



TRACKS & TRAILS

Fall 2015 | Vol. 44, No. 3

WHY BIRCH?

By Margaret Gillespie, Illustration by Cheryl Johnson

I was genuinely curious. With all the extraordinary trees in New Hampshire – the majestic oak, towering white pine, sweet sugar maple – why was the white birch chosen to be the state tree? So, I researched this mystery. It turns out that in 1947, Senator J. Guy Smart of Durham, representing the interests of the New Hampshire Federation of Garden Clubs, sponsored a bill to make the white birch, *Betula papyrifera*, New Hampshire's state tree. The white birch's attributes included, first and foremost, that it is a tree native to the state. Following that, it is a visible and picturesque feature of the landscape that people could view throughout the state. I don't know about you, but I felt somewhat deflated when I discovered the platform for the white birch. I know I would have made a much more energetic, passionate plea for our state tree. This article is my opportunity.

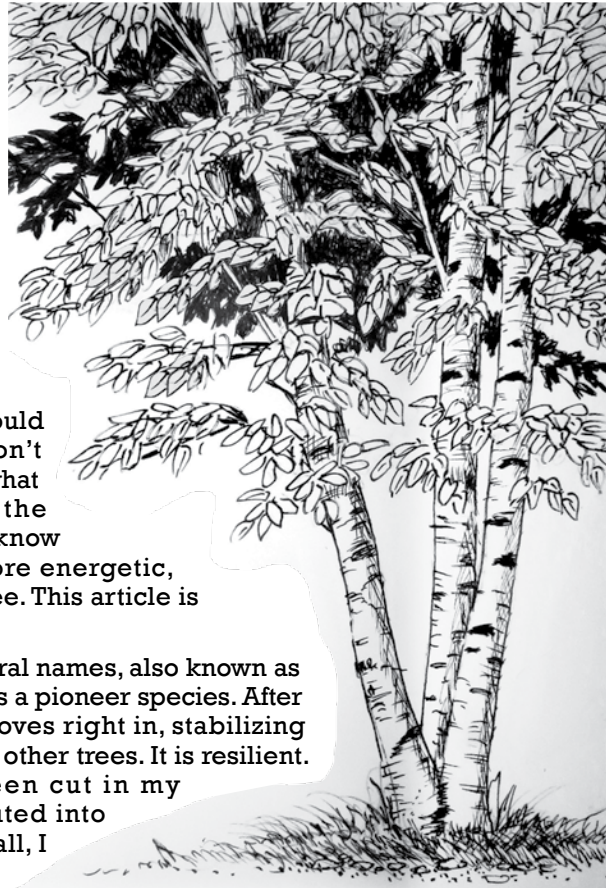
White birch is a tree of several names, also known as paper birch and canoe birch. It is a pioneer species. After fire or disturbance, this tree moves right in, stabilizing the soil and providing cover for other trees. It is resilient. Where a huge birch had been cut in my backyard, young shoots sprouted into saplings from the stump. Last fall, I thinned the competing young trees down to one. Winter came with snow and ice that bent the tree so its crown kissed the ground. Rather than snap under the pressure, the young birch slowly unfurled itself to its former erect status once spring rolled around. In the warm spring sun it flowered and produced seeds for the next generation.

We've all heard about maple syrup but what about birch syrup? Of all the native birches, including gray, yellow, and black, the white birch has the sweetest sap.

White birch sap commences its runs after the sugar maple season so producers can use the same equipment. The drawback is that birch sap contains less sugar. It takes approximately 100 gallons of birch sap to make one gallon of syrup while sugar maple takes 40 gallons of sap to make one gallon of maple syrup. Don't look for birch sap to drip on your pancakes. Its fruity molasses flavor is ideal for sauces, marinades, and dressings.

Did part of your childhood include constructing tiny birch bark canoes and testing their water readiness? It must have been quite a feat for the Native Americans to fabricate full-size birch bark canoes that were not only waterproof but strong enough to be work vessels, ferrying loads of furs and supplies. For their canoes, birch bark covered a wooden cedar frame and was sewn together with split roots. Spruce resin provided the finishing touch, creating impermeable seams. These light canoes were relatively easy to portage around rapids. Native Americans also used birch

for baskets, for covering teepees, and making mats. One very innovative use was wrapping the shaft of fishing spears with white birch bark so they would be easy to spot if dropped in the water.



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Halloween Hoot 'N Howl
Saturday, October 17
6:00 to 8:30 p.m.

Register early for this fun-filled evening of spooky skits, games, and food.



FORGING TRAILS

EDUCATION ... IT'S WHAT WE DO



Strategic thinking is an important part of business planning for any organization. Here at the Science Center we periodically go through a process of examining what we do well, what we wish we could do better, and how we get there. The central core of any strategic thinking at the Science Center is education – that is what we do. Everything else revolves around that central mission – to advance understanding of ecology by exploring New Hampshire's natural world.


