



SPRING SYNCHRONY

By Margaret Gillespie



American shad (*Alosa sapidissima*)
Wikimedia Commons/ USFWS

How can an ocean fish and an obscure shrub be intertwined and even carry the same name? That's one of the mysteries surrounding American shad (*Alosa sapidissima*) and shadbush (*Amelanchier arborea*). Both are native to New

Hampshire and both are suitable for a feast. The shad's species name "*sapidissima*" translates as "delicious," and this fish is as tasty as it is healthy. Shad feed on microscopic organisms low in pollutants and they pass the benefits on to you. Enjoy sampling one and, as a bonus, you receive a high dose of beneficial "omega 3 oil" minus undesirable contaminants such as dioxins and mercury. The fish's partner in name, the shadbush, produces blue berries in summer. With a generous dose of sweetening, shad berries rival the best high bush blueberries you may fashion into scrumptious pies.

Spring is when synchrony between these two species happens. Let's begin with shad. A member of the herring family, shad are slender fish featuring silvery scales with dark spots stretching back from the gills. They spend most of their life cruising the ocean in large schools, feeding chiefly on microscopic zooplankton. In spring, at about five years of age, shad embark on the freshwater facet of their lives. As anadromous fish, shad leave the ocean to spawn in freshwater, stimulated by river temperatures reaching 50 to 55 degrees. Females, topping off at about eight pounds, carry up to 600,000 eggs, which they lay over mixed sand and gravel in areas of moving water. The smaller males, weighing only one to three pounds, exude milt above the eggs, fertilizing them. Within a week or two, tiny fish larvae hatch at a length of about one-third inch. If they survive predators, these young will grow 10 times

larger or more before heading to the ocean in the fall. Shad populations range from Newfoundland to Florida. In general, only northern adults survive after spawning. Northern shad return straightaway to the sea after spawning and will continue their spring breeding journeys to fresh water for multiple years.

What is the major challenge to shad migration? Dams. In New Hampshire and Massachusetts, dams on both the Merrimack and Connecticut Rivers impede passage for shad to their historic spawning waters. Even with fish passages in place, shad may not take advantage of them as they are particularly selective about using these navigation aids. The New Hampshire Fish and Game Department gives some shad free passage on a "shad truck," which ferries migrating shad below dams to suitable upstream spawning habitat. Hatcheries also raise shad for release to augment populations. We are still a far cry from the masses of migrating shad described in the early colonial era and shad festivals in later years. However there is still a noteworthy shrub to remind us of two remarkable natural phenomena that take place each spring.

Coinciding with the spring shad run is the blooming of an early shrub or small tree, named



Shadbush
Wikimedia Commons/ Dcrjsr

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FORGING TRAILS

A GROUP OF MY PEERS



The old saying, “it’s lonely at the top,” is relevant in all walks of life. In the military, they say, “complaints go up not down,” so when you are senior executive of a non-profit organization, where do you go when you need to wrestle with an issue or vent or cry on a shoulder? For me, that outlet is the Association of Nature Center Administrators (ANCA).

I first discovered ANCA in 2006, shortly after I came to the Science Center.

ANCA started 25 years ago when a group of visionary nature and environmental learning center leaders began getting together to share ideas, experiences, and hard-won professional wisdom. ANCA is now an international network of nature and environmental learning center leaders, designed to enhance their professionalism and provide the support system critical to innovative and progressive management. ANCA promotes and supports best leadership and management practices for the nature and environmental learning center profession.

My first contact with ANCA was through their Summit. The Summit – which is hosted by a different nature center each year – brings 150 or more nature center professionals together for four days of workshops, facilitated sessions, field trips, and fun. My first summit was at the Schlitz Audubon Center in Milwaukee in 2007, and I was hooked. I have attended every summit since – in Wyoming, Michigan, Wisconsin (again), Virginia, Minnesota, California, Tennessee, and Georgia. In 2009, we hosted the summit here at the Science Center, which was a huge honor. In 2017, we head for Alabama and in 2018 to Texas.

In ANCA, I found “my people” – colleagues who have become close friends, confidants, mentors, and mentees. Never one to go unnoticed in a crowd, I quickly became a part of the ANCA family, serving as auctioneer at the Summit’s riotous fundraising auction for the last seven years, leading workshops, and sharing my traditional Scottish song repertoire at nightly campfire gatherings.

I return from every Summit refreshed and invigorated; bolstered by fellowship, and inspired by the new leaders who are emerging in the field. Over the years, it’s obvious that I have turned that corner to “gray-haired veteran” and my greatest reward now is offering guidance and “wisdom” to my peers who are newer to the profession or struggling in smaller, less mature organizations.

In 2015, I was invited to join the ANCA Board of Directors and now serve as chair of the Marketing Committee and as a member of the Governance and Summit Planning Committees. I was nominated to chair the Board beginning in July of this year. I feel honored to be asked.

The work that we do in the nature center and environmental education field is so important. It will be my privilege to help guide the future of ANCA and the nature center profession over the coming years. Thanks to ANCA, I’m not lonely at the top . . . I have all the help I need.

