



## KEEP THE LEAF LITTER, PROTECT AN ENDANGERED SPECIES

By Victoria Brown, Naturalist

The leaves in New Hampshire are changing to those vibrant colors that residents admire and visitors travel by the millions to see. It is difficult to find anyone who disagrees with the fact that autumn in New Hampshire is stunning. But what happens after the leaves change and fall? We are left with giant piles of leaf litter that we endlessly rake or shred to maintain the appearance of a well-kept lawn. I am no stranger to this social expectation as I too have spent hours “cleaning up” my backyard to fit in with the rest of the neighborhood. This was until recently, while I was heaving piles of leaf litter into my wheelbarrow, I felt a sharp sting at the back of my neck. As I caught the culprit and brought it around to my admittedly nervous eyes, I saw it was some variety of wasp. This mundane occurrence allowed me to venture into new research territory; was this pollinator living under the leaves and, if so, was leaf litter a necessity for other wildlife species? It turns out, leaf litter is beneficial for several incredible reasons, including functioning as habitat for sheltering wildlife. One species that stood out

to me during my research was the rusty patched bumble bee, or *Bombus affinis*, a native bee that is currently federally endangered.

The rusty patched bumble bee gets its name from the rust-colored patch on the center of its second abdominal segment that all rusty patched bumble bees have except for the queen. They are known to be a social species that lives in colonies containing as many as a thousand workers, or non-reproductive females. Bumble bees are great pollinators and are considered a keystone species for the role they play in plant reproduction and diversity, which supports other animals and makes these bees integral to the food web. Bumble bees are known as buzz pollinators, because they vibrate their flight muscles to access hard-to-reach pollen in flowers. Although all pollinators have their necessary place in the food web, the rusty patched bumble bee’s vibrating adaptation makes them more effective pollinators of plants such as tomatoes, cranberries, blueberries, plums, apples, peppers, and alfalfa.

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# FORGING TRAILS:

## A TRIBUTE TO OUR PAST BOARD MEMBERS



Every year we host a lunch at the Science Center for past Trustees. Over the nearly 60 years that the Science Center has been running, hundreds of people have served terms on our board and helped guide it through its stages of growth and development.

On August 1, eighteen former board members (and three current members) joined me in the newly refurbished Trailhead event space for our 2024 lunch. As I looked around the room, it was humbling

to see so many wonderful people who have had such pivotal roles in making the Science Center what it is today.

I did a little math and found that there were over 220 years of combined board service sitting around the table! We had five former board chairs (and our current chair) and seven recipients of the Horizon Award (given in recognition of exceptional and extended service to the Science Center). We had one person who began his term on the board in 1968 and another who began hers in 1975!

The conversation was lively and everyone had a story to tell about their time on the board and their connections to Squam in general. Every one of them has helped guide me in my 18+ years here as Executive Director. It felt like a family reunion.

A huge thank you to everyone who attended and to all those who could not. The Science Center owes you a huge debt of gratitude.

Iain MacLeod, Executive Director  
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603-968-7194 x 123



Front left to right: Michael O'Leary, Dave Martin, Ken Evans, Alexandra Breed, John McRae, Bill Lee, Elizabeth Hager, Sandy McGinnes, Susan McKimms, Carol Thompson, Bruce Whitmore, Lisa Bennett, Peter Webster, Lea Stewart, Tony Wagner, Steve Woodsum, Nancy Conkling, John Gephart, John Fernandes, Sarah Brown, Iain MacLeod, Martha Grant.

### WISH LIST

- **For Animal Care:** Pet toys; local hardware and grocery store gift cards; baby blankets; dog/cat beds; PVC fittings/caps
- **For Trailhead Event Space:** Simple coffee maker; newer microwave
- **For Kirkwood Gardens:** Garden spades and forks
- **For Lake Cruises Headquarters:** Boat hooks

### SQUAM LAKES NATURAL SCIENCE CENTER

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Squam Lakes Natural Science Center is a non-profit educational institution incorporated in 1966 as a charitable organization under statutes of the State of New Hampshire with its principal place of business in Holderness. Its mission is to advance understanding of ecology by exploring New Hampshire's natural world.

*Tracks & Trails* is a regular publication of Squam Lakes Natural Science Center distributed to members and contributors. Comments are welcomed by newsletter editor Amanda Gillen.

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# OPENING A WINDOW TO THE NATURAL WORLD

By Rachel Saliba, Development Director

## A TAX-SMART WAY TO MAKE AN IMPACT

If you are already taking required minimum distributions (RMD) from your IRA, you can donate tax-free to Squam Lakes Natural Science Center and support what matters most to you. The amount you transfer will not be included in your taxable income and will count towards your annual required minimum distribution.

You may direct a qualified charitable distribution (QCD) from your IRA account to Squam Lakes Natural Science Center at PO Box 173, Holderness, NH 03245. Squam Lakes Natural Science Center is a 501(c)(3) non-profit organization - Federal Tax ID #: 02-0271824.