A few years ago the Science Center was instrumental in creating a New Hampshire Environmental Literacy Plan, which was endorsed by the New Hampshire Department of Education. This summer we undertook a major overview of our education initiatives, which encompasses all our programs and trail interpretation. We formed an *ad hoc* task force co-chaired by board members Tony Wagner and Lea A. Stewart and including board member Emily Preston and staff Audrey Eisenhauer and myself. We were also fortunate to add Mary and Doug Earick. Mary is the Administrator for the New Hampshire Department of Education's Bureau of Integrated Programs. Doug Earick is an assistant professor at Plymouth State University's Center for the Environment. The task force was facilitated by consultant Mary Lou Krambeer.

After much analysis, we highlighted areas for deeper study. For example, the fluid nature of formal education at the state and federal levels affects how we create and market our school education programs. The implementation of No Child Left Behind 14 years ago was a disaster for science education. The Science Center saw an immediate decline in requests for our school programs. Over the last 10-plus years we have tried to adapt, repackaging our programs to fit the changing needs of the "teach to the test" classroom. Now, new STEM (Science, Technology, Engineering, and Math) initiatives are being crafted.

It's clear that the Science Center needs to be at the table to be ahead of the formal education curve. We are well-positioned to be a leader in providing the much-needed natural science education that we all know is vital to creating an environmentally literate citizenry and inspiring those all-too-important experiences in nature for children.

In the fall we will present a report to our Education Committee, which will then make recommendations to our full Board of Trustees. Those recommendations will help craft the future of our education initiatives and lay the groundwork for a new five-year strategic plan.

Stay tuned!


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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 editors Janet Robertson and Amanda Gillen.

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VOLUNTEER PROFILE

PAM STEARNS



One of my first memories of the natural world as a young person involved me sitting and staring endlessly at tiny black ant hills constructed between the cracks in the sidewalks near our home. As the long trail of minute black ants began to emerge from their mounds, my excitement grew... where were they going, what were they doing, how long would this adventure take, and would they know how to get home?

Wanting to sit and wait until the entire ant expedition was complete and the ants returned home safely was my goal, however, my mother thought dinner and bedtime were more important at the time! I soon realized that one of the benefits of early bedtime was hearing the symphony of spring peepers from my bedroom window. How did they make all that marvelous sound, I wondered? In addition to observing the industrious ants and listening to the orchestra of peepers, I delighted in attending to a hedgerow of aromatic, wild roses along our yard that attracted iridescent Japanese beetles. Here, gently scooping them off leaves into glass jars not only gave me quiet fascination while watching them wiggle about, but also pleased my mother for helping to save her rose hedges. These childhood activities, and many more outside adventures, encouraged in me a sense of wonder, of place, and a desire to see the world.

Upon moving to New Hampshire after working in major cities and studying Art History, my interest in Squam Lakes Natural Science Center began with a part-time job in the store, which was then in the old Holderness Inn building, followed by positions assisting with administrative work. I

found that the collective, dedicated efforts of the staff and volunteers further encouraged my own participation, and volunteering seemed a natural next step. Together, the staff and volunteers wear many 'hats' that make this a special environment, and the spirit of place and community thrives here. As a volunteer, participating in new opportunities, being involved with exhibits and programs, children's discovery programs, and the continuous learning experiences overall are inspiring and fun... the personal experiences remain diverse and enriching!

Excitement and wonder about our natural world awaits us all even in the tiniest proportions, as it is with the ants. It is the reason why stewardship of our living, natural world is paramount. (I am still fascinated by the ant societies and Japanese beetles!) For me, Squam Lakes Natural Science Center is an example of the education, stewardship, and enchantment of the natural world. Where will the next adventure here take us?! Explorations continue!

Biologist E.O. Wilson has said: "Our sense of wonder grows exponentially – the greater the knowledge, the deeper the mystery, and the more we seek knowledge to create new mystery."

As much as I contemplate this sense of wonder and mystery when standing before a sublime scene painted by such artists as Albert Bierstadt or Frederic Church, this splendor of place and sense of wonder also reveals itself to me as I walk the magical paths of Squam Lakes Natural Science Center.

Pam Stearns is currently a teaching lecturer in Art History at Plymouth State University. She spent several years in the museum field, working at both the Field Museum of Natural History and the Whitney Museum of American Art. She enjoys six acres of woods, a pond, and much wildlife, with Lucy, two cats, and artist partner, Stephen. Pam's sister, Carol Raymond, is the Science Center's Volunteer Coordinator.