Iain MacLeod, Executive Director
 iain.macleod@nhnature.org
 603-968-7194 x 23

SQUAM LAKES NATURAL SCIENCE CENTER

PO Box 173, 23 Science Center Road
 Holderness, NH 03245

P: 603-968-7194 | F: 603-968-2229

info@nhnature.org | www.nhnature.org

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 editors Janet Robertson and Amanda Gillen.

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MEMBER PROFILE

RUTH MCLAUGHLIN



I first experienced the Science Center around 1970 when my Laconia elementary school took a field trip to the then very new center. I don't remember much other than it was exciting to have a place to explore the outdoor world so close to home. Field trips were rare then and usually quite predictable. I do remember the newness and unique quality of the field trip fascinated us students.

Move ahead to the late 1990s, with my three children going

on annual Gilford Elementary School field trips, which always included the Science Center. I was a field trip mom and made many trips over the years. Each year I still marveled at the improvements and additions. I was impressed with how far it had come since my school days and the interactive experience every student got, seeing the animals up close and in their natural habitat. One of my kids and a friend attended summer camps. I remember morning drives to Holderness filled with their chatter and anticipation of what their day might hold. As the kids got older we became members and made annual visits, particularly on opening day in May. My youngest is in high school and she still takes her friends there often. And when we have visitors from out of town it is one of our must-see recommendations, whether they have kids or not.

As local business owners, my husband, Hayden, and I get many, many requests for donations and sponsorships from the whole range of community charities and organizations. Sometimes it is tough to pick and choose – they are all of course worthy and do good things for our community. At one point I suggested we try to target our support to local groups who work to advance local environmental education, since we are in the green industry. The Science Center was first on the list. While we don't have a fortune to donate, we find giving in-kind donations of service and support for Kirkwood Gardens makes us feel like we are a part of the good green effort. In addition, Hayden orchestrated the installation of plants for Kirkwood Gardens in the early 1990s by soliciting help from members of the New Hampshire Landscape Association. This 'Day of Caring' remains a highlight of Hayden's career. We both feel the Science Center's mission to advance understanding of ecology by exploring New Hampshire's natural world is something we all should support and encourage, however and whenever we can.

I still love to walk the trail whatever the season. I got a first-hand look at the new Water Matters exhibits last spring – what a place! While I am sure it is a challenge to keep the message current and to keep a connection with young people engaged in the new electronic world, there is still no better way to learn about our world than by getting out there in it and seeing the animals in their natural habitat and learning how our behavior can affect them. I hope our company can continue to partner with Squam Lakes Natural Science Center into the future, to share the experience of New Hampshire outdoors with the students and parents of the future, as they will soon hold the reins of our destiny.

Ruth McLaughlin, and her husband Hayden, live in Gilford where they own and operate Belknap Landscape Company.

NEWSBRIEFS

- Trail attendance in 2016 set a record with 60,958 visits, compared to 53,494 in 2015. Squam Lake Cruises passengers numbered 10,028, compared to 9,895 in 2015. Across the state, 14,292 school children and teachers attended a program at the Science Center or their school site, compared to 15,005 in 2015. Another 8,642 people across the state attended non-school outreach programs. Memberships numbered 4,206 at year end.
- Dylan Parker, a recent Plymouth State University Childhood Studies graduate, interned as a student with Blue Heron School this fall and is continuing on staff through June as a part-time assistant at the school.
- Lake Education classes for schools and Squam Lake Cruises will depart at a new location, just across from our exit driveway on Route 113 this year. While there's no parking available on the channel side, there will be additional parking in our main lots within easy walking distance. New facilities, including an office, storage, bathrooms, and an outdoor classroom pavilion will be ready to go in May. All cruise ticket fees increase in 2017 by \$2.
- In 2016, 222 regular volunteers donated 8,229 hours of service and 132 one-time volunteers gave another 527 hours, totaling 8,756 hours from 354 volunteers. Hidden behind this number are many wonderful volunteer stories and experiences. Everyone on the staff appreciates the volunteer team and their gifts of time, skill, dedication...and friendship.
- We apologize for accidentally omitting Wayne Martin from the Bronze Awards recipients of President's Volunteer Service list in the winter 2016 issue of *Tracks & Trails*.
- In March, volunteers will be able to access a new volunteer management software program, called Better Impact. It allows volunteers to track and schedule time, as well as log in and out, and communicate with other volunteers. The Volunteer Manager will be able to create and store documents, access a variety of reports, and increase her efficiency. Special thanks to volunteer Sydney Stewart for her generous donation to fund this software.
- We are grateful to former trustee and board treasurer Peter Richards, longtime advocate for improving technology. Thanks to Pete's generous gift, new software will allow visitors to purchase Squam Lake Cruise tickets online. Online ticketing will be available when cruises begin on May 16.
- Every five years, the Science Center applies for AZA accreditation. The process involves a long application followed by a site visit. AZA inspectors then write a report, which includes recommendations for the Science Center to address. One concern declared in 2016 was access and security afterhours. As a result,

