



BACKYARD BANDITS

By Margaret Gillespie, Illustration by Cheryl Johnson

Have you taken a close look in your backyard lately? I know mine could be the stage for a wildlife play! Wild turkeys gobbled up raspberries and blueberries over the summer and brought their young to show them exactly how it's done.

A young black bear wandered across the bottom of the field, only to be chased back into the woods by my 19-pound miniature poodle, Mica. Fortunately, the bear had a good head start! Skunks prowl at night, spotlighted by my car's headlights on my return home. Porcupines den in an old stone bridge nearby and even grace the hayfield as they munch on greens. Deer just started to visit the apple trees for drops, flashing their white tails as they bound away. I know there are raccoons as well although I have not spotted one. These elusive creatures leave behind scat filled with remnants of the fruit of the week. Earlier in the season, it was choke cherry pits, raspberry seeds, and now traces of apple. I see their five-toed tracks in the mud and suspect there have been a number of late night acts in the play that I have missed! Let's find out more about these raccoons at center stage.

Raccoons, *Procyon lotor*, have two other relatives of the family Procyonidae in the United States.



Raccoon

Raccoons are the only member here in the east, while the ringtail and coati are found in the southwest. The raccoon's scientific name "*procyon*" means "before the dog" which may refer to the star Procyon, which rises before the Dog Star Sirius. Raccoons are nocturnal creatures although they are also seen sporadically in daylight. "Washer" is the translation for "*lotor*" which raises the question of whether or not raccoons wash their food. They certainly spend considerable time with their paws in streams and along edges of ponds, but do not appear to be paying much attention to their task. Underwater, those sensitive paws search under rocks and in crevices for raccoon delicacies – crayfish, salamanders, frogs, or mussels. Amazingly, the largest sensory part of their brain is dedicated to touch. Although raccoons do occasionally dunk their food, cleanliness does not seem to be part of the picture. How about the name raccoon or coon? Native Americans called this animal "*arakunem*" and you can imagine how early settlers changed the pronunciation over time.

Often known as "masked bandits," raccoons certainly keep us on our toes. Any slips in the care of garbage are not forgiven by these foragers. With an uncanny ability, they can also zone in on

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FORGING TRAILS

As many of you are getting ready to make your annual migration to sunnier climes, millions of birds are doing the same; winging their way to the tropics before winter's icy grip squeezes the last warmth from New England. I went on a virtual bird migration this fall; one that took me from New Hampshire to West Virginia, then on through Georgia, Florida, and all the way to Cuba and Haiti. My vicarious voyage was on the back of a young Osprey named Saco. I think some of you came along for the ride too. Saco was equipped with a lightweight satellite backpack that transmits her hourly location, speed, and altitude to a satellite orbiting Earth. The satellite downloads the data to a company called Argos every three days and I can then download the data to my computer and plot her locations on Google Earth.

Her amazing journey took her more than 3,600 miles, through thirteen states. Her final destination should have been Venezuela, Colombia, or Brazil, but I'm sad to report that she did not survive the most dangerous portion of her trip through the Caribbean. She hit terrible storm weather and was swept hundreds of miles off course. She finally ditched in the ocean and perished after more than 30 hours and 600 miles of continuous flying. She just ran out of steam. You can see her amazing journey on our website

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FORGING TRAILS continued from page 1

(www.nhnature.org); just click on "Project Osprey Track." Next year I hope to fit transmitters on at least four New Hampshire Ospreys.

I have been fascinated by bird migration for decades and find myself drawn to recording and observing bird migration whenever I can. In mid-October, I spent a fascinating evening watching as birds passed in front of the full moon. On certain evenings in the fall, the night skies are filled with literally millions of songbirds heading south. Usually the only way to know they are there is by their call notes and chirps. But when the moon is full, you can actually see the silhouettes as the birds pass between you and the moon. You can use binoculars, but a telescope works even better. On October 11, I set up my scope on my deck and gazed at the bright moon. Immediately I could see that the skies were filled with birds. I dug out my handy little clicker counter and watched for the next hour. In that time, I counted 194 birds passing in front of the moon. My thirty-plus years of birding experience allowed me to identify several specific species based on their shapes and flight patterns, including two American Woodcocks, two Gray Catbirds, a Northern Flicker, several Robins, and a nuthatch (probably Red-breasted). The majority I could only identify to family – thrushes (likely Hermit Thrushes) and sparrows (likely song, white-throated or swamp).

