OUR MISSION
The Appalachian Mountain Club is the nation’s oldest outdoor recreation and conservation organization, and promotes the protection, enjoyment, and understanding of the mountains, forests, waters and trails of the Appalachian region. AMC has more than 100,000 members, 16,000 volunteers, 450 full-time and seasonal staff. The New Hampshire Chapter is the second largest of the 12 Chapters within the Club.

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MAY-JUNE 2019

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CONTRIBUTE TO SCIENCE, FROM PAGE 1

Club, and Baxter State Park to implement this program in New York, Vermont, New Hampshire, and Maine.

The iNaturalist app can be found in the Apple App Store for iPhones and iPads, or in the Google Store for Android devices. Using the iNaturalist app, you can identify almost any living animal or plant. Your mobile device will also automatically geotag the image, assigning its location, and if you’re not sure of the name of the species of plant you have observed, the community on iNaturalist, including AMC’s own scientists, will help confirm or identify the plant. You don’t need to be an expert to identify key species and contribute to this project.

AMC’s scientists will use photos of our target plants that you upload, confirming the plant identity and coding their flowering and fruiting status. In addition to our focus on northeast alpine areas, we will track plants in the White Mountains, Maine woods, and along the Appalachian Trail to understand seasonal development in the context of climate change. The more photos that are posted, the better we will be able to understand the large variability that is inherent in mountain environments.

You can become a Citizen Scientist and support AMC research. Download iNaturalist on your smart phone. Join our Northeast Alpine Flower Watch project. Contribute important data while you explore the outdoors!

Check out our website for updates:
https://www.outdoors.org/flow-erwatch

Thank you for joining.

![Join the Northeast Alpine Flower watch on iNaturalist.org and help us capture photos of alpine flowers with your smartphone. Photo by: Erica Fraley.](Image)

**MOUNTAIN PASSAGES**

Volume 45, No. 3
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Mountain Passages is published six times a year by the New Hampshire Chapter of the Appalachian Mountain Club.

**Submissions.** Members may submit articles or photos (hi-res jpeg) to newsletter@amc-nh.org. Articles may be edited at the discretion of the editor to meet space and style requirements. Publication is on a space-available basis. While Mountain Passages does not pay for submissions; a byline or photo credit is given. Contact Mountain Passages for reprint permission.

**Advertising.** The AMC NH Chapter members enjoy the outdoors year-round by hiking, paddling, skiing, backpacking, climbing and biking and more.

For information and the Ad Rate Sheet, send an email to newsletter@amc-nh.org.

We reserve the right to refuse any submission, photo or advertising that is not consistent with the mission of the AMC.

**Address Changes.** Address changes or other changes to your membership must be made through AMC Member Services at 10 City Square, Boston, MA 02129; 800-372-1758; outdoors.org/membercenter

**Please note:** Member address updates cannot be handled by AMC-NH officers, committee chairs, or the newsletter editor.

**Mountain Passages Online.** If you’re receiving Mountain Passages through the mail, please consider signing up to get the electronic version instead.

You’ll get added resources not available to print subscribers: direct links to emails, forms and online information, color photos, online registration forms.

To sign up, go to www.outdoors.org/membercenter and set your AMC-NH Chapter newsletter preference to online.

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For questions, or to submit ad: Advertising@amc-nh.org

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We reserve the right to refuse ads that are not related to the mission of AMC. We do not provide proofs and accept no liability for errors beyond the cost of the ad.

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**Take Your Next Adventure With AMC In Sedona!**

Join the Adventure Travel program for a week (November 9th – 17th, 2019) of hiking beautiful Sedona in Red Rock Country with deep canyons, soaring mesas, towering pinnacles and massive red rock formations. In addition to hiking, we will explore Native American sites with rock art and cliff dwellings and the area’s vortex sites. Trip cost: $2,195. For details visit www.outdoors.org/adventuretravel or contact I. Leslie Carson, lesleicarson929@yahoo.com or Annemarie Langhan, amlhikeamc@gmail.com.

![Courthouse Butte near Sedona, AZ. Photo by: William Vickstrom.](Image)
John Pilla is a AMC Paddle and Bike Leader who likes to lead local rides in Southern NH.