## THE SCIENCE CENTER DEPENDS ON YOU

Squam Lakes Natural Science Center is a non-profit organization with a mission to advance understanding of ecology by exploring New Hampshire's natural world. As a non-profit, we depend on support from our members and people like you. By making a 100% tax-deductible donation to our Nearer to Nature Fund, you're furthering our mission and helping introduce more people to the transformative power of the natural world.

Be on the lookout for a letter from us asking for your support of the Nearer to Nature Fund. If you'd like to contribute now, please visit our website at [nhnature.org/support](http://nhnature.org/support), scan the QR code to the right, mail a check to us at PO Box 173, Holderness, NH 03245, or call the office at 603-968-7194. No matter how you give, your donation will help us provide educational programs and care for the animals, buildings, trails, exhibits, and boats. Thank you in advance for your consideration.



## IT'S NOT TOO LATE TO SPONSOR A PLAQUE ON THE MARSH BOARDWALK

You can still be a part of the new Marsh Boardwalk and support the mission of the Science Center by sponsoring a plaque in the name of a friend, family member, or loved one, honoring them with a custom engraved message along our beautiful Marsh Boardwalk.

See full details at [nhnature.org/boardwalk](http://nhnature.org/boardwalk).



## SPONSOR A SPECIES



*Northern Saw-whet Owl*

Take your support of the Science Center animals to the next level by sponsoring your favorite animal. Your support helps with specialized diets, daily care, enrichment, and creature comforts for all of our animals.

Visit [nhnature.org/support](http://nhnature.org/support)

## WHAT WILL YOUR LEGACY BE?



Become a member of the Naturalist's Legacy Society by including Squam Lakes Natural Science Center in your estate planning and help us to fulfill our mission for generations to come.

For more information email [Rachel.Saliba@nhnature.org](mailto:Rachel.Saliba@nhnature.org).

## BUSINESS SUPPORT

Squam Lakes Natural Science Center's business partners play an important role in bringing our visitors nearer to nature and inspiring them to become active environmental stewards across New Hampshire and beyond. We offer a variety of opportunities for business partners including volunteering and exhibit, program, and event sponsorships. When you become a Science Center partner, you connect your business to a proud legacy and join a partnership that provides exposure to key audiences and generates significant goodwill among the community.

To learn more about how to become a business partner with the Science Center, email [Rachel.Saliba@nhnature.org](mailto:Rachel.Saliba@nhnature.org).

# ANIMAL CARE: FEEDING THE ANIMALS

by Lauren Moulis, Animal Care Director

Have you ever wondered what it takes to feed the animals at the Science Center? As of this writing, more than 77 animals call Squam Lakes Natural Science Center home. Each individual animal receives a diet curated specially for it, based on their natural diets, body condition, and veterinary recommendations. Diets are assessed on a regular basis and can vary with seasonal availability.

Animal care staff feeds roughly 20 pounds of food per day to our permanent residents in the form of assorted fresh vegetables and fruit, grains, insects, and assorted



River otter

proteins. If there are injured or orphaned wildlife in our rehabilitation section, this number is much higher.

Animal care preps and feeds roughly 84 individual diets every day. This number includes any of our “feeder” colonies, insects like mealworms and superworms, as well as bait fish, that are ultimately used to feed the other resident animals. Just because they are ultimately being raised for food, does not mean they have any less quality of life.

So where does all of this food come from? Just like any normal household, we go to the grocery store for our produce needs. While it often elicits many questions from grocery store employees, typically about what restaurant we work for, people are usually fascinated to hear who we are actually feeding.

Specialty grains, meats, rodents, and some fish for our larger mammals are purchased from reputable zoo suppliers. Locally, we receive fish caught from the local ice fishing derbies like the Great Meredith Rotary Fishing Derby. Finally, for the animals that require edible browse (vegetation like plants, leaves, and twigs) as a part of their diet, staff are trained to forage on Science Center property for things like dandelion, plantain, clover, and different tree leaves.

The next time you see a river otter with an ice pop, now you can say you know where that food comes from.

## NATURALIST'S CORNER: EXPLORING ECTOTHERMS

By Phoebe Hartvigsen, Naturalist

As we roll through autumn, the air begins to cool and a season of change is upon us. While you enjoy apple cider, sweaters, and crisp temperatures, think about the wildlife around you. Without a cozy fire to light, a furnace to crank up, or an extra layer to put on, how do our local organisms prepare for winter?