Moon watching as a method of tracking migrating birds has been used for many years and probably observed for thousands of years. A coordinated study in 1952 used 1,391 observers to track birds. From the first to the fifth of October that year, observers across North America manned 265 observation points in three Canadian provinces and every state except Alaska, Hawaii, Maine, Nevada, and Utah. A total of 35,407 birds silhouetted against the moon were counted.

Some researchers have extrapolated how many birds might be represented by a moon watch based on the size of the moon representing about a 360th of the visible sky. Using that calculation there might have been 72,000 birds passing over my house per hour on October 11, or about 576,000 over the course of the night ... that's a lot of little wings.

To see a video I took of some birds passing the moon visit our YouTube site at <http://youtube.be/BPGq-gvNxxk>.

NEWSBRIEFS

◆ We are delighted to have received accreditation through the Association of Zoos and Aquariums (AZA) once again. The Science Center submitted its application in February, a team of site inspectors visited in August, and Executive Director Iain MacLeod traveled to Atlanta in September to attend the AZA annual conference for the final hearing. There, the independent Accreditation Commission awarded the accreditation. The process requires a thorough review of animal care, veterinary programs, conservation, education, safety, and more. The Science Center is the only AZA-accredited institution in northern New England, among 225 AZA accredited institutions in the United States and abroad. "By meeting high AZA Accreditation Standards, Squam Lakes Natural Science Center has demonstrated its leadership among zoos and aquariums," said AZA President and CEO Jim Maddy. "Only the best of the best rise to this level,

and we congratulate the professionals at Squam Lakes Natural Science Center for their hard work."

◆ We welcome Jeremy Phillips back.



Jeremy took over as Naturalist/Registrar in September. In 2007, Jeremy was on staff as Assistant Naturalist and so was able to hit the ground running. He has been a nature lover since his youth where he explored the woods of his native Michigan. He holds a B.S. in

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. Our 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 all members. Comments are welcomed by newsletter editor Janet Robertson at 603-968-7194 x 12 or janet.robertson@nhnature.org.

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STAFF PROFILE

LIZ ROWE, OPERATIONS DIRECTOR



When was your first visit to the Science Center?

Although my family has been coming to the Tamworth area for many years, I did not know about the Science Center until after I actually moved here in 1995. My first visit was on a Kirkwood Gardens Day and I was just astounded to discover this incredible place

right in our backyard! When I learned of a job opening for Finance Assistant to Brian Eaton in 2005, I jumped at it and have been here ever since. I transitioned to the Operations Director position when Nancy Beck retired in 2006. Most of my friends are envious that I have a job at the Science Center and wonder if it is really “work.” Well, the truth is that this is fun. My responsibilities include human resource management, office administration, public admissions, the Howling Coyote Gift Shop, our lake cruises, special event operations, and the Kirkwood Café. The variety is great and keeps me involved with the mission at many levels.

What do you like best about working at the Science Center?

Well, as much as I love the animals, this gorgeous property, and our pristine Squam Lake, what I love most (as corny as it might sound) is, of course, the people who work at the Science Center. We have a really unique group of extremely talented professionals here, but what really distinguishes this staff, whether year-round or seasonal, is that every single employee is so dedicated to the Science Center mission – it is the stuff that keeps this place thriving. And, the excellent people are not just the staff – our docents, volunteers, trustees, and interns are all important contributors to the overall experience of the Science Center too. I feel honored to be a part of this team.

What do you find most rewarding?

As my colleagues here know, I have no science background at all so one of the greatest rewards of this job is the chance to learn about nature, our environment, and this beautiful region right along with all of the kids who come here with their parents and schools. I’ve worked here for over five years now but I still learn something new every day. How great it is that our young visitors gain that ecological literacy and lifelong respect for the natural world at an early age.

Previously, Liz worked with her husband Dan managing a small autograph catalog business, was Director of Compensation and Benefits in Human Resources at the Haagen-Dazs Company, and an HR Manager with Rich’s Department Stores in Atlanta.

