. Fresh air, soothing aromas, gentle streams, and beautiful forests have a resounding effect on us. Studies have shown that our brains do in fact respond quite readily to nature's healing effects. This hike will highlight ways we can improve our mental well-being while we promote our physical health. If you are tense or anxious or feel like you need a mental boost, come join this fun healthful hike and get rejuvenated. Wear clothes you can move easily in, as we will be doing some light cardiovascular and muscle strengthening exercises along the way. The hike will be about 1.5 miles long. Bring water and dress for the weather and be ready to have some fun!

Birding and Nature Trail Walk in Celebration of International Migratory Bird Day, *Hadley*

Saturday, May 14, starting at 9 a.m. Leaders: Dave and Suzy Gallup.

Registration: Please call us if you are coming (413-525-4697).

Join us for a hike at this new nature trail, part of the Silvio Conte National Fish and Wildlife Refuge in Hadley. This will be a loop hike along pine woods, maple wetlands and marsh edges. There are wonderful raised boardwalks, overlooks and bridges. We will explore a flood plain along the Fort River. This is a great place for birding so bring your binocks!



"Is the spring coming?" he said. What is It like?"...

"It is the sun shining on the rain and the rain falling on the sunshine..."

- Frances Hodgson Burnett, The Secret Garden

Hiking Alander Mountain, Mt. Washington

Saturday, May 14, from 8 a.m. to 3 p.m.

Leader: Bill Fontaine

Registration: Please call Bill (413-533-2153)

Meeting Place: Former Friendly's parking lot, Great Barrington, Mass., on right side of Route 7, north of the Route 23 intersection.

Views from the summit of Alander Mountain are well worth the effort it takes to get there. This remote area has been described as one of the most beautiful and ecologically significant regions in the Northeast. The Nature Conservancy has called it one of the nation's "last great places." On this strenuous 5-mile up and back hike, we'll climb through a hemlock ravine and northern hardwood community to the summit of Alander Mt. on the western escarpment of the Taconic Range, to enjoy views overlooking the Harlem Valley and Catskills to the west, Mt. Everett to the north, and Mt. Frissell and Bear Mountain to the east and south. Wear sturdy footwear, and bring along something to eat and drink. Bring poles, too, if you have them. Wet conditions cancel.



Avian Opera: What the Birds are Saying

Wednesday, May 18, starting at 7 p.m. Springfield Science Museum, Tolman Auditorium Speaker: Jesse McClure



An experienced birder can identify local bird species by their songs. But birds themselves hear so much more in those notes. For the birds, song is not just a species identifier; it also carries a wealth of information about individual identity, virility, and intent. The daily interactions of birds right in your back yard are shaped by these songs. Jesse will share some of the approaches we use to understand what birds are saying when they sing, along with some of the discoveries we've made about their song-mediated social behavior.

Dr. Jesse McClure served as a military working dog trainer in the United States Marine Corps, and holds a Ph.D. in neuroscience and behavior from the University of Massachusetts-Amherst. Currently, he is a postdoctoral fellow at the University of Massachusetts Medical School, studying behavioral genetics in companion dogs through the Darwin's Dogs citizen-science project (*darwinsdogs.org*).

A Spring Walk in Mittineague Park, West Springfield

Thursday, May 19 at 9:30 a.m.

Leader: Colette Potter

Meeting Time and Place: Please call Colette (413-786-1805)

Here's hoping for a beautiful day to walk through Mittineague Park with other intrepid naturalists ~ a day to enjoy nature. Bring your binoculars and dress for the weather. Bad weather cancels.

Hike at High Ledges, Shelburne

Saturday, May 21, from 9 am to mid-afternoon

Leaders: Dave and Suzy Gallup

Registration: Please call to let us know you are

coming (413-525-4697).

Meeting Place: Table and Vine parking lot,

Route 5, West Springfield

Enjoy the beauty of the forest and its wildflowers, including the rare yellow lady slipper, on this moderate two-mile hike. One of the many treats of this hike is the breathtaking view from High Ledges, overlooking Shelburne Falls and the valley below. After the hike, we



will visit the town of Shelburne Falls, a picturesque New England town known for its "Bridge of Flowers". If you wish, take the afternoon to explore the town's unique shops and beautiful waterfalls. Wear sturdy footwear and bring a lunch. Rain cancels.