Ectotherms are a group of animals with some of the most fascinating temperature-related adaptations. An ectotherm is a cold-blooded animal. As humans, we are endotherms or warm-blooded animals. Being warm-blooded means we create our own heat. Regardless of how warm or cold we feel, our actual internal body temperature remains around 98°F unless something goes wrong (for instance hypothermia, heat stroke, or fever). Dogs, cats, and other furry animals are mammals like us and therefore endotherms. Mammals have a layer of fur (or in our case, hair and clothing) covering their bodies to keep that homemade heat inside. Birds, too, are endotherms and covered in feathers to stay warm. An ectotherm, however, has no insulating layer like fur or feathers. An ectotherm is an animal, like a turtle or frog, which relies on the sun to provide its warmth. If the air temperature is 27°F, the inside of an ectotherm's body is 27°F. We cannot survive having our organs frozen and neither can they. So how does an ectotherm (or cold-blooded critter) survive our freezing temperatures here in New Hampshire?

There are two main groups of ectotherms: reptiles and amphibians. Reptiles have dry scales and include turtles and snakes. Amphibians have slimy, wet skin and include frogs, toads, and salamanders. Both reptiles and amphibians seem to agree that being out during the winter is not an option. We do not see snakes slithering through the snow or frogs hopping across a frozen pond because they are not adapted for those conditions. Instead, reptiles and amphibians

hibernate. There is a special word for when an ectotherm hibernates—brumation. When reptiles or amphibians brumate, they may do so in mud at the bottom of the pond, under leaf litter on the forest floor, or in a burrow. Specific location preference and specialized adaptations will depend on the individual species. For example, a wood frog brumates beneath fallen leaves in the forest and its body can survive being frozen all winter long. A special antifreeze substance is produced to protect their cells as ice crystals form in the space between them. When spring comes, the wood frog thaws and becomes active again. Meanwhile, in order to cope with a lack of air at the bottom of a pond, a brumating painted turtle manages to “breathe” and take in oxygen through its rear end, beside the cloaca, during the long winter months.

These are just a few of the incredible ways ectotherms have adapted to life in our climate. The next time you see an ectotherm, whether it is a turtle, snake, frog, toad, or salamander, think about the adaptations that allow that tiny animal to survive and wish them well this winter. We will see them again in the spring!



Snapping Turtle covered in mud



# KIRKWOOD GARDENS

By Emma Erler, Lead Horticulturalist

## Q: Which bulbs are best for naturalizing?

A: Naturalizing is essentially the imitation of nature by planting in irregular clumps throughout the landscape, as opposed to neat and tidy rows of blooms that would never occur on their own. The best spring bulbs for naturalizing spread readily on their own, either by bulb offsets or seed. Under ideal growing conditions, these flowers will gradually spread beyond their original planting location, lending a very natural feel to the landscape. Perfect locations for naturalizing many species of bulbs include rock gardens, beneath shrubs and trees, and the front of perennial borders. Some gardeners even have luck incorporating certain bulbs into their lawns. The following three species are featured in Kirkwood Gardens, all of which lend themselves best to fall planting.

**Glory-of-the-snow** (*Chinodoxa forbesii*) is hardy to zone 3 and flowers as early as March or April. The six-petaled flowers are violet-blue with white centers, making them look somewhat star-like. When planted in organically rich, well-drained, moist soil in full sun to part shade, the plants will naturalize rapidly

by bulb offsets and seeds. Bulbs are largely avoided by deer and rodents and can tolerate being planted beneath or near black walnut trees.

**Grape hyacinth** (*Muscari* species) is an April blooming bulb that is hardy to zone 4. The flower color can vary depending on species and cultivar, but the standard is a tight cluster of royal blue bell-shaped flowers with white rims around the bells. Grape hyacinth grows well in full sun and part shade, and it is tolerant of deer, rodents, clay soil, and black walnut trees. When growing conditions are just right it can spread somewhat aggressively, quickly naturalizing planting beds.

**Siberian squill** (*Scilla siberica*) is an extremely cold hardy bulb (down to zone 2) that grows wild in southern Russia. It sports three to six-inch-tall leaves and flower stems and blooms in April. The flowers are blue and drooping, with one to three bells per stem. Though diminutive, Siberian squill naturalizes well in a variety of soil types in full sun to part shade areas and is commonly mixed into lawn areas beneath deciduous trees for an attractive ephemeral display.

## PLANT SPOTLIGHT

### Hardy Hibiscus *Hibiscus moscheutos*

**Culture:** Grows well in average, consistently moist soils in full sun. Considered a good choice for rain gardens or low areas for its wet soil tolerance. Can be planted in light shade, but full sun and good air circulation produce the strongest stems and best flowers. New shoots are very slow to emerge in spring. Zones 5-9.

**Bloom:** Large (5" diameter), hollyhock-like, slightly cupped, pink flowers with five petals each. Individual flowers last only one or two days, but multiple flower buds arise from each stem for a long bloom period in mid-late summer.

**Height:** 3-4 feet

Hardy hibiscus is a vigorous, woody-based, herbaceous perennial which sends up multiple shoots each spring to form a large mounded plant. The leaves are dark green with purple overtones, and the flowers roughly resemble those of tropical hibiscus. It can be used as an accent plant, a temporary summer hedge, or along the edges of streams or ponds. Grows wild in southeastern New Hampshire. Attractive to hummingbirds and butterflies.