NEWSBRIEFS *continued from page 2*

- Environmental Studies and Outdoor Recreation from Central Michigan University. Previously Jeremy taught environmental education in the Pocono Mountains area of Pennsylvania.
- ◆ Beth Moore relocated to California in September. She was Naturalist/Registrar for three years, teaching programs and serving as the main contact for teachers planning school field trips. Beth was an enthusiastic and energetic naturalist. We wish her well.
- ◆ Iain MacLeod and Education Program Director Amy Yeakel attended the Association of Nature Center Administrators (ANCA) annual summit in the Great Smoky Mountains of Tennessee in August. Both took advantage of informative workshops – on topics ranging from evaluation, management, and human resources, and more, as well as networking opportunities with nature center colleagues from across the nation.
- ◆ To fulfill AZA best practices guidelines, Animal Care Manager Nancy Kitchen attended the seminar “Safe Capture: Chemical Immobilization of Animals” at Franklin Park Zoo in August. Chemical immobilization of animals is sometimes required for both medical and emergency situations. Nancy learned about safe practices for both humans and animals in chemical immobilization and practiced various safe capture methods using different types of equipment.
- ◆ In August, Naturalist Margaret Gillespie attended two Nature Explore workshops, sponsored by the Arbor Day Foundation and Dimensions Educational Research Foundation, in collaboration with Children’s Learning Center, held at the Peter Woodbury School in Bedford. Margaret acquired ideas for working with the Blue Heron School in “Learning with Nature” and “Using Your Outdoor Classroom.”
- ◆ In October, the Science Center hosted a wildlife rehabilitation conference, in conjunction with the Elaine Connors Center for Wildlife of Madison. Animal Care Assistant Tom Anderson and Nancy Kitchen attended the daylong event.
- ◆ Several education staff members participated in the biannual New Hampshire Science Teachers Association Conference in late October in Meredith. Science Center naturalists offered three field trips and three workshops for the teachers attending.
- ◆ Volunteer Coordinator Carol Raymond attended the October meeting of New Hampshire Association of Volunteer Administrators where Nicole McCarter, Volunteer Coordinator for the New Hampshire Food Bank was the speaker. Carol also served on the review panel for the Spirit of New Hampshire Awards, administered by Volunteer NH in collaboration with the Office of the Governor. The Spirit

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NATURAL ADVENTURES

BACKYARD WINTER BIRDS AND BIRD FEEDING

Saturday • December 10

10:00 to 11:30 a.m.

Age 16+

Join Iain MacLeod for a presentation about the birds that winter in our woodlots and backyards. Learn about “eruptive” winter finches and find out which ones will be here this winter. Will there be Redpolls or Pine Siskins? Will there be an invasion of Bohemian Waxwings or Pine Grosbeaks or Purple Finches? Learn how cone and berry crops in Canada’s boreal forests affect what birds we see at our New Hampshire feeders. We will explore feeder designs and foods that attract different species and conclude by watching some bird feeders at the Science Center.

Cost: \$6/member; \$8/non-member

THE BEAVER IN WINTER

Saturday • December 17

10:00 to 11:30 a.m.

Families, Age 5 to 10

The leaves have fallen, the temperature is colder, and ice is on the pond, but have you wondered what the beaver are doing during the winter? Find out through lively activities that will have you working like a beaver as you “store food,” “groom,” and “swim under the ice.” Meet a live beaver and see how it survives in its aquatic world, even in winter. Adult must accompany children.

Cost: \$6/member; \$8/non-member

BIRD BANDING OPEN HOUSE

Saturday • January 7

9:00 a.m. to 12:00 p.m.

Families

For the past 30 years, we have captured and banded birds at the Science Center’s feeding station on the first weekend following the New Year. Drop in anytime during the morning and learn about the common birds that are winter visitors and why birds are banded. Adult must accompany children.

Cost: No charge to attend.
Please call for reservations.

WINTER BIRDING EXCURSION

Sunday • January 22

7:00 a.m. to 5:00 p.m.

Age 16+

Break out the gloves and wooly hats, prepare the hot chocolate, and join Iain MacLeod for a winter excursion to the New Hampshire and Massachusetts seacoast to search for the hardy bird species that spend their winters

there. We will visit Seabrook Harbor to look for gulls and seabirds and then head to Salisbury Beach State Reservation where we should see Bald Eagles, Northern Harriers, Rough-legged Hawks, Black Ducks, Gadwall (ducks), Horned Larks, Snow Buntings, and maybe a Northern Shrike. Next, we will go to Plum Island and explore the Parker River National Wildlife Refuge to look for Snowy Owls, Peregrine Falcon, Northern Pintail (ducks), and, as the sun begins to set, perhaps a Short-eared Owl. We will carpool, departing from the Science Center. Be prepared to be outside.