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NATURALIST'S CORNER

HERON OF THE NIGHT

By Dave Erler



Photo courtesy Wikimedia Commons/Dori

The first time I heard the call of a Black-crowned Night-Heron (*Nycticorax nycticorax*) I was eight years old. It happened after an evening of fishing for Black Crappies on a lake in Minnesota as I loitered along the shore when my father, older sister, and younger brother headed back home through the woods. A loud guttural “quock” sound came from overhead. I don’t think I was scared but I know it startled me. I had no idea what made the call. I didn’t hear it again until 14 years later, when I knew immediately I had heard it before. This time I was working for the University of Minnesota Extension Service at a summer camp near a lake. I was with a group of 10 to 14-year-old farm kids. The sound scared the dickens out of them. They immediately wanted to know what it was. Being the “nature specialist” I suddenly felt pressure to supply an answer. I have to admit I didn’t know what it was. It wasn’t an owl and it wasn’t the low-pitched “croak, croak” of the Great Blue Heron. I responded that it was the call of a “water bird,” which seemed to reassure them it wasn’t anything too dangerous. Now I had incentive to find my set of Peterson birdsong cassette tapes.

Both times I heard the sound it was at night, near a lake, came from above, and was similar to the call of Great Blue Herons. I started there. The guide with my Peterson birdsong tapes listed my options. I picked the cassette with calls from Loons and other water birds. I pushed the button to fast forward, randomly stopped it, and pushed play. By pure luck the same call came from the speaker. I hit stop and then rewind for two seconds. The monotone voice identifying the calls put a name to the mystery call.

Black-crowned Night-Herons are small, squat, chubby herons with thick necks, rather large heads and heavy pointed bills. As their name suggests, adults have distinct well-defined black crowns as well as black backs with contrasting white undersides. Their legs are shorter than the larger Great

Blue Herons’ are. In flight their short legs barely reach the end of the tail. While in the air they hold their heads back against their bodies making them appear to have no necks. Like most herons, they have a rather slow, steady wing beat on broad, rounded wings.

Black-crowned Night-Herons are found across much of North America and on every continent except Australia and Antarctica. Although not seen as frequently as the more familiar Great Blue Herons, Black-crowned Night-Herons are

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FROM THE HERON'S NEST

By Laura Mammarelli

Blue Heron School children enjoyed the wonderful snow that fell in early January by going out on snowshoes. With Naturalist Margaret Gillespie they learned how snowshoe hares can move on top of the snow with their large feet. Then they used snowshoes themselves to try it out. After their snowshoe experience they became otters and went sliding on the snow.

Blue Heron School, a nature-based Montessori school for children ages three to six, operates Monday through Friday, 8:30 a.m. to 1:00 p.m., or 8:30 a.m. to 3:30 p.m., September to June. For more information please visit www.nhnature.org/programs/blue_heron_school.php or contact Laura Mammarelli, Blue Heron School Director, at 603-968-7194 x 40 or blueheron@nhnature.org.



KIRKWOOD GARDENS PLANT SPOTLIGHT

By Brenda Erler

Moss Phlox *Phlox subulata*

Culture: Best grown in rich, moist, well-drained soil in full sun but will tolerate dry, sandy, or gravelly soil

Bloom: May to June

Height: 4 to 6 inches

This vigorous, spreading phlox is a great, moss-like groundcover that forms low mats up to two feet wide. It is native on wooded slopes from Michigan and New York, and through the Appalachians as far south as Tennessee and North Carolina. It is very attractive to butterflies and provides color in the early growing season.

Kirkwood Gardens grows a hot pink variety, but this plant has cultivars in shades of blue, purple, pink, red, and white.

Kirkwood location: on the top of the stone wall next to the entrance drive as you approach the Red Barn.



Daffodil *Narcissus var.*

Culture: Easy to grow in average, well-drained soil in full sun to part shade

Bloom: late March to early May depending on variety

Height: 6 to 30 inches depending on variety

Daffodils are one of the mainstays of an early spring garden. These natives of Europe and North Africa come in a huge variety of heights, shapes, and colors. The Latin name is derived from the Greek god Narcissus who spent so much time admiring his own reflection that the other gods turned him into a flower. Deer seldom bother daffodils, but they are a good early nectar source for bees. The flowers tend to face the sun, so plant them with the shade to their backs.

Kirkwood locations: beds surrounding the Inn, Route 3 bed in upper garden, and around stone fountain.



Plant Spotlight and Kirkwood Gardens are sponsored by Belknap Landscape Company, Inc.
www.belknaplandscape.com

NATURALIST'S CORNER *continued from page 4*

probably the second most common heron in North America. Due to their nocturnal habits they are not often seen. During the day they usually find shelter by perching in trees, hidden among the foliage, often in groups. In the evening and at night they forage in marshes or along the edges of lakes and streams. Their dagger-like pointed beaks are serrated, allowing them to snatch and hold slippery prey including fish, crawfish, frogs, tadpoles, and water snails. Once they catch their prey they swallow it whole.