**Kirkwood location:** middle of lower garden on the driveway side



### Sneezeweed *Helenium autumnale*

**Culture:** Easily grown in average, moist, organically rich soils in full sun to part shade. Soil should not be allowed to dry out. Sneezeweed is a North American native perennial that occurs naturally along streams, swamps, marshes, and the edges of ponds. Hardy to Zone 3.

**Bloom:** Clusters of daisy-like yellow flowers with wedge-shaped petals (rays). Peak bloom in early to mid-fall.

**Height:** 3-5 feet

Sneezeweed is an upright clump-forming perennial which thrives in damp soils and has distinctive winged stems. It is a good choice for informal gardens, native plant gardens, woodland gardens, naturalized areas, or near ponds and streams. When in bloom sneezeweed is very attractive to bees and butterflies.

**Kirkwood location:** lower garden, Rte. 3 side and "Grandpa's" pollinator garden



Kirkwood Gardens are sponsored by Belknap Landscape Company, Inc. and Donovan Tree Experts.

# FALL 2024 PROGRAMS & EVENTS

Programs have limited capacities and advanced registration is required.  
Full details and tickets are available on the Calendar of Events at [nhnature.org](http://nhnature.org).



Learn more [nhnature.org/dinos](http://nhnature.org/dinos)

## DINOSAURS RETURN

EXTINCT NOVEMBER 1

Generously sponsored by:



## SEPTEMBER

<p><b>SEPTEMBER 14</b> <b>SATURDAY</b> 10:00 a.m. to 4:00 p.m. For all ages</p>	<p><b>Special Event: Raptor Migration Celebration</b> <b>featuring Birds of Prey with Vermont Institute of Natural Science (VINS)</b> Fall is a season of transition and many animals are on the move to wintering grounds. Join us to see migratory raptors at Up Close to Animals presentations in the amphitheater at 12:00 p.m. and 2:00 p.m. Learn about where our raptor species go each winter, how long it takes them to get there, and why they bother to return. Do not miss the special Birds of Prey program at 10:30 a.m. or 12:30 p.m. by the Vermont Institute of Natural Science (VINS), featuring a flight demonstration with their raptor ambassadors. <i>Cost: Included with trail admission. Last admission at 3:30 p.m.</i></p>
<p><b>SEPTEMBER 18</b> <b>WEDNESDAY</b> 2:00 to 3:00 p.m. For teens and adults</p>	<p><b>Kirkwood Gardens Guided Tour</b> Join Lead Horticulturist, Emma Erler, for a guided tour of Kirkwood Gardens. This is your chance to learn about the history of the garden, identify what's in bloom, and ask any gardening questions you might have in this personalized tour. Youth must be accompanied by a registered adult. <i>Cost: \$9 member/\$11 non-member</i></p>
<p><b>SEPTEMBER 29</b> <b>SUNDAY</b> 3:00 to 4:30 p.m. For adults</p>	<p><b>Fall Naturalist Cruise</b> Enjoy the beauty of autumn while learning about the rich natural history of Squam Lake with an experienced naturalist. Watch for Common Loons, Bald Eagles, and other wildlife as you take in the sights of Squam's scenic mountain ranges, charming islands, and quiet spots. The route is chosen to maximize wildlife observations. <i>Cost: Adult \$32; Senior (65+) \$30. Members receive a \$4 discount per person.</i></p>

### ON THE TRAIL

**Up Close to Animals** - Saturdays and Sundays at 11:00 a.m. and 2:00 p.m. at the Amphitheater. Join a Science Center Naturalist to meet one of our ambassador animals.  
*Sponsored by: Rockywold Deephaven Camps; Squam Boat Livery; TESco*

**It's A Wild Life Exhibit** - A visual project highlighting IF/THEN Ambassadors, women and gender minorities, whose careers intersect with the natural world. Daily along the live animal exhibit trail.

## HANDS-ON LEARNING FOR HOMESCHOOLERS

**First Thursday of each month, November through April, 10:00 to 11:30 a.m.**  
**For ages 4 to 6, and ages 7 to 10**

Join us at this monthly series for homeschooled students to learn about the natural world through hands-on activities and investigations. We will wrap up each program with a visit with one of our live animal ambassadors.

Advance registration required. If session is full, we will open a second timeslot from 12:00-1:30 p.m. Register for one program or attend the whole series. Activities take place both indoors and outdoors. Dress to be outdoors with insulated boots, hats, gloves, jackets, and warm layers when appropriate.