Cost: \$30/member; \$40/non-member

LIFE UNDER THE ICE

Saturday, February 4

10:00 a.m. to 12:00 p.m.

Families

Winter is cold but below the barrier of ice, life in the pond goes on. Using underwater traps and long-handled nets we will try to catch a few of the animals that find life below the ice not such a bad place to be in the depth of winter. Adult must accompany children.

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

SUPER SNOWFLAKES

Sunday • February 19

1:00 to 2:30 p.m.

Families

Explore the wild world of snowflakes. Investigate shapes, see what we can make with snow, and create your own snowflake craft. Dress warmly and be ready to go on an outside adventure to look closely at snow. Adult must accompany children.

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

BALD EAGLES IN THE LAKES REGION

Thursday • February 23 • 7:00 a.m.

Adults

Join Iain MacLeod for a day of fieldwork, as he takes part in the New Hampshire Audubon mid-winter eagle survey. Every winter, Bald Eagles from Maine and Canada join our growing resident eagle population to winter in the Lakes Region. Each year, New Hampshire Audubon staff and volunteers survey the likely areas and count the eagles. We will follow a set route around Squam Lake and portions of Winnepesaukee in Meredith in the morning. We will gather with other volunteers for lunch and to swap stories and sightings before going out in the afternoon to cover areas where eagles were missed earlier. We will carpool, departing from the Science Center. Be prepared to be outside.

Cost: \$20/member; \$30/non-member

SCHOOL VACATION WEEK

FEBRUARY 27-MARCH 2

BIRD BANDING

Wednesday • February 29

10:00 a.m. to 12:00 p.m.

Families, Age 6+

Looking for a chance to see wild birds up close? Join us to find out why and how we capture and band the birds at the Science Center’s feeding station. Adult must accompany children.

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

WINTER EXPLORATIONS

Wednesday • February 29

1:00 to 3:00 p.m.

Families, Age 6+

Explore the natural world of winter with some outdoor activities focused on the wildlife survival in winter. Afterwards, go inside to meet one of New Hampshire’s winter residents up close. Snowshoes available at no extra cost or bring your own. Adult must accompany children.

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

WINTER AGILITY

Saturday, March 10

10:00 to 11:30 a.m.

Families, Ages 5+

Wildlife has answers to many of winter’s challenges. Let’s experience winter through some animal adaptations. We will design a fun course where we can move like snowshoe hare, slide like otters, balance like bobcats, and jump like deer. How fast can we go? After our wild adventure, we’ll gather inside and meet an animal that takes winter in stride! Adult must accompany children.

Cost: \$6/member; \$8/non-member



Natural Adventures have limited space available; reservations and advance payment required unless otherwise noted. Programs are subject to cancellation if minimum enrollment is not met.

WILD WINTER WALKS

GUIDED TOURS OF THE GEPHART EXHIBIT TRAIL

Families

Do you ever wonder what happens to the animals at the Science Center during the winter? Most of them stay in the same place, just as they would in the wild. A staff naturalist will guide your walk on the Gephart Exhibit Trail and discuss the many ways native animals are well adapted for winter life in New Hampshire. Be ready to snowshoe and see how beautiful these wild animals are in their winter fur coats. Snowshoes available at no extra cost or bring your own. Adult must accompany children.

Cost: \$10/member; \$12/non-member

Saturday • January 14
10:00 a.m. to 12:00 p.m.

Sunday • January 15
1:00 to 3:00 p.m.

Saturday • January 21
10:00 a.m. to 12:00 p.m.

Sunday • January 29
1:00 to 3:00 p.m.

Saturday • February 4
1:00 to 3:00 p.m.

Sunday • February 12
1:00 to 3:00 p.m.

Saturday • February 18
10:00 a.m. to 12:00 p.m.

Saturday • February 25
10:00 a.m. to 12:00 p.m.

Sunday • February 26
1:00 to 3:00 p.m.

Friday • March 2
1:00 to 3:00 p.m.

Saturday • March 3
10:00 a.m. to 12:00 p.m.

Sunday • March 4
1:00 to 3:00 p.m.

Save the Date!

SATURDAY

APRIL 21

CLEAN UP DAY!



SPECIAL EVENT



— FILM PRESENTATION —

MOTHER NATURE'S CHILD: GROWING OUTDOORS IN THE MEDIA AGE

Thursday • March 8 • 7:00 to 8:30 p.m.