When you visit this year be sure to stop in the Celebrate Birds Exhibit. The attached aviary will be a "heronry" displaying a couple species of herons, including an immature Black-crowned Night-Heron. If you visit over the course of the summer you will notice a change as it molts from its immature brownish, streaked feathers to its different adult plumage. Like most birds living here, this bird is non-releasable. It (he or she – it's hard to tell) arrived from a wildlife rehabilitation center in Glen Ellyn, Illinois, where it was treated, but deemed non-releasable due to a wing injury limiting its flight ability.

In the years since I first heard those guttural "quock" calls, I have seen Black-crowned Night Herons perhaps a half dozen times. To this day I have yet to hear another one call, but rest assured if I do, I will know what made that sound in the night.

NEWSBRIEFS *continued from page 3*

new gates were installed this fall at the entrance and exit driveways. Special thanks to Bob Keiver of Keiver-Willard Lumber for donating beautiful wooden posts for the gates. Gates will be locked daily at 5:30 p.m., unless there is a scheduled evening program.

- Mead Discovery Place in the Trailhead Gallery will display photographs from the Community Camera Club of Plymouth this year.
- Naturalist Eric D'Aleo is coordinating a new Trail Camera STEM (Science, Technology, Engineering, and Math) Project looking at how animals use the Science Center property. Squam Lakes Conservation Society is partnering with the Science Center and is already installing trail cameras on their properties. Later, the project will result in a Mead Discovery Place exhibit, Story Maps on our website, and a school STEM program. School Programs Coordinator/Naturalist Jeremy Phillips is working with Eric and they both attended an Arc GIS and Story Mapping workshop at Plymouth State University.
- School Programs Coordinator/Naturalist Jeremy Phillips serves on the New Hampshire Environmental Educators board. It is a nonprofit, which helps to advocate for environmental education on a statewide level through professional development and networking. Jeremy also participates in the Bearcamp Trackers, a group dedicated to providing information about animals on private property to help landowners make conservation-friendly decisions.
- Finance Director Brian Eaton was recently elected as Treasurer of the Sandwich Home Industries board of directors.

CALENDAR OF PROGRAMS & EVENTS

Advance registration is required by noon the day before the program. If minimum enrollment is not met, programs may be cancelled. Walk-ins may be accommodated if space is available.

MARCH

<p>MARCH 8 WEDNESDAY 10:00 TO 11:00 A.M.</p>	<p>Nature Play Time (Series) For ages 2 and 3 Join us to explore the natural world with your little one! Using our five senses, we will investigate mud and water in the spring. Adults get to play too! An adult must participate with children at no additional cost. Program will be held outdoors; please dress in warm waterproof layers with rain/mud boots for spring. <i>Cost: \$5/member child; \$7/non-member child</i></p>
<p>MARCH 18 SATURDAY 10:00 A.M. TO 12:00 P.M.</p>	<p>Natural Shelter Building For families with children ages 8 and up Join us for an expedition into shelter building. We will venture out to learn different techniques and ways to construct shelters. The land around us will determine what's best to use to make our shelters. Will it be enough for us to survive the night if we had to? <i>Cost: \$8/member; \$10/non-member</i></p>

APRIL

<p>APRIL 5 WEDNESDAY 10:00 TO 11:00 A.M.</p>	<p>Nature Play Time (Series) For ages 2 and 3 Join us to explore the natural world with your little one! Using our five senses, we will investigate mud and water in the spring. Adults get to play too! An adult must participate with children at no additional cost. Program will be held outdoors; please dress in warm waterproof layers with rain/mud boots for spring. <i>Cost: \$5/member child; \$7/non-member child</i></p>
<p>APRIL 6 THURSDAY 10:00 TO 11:00 A.M.</p>	<p>Homeschool Program: All About Series: Turtles For ages 4 to 6 Join us with your homeschooled child to learn all about New Hampshire wildlife. Each session considers a different group of living things through activities, hands-on experiences, and a meeting with a live animal.</p> <p>Homeschool Program: Get HAPI!: Ecosystems For ages 7 to 10 The primary interpretive focus of the Science Center's programs and exhibits is community ecology, which has four major concepts: Habitats, Adaptations, Populations, and Interrelationships (HAPI). Join us with your child to investigate these topics in depth. <i>Cost \$9/member child; \$11/non-member child</i> <i>An adult must participate with children at no additional cost. Each additional adult pays child fee. Program offerings are aligned with the New Hampshire Science Framework.</i></p>
<p>APRIL 6 - 9 THURSDAY TO SUNDAY 8:30 A.M. TO 4:30 P.M.</p>	<p>Certified Interpretive Guide Training For adults Interpreters are storytellers. They are tour guides, museum docents, zoo docents, park rangers, naturalists, and more. In this four-day course offered by Squam Lakes Natural Science Center and National Association for Interpretation you will learn techniques to make connections with an audience, give meaningful and enjoyable presentations, and create thought provoking and relevant interpretive programs. Become a Certified Interpretive Guide through the National Association for Interpretation. Visit interpnet.com to register or contact Certified Interpretive Trainer Audrey Eisenhauer at audrey.eisenhauer@nhnature.org for more information.</p>
<p>APRIL 19 WEDNESDAY 7:00 P.M.</p>	<p>Understanding Bobcats in New Hampshire By NH Fish & Game's Fish and Wildlife Stewards Program For adults Squam Lakes Natural Science Center and Holderness Recreation Department invite you for an evening focused on understanding bobcats in New Hampshire. Learn more about bobcat natural history, related research and management activities, and the federal Wildlife and Sport Fish Restoration Program that makes the work possible. The program is presented by two specially trained volunteers with the Fish and Wildlife Stewards program. <i>No charge to attend but advance registration requested.</i></p>