NEWSBRIEFS

- This spring Bob Donnelly joined the staff as Facilities Assistant when Tom Blay left. Bob is a retired police officer, former fire captain, EMT, and arson investigator with the New Hampshire Fire Marshal's Office. He lives in New Hampton with his wife and three children.
- We are pleased that Lauren Moulis has been promoted to Animal Care Manager. Lauren started as a volunteer when she was a Plymouth State University student and has been taking care of Science Center animals since 2008. We wish the best to former Animal Care Manager Nancy Kitchen who moved to Binghamton, New York, where she is General Curator at the Binghamton Zoo at Ross Park. Former Intern Kevin VanGorden was hired in August as Animal Care Associate after a national search.
- Ten adults took part in volunteer docent training and 14 teen volunteers participated in First Guides training in June. Included in the docent team additions are two former First Guides, one from the original group in 2009, and the other from two years ago.
- Up Close to Animals presentations will continue five times a day through August 31 and then twice a day every Saturday and Sunday from September 5 through October 11, with presentations at 12:00 and 2:00 p.m. River Otter Feeding continues through October 31 every Monday, Wednesday, and Friday at 11:30 a.m.
- Community Guaranty Savings Bank is generously sponsoring Raptor Spectacular on Saturday, September 12. Nancy Cowan of the New Hampshire School of Falconry will give outdoor flight demos with birds such as Peregrine Falcon, Lanner Falcon, and Harris's Hawk. Learn about the wonders of flight and enjoy live animal presentations.
- Halloween Hoot N Howl returns this year on October 17. Sign up by calling 603-968-7194 x 11 and receive a \$1 discount per person if you reserve your spaces by October 9.

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KIRKWOOD GARDENS PLANT SPOTLIGHT



By Brenda Erler

False Chamomile

Boltonia asteroides 'Snowbank'

Culture: Best grown in full sun in average, medium-moist, and well-drained soil.

Bloom: late summer into fall

Height: 3-4 feet. No staking is required if it receives full sun.

This cultivar of the native plant adds color to the late summer and fall garden. It is good for naturalized gardens or borders and complements other late-blooming perennials such as Sedum, Russian sage, and Joe-Pye-Weed. It spreads slowly by rhizomes and is easy to keep under control. Boltonia is a good cut flower and is attractive to butterflies.

Kirkwood location: lower garden between the sculpture and compost bins as well as to the right of the pergola



Monkshood

Aconitum napellus

Culture: Prefers part shade and moist, well-drained, organically rich soil

Bloom: July and August

Height: 2-4 feet

A beautiful plant for woodlands, bogs, and the periphery of water gardens and ponds. It is not bothered by rabbits or deer. It is very slow to establish and doesn't like to be transplanted. The common name Monkshood refers to the shape of the flowers that resemble the hood worn by medieval monks. The other common name, wolfsbane, refers to the fact that the plant was once used as an arrow poison and a poison bait for killing wolves.

Kirkwood location: to the right of the pergola in the lower garden



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

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- The 2014 Annual Report, Audited Financial Statements, and 990 Tax Return are available for review on our website at http://www.nhnature.org/files/PDF/2014_Form990.pdf. Request paper copies by contacting Development and Communications Director Janet Robertson at 603-968-7194 x 12 or janet.robertson@nhnature.org.
- Squam Lakes Natural Science Center was named a Certificate of Excellence winner on TripAdvisor. This is the third consecutive year the Science Center has received the Certificate

of Excellence, which celebrates excellence in hospitality and is given only to establishments that consistently achieve great traveler reviews on TripAdvisor.

- The Gordon Interactive Playscape opened on July 1 with rave reviews from visitors. Some slight adjustments are being made based on use and feedback. Many visitors have commented on how much fun it is. Be sure to check out the Playscape on your next visit as we continue to fine tune the area and add educational interpretive signs.

ATTENTION TEACHERS:

50th Anniversary B.O.G.O. Sale!

Book two programs for the 2015-16 school year and receive a 50% discount on the second program.

Discount Details:

- Programs may be held at your school or at the Science Center, or one of each.
- Programs must be scheduled for 2015-16 school year.
- Programs must be for the same students.
- Discount applies to lowest priced program.
- Reservations for both programs must be made at the same time.
- Programs must be scheduled for different dates.
- Certain restrictions may apply.

Schedule your programs by contacting Jeremy Phillips at 603-968-7194 x 18 or Jeremy.Phillips@nhnature.org.

NATURALIST'S CORNER

MISSING THE BATS OF SUMMER

By Audrey Eisenhauer



I have always enjoyed sitting out on the deck on a summer evening, watching and listening to the transition from day to night. As I sit swatting at the mosquitoes buzzing around my head, I cheer when the bats finally appear for their evening insect meal. I never get tired of watching their seemingly erratic flight

pattern as they catch insect after insect out of the air. But over the last few years, watching bats has gone from being a commonplace occurrence to a special encounter.