Big Pond Kayaking or Canoeing, East Otis

Sunday, May 22, from 1 to 3 p.m.

Leaders: Debbie and Dave Lovejoy (413-848-2047)

Registration: Not necessary.

Meeting Place: Otis State Forest boat launch site. Take a right off Route 23 near the center of East Otis, 0.3 miles west of Hall's store.

Big Pond and its slow-moving outflow channel provide a nice setting for a quiet paddle with the opportunity to do some birding, observe beaver (at least in previous years), and examine plants along the shore. Light rain will not cancel this trip, but call the leaders if unsure.



Spring work is going on with joyful enthusiasm.

- John Muir, The Wilderness World of John Muir

A Hike to Ice Glen through an old-Growth Forest, Stockbridge

Saturday, June 11, starting at 9 a.m. Leader: Dave Gallup (413-525-4697)

Meeting Place: Westfield State University Commuter Parking Lot

Join us on a hike to a magical place, a historic spot where people have ventured for over 100 years. We will traverse old-growth forests along the way to a site where giant boulders left behind by the glaciers form craggy ice-filled caves in a cool, dense, moss covered forest. After our adventure, let's put our feet up and enjoy a cool refreshing drink at the Red Lion Inn's patio in historic Stockbridge.

Marsh Birds on the Housatonic, Milford

Saturday, June 18 from 8 a.m. to 5 p.m. Leaders: Nancy & Tom Condon

Registration: Call Tom at (413-454-2331)

or email science@condon.net.

Meeting Place: Stop & Shop parking lot, Riverdale Shops,

Route 5, West Springfield

Grab your boat and your binoculars and join us as we poke around the salt marshes of the Charles E. Wheeler Wildlife Area at the mouth of the Housatonic River along Long Island Sound. This 800-acre marsh has hosted over 300 species of birds including ospreys, herons, plovers, and numerous other shore birds. The marshes are laced with numerous small streams that we will explore. This area is closed to motor boats from February until September, so we can anticipate a nice, quiet paddle. Prepare for the weather, and bring along your paddling gear, lunch, and a snack. We have a limited number of boats you can rent from our local scout group at\$10 per seat. Please call to reserve a spot.

"Sunshine and water—the perfect recipe for happiness."

Toni Sorenson

Biking on the Columbia Greenway Rail Trail, Westfield

Sunday, June 26, starting at 1 p.m.

Leader: Dave Lovejoy Registration: Not necessary

Meeting Place: The northern end of the trail at Route 20 (East Main St.) in downtown Westfield. Park in the Stop and Shop lot.

Starting on the Trail's new northern segment, we will ride south into Southwick and perhaps into Connecticut, stopping at a few points along the way looking for various natural history delights. Snapping turtles are only some of the wildlife frequently spotted along the trail. Be sure to bring water, and a snack if you wish.

It is the month of June, The month of leaves and roses, When pleasant sights salute the eyes, And pleasant scents the noses.

- Nathaniel Parker Willis



Looking Ahead

Stump Sprouts Weekend, *West Hawley* From dinnertime Friday, September 9 through Sunday luncheon, September 11 Leaders: Dietrich and Julie Schlobohm (413-788-4125)

Registration: All-inclusive cost for two nights' lodging and six meals is \$162 per person. Make check payable to The Naturalists' Club and send to Dietrich Schlobohm, 52 Poplar Ave., West Springfield, MA 01089. Indicate your roommate preference. Reservations and a 50% deposit must be received no later than June 1. This event will be cancelled if fewer than 15 people have paid by that date. Call Dietrich or Julie for more information.

High on the side of a mountain, with a grand view, Stump Sprouts ski lodge provides a unique setting to walk, hike, or relax in solitude. A 90-minute drive from Springfield, the property consists of a 450-acre tract surrounded by state forests. Guests bring their own bedding, towels, and toiletries; bathrooms are shared. Our hosts provide family-style garden-fresh meals, complete with homemade breads, and usually a choice of meatless entrees. Bring along binoculars and good footwear. Limit: 20 people.