APRIL CONTINUED

APRIL 25 TUESDAY 10:00 A.M. TO 12:00 P.M.	Natural Shelter Building For families with children ages 8 and up Join us for an expedition into shelter building. We will venture out to learn different techniques and ways to construct shelters. The land around us will determine what's best to use to make our shelters. Will it be enough for us to survive the night if we had to? <i>Cost: \$8/member; \$10/non-member</i>
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MAY

MAY 5, 12, 19, 26 FRIDAYS 7:00 TO 10:00 A.M.	Spring Birding For adults and children ages 14 and up In partnership with the Squam Lakes Conservation Society, the Science Center is offering weekly bird ID programs. Join Iain MacLeod for this series of beginning birding programs. A huge variety of birds fill our woods, meadows, and wetlands each spring. Explore a variety of habitats in the Lakes Region looking for birds as you learn identification by sight and sound, building on your bird identification skills each week. <i>Cost per program: \$12/SLNSC or SLCS member; \$15/non-member</i>
MAY 6 SATURDAY 9:30 A.M. TO 5:00 P.M.	New Hampshire Day For all ages \$5 admission for New Hampshire residents. Live animal presentations at 11:00 a.m., 1:00 p.m., and 3:00 p.m.
MAY 27 SATURDAY 10:00 A.M. TO 12:00 P.M.	Frog Walk with Senior Naturalist Dave Erler For adults and families Spring is an exciting time to be out and about. The birds are back and the frogs are hopping. Join this adventure to learn more about the seven species of frogs found on the Science Center's grounds. Find out what's the difference among frogs, toads, and tree frogs. Meet several species up close and search the pond edges and wet meadow for several others. <i>Cost: \$8/member; \$10/non-member</i>

JUNE

JUNE 3 SATURDAY 9:00 A.M. TO 12:00 P.M.	Kirkwood Gardens Day For all ages Gain inspiration from Kirkwood Gardens and find beautiful plants for your own garden. Purchase fine perennials from a prestigious New England nursery and knowledgeable local gardeners. Peruse the silent auction of desirable plants and garden items and browse craft vendors. Plus get expert gardening advice. Enjoy beverages and baked goods for sale. All proceeds benefit Kirkwood Gardens, established 1995. Sponsored by: 
JUNE 10 SATURDAY SESSION 1: 5:30 TO 8:00 A.M. SESSION 2: 8:00 TO 9:30 A.M.	Annual Breeding Bird Census For adults and families with children ages 12 and up For over three decades Senior Naturalist Dave Erler has conducted a census in early June of bird species that nest on the Science Center campus. The census is done primarily by ear, listening for territorial songs of male birds, indicating probable nesting. This is a great opportunity to hone your bird song identification skills. Session 1 involves canvassing two forested zones, including Mt. Fayal. Session 2 covers fields, exhibit areas, and Kirkwood Gardens. Binoculars are available or bring your own. <i>No charge but reservations are required.</i>

SUMMER 2017 GUIDED DISCOVERIES

Week-long outdoor natural adventure camps for children ages 4 to 14. Registration is now open! See details and register at nhnature.org.



Squam Lakes Artisans Gallery

Locally crafted New Hampshire gifts at the Holderness Inn

Open daily 10:00 a.m. to 5:00 p.m. starting May 18

SAVE THE DATE

Annual Meeting for Members
 Saturday, August 12

SQUAM LAKE CRUISES

New Hampshire is famous for its picturesque lakes and mountains and Squam Lake is a gem among many. See its amazingly clear water, rocky shores, celebrated islands, historic homes, scenic mountain views, and remarkable wildlife. If you are looking for a memorable experience, choose from one of these fabulous 90-minute guided tours on beautiful Squam Lake.

Book your cruise online at nhnature.org!

Explore Squam

May 20 to June 30 - Daily at 1:00 p.m.

July 1 to August 31 - Daily at 11:00 a.m., 1:00 p.m., 3:00 p.m.

September 1 to October 9

Tuesday, Wednesday, Thursday at 11:00 a.m., 1:00 p.m.

Friday through Monday at 11:00 a.m., 1:00 p.m., 3:00 p.m.