It was in 2006 that White-nose Syndrome (WNS) was first discovered in a cave in New York. Since that time, this fungal disease infecting bats has killed 5.7 million of these flying mammals throughout eastern North America. This is an unprecedented decline in bat populations. The disease is caused by the accidentally introduced Eurasian fungus, *Pseudogymnoascus destructans*, which thrives in the cold, damp conditions found in caves and mines where bats hibernate. Named for the telltale white, fuzzy growth on the nose, ears, and wings of hibernating bats, the disease causes disruptions in the hydration levels and hibernation cycles of bats. These disruptions result in hibernating bats repeatedly awakening during the winter, burning up crucial fat reserves. Affected bats will even leave hibernation sites during the winter due to dehydration and hunger, ultimately dying from exposure.

Today, WNS is found in 26 U.S. states and five Canadian provinces. In New Hampshire, all five of our cave-hibernating bat species have been diagnosed with WNS: northern long-eared bat, tricolored bat, eastern small-footed bat, little brown bat, and big brown bat. New Hampshire is also home to three species of migratory bats, two of which have been found with the fungus but have not yet developed the disease. Surveys of bat hibernacula in New Hampshire conducted by New Hampshire Fish and Game biologists between 2009 and 2011 discovered a total population decline nearing 99%. Here at the Science Center, summer surveys of our bat houses have shown an 88% decline in bat numbers over the past five years, going from a total of over 400 bats to only 47 bats in our 2015 count.

Bats are an important part of our ecosystem, consuming 50% of their body weight in insects each night, the equivalent of up to 1,500 insects per bat! Losing any

of our bat species will undoubtedly result in significant ecosystem changes in the coming years. Currently, many research labs, state and federal agencies, and non-profit organizations are working together to study WNS with the goal of learning more about the fungus, how it is transmitted, and how to prevent the disease. Scientists have had some breakthroughs with hopeful results, but we still don't have a cure for this devastating disease.

You can do your part to help scientists combat WNS by reporting unusual winter-time bat behavior to the New Hampshire Fish and Game Department; staying out of caves and mines to prevent spreading of WNS; letting bats be if you have them roosting in your barn or shed during the summer months; participating in NH's statewide summer colony survey through Fish and Game's Wildlife Division; putting up a bat house on your property; learning more about WNS and sharing what you learn with your family and friends so that they too can do their part to help our bats.

Like me, you may have taken for granted the experience of watching bats zig-zag through the air on a summer evening. And like me, maybe you also now have a greater appreciation for the encounters you have with these insect-eating machines. I will continue to cheer on the bats that I see in the evening sky, not only to thank them for their work eating those pesky mosquitoes, but for their hopeful survival too.

FROM THE HERON'S NEST

By Laura Mammarelli



The T-shirt says it all, "C'mon outside and have fun!" Spring at Blue Heron School gave students many opportunities to enjoy mud all season, from melting snow in March to collecting rain to play with in May. The children explored the stream at high water and discovered what had been covered up by the snow in the woods.

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.



NATURAL ADVENTURES

Pre-registration is required for all events unless otherwise noted.

Please call 603-968-7194 x 7.

Staying Found: Finding Your Way With and Without a Map and Compass

Saturday, September 19, 2015
10:00 a.m. to 12:00 p.m.
Adults and families with
children ages 9+

Have you ever felt unsure of your location in the woods, even for a moment? Spend the morning trekking through local woodlands to uncover the basics of "how to find your way." Through fun activities and challenges, participants will develop map, compass, and landscape observational skills culminating in successfully navigating the way "home" after being "lost." This program will be held offsite. Meet at the Science Center and caravan to nearby Plymouth. Wear sturdy shoes and dress for being outdoors and hiking at a moderate level both on and off trail.

Cost: \$7/member; \$9/non-member

On the Trail

River Otter Feeding May through October Mondays, Wednesdays, and Fridays at 11:30 a.m.

See our two playful river otters have an early lunch. Our expert volunteers will tell you all about otter biology and ecology, while also serving up a tasty treat or two.

Up Close to Animals Saturday and Sunday at 12:00 and 2:00 p.m. during September and October

Meet live animals up close and learn from an experienced naturalist. These engaging talks feature a variety of animals, including birds, mammals, and reptiles.

All programs above are included with trail admission

Squam Lakes Artisans Gallery
Locally crafted New Hampshire gifts
Open Friday to Monday, 10:00 a.m.
to 5:00 p.m., from Labor Day to
Columbus Day.

The Do's and Don'ts of Feeding the Birds

Saturday, October 24, 2015
10:00 to 11:30 a.m.
Adults and families with
children ages 7+

Feeding birds is one of the best gateways into nature study. Find out top methods to economically attract birds to your yard and how to avoid the pitfalls of attracting unwanted guests like squirrels, bears, and others. Learn how to make simple feeders and ways to best tailor your bird feeding station to the habitat of your yard.