*Cost per session: \$12/member child; \$15/non-member child  
An adult must participate with children at no additional cost. Each additional adult pays child fee.*

# OCTOBER

<p><b>OCTOBER 1 TUESDAY</b></p>	<p><b>Kirkwood Gardens Guided Tour</b>  <b>10:00 to 11:00 a.m.   For teens and adults</b>  <i>Cost: \$9 members/\$11 nonmembers</i>  <i>See description for September 18.</i></p>
<p><b>OCTOBER 5 SATURDAY</b>            9:30 to 11:30 a.m.            For ages 6 and up</p>	<p><b>Mt. Fayal Family Hike and BioBlitz</b>            Join a Science Center naturalist to hike up Mt Fayal and soak in the beautiful view of Squam Lake and the fall foliage. Along the way we will conduct a digital BioBlitz (an effort to identify as many different types of organisms as you can) using the SEEK app by iNaturalist. We'll start with a quick intro to the app and then head up the mountain to see what we can find and identify!            Participants should be prepared to hike approximately 1.25 miles with 500 feet of elevation gain, including some steep sections. Families should bring a backpack with water and snacks, wear layers appropriate for the weather, and wear sturdy shoes with good traction. Youth must be accompanied by a registered adult.  <i>Cost: \$9/members; \$11/non-members. Advance registration is required.</i></p>
<p><b>OCTOBER 6 SUNDAY</b>            9:30 a.m. to            5:00 p.m.            For all ages</p>	<p><b>Special Event: New Hampshire Day</b>            New Hampshire residents may visit the live animal exhibit trail for \$5 admission thanks to our generous sponsors: Dead River Company and New Hampshire Electric Co-op Foundation. Non-New Hampshire residents may purchase regular-priced admission tickets. New Hampshire residents must provide proof of residency upon admission.            Enjoy Up Close to Animals presentations at the Amphitheater at 11:00 a.m. and 2:00 p.m. <b>Advanced purchased tickets are required. Your timed entry tickets allow you to check in any time during the one-hour admission window.</b>  <i>Sponsored by:</i></p> <div style="display: flex; justify-content: center; align-items: center;">  <div style="margin: 0 10px;"> <p><i>Dead River</i> Company</p> </div>  </div>
<p><b>OCTOBER 13 SUNDAY</b>            10:00 a.m. to            12:00 p.m.            For teens and            adults</p>	<p><b>Tree and Shrub Identification Workshop</b>            Have you wanted to be able to identify the trees and shrubs you see on your daily walks and hikes? Join Emma Erler, Lead Horticulturist, for a tree and shrub identification workshop taking place in the forests, fields, and wetlands of the Science Center. We will be using plant leaves, bark, branching patterns, fruits, and habitats to identify numerous native trees and shrubs, along with a few invasive plant species. Come prepared to hike on slightly rough terrain. Youth must be accompanied by a registered adult.  <i>Cost: \$25 members/\$30 non-members. Advanced registration required.</i></p>
<p><b>OCTOBER 13 SUNDAY</b></p>	<p><b>Fall Naturalist Cruise</b>  <b>3:00 to 4:30 p.m.   For adults</b>  <i>Cost: \$9 members/\$11 nonmembers</i>  <i>See description for September 29.</i></p>
<p><b>OCTOBER 19 SATURDAY</b>            10:00 to 10:30 a.m.            For ages 3 and up</p>	<p><b>Tales and Tails – Storytime with an Animal</b>            Listen to a story read aloud and then meet one of our animal ambassadors featured in the story. An adult must participate with children at no additional cost.  <i>Cost: \$5 member child/ \$7 non-member child. Advanced registration required.</i></p>
<p><b>OCTOBER 26 SATURDAY</b>            9:30 a.m. to            4:00 p.m.            For all ages</p>	<p><b>Special Event: Owl-O-Ween</b>            Join us for Owl-O-Ween to celebrate all things owl! Meet live owls at Up Close to Animals presentations throughout the day. See the animals along the live animal exhibit trail enjoying a variety of pumpkin treats. Come in your favorite costume. Children will receive a bag of Halloween treats at the end of their visit to take home.  <i>Cost: Included with trail admission. Last admission at 3:30 p.m.</i></p>

## SQUAM LAKE CRUISES

### Discover Squam Cruise

Through October 19: Daily at 11:00 a.m. and 1:00 p.m., and 3:00 p.m. (No 3:00 p.m. on Tuesday and Thursday)  
 Enjoy Squam Lake and learn about the natural history, wildlife, culture, and people of the lake.

### Cruise with a Naturalist

Through October 10: Tuesdays and Thursdays at 3:00 p.m.

See wildlife on every memorable trip with a Science Center naturalist. Cruise route changes to maximize wildlife observations.