Denise Carter is a new Bike Leader who enthusiastically combines her love of hiking and biking with a Hike & Bike event with Hiel on Gap Mountain in the Fitzwilliam area. She also loves the White Mountains and Lakes region and offered the Cotton Valley Rail Trail Ride in 2018. Look for her posting of her plans for 2019.

Herb Kingsbury leads road bike rides on the Seacoast from the Portsmouth area and also up into Maine.

Doria Harris thinks AMC’s mission of encouraging people to connect with the natural world and cycling is a good fit. Doria enjoys long distance self-contained touring as well as brief “credit card” tours and just rambling along the gravel back roads of New England.

Bob Kaplan a life-long cyclist and ex-bike racer has been turned into a gravel road rider by the bewitching back roads of the Monadnock region. Want to experience the best gravel riding in the area? Look for one of Bob’s rides. So, that is who we are, and this is what we like to do.

Our Bike Touring Program is designed to inspire and prepare the novice bike touer so they feel empowered to go on their own dream tour. The program consists of three parts: - The introduction comes in the Bike Touring Workshop (May 1, 2019). In this one day program we cover bike selection and preparation, what to pack, camping and cooking gear, lodging strategies, and route planning. - The second part is the Bike Repair & Maintenance Workshop (May, 18, 2019). This program is for every rider who wants to learn how to maintain and do basic on the road repairs on their bike. Among other things, every participant gets hands on experience in repairing a flat tire. - The final stage is the Bike Overnight (June 1-2, 2019). This short bike trip provides an opportunity for the rider to experience packing, riding and overnight camping. It is a great opportunity for the novice or experienced bike tourer to “dial in” their gear for the riding season.

We plan to continue to offer this program each year. So, if you miss this year’s program, keep an eye out for the dates for next year.

We have also developed the The AMC Bike Challenge to encourage folks to get out and ride a little earlier in the season. This challenge, also known as the Coffee Ramble Challenge takes place over approximately 6 weeks, running from April 19 through May 31, 2019. Ride your bike to 7 different places (each ride must be at least 2 miles total) and drink one cup of coffee or other beverage on each ride. See the AMC NH Chapter Bike page for details of the Challenge. The first 10 people to meet the challenge and send in their submissions will get a really cool AMC thermos for their future rides.

Ongoing Day Rides:

- Northfield-Turner Falls Loop: This beautiful 30 mile ride goes down one side of the Connecticut River and up the other side. In the river valley one can see the tobacco fields and drying sheds of the past have given way to hops fields for the growing microbrewery industry. The “secret” pass under the French King Bridge is a delight.
- Three Cemeteries and a Castle: This is a 20 mile loop ride which goes along back roads, paved and unpaved, through Lyndeborough, New Boston, and Greenfield revealing old cemeteries, cellar holes, cider mill sites and a castle! Often times fewer than a dozen vehicles are encountered during the whole ride. If you like gravel, this is for you.
- History and Fun: Want to know where the bodies are buried and ice cream is to be found? Want to know where “Ichabod Crane” or Willa Cather are buried? Sign up for one Hiel Lindquist’s rides in the Jaffrey and Keene areas. Most of his rides are leisurely paced and 20 miles or less in distance.
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Paddling: Things we learned during our very first experience as trip leaders for the AMC

BY: DENISE HURT, SUE SANBORN

The Squanacook River is a friendly little river and one of our favorite paddles. It always has enough water no matter what time of year, doesn't involve a car shuttle, along our planned route on the Squanacook that had forced them to turn back.

What would responsible trip leaders do? Check it out, of course. So on a sunny day at the end of April, under a cloudless sky and just a bit of a breeze, we did exactly that.

Kayaking on the Squanacook Photo by: Denise Hurt.

We discovered the eggs of a teal duck under a tussock of grass, snapped pictures of eastern painted turtles sunning themselves on fallen logs, and had a lovely lunch sitting on the stone wall at the bottom of the rapids. We explored the mill site, walked up to the swimming hole above the rapids, took a few pictures, and headed back the way we'd come. Got through the log jam easily enough, provided it was done carefully one boat at a time.

We paddled the river once more before 'our' trip. There had been some flooding and we were a bit anxious about what changes that flooding had brought to the river. Surprisingly, the water was a little lower than the last time. There were quite a few more trees down, but nothing that would prevent us from getting through. The original log jam was still there, but still passable.