Cost: \$7/member; \$9/non-member

Gift Memberships

The gift that gives all year long. Learn more at http://www.nhnature.org/membership/gift_membership.php

Coyote Capers

Saturday, November 7, 2015
10:00 to 11:30 a.m.

Families with children ages 5+

Are "wily coyotes" really that clever? Why do they howl and where do they live? The Eastern Coyote is a relative newcomer to New Hampshire and so we will delve into some of the mysteries about them. Learn about coyotes through activities, a story, and a visit with our two-year old coyote. Adult must accompany child at no additional cost. Program will take place both outdoors and indoors; please dress for the weather.

Cost: \$7/member child;
\$9/non-member child

New Hampshire Young Birders Club
View events and information at
www.nhyoungbirders.org

HOMESCHOOL SERIES

Be A Scientist!

Ages 7 to 10
10:00 to 11:30 a.m.

November 5: Biology; December 3: Dendrology; January 7: Ecology;
February 4: Ornithology; March 3: Mammalogy; April 7: Entomology

There are many different types of scientists – from Dendrologists to Ornithologists and don't forget Entomologists too. Become a scientist as you develop and test predictions and participate in and conduct experiments. Learn how to use keys and books to identify living and nonliving ecosystem components that make New Hampshire so unique. Investigate a different scientific field of study each month.

Using Our Five Senses

Ages 4 to 6
10:00 to 11:30 a.m.

November 5: Touch; December 3: Smell; January 7: Sound; February 4: Sight;
March 3: Taste; April 7: Celebrate All Five Senses!

How do we understand and interpret the world? With our senses of course! Learn all about your senses and put them to work as you explore what types of information we get from each one. Learn how animals use their senses. The focus is on a different sense each month and the last day is a celebration of them all.

Cost \$9/member child; \$11/non-member child

An adult must participate with children at no additional cost. Each additional adult pays child fee. Reserve all six programs by November 5 for a \$1 discount: \$8/member child; \$10/non-member child per program. Program offerings are aligned with the New Hampshire Science Framework.

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.

Explore Squam

September 1 to October 12

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 Common Loons and Bald Eagles.

Nature of the Lakes

September 1 to October 8

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.

Cost: \$21/adult member; \$25/adult non-member
\$19/senior member; \$23/senior non-member (age 65+)
\$17/youth member; \$21/youth non-member (to age 15)

**Discounts available for combination trail and cruise tickets
Not recommended for children under age 3**

All Squam Lake Cruises depart from the dock on Route 3 at the bridge, next to Walter's Basin Restaurant in downtown Holderness. Squam Lake Cruises are 90 minutes in length and aboard canopied pontoon boats. Binoculars are available for wildlife viewing at no additional cost.

Space on all cruises is limited. Seats guaranteed for those making reservations and payment. Other space is available on a first come, first serve basis. Please call 603-968-7194 x 7 for tickets.

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 Operations Manager Sharon Warga at 603-968-7194 x 10 or sharon.warga@nhnature.org for reservations.

Raptor Spectacular Saturday, September 12 For all ages

Nancy Cowan of the New Hampshire School of Falconry will give a talk about the sport of falconry, followed by outdoor flight demonstrations with birds such as Peregrine Falcon, Lanner Falcon, and Harris's Hawk. A question and answer session will follow each show. Participants may take photos of the birds on their perches and in flight. There will be two programs, one at 11:00 a.m. and the second at 1:00 p.m. Space is limited. Advance reservations and payment are recommended.

Cost: \$10/member; \$12/non-member or \$23/non-member program/trail pass combo

Up Close to Animals will also feature raptors at 12:00, 2:00, and 3:00 p.m. These engaging naturalist presentations are free with trail admission and held outdoors at the amphitheater. Volunteer docents will be roving the animal exhibit trail with live birds throughout the day.

Generously sponsored by:



Community Guaranty Savings Bank
People who know you. People you know.

 Find us on
Facebook

Halloween Hoot 'N Howl Saturday, October 17 6:00 to 8:30 p.m.

For all ages | Rain or shine



Enjoy an eerily entertaining 40-minute guided tour around the Science Center grounds. Trail walks feature live skits with a seasonal theme and depart every 10 minutes from 6:00 to 7:30 p.m. Come in costume and dress suitably for outdoor weather. After your journey, warm up with Halloween games and tasty treats!