#### Squam Lake Cruise Rates:

*Adult \$32; Senior (65+) \$30; Youth (up to age 15) \$28. Members receive a \$4 discount per person.  
 Not recommended for children under age 5. Cruises may be canceled if minimum attendance is not met or for severe weather.*

Conveniently purchase cruise tickets online at [nhnature.org](http://nhnature.org)



# FROM THE HERON'S NEST

Blue Heron School had another fun and successful summer program. Teachers Jennifer Byam and Alexis Plunkett led the children with different topics each week, spending the majority of the time outside and on the trails. Children tended to the gardens and blueberry bushes and learned about volunteer tomato plants which took over! Co-Director Jordan Fitzgerald and Alexis Plunkett led the Kids Corner at the Family Picnic in July and had great success with solar activities and dino excavating. Long time teacher, Dylan Parker was married to his wife Kristina in Kirkwood Gardens at the end of July. Orientation week was the last week of August and was a happy time of reconnection. Forty children are enrolled for the fall, with several incoming siblings and a handful of families who are new to the program. We are looking forward to another exceptional school year, our 15th year of Blue Heron School!



Blue Heron School is a nature-based Montessori school for children ages three to six. For information please visit [nhnature.org/programs](http://nhnature.org/programs) or contact Blue Heron School Co-Directors Jordan Fitzgerald and Jordy Gianforte at 603-968-7036 or [blueheron@nhnature.org](mailto:blueheron@nhnature.org).

## MEMBERSHIP UPDATES

**GIVE THE GIFT OF NATURE  
UNWRAP A YEAR OF WONDER THIS HOLIDAY SEASON**

Looking for a truly unique and thoughtful gift? Give the gift of nature with a membership to Squam Lakes Natural Science Center. A membership is more than just a pass; it's an invitation to explore, learn, and connect with New Hampshire's natural world. Surprise a loved one with the opportunity to connect with nature and create unforgettable memories.

A Science Center Membership Makes the Perfect Gift:

- Spark Curiosity: Ignite a love for nature in young minds with hands-on activities, educational programs, and outdoor adventures.
- Create Lasting Memories: Spend quality time exploring trails, attending special events, and discovering the beauty of the outdoors.
- Support our Animals: Your gift provides support for the care and feeding of the Science Center's animals.
- Endless Possibilities: From birdwatching and hiking to wildlife encounters and educational workshops, there's something for everyone to enjoy.

Explore membership levels and benefits at [nhnature.org/membership](http://nhnature.org/membership)



## 2024 FALL BONUS MEMBER BENEFITS

		
<b>SEPTEMBER</b>	<b>OCTOBER</b>	<b>NOVEMBER</b>



Reciprocal admission is generally good for up to two adults and two youth per visit. Be sure to take your membership card with you when you go. Check with specific organizations for hours, directions, and information.

Remember as a Science Center member, you receive discounted admission all year at participating ANCA organizations like VINS in Quechee, VT and Seacoast Science Center in Rye, NH.



## 2024 ANNUAL MEETING FOR MEMBERS

The 2024 Annual Meeting for Members was held on Thursday, August 22 in beautiful Kirkwood Gardens.

Business conducted during the meeting included Board Chair Sarah Brown thanking outgoing trustee Justin Van Etten for his Board service and leadership. Sarah introduced trustees nominated to serve another three-year term including Cathy Denious, Diane Garfield, Martha Grant, Barbara Nan Grossman, Susan Lynch, and David Murphy. All were unanimously approved. She also introduced new trustees Michelle Janosa and Carol Stone. The new trustees were all approved. Sarah introduced the slate of trustee officers including Sarah Brown, Chair; Lisa Bennett, Vice Chair; Anne R. Lovett, Treasurer; and Lisa Doner, Secretary. The officers were approved.

Treasurer, Anne R. Lovett, gave a financial report for 2023. Audited Financial Statement and the 990 Tax Return are available at [nhnature.org/support](http://nhnature.org/support).

Executive Director Iain MacLeod reviewed significant events at the Science Center in 2023. He then recognized staff milestones including Dan Walsh, Facilities Assistant (5 years); Audrey Eisenhauer, Education Director (10 years); Keith Hosking, Facilities Director (10 years); Sharon Warga, Compliance Officer (10 years); Brian Eaton, Finance Director (20 years); Eric D'Aleo, Senior Naturalist (30 years).

The 2024 Horizon Award was presented to Justin Van Etten. The Board of Trustees of the Squam Lakes Natural Science Center established the Horizon Award in 1995 as a means to honor exceptional and extended service to the center. Since then volunteers, staff, and trustees have been recognized for their leadership, vision, passion, and commitment to the Science Center and its mission.

Justin first connected with the Science Center through his two children who attended Blue Heron School. He was elected to the Board in 2015, elected Treasurer in 2016, and became Board Chair in 2019. Justin served in that role through the Covid-19 pandemic years, steering the Science Center through choppy waters with a steady hand. Justin has chaired several committees and task forces over the years and has guided and assisted the Science Center in countless ways. Thank you Justin for a job well done!