Cost: No charge to attend. Please call for reservations.
Snow Date: Thursday • March 15 • 7 to 8:30 p.m.

Mother Nature's Child, selected for the 2011 Environmental Film Festival, explores nature's powerful role in children's health and development through the experiences of toddlers, children in middle childhood, and adolescents. The film marks a moment in time when a living generation can still recall their childhood spent in free play outdoors; this will not be true for most children growing up today. The effects of "nature deficit disorder" are now being noted in epidemics of child obesity, attention disorders, and depression across the country. Following the one-hour film, take part in an informal discussion with Education Program Director Amy Yeakel and eco-artist Cynthia Robinson. Come and enjoy this thought provoking program!

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HOME SCHOOL SERIES EARTH CYCLES

These educational series are specifically for home schooled students. Programs focus on the cycles you can observe in the natural world around us. Topics include rock cycle, water cycle, life cycles and more!

First Thursday of the month—January 5 • February 2 • March 1 • April 5
10:00 to 11:30 a.m.

Two sessions available: Age 4 to 6 or Age 7 to 10

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

All Home School Programs align with the New Hampshire Science Framework.
One adult must attend with children at no cost. Each additional adult pays child fee.

NATURALIST'S CORNER

GO OUTSIDE AND ENJOY

By Amy Yeakel

We all live in a modern, fast-paced world that is so different from just a generation ago. Adults today remember the time before cell phones, but today's teens will not. While our society becomes increasingly informed, often via modern technologies (who doesn't use the internet?), the information age also generates a very difficult chore of pouring through all that information. It is important to be able to sort fact from hype. My thoughts along these lines were further supported by an article I read entitled "What you don't know can kill you" in the July/August 2011 issue of *Discover* magazine. The article's premise is that people often ignore real threats or concerns while fearing unnecessary ones. This concept is a key one to remember when planning outdoor adventures.

Children today spend over 44 hours per week at some sort of screen and less than 40 minutes outside. Many factors contribute to these statistics, one of which is fear of the outdoors. For example, people scurry off beaches, afraid of shark attacks, when the risk of such an event is one in nearly 4 million, while injuries from fireworks occur at just one in nearly 400,000 and yet we flock to fireworks shops. People are at far greater risk of domestic dog attacks than from a coyote attack and while we live with many "dangerous" canids right in our homes. We tend to keep children out of the water due to

fear of drowning, when it is far more dangerous to drive cars, which we do without a second thought each day.

Yes, there are very real dangers to the outside world. Please be sure to always pack plenty of water, carry extra food, wear appropriate clothes, review maps in advance, and tell someone where you are heading, and so on. But, don't let the hype you may hear about one event or another keep you from getting the facts and going outside and discovering nature. After all, remember that spending time outside reduces stress, provides exercise, and rejuvenates your brain in immeasurable ways. These things counter real U.S. risks such as the one in six risk for heart disease or one in seven risk for cancer.

Go outside and enjoy – nature has many wonders for you to observe whether in a town park, a local beach, the bottom of a garden pail, or farther afield in a national park or marine sanctuary. You needn't visit the Galapagos or go on an African safari to be amazed – it's right in your backyard and it's good for you!

GREEN FACT

Here is one small thing that will make a big difference!

Keeping Your Child's Sense of Wonder Alive

"If a child is to keep his inborn sense of wonder, he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement, and mystery of the world we live in."

—Rachel Carson

1. Draw a nature map of your backyard or neighborhood showing special places.
2. Take a walk with a theme—look for colors, bugs, flowers, rocks, and so on.
3. Look up! During the day, notice the types of clouds and at night, watch the moon and stars.
4. Put up a bird feeder and record the birds that visit.
5. Look for signs of animal homes (nests, webs, hives, and holes).
6. Use a press to preserve flowers or make crayon rubbings of leaves or bark.
7. Go on a nature scavenger hunt: find an acorn, find a red leaf, find a flat rock ...
8. Walk outside, and check the sky. Keep a weather log.
9. Look for animal and bird tracks and try to identify them.
10. Make a wreath with natural materials such as grapevines, leaves, grasses, seeds.