*Cost: \$8/members; \$11/non-members
\$1 off each reservation if paid by
Friday, October 9*

SCIENCE CENTER NATURE TOURS

Scotland's Western Isles and Skye - June 2016

Join Iain MacLeod for a spectacular tour of the natural and cultural history of Scotland's Western Isles (Outer Hebrides) and Skye. Explore Skye's stark beauty and stunning coastline. Highlights will include a visit to Dunvegan Castle – ancestral seat of Iain's MacLeod clan, views of the Cuillin Mountains, and a boat trip out of Portree in search of White-tailed Eagles, seals, and dolphins. We'll head to the western most of the Scottish Islands and explore Lewis (where Iain was born), Harris, North Uist, Benbecula, and South Uist. Highlights there include the Callanish standing stones, the rich farmland – known as the machair, and amazing white sandy beaches. There are bird reserves with shorebirds and seabirds aplenty. Throughout the trip we'll stay in historic country house hotels full of charm and character that serve wonderful award-winning food.

Cost: \$5,750 (assumes double or twin occupancy room)*

*All-inclusive cost includes: round trip flight from Boston to Glasgow, Scotland ferries, van transportation, all accommodations, all meals, and admission fees. *There is an additional \$300 charge for a single room. Maximum group size: 12.*

Contact Iain for more information at 603-968-7194 x 23 or iain.macleod@nhnature.org or to book your place on either trip. See full trip itineraries at http://www.nhnature.org/programs/nature_tours.php.

Land of Enchantment: Natural Wonders of New Mexico - November 2016

Join Iain MacLeod for a spectacular, small group tour of New Mexico. November is a special time to visit. The temperatures are comfortable; the light is fantastic and tens of thousands of cranes and snow geese have just arrived for the winter. In addition to wildlife and spectacular scenery, the trip includes visits to the Bandelier National Monument, the Valley of Fires lava beds, Carlsbad Caverns, Santa Fe National Forest and beautiful old town Santa Fe. Other highlights include the Bosque Del Apache National Wildlife Refuge and Bitter Lakes in the Pecos Valley. You'll see Prong-horn Antelope, Prairie dogs, Road-runners, vast flocks of waterfowl, raptors galore, and incredible sunrise and sunset flights of Sandhill Cranes.

Cost: \$3,500 (assumes double or twin occupancy room)*

*All-inclusive cost includes: round-trip airfare from Boston to Albuquerque, ground transportation (15-passenger van), all accommodations, all meals, admission fees, and leaders' fees. *There is an additional \$300 charge for a single room.*



WILD TRIVIA CHALLENGE

The annual summer celebration, Wild Trivia Challenge, occurred on Saturday evening, July 25. Guests enjoyed an open bar, buffet dinner, live auction (hosted by the hysterical Lisa Lovett), 50/50 raffle drawing, and then had fun competing in the Wild Trivia Challenge. The topics for the four rounds were animal trivia featuring live animal appearances, Science Center questions, Squam Lake facts, and scat and tracks. Animal art drawings by Inter-Lakes 8th Grade Art students made unique table decorations. Trivia prizes were donated by Biederman's Deli and Six Burner Bistro. Grand prize winners received a cocktail cruise on Squam Lake from the Science Center. The 50/50 raffle drawing ended the evening the drawing of the \$5,000 winning ticket purchased by a lucky local from Meredith. All proceeds will benefit the Science Center's educational programs and help feed and shelter its 75 animal ambassadors.

Representatives from event sponsors: Meredith Village Savings Bank, WLKC 105.7 The River, Squam Boat Livery, Squam River Landing and Riveredge Marina, and Wells Fargo Advisors - participated in the trivia challenge by giving the correct answers at the end of each round.

Program Sponsors included: Ambrose Brothers, Bridgewater Power, Children's Dentistry of the Lakes Region, Christopher P. Williams Architects, Custance Brothers Woodworking, Golden Pond Country Store, Loving Volvo of Meredith, Malone, Dirubbo & Company, McLane Law, Mill Falls at the Lake, Mid-State Health, Moulton Farm, O'Neill Orthopaedics, Peabody and Smith Realty, Pike Industries, Plymouth Optical, and Samyn-D'Elia Architects.

Committee members Nancy Beck, Andy Eaton, Mary Kahn, Sandy Larsen, Barb Laverack, Iain MacLeod, Deb McNeish, Jeremy Phillips, Janet Robertson, Liz Rowe, Carol Raymond, Pat Sava, Pam Stearns, and Lea A. Stewart started working in January to plan the event. Thank you also to in kind donors: 603 Brewery, Cathy and Wes Avery, Belknap Landscape Company, Cackleberries, Common Man, Nancy Ehlers Management Group, Sally Grand, Holderness Harbor/Asquam Marina, Inter-Lakes 8th Grade Art Students, Mary Kahn, Lakes Region Tent & Event, Sandy Larsen, Barb Laverack, Lisa Lovett, Owl's Nest Resort & Golf Club, and Squam Brewing.

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Wild Trivia Challenge continued from page 8



Barb Laverack and Laura Mammarelli



Pat Sava and Pam Stearns



Wild Trivia Challenge grand champions!