Then, just before our trip it rained. Then, it rained some more. And, then it continued to rain. Water levels rose along with our anxiety level. We thought about cancelling the trip. Indecision was killing us. But, then the rain stopped. We decided to go ahead with the trip.

That decision made, we gathered our Trip Leader gear - extra paddles, life jackets, water, dry clothing and sign in sheets and headed for the river. We had a fairly good turnout considering it was overcast and cool. We were especially happy to see two of our favorite trip leaders and their canoes turn up with their years of experience leading trips.

Things were looking good!

LESSON #2: The Trip Leader gear should include a local map to help direct lost paddlers to the put in and...

Then, our departure was delayed when one of the paddlers who'd signed up for the trip called to report she got lost on her way to the put in. She asked for directions, but we didn't have a map, and neither did she. Fortunately several people were more familiar with local landmarks like the “big waterwheel,” and figured out where she was and how to get her to where we were before any of the cell phone batteries died.

That brings us to:

LESSON #3: Be sure to fully charge all cell phone batteries, and ideally have a backup way to charge them before they go dead.

LESSON #4: No matter how many times you pre-check a river there will always be surprises. (Really a corollary of Lesson # 1)

In all we had a total of 7 boats - 2 canoes and 5 kayaks - a nice size group for this small river.

As expected, the water was high and the current stronger than usual. This meant it would take longer to get to our lunch spot than originally planned. We hoped everyone was up for the challenge. They seemed to be doing just fine – even the brand new paddler in the group.

We soon discovered that the recent rains had brought even more trees down and that the original log jam was no longer passable on the left. While it looked passable on the right that would be tricky. Moving single file with plenty of space between, all seven of us made it through without incident, thank goodness. We now looked forward to a nice lunch break.

We rounded the final turn, could see the rapids up ahead, but there didn't seem to be any sandy take out where there should be a sandy take out! And what had happened to the stone wall where we usually sat when munching our sandwiches, fruit cups, and sipping on cold juice. Ooops!

LESSON #5: Remember that higher water at the put-in probably means higher water at the take-out as well.

We got as close to the spot
where we figured the sandy beach was and found a place to land – not an easy job in the quick current near the rapids. Thank goodness the most tiring part of the trip, the upstream part, was over. Now for a relaxing lunch and an easy and quicker trip back with the current. But wait….. We’re going to have to go back through that tricky strainer with a brisk current pushing us along… hmmm. So, Sue and I began to worry. Well, we’ll just stop and slip everyone through one at a time. It’ll be fine. Right?

LESSON #6: Be thankful for the friends we’ve made with other AMC Paddlers.

We got to the strainer and everyone pulled into a roomy eddy on river right. We gave instructions on the best way to approach the narrow passage at the end of the strainer. Our dear friends in the canoes volunteered to go through first and park themselves on the downstream side of the tree so they could help the less experienced paddlers through.

LESSON #7: Canoes are very VERY handy to have on trips on small rivers in quick water.

Sue and I began breathing again and actually enjoyed the rest of the trip despite the drizzle that followed us a good deal of the way down the river. We made it back to the cars with the same number of boats and paddlers that we’d started out with and no one needed the extra dry clothes we’d brought.

Our mentors assured us that we were the best trip leaders on the river that day!

Our Big Lesson

We’d joined the NH AMC Paddlers to find more places to paddle, but the most valuable things we gained were great friendships and people who always have your back! There will always be new lessons to learn, by learning from our past experiences, we hope we will always be ready for whatever challenges a river, or life, throw at us.

BIKE COMMITTEE, FROM PAGE 3

- Peterborough to Harrisville Loop: This is a 20 mile back roads ride in which all of the climbing is done in the first 10 miles, the riders have an opportunity to stop for refreshments and take in the view from the porch of the Harrisville General Store in this beautiful 19th century mill town. After a break, it’s a cruise almost all downhill back to Peterborough.

- New England Art and Industry Ride: This is a 20-30 mile ride through the Cornish colonies, and includes a visit to New Hampshire’s only National Historical Park, St. Gaudens. We then cross the Connecticut River to visit the American Precision Museum in Windsor, Vermont. In one ride one can get a rich appreciation of the importance of the Connecticut River Valley to Industry and Art in 18th and 19th century New England.