Here are some websites for more ideas:

National Wildlife Federation "Be Out There" campaign
www.nwf.org/Get-Outside/Be-Out-There.aspx

Cornell Ornithology Lab "Nestwatch"
watch.birds.cornell.edu/nest/home/index

The Daily Green has a list of citizen science projects appropriate for families

www.thedailygreen.com/environmentalnews/latest/citizen-science-47121401

RACCOON QUIZ



1. **True or False? Although classified as carnivores, raccoons have an omnivorous diet.**
2. **True or False? Raccoons are quick tree climbers but must descend tail first.**
3. **The winter activity level of raccoons is most similar to:**
A. groundhogs B. skunks C. porcupines
4. **A raccoon's most developed sense is:**
A. touch B. smell C. hearing D. sight
5. **Raccoons will make winter dens in**
A. abandoned groundhog burrows
B. hollow logs C. tree hollows D. All of the above

Raccoon Quiz—Answers:
1. True 2. False 3. B 4. A 5. D

GARDENER'S NOTEBOOK



GROWING LICHEN IN WINTER AND THROUGHOUT THE YEAR

By **Eric D'Aleo**

During winter, the skies are cold and gray, sunlight is sparse and fleeting, the colors are muted, and nothing is growing in the garden. Or is there? Look carefully at any large rocks or stone structures on your property and you may see small plant like organisms growing there ...they are lichens. Lichens are not really a plant at all, but a combination of an algae and a fungus, working together in a mutually beneficial relationship. The algae produces food for both organisms, while the fungus provides protection from the elements and may provide minerals it absorbs from the material upon which it grows. This relationship enables lichens to survive in extremely harsh environments throughout the world where neither algae nor fungi alone would survive, such as the arctic tundra, hot deserts, rocky coasts, and even toxic slag heaps. "Local lichens" can be found as epiphytes on leaves, branches, and trunks of many New England trees, and also grow on bare rock, including walls and gravestones in woodland settings. In my garden I find them growing on the stone wall, the bark of trees and shrubs, and on artistically arranged driftwood.

Lichens are masters of survival, and thrive in places where more complex plants can't or would struggle to stay alive. By taking advantage of sunlight, moisture, and nutrients when they are available and then become metabolically inactive when conditions are unfavorable to growth, these small, slow growing organisms may be long lived. This ability to suspend their life functions is known as cryptobiosis and can last over a period of many years. How can you tell if a lichen is "alive" or in this cryptobiotic state? Usually the lichen will feel stiff and brittle when it is inactive, but becomes more flexible and pliable as it begins to photosynthesize, after it rains or there is a heavy dew.

There are many different types and colors of lichens found worldwide, and are divided into general categories based on their appearance. Crustose lichens are flat and appear as if they are painted on the rock because they attach directly to its surface. These lichens are found on exposed mountaintop rock, cliff faces and boulders. These types of lichens are often mistaken as the weathered surface of the rock itself, but often appear different in color than the rock upon which they grow. Foliose lichens grow on rock also, but in reality subsist and consume the crustose lichens there. Foliose lichens have a leafy, frilled, or wavy edge that traps dust and moisture, which begins the process of soil accumulation on rock. These lichens are most often seen on old stone walls. It is possible to determine how long a stone has been exposed based on the size and growth rate of the lichen.

Another type of lichens seen on tree branches and trunks are filamentous. They are various shapes and thicknesses but all have that hair like appearance. I find these lichens growing most often on mature balsam fir trees in nearby woodlands. Perhaps my

FROM THE HERON'S NEST

By **Laura Mammarelli**



Volunteer Barb Desroches, a folk singer, entertained the children at Blue Heron School on October 14 with her original and traditional folk songs about animals and nature. The children learned songs about rocks, trees, a woodchuck, a shrew, and many other New England animals. Barb ended her visit with animal puppets – the children enjoyed having a skunk, red squirrel, gray squirrel, and even a moose visit the classroom.

Blue Heron School, a nature-based Montessori school for children ages three to six, operates from Monday through Friday, 8:30 a.m. to 1:00 p.m. or 4:00 p.m., September to June. Interested parents may contact Laura Mammarelli at 603-968-7194 x 40 or blueheron@nhnature.org.

favorite group of lichens is the fruticose lichens, which includes British soldier lichen and Pixie cup lichen. These branched lichens stand erect with little "fruiting bodies" at their ends. The red topped British soldiers are easy to spot; they frequently poke out of the snow on a white pine tree stump or log, upon which they are often established. The delicate pixie cups that poke through the snow are more difficult to locate but they are also found growing in moist and acidic environments, often near British soldiers. These two lichens are always an unexpected garden treat late in the winter when I spy them pushing out through the cold, wet snow as a reminder to me that even in the heart of winter, life is ready to begin anew.