Wild Trivia Challenge committee.
(L to R): Nancy Beck, Deb McNeish, Andy Eaton, Barb Laverack, Lea A. Stewart, Pat Sava.
Missing: Mary Kahn, Sandy Larsen, Pam Stearns

2015 ANNUAL MEETING

The Annual Meeting for members took place on Saturday, August 8 at the upcoming Water Matters Pavilion, which opens in May 2016. Attendees enjoyed a continental breakfast prior to the business meeting where a quorum of members reviewed and unanimously accepted the minutes of the 2014 Annual Meeting. Executive Director Iain MacLeod gave an overview of 2014. Treasurer Ken Evans presented the 2014 Financial Report. The 2014 Annual Report was distributed, which is also available at http://www.nhnature.org/files/PDF/2014_AnnualReport.pdf.



Officers: Ken Evans, Nancy Beck, Lea A. Stewart, David Martin

Governance Committee Chair Liz Hager led board elections as Officers David Martin, Chair; Nancy Beck, Vice Chair; Kenneth Evans, Treasurer; and Lea A. Stewart, Secretary were re-elected to serve one-year terms. John McRae was elected as Honorary Trustee. Trustees Mark

Goldstone, Liz Hager, and Tony Wagner were re-elected to serve three-year terms. Two new trustees joined the board and will serve three-year terms: Tom Samyn of Ashland and Justin Van Etten of Meredith. Four trustees retired and were thanked for their service: Ken Colburn, Carol Thompson, Bryant Tolles, and Bruce Whitmore.



New trustees Justin Van Etten and Tom Samyn

Vice Chair Nancy Beck presented trustee Laurie Beeson with the Horizon Award.

Iain MacLeod recognized six employees for their service: Facilities Assistant Clare Eckert (10 years), Gardens and Exhibits Assistant Brenda Erler (35 years), Blue Heron School Director Laura Mammarelli (5 years), Lead Teacher/Instructor Jordan McDaniel (5 years),



Employees recognized for service.

Development and Communications Director Janet Robertson (25 years), Facilities Supervisor Dean Smith (5 years), and Development Assistant Susan Stepp (10 years).

OPENING A WINDOW TO THE NATURAL WORLD

2015 Annual Fund

Later this fall you'll receive a request to contribute to the 2015 Annual Fund, which is a key part of our yearly operating budget. Annual Fund income helps to keep the trails and buildings in good repair, the lights and heat on, to feed and care for the animals, and more. This year's Annual Fund goal is \$305,000. Please consider making a contribution gift this year. Annual Fund contributions are tax deductible because donors do not receive any gifts or services in return – except, of course, the satisfaction of helping the Science Center to teach about New Hampshire's natural world.

Questions about how you can support the Science Center? Contact Janet Robertson, Development and Communications Director, at 603-968-7194 x 12 or janet.robertson@nhnature.org

BIRCH TREE QUIZ

1. White birch was chosen as New Hampshire's state tree because it is . . .
 - A. Native to New Hampshire
 - B. A picturesque part of the landscape
 - C. Found throughout the state
 - D. All of the above
2. True or False? Heavy snow and ice consistently bend and break the trunks of white birch.
3. True or False? Peeling the bark off white birch trees harms the trees.
4. Which tree has sweeter sap – the sugar maple or the white birch?
5. What did some Native Americans put on their fishing spears so they could find them more easily if they dropped them in the water?

Answers:

1. D 2. False 3. True 4. Sugar maple 5. White birch bark

These generous donors made tribute gifts, which were received between April 1 and June 30, 2015:

In memory of Marie and Walter Browher, Jr.

Carla and David Charette
Denise and Bill Cunningham
Alice Drohan

Virginia B. Liphtratt and family
Nancy and Robert Narducci

In memory of Mary Smith Denison

Elizabeth Dewey

In honor of Dale Lary

Andy and Mal Eaton

In memory of Don Parsons

Natalie Parsons

In memory of Ravidia Preston

Bea and Woolsey Conover

In memory of Richard L. Robertson

Elsie V. Robertson

In memory of Patricia E. Spead

Dr. Richard Spead

In memory of Sara Vogel

Marylou Lauricella

In memory of Tom Wilson

Anne Bishop
Duval Family
Furman Family
Daniel Gould and Catherine Hunter Gould
Carol and Robert Gustavson
Lisa and Bill Laskin
Roy Pfeil
Diane and J.D. Reynolds
E. Clinton Swift and Bonnie Allard

Recent model digital camera in good condition

Tablecloths

Little Tikes or step 2 playground climbers or slides for animal enrichment

iPods, Tablets, and laptops in good condition

Grocery store gift cards for animal food

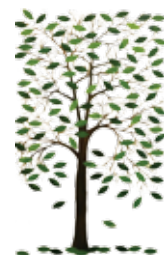
Animal crates

Hav-a-hart traps

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



TRAIL'S END

POTPOURRI



Periodically it's a good practice to review and update what has been written in the past. As I begin my third year as board chair, I'm taking a look at my columns from the past two years to see what we reported and what has happened since the original column.