This unforgettable guided tour has something to delight everyone. Learn about the natural history of the lake, the wildlife that makes Squam so special, and the people who have enjoyed these lakes for over 5,000 years. See the beautiful lake where *On Golden Pond* was filmed over 30 years ago. Watch for and observe Common Loons and Bald Eagles.

Bald Eagle Adventure

May 16 to June 27 - Tuesdays at 3:00 p.m.

Join a naturalist for a special Bald Eagle Adventure to view these magnificent birds in their natural habitat. The cruise focuses on the recovery of Bald Eagles as a nesting species in the state, with particular discussion about the Bald Eagles that have nested on Squam since 2003.

Loon Cruise

June 5 to August 28 - Mondays and Fridays at 3:00 p.m.

We are delighted to join forces with our friends and colleagues at the Loon Preservation Committee (LPC). Offered twice a week these cruises focus on Common Loon conservation, biology, and monitoring. A Science Center naturalist joins an LPC biologist who guides the tour and discusses the work LPC does across the state and on Squam to protect these extraordinary birds. This special cruise route is designed to maximize Loon observations.

Nature of the Lakes

July 4 to August 31 - Tuesday, Wednesday, Thursday at 4:00 p.m.

September 5 to October 5 - Tuesday, Wednesday, Thursday at 3:00 p.m.

Uncover the rich natural history of Squam Lake with an experienced naturalist educator. Observe Loons and Bald Eagles and their nesting sites along with other wildlife. Learn how animals survive and adapt to their aquatic world. Gain an appreciation and deeper understanding of Squam Lake from mountain ranges to island stories to quiet spots during this memorable lake experience.

Lake Explorers – A Family Cruise

July 11, 25, and August 8

Tuesdays at 10:00 a.m.

For ages 5+

Experience the excitement of Squam Lake as active explorers. This family-style cruise gives children an opportunity to use binoculars, search for loons, collect microscopic life, watch live fish, participate in a scavenger hunt, and test their navigational abilities. Get on board for a cruise that could spark an interest to last a lifetime.

Squam Lake Cruise Rates:

Adult: \$27

Senior (65+): \$25

Youth (up to age 15): \$23

Members receive a \$4 discount per person. Discounts available for combination trail and cruise tickets. Not recommended for children under age 3

Dinner and Sunset Cruise

Thursday, July 20 and 27

Dinner at 5:00 p.m.

Cruise departs at 6:30 p.m.

Start your evening with a delicious, fixed-price dinner at Walter's Basin Restaurant, followed by a sunset cruise on Squam Lake. This guided tour showcases Squam's beauty as dusk falls. The guide discusses the natural history, wildlife, and people of Squam Lake.

Cost: \$55.00 per person; not recommended for children

Squam Lake Charters

Treat your visiting family or friends to a truly memorable experience in the Lakes Region. Host your own cocktail party or other unique gathering on Squam Lake. Transport wedding guests to Church Island. Any of these are possible by chartering a private cruise customized to fit your plans. Five canopied pontoon boats and experienced tour guides are ready to help with your special outing. Operations Manager Sharon Warga will personally arrange your charter for any occasion or celebration. Contact Sharon at 603-968-7194 x10 or sharon.warga@nhnature.org for reservations.



All Squam Lake Cruises depart on Route 113 across from the Science Center parking lots. Park in designated lots and walk to Lake Education Headquarters using pathway. Squam Lake Cruises are 90 minutes in length aboard canopied pontoon boats. Binoculars are available for wildlife viewing at no additional cost.

Space is limited on Squam Lake Cruises.

Make your reservation online at nhnature.org or call 603-968-7194 x 7.

VOLUNTEER OPPORTUNITIES

Docent Training - Adults

June 19, 20, 21, 22 - 3:00 to 8:00 p.m.

Docents are volunteers trained to interact with guests on the live animal exhibit trail using educational props and live animals. Docents represent the Science Center at off-site events and also travel to assist naturalists with educational outreach programs. Docents must commit to 40 hours of training in their first year and 16 hours annually subsequently. *Cost: \$50 (financial aid available)*

First Guides Training - Ages 14 to 17

June 28, 29, 30 - 10:00 a.m. to 4:00 p.m.

First Guides is a teen volunteer program based on our adult docent program. Teens learn how to be a welcoming and informative presence for visitors, often demonstrating animal artifacts alongside adult docent mentors with live animals. *Cost: \$50 (financial aid available)*

For more information or to register for training, contact Volunteer Manager Carol Raymond at carol.raymond@nhnature.org or 603-968-7194 x 22.



BUSINESS SUPPORT



Show your business and brand in front of engaged visitors by supporting the Science Center. There are many sponsorship opportunities: become a Business Member, support the Annual Fund, or sponsor a special event or program. Visit nhnature.org/support for more information.

GREEN TIP: EAT LOCAL

Did you make a New Year's resolution to eat better? One way to follow through is to eat more local food. Food from a close-by farmer's market or farm stand is fresher, healthier, and tastes better because it spends less time traveling from the farm to your plate. You will also reduce your carbon footprint by eating locally grown food.