**Gardener's Notebook and Kirkwood Gardens are
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VOLUNTEER UPDATE

VOLUNTEER RECOGNITION DINNER PARSONS AWARD

The annual Volunteer Recognition Dinner on Tuesday, September 6, held at the Deephaven Dining Hall at lovely Rockywold-Deephaven Camps in Holderness, was well-attended by volunteers, trustees, and staff. Thank you to Cross Insurance Agency, Tanger Outlet Centers, and Patty Stewart & Associates for generously sponsoring the evening. Various awards honoring volunteers were presented at the dinner.

"Volunteers Complete the Picture," the Volunteer Appreciation Display created in 2004 in the Trailhead Gallery, recognizes volunteers who reach milestones of hours donated. Volunteers who achieved the 200-hour level include Nancy Beck, Chris Bird, June Corrigan, Lisa Davis, John Fernandes, Susan McKimens, Olivia Saunders, and Peter Wood. Andy Eaton and Pat James advanced to the 500-hour category. Jim Barry, Dot Chekas, and Beverly Wood moved to the 1,000-hour level.

The President's Volunteer Service Awards is a national program honoring Americans who inspire others to volunteer through their commitment and example. Iain MacLeod presented the Bronze Service Award, for volunteers giving 100 to 249 hours in 2010, to Nancy-Jane Duncan, Patricia James, Eva Karcher, Denise Moulis, Natalie Parsons, Diane Potter, Nance Ruhm, Judy Sniffen, Sydney Stewart, Carol Thompson, and Bruce Whitmore. Volunteer Jim Barry received the Silver Service Award for donating between 250 to 499 hours.



The Board of Trustees created the Parsons Award in 1996 to honor longtime volunteers Natalie and Don Parsons. The winner of the annual award represents the spirit of volunteerism for her fellow volunteers. Board Chair Laurie Beeson presented the 2011 Parsons Award to Pat James. Pat joined the volunteer team in 2005 when she trained as a docent. She gives her time in a variety of ways, including going with

naturalists on outreaches, staffing discovery tables at events, leading otter enrichment, showing live animals to trail visitors, and mentoring other volunteers. Pat also assists with special events, mailings, and greeting visitors. Pat donated 127 hours in 2010 and well over 600 hours since 2005.

Pat's name was drawn from a group of 24 volunteers eligible to receive the Parsons Award in 2010. The group included Jim Barry, Meta Barton, Chris Bird, Dawn Bourret,

NATURE TOURS

Wildlife of New Mexico

November 5-15, 2012



Join Iain MacLeod for a spectacular trip to the great southwest. Get away from cold New England weather and delight in the warmth of New Mexico. Visit Carlsbad Caverns, Bosque del Apache, and Bitter Lakes National Wildlife Refuges. Highlights include the spectacular caverns of Carlsbad, breathtaking dusk and dawn flights of sandhill cranes and snow geese, Bandelier National Monument with its ancient cliff dwellings, and the Living Desert State Park (AZA-accredited). The trip ends with a visit to Santa Fe to see the National Forest and explore this beautiful and historic town.

Contact Iain at 603-968-7194 x 23 or iain.macleod@nhnature.org for a full trip itinerary or to book your place on the trip.

Group size is limited to ten

Cost: \$1,950 per person

Includes all accommodations, leader fees, van transportation beginning and ending at Albuquerque airport, and admission fees. (Cost of meals and flights NOT included).*

**Accommodations are double occupancy rooms (i.e. couples in one room, singles share with one other person). There is a \$200 additional fee for a single room.*

Dot Chekas, Lisa Davis, Karen Firmin, Clara Fowler, Eileen Gosselin, Eva Karcher, Peggy Martin, Connie Morrison, Denise Moulis, Diane Potter, Nance Ruhm, Judy Sniffen, Susan Stepp, Carol Stewart, Sydney Stewart, Shirley Stockwell, Marc White, Betsy Whitmore, and Bebe Wood.

In 2010, there were 198 Science Center volunteers who gave a total of 6,887 hours and another 190 people, from the community, a business, or an organization who volunteered for a single event, donated 356 hours. That equals \$154,710 worth of in-kind services. (The national value of a volunteer "hour" is \$21.36, a standard set by a nonprofit coalition.) We thank all our volunteers for their outstanding contributions and accomplishments.