Each year we face the challenge of replacing talented trustees who have served on the board for nine years. One of the most important functions of the board is to continually renew itself. This year long term trustees Carol Thompson, Bryant Tolles, and Bruce Whitmore came to the end of their eligible years to be on the board. Our thanks to them for providing many years of guidance and sharing their wisdom. We have two new well-qualified individuals joining the board, Tom Samyn and Justin Van Etten, both of whom have served on one of our board committees for the past year or so. Our new trustees will hit the ground running!

This past winter I wrote about the Holderness Inn and the consideration the board was undertaking with respect to the inn. At our May meeting we decided to replace the roof on the inn this fall and repaint the exterior next spring. These exterior cosmetic fixes will allow the inn to continue in its present form for some time into the future. There seems to be no end of ideas of how the inn could be used, but so far we have not come across an idea that makes economic sense. Whatever we finally decide to do with the inn, the solution needs to be self-supporting from a financial point of view and supported by our strategic priorities (see below). Much has been written about the success of our capital campaign. The Gordon Interactive Playscape has more than lived up to our hopes and expectations. Our attendance so far this year has surpassed any previous year. We are hoping that trend will continue over the second half of the season. The build out of the Water Matters Pavilion is continuing as planned. We enjoyed showcasing the new deck overlooking the pond at our recent Annual Meeting. What a great setting!

As we look to the future, we are delighted to be planning for our 50th anniversary celebration during 2016. The success of the Wild Trivia Challenge fundraising event in July has everyone anticipating a very successful celebration event next year. There are several special events and activities being planned for our 50th year including a book commemorating New Hampshire's natural world with a forward highlighting our first 50 years.

The ground work for the next strategic plan is currently taking place as explained by Iain MacLeod in his column on page 2. Our goal is that the full strategic plan supporting the recommendations of the Education Committee will be developed during 2016.

The Science Center continues to be a dynamic and vibrant organization. It is a pleasure to be a part of the fun!

Trail's End is written by David F. Martin, Chair of Squam Lakes Natural Science Center's Board of Trustees. You may contact David at dave.martin@nhnature.org.

WHY BIRCH

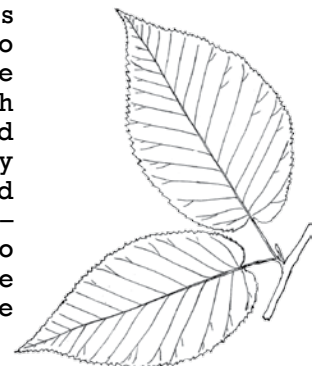
continued from page 1

Most campers know birch bark is a foolproof fire starter even when it's wet. Resinous oils in birch bark make up for many errors and short-comings of a fire-starting project. In the excitement of getting that fire up and flaming, it's essential to remember that bark is of great value to the birch tree itself. Only harvest bark from a fallen tree or peel it from downed trees or branches. The bark still clinging to the live tree is a vital part of its protection from insects, disease, and weather. Let's call it the tree's first line of defense.

Speaking of bark, have you ever wondered why white birch trees are white? Their surrounding kin of maples, beeches, pines, and hemlock are all shades of gray. In a 2010 article in the *Northern Woodlands* magazine, Vermont County Forester Michael Snyder explored this color phenomenon. He noted that white birch is on the northern fringe of deciduous tree growth in Canada and Alaska so is well-adapted to cold. The white bark reflects sunlight, shielding the trees from the dramatic change from daytime heating to nighttime freezing.

They are spared from such opposing hazards as sunscald and frost cracks. Snyder goes on to note that the chemical betulin in white birch bark is structured so that it looks white to the eye, similar to snow.

You will notice the contrasting bright yellow leaves of white birches in the array of fall foliage. Check for bird nests in birch branches as the leaves start to flutter to the forest floor. Look where beaver have harvested birch trees for food, dams, and lodges. See the scattered tiny winged birch seeds, called nutlets, on the snow's surface – food for winter birds. What do you think? Did New Hampshire make a good choice with the white birch tree?



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“I have been going since I was a child and now I bring my children there! We get a membership every year and love feeling like we’re part of their community!”

- Facebook Review

THE HOWLING COYOTE GIFT SHOP

Product Spotlight: Wildlife socks

With cooler temperatures on the way everyone needs socks to keep their feet nice and toasty. Why not snuggle up with a pair of wildlife-themed socks. From loons to bears, and child to adult sizes there is something for everyone.

Retail: \$7.95 to \$15.95

Member Price: 10% discount on all non-sale items



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.

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