Justin Van Etten with the Horizon Award

## 2024 SUMMER FUNDRAISING EVENTS: FAMILY PICNIC AND GARDEN PARTY

The 2024 Family Picnic, held Saturday, July 20, was a wonderful night of fun, laughter, great food, entertainment, and, of course, animals. The Family Picnic has grown in popularity becoming known to be a fun, safe, all-inclusive event welcome to families of all ages. 350 people joined in the festivities of live animal programs, dinosaur crafts, lawn games, and live music by the Audrey Drake Trio. They dined on delicious food from food trucks Cheese Louise, The Barn Food Truck, Petals & Pours, and Tin Can Co., and ice cream science demonstrations by SubZero Nitrogen Ice Cream.

The Garden Party to Support the Science Center was held Thursday, August 22 in Kirkwood Gardens following the Annual Meeting for Members. It was a cool evening with the gardens in full late summer bloom. More than 100 guests mingled with friends, enjoyed a string trio from the New Hampshire Music Festival, and bid generously at the silent auction. Hors d'oeuvres from the Common Man were passed among the guests as Rossi Import generously supplied delicious Italian Rossino brand wines.

Our summer fundraising events would not be successful without the support from many individual sponsors and donors including: Lisa and Bill Aulet, Kevin and Nancy Barrett, Sarah and Win Brown, The Edmund and Betsy Cabot Charitable Foundation, Cathy Crane and Mark Burzynski, Cathy and Rob Denious, Gloria and Irving Fox, Diane Garfield and Peter Gross, Barbara Nan Grossman, Karin Karagozian, Barbara and Dave Katz, Larry and Pam Tarica.

And the many community businesses that supported the events including: Belletetes Inc., Belknap Landscape Company, Bridgewater Power Company, Golden Pond Country Store, Hermit Woods Winery, Holderness Harbor, Inn on Golden Pond, K-MAC Professional Home Builders Inc., Lake Life Realty, Lakes Region Tent & Event, Melissa Gisele Jewelry, Meredith Fine Craft Gallery, Moat Mountain Brewing Company, New Hampshire Music Festival, Rossi Import, Samyn D'Elia Architects, Squam Lakes Financial Advisors, Squam Lake Inn, Survival of the Fit, The Common Man Restaurants, Tuckerman Brewing Company, Walter's Basin Restaurant.

These events would not have been possible without a tremendous amount of help from volunteers, staff, and especially the Events Committee members: Kim Beardwood Smith, Lisa Bennett, Cathy Crane, Cathy Denious, Ann Ehrhart, Melissa Fabbri, Jordan Fitzgerald, Amanda Gillen, Joy Huke, Carol Raymond, Rachel Saliba, Caroline Schad, Sharon Warga, and Kathy Weymouth... thank you all!



Family Picnic



Garden Party

# KIDS' ACTIVITIES: SEEK OUT NATURE AROUND YOU

Ever wonder what type of caterpillar you saw on a leaf in your yard? Or what type of trees are in the woods where you play? Do you like to collect things? Do you like to play games and take on challenges? Then the Seek app, by iNaturalist, is for you!

Get started with a few easy steps:

1. With the help of an adult, download the Seek app by iNaturalist on a phone or tablet.
2. Open the app and click the green camera icon.
3. Point the camera at anything you would like to identify. You don't need to take a photo, just point the camera at the plant, insect, mushroom, animal in question and Seek will identify it for you.
4. Once the app has identified the organism down to the species level it will tell you to take a picture to add that species to your sightings.
5. Identify as many things around you as possible! Earn badges by collecting observations. Take on challenges in the app, like the current Flowing Water Challenge, which has you search out specific organisms that live in or around water.
6. Have fun exploring nature and getting to know the plants and animals around you!

If you want help getting started, join us on October 5 from 9:30-11:30 a.m. for a Mt. Fayal Family Hike and BioBlitz. See page 7 or the event calendar at [nhnature.org](http://nhnature.org) to register and for more information.

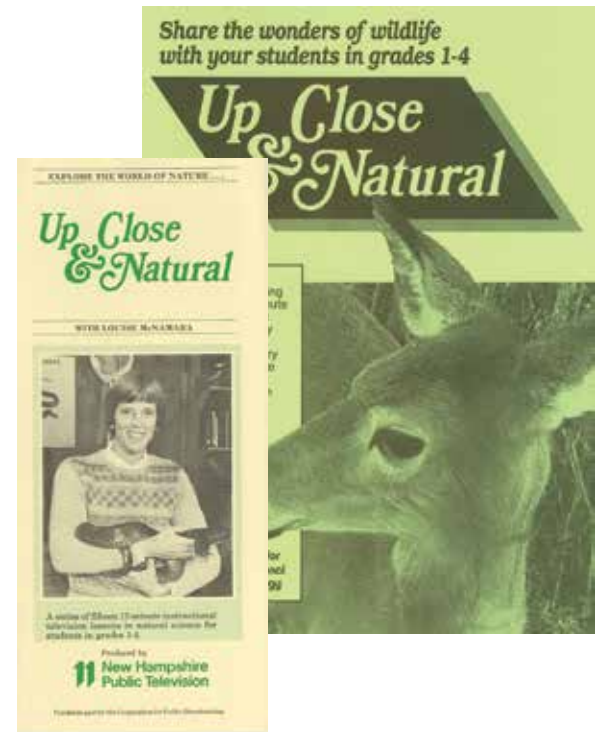
*Hey Parents – this app is designed for families that want to explore nature together. No registration is involved and no user data is collected. Seek will ask permission to turn on location services, but your location is obscured to respect privacy while still allowing species suggestions from your general area. Your precise location is never stored in the app or sent to iNaturalist.*



## FROM THE ARCHIVES:

L to R: Executive Director Bob Nichols, Great Horned Owl, Videographer Gary Anderson, and Host Louise McNamara filming *Up Close & Natural* at the Science Center in 1983.