- Seacoast Rides: For a beautiful meander from Portsmouth to Rye and New Castle, join a ride offered by leader Herb Kingsbury. Great ocean views and gentle terrain.

-- Cotton Valley Rail Trail Ride: This is an 11 mile out and back ride from Wolfeboro to East Wolfeboro which provides flat riding and nice views of Lake Wentworth. A favorite ride of Leader Denise Carter.

-- Clough Park Ride: This is a 15 mile ride from the Goffstown area which can be combined with a ride along the Goffstown Rail Trail.

-- Orchards and Hills of Hollis: This is a 13 to 18 mile ride through the orchards and among the gentle hills of Hollis. It is a nice spring ride when the trees are in bloom and is a favorite offering of Leader John Pilla.

Check out the AMC NH Activity Calendar for these and other rides.

We look forward to riding with you in 2019 and in future years.

Late Autumn Gravel Road Ride in East Washington. Photo by: Doria Harris.

Teen Summer Activities

Still accepting registrations but Register Now—Space is Limited!

Trail Crew: Teens 14 to 19 years old can lend a hand maintaining trails across the northeast for one to four weeks! These programs foster leadership and develop conservation ethics while building skills and making lifelong friends. Teen Trail Crew participants can earn 40 hours of community service per week! Sessions are 4 week, 2 week or 1 week long, and run from late June through mid August. Sessions are held from the North Country to the Delaware Water Gap Mohican Region. Additional information can be found at https://activities.outdoors.org/search/. Search the Activities on the left side of the webpage and select “Teens” in the “Audience” pull down menu.

Outdoor Skills: AMC also offers many programs focused on teaching outdoor skills to teens. These programs cover a wide range of topics ranging from an introduction to a variety of activities, including, for example, backpacking, rock climbing, flat water canoeing and white water kayaking, to programs which focus on a particular skill set or leadership training, to multi-day adventures exploring a specific area, including the Pemigewasset Wilderness, the White Mountains or the Rangeley Lakes in Maine. Additional information can be found at https://activities.outdoors.org/search/. Search the Volunteer Opportunities on the right side of the webpage and select “Teens” in the “Audience” pull down menu.

AMC Teen Trail Crew at work.
Wildlife Around Us; Vernal Pools, Some residents of a Vernal Pool

BOB McLAUGHLIN

In the last issue of Mountain Passages we provided an introduction to vernal pools and the unique role they perform in the New Hampshire woodland environment. In this issue, we will provide some additional information on the animals that depend on vernal pools and their race for survival.

In fact, vernal pools are primarily identified by three amphibian species and a crustacean that depend on the pools for breeding. Specifically, the amphibians are the wood frog, the blue spotted salamander, and the spotted salamander. The crustacean is the fairy shrimp. Each of these animals has a unique story to tell.

Fairy shrimp are perhaps the most surprising residents of the vernal pools. The distant ancestors of the fairy shrimp can be found in the fossil record dating back about 500 million years to the Cambrian period, and they haven’t changed much since then. As such, they are older than any vertebrates, including fish. Initially, fairy shrimp were common throughout the oceans, but with the evolution of fish and other predators, they ultimately were restricted to isolated freshwater bodies, such as vernal pools.

Two species of fairy shrimp are present in New Hampshire vernal pools. The Vernal Fairy Shrimp (Eubranchipus vernalis) is widespread in the south of the state, and the Knob-lipped Fairy Shrimp (Eubranchipus bundyi) is more common in the north. Both species look similar to the naked eye, and are less than an inch long, typically reddish orange, swimming upside down with stalked eyes. They can be seen swimming in vernal pools shortly after or even before ice out. Their eggs or cysts are deposited in the mud at the bottom of the vernal pool and hatch as soon as required water temperature is achieved. However, they will only hatch if the eggs dessicate and freeze first. Only a small portion of the eggs hatch in any given year giving the fairy shrimp the ability to sustain their populations even if the vernal pool suffers a series of years when breeding is unsuccessful.

Look for the fairy shrimp darting around in a vernal pool as soon as surface ice melts.