Events @ Laughing Brook, Hampden

These programs at Laughing Brook require registration with Mass Audubon (800-710-4550) and, in most cases, a registration fee. For more information visit the Mass Audubon website at *www.massaudubon.org* Laughing Brook is located on Main Street in Hampden.

Saturday, April 16, from 10 to 11:30 a.m.

Vernal Pools

As breeding grounds for many state-listed amphibian species, vernal pools are unique and critical habitats. April is the best, and often only, time to see animals such as spotted salamanders and wood frogs. Learn why it's so crucial to protect these small bodies of water and what you can do to help ensure their protection.

Saturday, April 16, from 8 to 9 p.m.

Woodcocks

You are invited to Laughing Brook to see a special dance: the dance of the American Woodcock! The woodcock is an inland relative of snipes and other water birds. Each spring, the male woodcock establishes his territory, performing an amazing dance to attract a mate. We'll listen for woodcocks and watch for them in the fields until dark.

Sundays, May 15 and 22, from 1 to 4 p.m.,

Intermediate Nature Photography at Laughing Brook

Learn beyond the basics of nature photography. We will discuss best practices for capturing an image, understanding exposure and focus, and using both manual and automatic exposure settings. Both digital and film users can benefit from this instruction, though our discussion of equipment will concentrate on digital photography and the special opportunities and challenges it offers.

Saturday, May 21

Early-Morning Birding, from 7 to 8:30 a.m.

Turtle Day and Earth Tunes Concert, *10 a.m. to 1 p.m.* Come visit Laughing Brook and learn about turtles, frogs, toads, pond critters and more. Enjoy the trails with a natural history walk. Bring a picnic lunch if you choose!



Events @ Stanley Park, Westfield

A full schedule was not available at press time. For up-to-date information, please visit *stanleypark.org*. Events start from the upper entrance to the Frank Stanley Beveridge Sanctuary in Stanley Park, Westfield. Enter the Park across from the Westfield State University Woodward Center and watch for the Sanctuary sign on the right.

Naturalists' Club Elections, May 2016

Elections are held at the May meeting. Though most of the current officers would be willing to continue in their current roles, as listed on the back of the Newsletter, we seek nominations of candidates for all of these positions, including the Board position from which Bill Fontaine is stepping down this year. Please contact a member of the nominating committee to suggest a name or to self-nominate. This year's nominating committee is as follows:

Karen Daniels (413-786-8228) Colette Potter (413-786-1805) Kevin Kopchynski (413-267-4753).

Nominations may also be made from the floor just prior to the election.



A Thank You to Bill Fontaine

Bill Fontaine is stepping down from the Director's position in May. Bill signed on as a director 10 years ago, and has enriched this Club with his leadership on the Board. He has always been there to lead field trips and take on extra duties. We will miss him in our planning sessions for the upcoming NCN. Thank you, Bill, for your help through the years!

P.S. Bill will still be leading field trips and will always be active in Club activities.

www.naturalist-club.org 7|

THE NATURALISTS' CLUB

MEMBERSHIP

Special thanks to the many people who have recently renewed their Naturalists' Club memberships, mitigating the financial situation noted in our Winter 2016 newsletter.

Members with a "15-16" (or later) on their newsletter mailing label are paid up for (at least) the current year. Otherwise, unless you remit dues for the current year, this is the last issue you will receive and you will be sent a final reminder to continue your membership.

To establish/renew membership, please submit information and payment to:

Dave Lovejoy
The Naturalists' Club
Department of Biology
Westfield State University
Westfield MA 01086

The form below need not be completed unless contact information has changed. If you haven't sent an email address previously, please consider doing that now. Thank you!

MEMBERSHIP LEVELS

\$15 per year for Individual or Family Membership \$25 per year for Supporting Membership \$50 per year for Sustaining Membership \$300 for Lifetime Membership



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.

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Renew your membership

Name					
Address					
Phone Number	Email				
Requests for programs/trips					

Please send information per the above to: Club Treasurer, Dave Lovejoy, Department of Biology, Westfield State University, Westfield, MA 01086