And you can enjoy even fresher food by planting your own garden. Vegetable gardens are a fun family project too. Remove some lawn, and save the work of mowing, and grow food instead. If you don't have space, you can use containers to grow food on a deck or patio.

SAVE THE DATE

Island Dinner Dance
To celebrate our
Lake Education programs!

SQUAM LAKES NATURAL SCIENCE CENTER'S

Summer Splash

An Island Dinner Dance

Saturday

July 22

MEMBERSHIP

Time to renew your membership? Looking for a gift? Benefits include:

Free admission to trails and exhibits for a full calendar year

FREE



10% discount at the Howling Coyote Gift Shop

Discounted tickets available for extra guests



Discounted rates for program and cruises

Reciprocal admission to participating nature centers, zoos, and aquariums

Organization Member
anca
Association of Nature Center Administrators

ACCREDITED BY THE
ASSOCIATION OF ZOOS & AQUARIUMS



Subscription to quarterly *Tracks & Trails* newsletter

OPENING A WINDOW TO THE NATURAL WORLD

Leave a Legacy Using a Donor Advised Fund

Thank you for helping us to reach our 2016 Annual Fund goal. We are grateful for each and every donation!

Some of you use your Donor Advised Funds (DAF) to make Annual Fund contributions, using accounts at the New Hampshire Charitable Foundation or agents such as Fidelity Charitable Gift Fund, Vanguard Charitable Endowment Program, or Schwab Charitable Fund, to name a few. Using a DAF for donations is an easy way for many families to manage their philanthropic interests. DAF grants are perfect for making Annual Fund donations, because DAFs must be solely for the charity's benefit; donors cannot receive any goods or services in exchange. As a result, DAF grants may not be used to purchase tickets for a charitable event or memberships, which have associated benefits.

But another option for DAF accounts you may not have thought about is to recommend grants in advance for

specified charities from any balance remaining in the account upon your death. This option allows you, in effect, to make bequests to one or more 501 (c) (3) charities, such as Squam Lakes Natural Science Center. Unlike a will, which might require help from an attorney, most DAFs may be changed easily at any time and at no cost.

If you have a DAF or you're thinking of establishing one, please think of leaving a legacy gift to Squam Lakes Natural Science Center. Thank you.

Opening a Window to the Natural World is written by Janet Robertson, Development and Communications Director. You may contact Janet at 603-968-7194 x 12 or janet.robertson@nhnature.org.



These generous donors made tribute gifts, which were received between October 1 and December 31, 2016:

In memory of Anne and James Alvord
The DeHaven Families

In memory of Alan T. English
Conver/Mathieson Family
Lawrence Coolidge
Audrey Hillman Fisher Foundation
Barbara and David Preston
Betsy and Bruce Whitmore

In honor of Monique Brancart Lehner
John and Mary Ann McRae

In honor of Tashia Morgridge
Clay Play Pals

In memory of Donald Parsons
Priscilla and Wayne Fletcher
Natalie Parsons, Nancy Parsons, Donna Parsons

In memory of Leonberger Pemi
John and Mary Ann McRae

In memory of Julian Shlager
Melinda and Kit Ashley
Connie and Howard Cunningham
Ellen Grudzien

In memory of Greg Smith
Ann and Richard Chalmers
Frances Chalmers and Gail Smith
Barbara and Ron Geigle
James Talcott Fund of the New York Community Trust

In honor of the Sullivan/Stevenson Family
Faith Taylor and Ted Sullivan

In memory of Wendy Wilkens
Alice F. Stewart

DO SOMETHING WILD...SPONSOR A SPECIES!

The animals at Squam Lakes Natural Science Center serve as ambassadors for their species, here for the purpose of teaching about New Hampshire's natural world. The cost of caring for wildlife is considerable.

All the animals need specialized diets, daily care, and creature comforts. You can help to provide food, health care, and housing for the animals - for your favorite feathered or furry species - through Sponsor A Species. You may sponsor a species for yourself, your family, your company, school, or club. Or send a sponsorship package as a gift. It's a unique way to learn about a particular species and help us to care for our live animals.

See sponsorship levels and make your sponsorship online at www.nhnature.org/support/sponsor_species.php.



WISH LIST

Golf cart

Mobility scooters

For Blue Heron School: Microwave

For Animal Care: Pressure washer

For Kirkwood Gardens Day treasures sale

Anything from used tools to garden art

For Facilities

air compressor, ladders, leaf blower, plow blade, shop tools, snow blower, string trimmer, trailer, walk behind sand spreader, water tank, welder

TRAIL'S END

VOLUNTEERS



My wife Jenny and I had the privilege of hosting the holiday volunteer potluck in December. The day was glorious in its white, winter splendor. Christmas sweaters red, green, blue, and beautiful were the dress of the day. The atmosphere was merry, conversation delightful, and the high spirits were a perfect expression as our successful 2016 drew to a close. This celebration with our volunteers got me thinking about the importance of their efforts to our Science Center mission and the reasons they so happily give of their time.