Wood frogs (Lithobates sylvaticus) have a different approach to surviving the harsh New Hampshire winters. These frogs can allow about 2/3 of the water in their bodies to freeze, stop their hearts and breathing, and when spring comes, they can thaw and go about their lives with no ill effect. Every fall the wood frogs burrow into the soft ground or mud to freeze, only to emerge again in the spring. In fact, the wood frog emerges so early in the spring that you may see them hopping across the snow or swimming in water still mostly covered with ice. The wood frog’s adaptation to cold allows them to survive as far north as the Arctic Circle. New Hampshire’s winters are not much of a challenge!

The real competition for wood frogs comes in the spring with mating and reproduction. Emerging from their winter suspended animation, the race is on to reach the vernal pools for mating. The males find the females in the pools and

VERNAL POOLS, TO PAGE 7

Volunteer Opportunity for the Chapter Programs Committee

Would you like to be involved and give back to the NH Chapter, but you don't lead trips or do trail work? Do you have a couple of hours a month to volunteer? Here’s a great chance! The NH Chapter Programs Committee seeks a volunteer to help schedule interesting speakers and programs at area libraries. The Programs Committee also handles the details and hospitality of our Chapter’s Annual Meeting. The Programs Committee needs your help in executing the plans. Why not give it a try? Contact Debbie Marcus at programsnh@amc-nh.org.

Vernal Pool in April near Lincoln Woods Trail. Photo by: Bob McLaughlin.
breeding continues for a few days and then is over for the year. The wood frog eggs can be seen floating in large mats on the surface of vernal pools.

When the eggs hatch another race begins. The tadpoles have only a few short months to reach maturity and leave the vernal pool before it dries up. About ¾ of the tadpoles will not survive to adulthood, but that is enough to allow the species to continue.

Finally, there are the two salamanders, blue spotted salamander (Ambystoma laterale), and the spotted salamander (Ambystoma maculatum). As their names suggest, both have spots on their backs. The spotted salamander has prominent yellow spots on their black to blue black backs, and grow to 7 or more inches long. The blue spotted salamander is a little smaller, topping out at about 5 inches, and its markings are different. The blue spotted salamander has less distinct blue or white fleck-like markings on its dark body. The spotted salamander is found throughout New Hampshire, but the blue spotted salamander is less common.

Compared to the fairy shrimp and the wood frog, these salamanders seem almost normal. But, their secret is that they spend almost their entire lives underground emerging to breed in the vernal ponds. As such, they are known as mole salamanders.

On rainy spring nights, you may come across large numbers of these salamanders crossing a roadway to reach a mating pool. So, keep an eye out! If you find them migrating or in a vernal pond, this is probably your only chance to see them above ground, and they are only there for a short period of time, two weeks or less.

As different as they all are, all of these animals face the same challenge. Vernal pools only last a few months and each species must reach adulthood before the pools dry up. While the species have all developed strategies to survive the years when all does not go to plan, each year is a new race for survival.

As you walk past these peaceful water-bodies on your spring hikes, give a thought to the race going on below the surface, and appreciate the strength of life in the New Hampshire woodlands.

Until the next time, pause to enjoy and appreciate the wonder of the wildlife around us.

New England Trail Hike50 Challenge

Have you heard? The New England Trail (the NET) is launching a 2019 Hike50 Challenge! New year, new and updated challenge! Are you in?

This year we are celebrating another important milestone on the NET. It has been 10 years since the New England Trail was designated by Congress as National Scenic Trail. To celebrate this important occasion, we are launching the next Hike50 challenge!

The rules are the same. Earn 50 points by hiking on the NET or by completing other specified activities, and get a special edition patch. Along the way, participants will have access to NET Challenge resources and will be entered in a series of prize drawings!

Join the Hike 50 Challenge today to launch your adventure on the New England Trail!

For more information and to sign up, visit newenglandtrail.org

Blue spotted salamanders have more subtle markings that look like blue or white flecks on their backs.
‘Mountain Passages’ is only the beginning…

From hiking to biking, AMC’s New Hampshire chapter has it all. Visit our website at amc-nh.org and read more about us and our many year-round events.

Save the Date: New Hampshire Chapter Annual Meeting
Saturday, October 26, 2019
Grappone Center, Concord, NH

You don’t want to miss this opportunity to enjoy the companionship of your fellow chapter members, and a great dinner. Also, we will have a world class after dinner speaker, Marty Basch, author of seven outdoor adventure books, a long-time outdoor adventure syndicated columnist, and a popular newspaper, radio, television, and website contributor. Hope to see you there!