*Up Close & Natural* was a 15 part program that was filmed on location at the Science Center in 1983 with New Hampshire Public Television. The show was an "award-winning series of 15-minute programs in science/ecology designed to stimulate primary and intermediate students and to encourage them to respect and preserve our natural world." It was geared to students in grades one through four. To see the historic videos go to: <https://video.nhpbs.org/show/close-natural/>



Printed brochures promoting *Up Close & Natural*

# TRAIL'S END



I write this note in the middle of a busy summer at Squam Lake. Many of us are enjoying visits from family members and close friends, and there are constant trips to the grocery store along with endless laundry loads and more. I used to moan a bit about the workload and complexity, but have now gotten into a Zen state of not only acceptance but real joy. My husband and I are so fortunate to be able to share

our many connections to this magical area that offers so much texture and fun to our lives.

In our large family, going to the Science Center has always been a cornerstone of our time in this area. As many people often say, they went to the Science Center as a child and now they are taking their own kids and even grandchildren as well. It truly is

a tradition at this point – to walk the trail, look for a family name on the (newly renovated!) boardwalk, revisit favorite animals on view, and, of course, visit the Howling Coyote Gift Shop on the way in and/or out.

I realized recently that we are getting close to Science Center's 60th anniversary and I hope that as we gradually begin to think about how to honor this milestone, we commit to including the generational impact of this remarkable enterprise. I invite you to send your notes with your memories and family stories of the trail, the camps, Blue Heron School, the many programs and seminars and more. You may email them to [amanda.gillen@nhnature.org](mailto:amanda.gillen@nhnature.org). For example, a Board member told me some time ago that she used to ride her horse around the Science Center trail, and others recall long-time educators and many others who taught countless children about the magic of New Hampshire's natural wonders. What a rich heritage there is at the Science Center, and how much there will be to remember and celebrate!

*Trail's End* is written by Sarah Brown, Chair of Squam Lakes Natural Science Center's Board of Trustees. You may contact her at [sarahbrown1948@gmail.com](mailto:sarahbrown1948@gmail.com).

## KEEP THE LEAF LITTER *continued from page 1*

In the spring, the queen of this species establishes a new colony, collecting nectar and pollen and laying eggs, the first of which will become the worker bees. These workers collect food, raise the young, and provide protection while the queen continues to lay eggs. When autumn comes around, the entire hive dies, except for the new queens that have hatched, who then look for safe places to hibernate until the following spring, favoring leaf litter.

The rusty patched bumble bee is a crucial pollinator and, thankfully, in the past few years, knowledge of and concern over pollinators has grown. More people than ever are researching which plants to add to their lawns or container gardens outside of their homes and businesses as attractants. Conversations are happening about how to reduce or eliminate the use of insecticides and herbicides, to cultivate healthy populations. While the above-mentioned are wonderful tools to save pollinators, we can add another: keeping leaf litter on the ground. This may be an understandably difficult and sudden change for some who lead the neighborhood in the neat lawn trend, but while working toward it, allowing piles to stay on the edge of your property or using leaf litter as fill are both great compromises.

As autumn quickly approaches, New Englanders will race to prepare their backyards and lawns for winter, chasing leaves as they fall to keep their grass looking untouched. While the desire is relatable, let us all come together to find

a compromise between us and the rusty patched bumble bee to explore other options besides total removal or mulching. Together we can start a new trend to move away from the idea of a perfectly manicured lawn and use our own front and backyards as a sanctuary for wintering wildlife. Perhaps one day, our children and grandchildren will be fortunate enough to see a rusty patched bumble bee pollinating their flowers.

For more information on how you can help the rusty patched bumble bee visit your state Fish and Wildlife/Game website.



*Rusty patched bumble bee*

## KEEP THE LEAF LITTER QUIZ

1. What is the scientific name of the rusty patched bumble bee?
2. What is a "buzz pollinator?"
3. Which plants do the rusty patched bumble bees specialize in pollinating?
  - a. Tomatoes
  - b. Cranberries
  - c. Blueberries
  - d. All of the above

### Answers:

1. *Bombus affinis*
2. It is a type of bee that vibrates its flight muscles to access hard-to-reach pollen in flowers.
3. D



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