You know that I am always tempted, due to my profession, to focus on finances. The time volunteers devote to our organization provides significant resources so that other funding can be applied to improvements and programs. The thousands of volunteer hours we receive each year easily translates into tens of thousands of dollars we don't need to raise by other means. Whether volunteers provide close up lessons with our animals, supervise the playscape, direct busloads of school children, or stuff envelopes for mailings, their efforts are important and appreciated.

But I think it is more than that. Experts who study why people volunteer have come up with a number of significant reasons. Many sincerely want to give something back, to make a difference in the community, and to say thank you for their own blessings. Some appreciate the personal growth, self-esteem, and satisfaction that come from helping others. Still others enjoy the friendship, belonging, and fun gained while bringing people together to accomplish common goals.

Leanne Beattie, health and fitness writer says, "Research has shown that the good feelings you experience when helping others may be as important to your health as exercise and a healthy diet. But it's the smile from a child or thankful person that shows you're really making a difference in someone's life. And that's the greatest feeling in the world."

There is one more important reason that people volunteer at the Science Center. I have come to realize that our volunteers truly love this place. And, the love they express when they volunteer is up front and evident in all of their interactions with other volunteers, staff, and visitors. That love rubs off on all who set foot on our campus and, in turn, makes each of those folks love the Science Center a little bit more.

So, my question is no longer, "Why do our volunteers do what they do at the Science Center?" Perhaps the better question should be, "How can we all be great volunteers in the future?"

Trail's End is written by Ken Evans, Chair of Squam Lakes Natural Science Center's Board of Trustees.
You may contact Ken at evanmead139@gmail.com.

SPRING SYNCHRONY *continued from page 1*

after this event. You guessed it – the shadbush. Shadbush blooms before there is abundant color to welcome spring. I look forward to seeing the white blossoms flowering along roadsides and leaning out in clusters from the shores of Squam Lake. Shadbush has a multitude of branches graced by bunches of white, five-petaled flowers. Serviceberry and Juneberry are other names for this shrub. The name, serviceberry, is connected to some unauthentic but colorful folklore. Serviceberry blooms at the time the ground is thawing in New England. The story goes that early settlers could first dig graves and hold funeral services at this time after a long, cold winter. The truth is much more mundane. The name serviceberry is derived from its European relative *Sorbus*, which has similar fruit. Juneberry comes from the month to look for the delicious ripe berries, although timing varies. Even Lewis and Clark, on their westward expedition, relied on shadbush berries as an emergency food source. Native Americans valued these berries as well as the strong shadbush wood, which they shaped into arrow shafts.

As spring swoops in with many sights and sounds awakening in this season of new life, even nature seems to be in a rush. Maybe this year is the one to stop and smell a shadbush. What is its fragrance? If you get there first, keep us all in suspense.

Naturalist's Legacy Society

Your planned estate gift will help Squam Lakes Natural Science Center to continue to achieve its mission to teach about the natural world for generations to come.

Learn more at http://www.nhnature.org/support/planned_giving.php



SHAD AND SHADBUSH QUIZ

1. True or False? Both shadbush berries and shad are delicious to eat.
2. A fish that hatches in freshwater, lives most of its life in the ocean, but returns to freshwater to spawn is called _____.
3. What color are shadbush flowers?
4. Which is the most challenging obstacle to shad migrating upriver to spawn?
5. What are two other names for shadbush?

Answers:

5. Serviceberry and Juneberry

4. Dams
3. White
2. Anadromous
1. True



SQUAM LAKES NATURAL SCIENCE CENTER

PO Box 173, 23 Science Center Road
Holderness, NH 03245

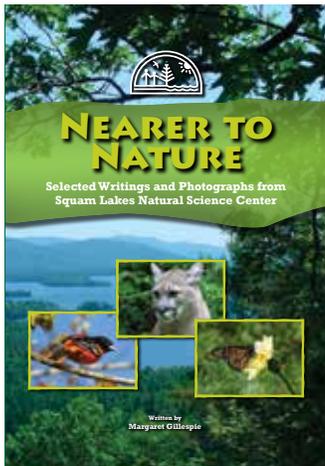
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THE HOWLING COYOTE GIFT SHOP



Nearer to Nature
By Margaret Gillespie
\$19.95



50 Nature Activities for Kids
By Dave Erler
\$14.95

All proceeds from sales at the Howling Coyote Gift Shop benefit the mission of Squam Lakes Natural Science Center:
to advance understanding of ecology by exploring New Hampshire's natural world.

WHERE, OH WHERE?

The picture from the winter edition of *Tracks & Trails* was taken from the Ecotone Trail looking down on the meadow and animal trail. Note the osprey nest on the left. The winner of the Science Center hat is Christina Roy of Woodsville.



Do you know the location shown in the photo below? Email your answer to amanda.gillen@nhnature.org and you could win a Science Center hat!