**We are grateful for these memorial
and honorary gifts received from
July 1 through September 30, 2011:**

IN MEMORY OF VIRGINIA ABORN

Beeson Family

IN HONOR OF LAURIE BEESON

Laura Rickard

**IN MEMORY OF JUNE CORRIGAN
FOR KIRKWOOD GARDENS**

Altrusa Club of Meredith

Nancy Dailey

Karen Firmin

Natalie Parsons

IN HONOR OF LYDIA EATON'S BIRTHDAY

Reverend John Brock and Martha Deering

IN MEMORY OF FRAN FERNANDES

Elizabeth and Raymond Beaugard

Jan and Jerry Byrne

Phyllis and Joseph Cronin

John Crossin and Laurie Pichnarcik

Karen Firmin

Leslie and Robert Fogg

Barbara Hendrick

Robert Keating

Lura and William Machell

Kathleen MacNeish

Susan McKimens

Nancy and Robert Moyer

Susan and Daniel O'Grady

Lorraine and Dennis Perry

Olivia and Jack Saunders

Stephan Schafer

Margaret and Philip Schlueter

Sarah and James Schumacher

Betsy and Bruce Whitmore

Gabriella Wightman

IN MEMORY DON PARSONS

Donna, Natalie, and Susan Parsons

Nancy Parsons and James McDermott

Natalie Parsons

**IN HONOR OF RICHARD SANDERSON
FOR KIRKWOOD GARDENS**

Janet Beckering

Sonja and Rudolph Guzman

Debra and Richard Howell

Elsie Howell and Janet Beckering

IN MEMORY OF GREG SMITH

Ann and Richard Chalmers

Gail Smith and Frances Chalmers

BUSINESSES INVEST IN EDUCATION

COMMUNITY SUPPORT IS STRONG

We receive vital support from many businesses across the state through memberships, sponsorships, and in-kind contributions of goods and services. We are grateful for this strong corporate investment in the Science Center's education programs.

2011 Business Members

Autodesk, Cormack Construction Management, Laconia Savings Bank, Pike Industries, Rockywold-Deephaven Camps, and Stonyfield Farm Organics.

2011 Business Sponsors

Belknap Landscape Company, Common Man Restaurant, Community Guaranty Savings Bank, Cormack Construction Management, Cross Insurance Agency, Dead River Company, MegaPrint, Malone, Dirubbo & Company, P.C., Meredith Village Savings Bank, New Hampshire Colonials Realty, New Hampshire Electric Co-op Foundation, Northway Bank, Patty Smith & Associates, Rockywold-Deephaven Camps, Samyn D'Elia Architects, Squam Boat Livery, Tanger Outlet Centers, and Webster Land Corporation.

2011 Business In-kind Donors

Appletree Nursery, Anything Granite, Asquam Marina at Holderness Harbor, Belknap Landscape Company, Bob's Shurfine Market, Cabot Cooperative Creamery, Cackleberries Garden Center, Charles River Laboratories, Coca-Cola Bottling Company of Northern NE, Common Man Restaurant, Country Ladybug Greenhouse, Country Landing, Country Sketches by Cheryl Johnson, R.M. Daigle Construction, Difilipee Farm & Greenhouse, Dion's Plant Place, Donovan Tree Experts, Dunkin Donuts, Ellis Builders, Emma's Perennials, Forever Green, Gallery at Red Gate Farm, Giuseppe's Pizzeria, Golden Pond Country Store, Granite State Greenhouse, Hannaford Supermarket, Hart's Turkey Farm Restaurant, Hillside Meadow Agway, Innisfree Bookshop, Lakes Region Tent & Event, Little Church Theater, Longview Farms, McAuliffe-Shepard Discovery Center, MegaPrint, Moulton Farm, Mount Washington Observatory, Mountain Laurel Flower Shop, Petal Pushers Farm, Picnic Rock Farms, Pike Industries, Plymouth Animal Hospital, Precision Lumber, Red Gate Farm, Seacoast Science Center, Shaw's Supermarket, Simple by Nature, Spider Web Gardens, Step2 Company, Stonyfield Farm Organics, Steve Thornley, Printmaker, Tootsie Roll Industries, True Colors Print & Design, Tylergraphics, Van Berkum Nursery, and Venture Print.

Thank You!

RACCOON continued from page 1

our sweet corn crop, often making a raid the day before we plan to harvest. Any weakness in the chicken coop is readily utilized by raccoons to the detriment of occupants and owners. Rather than blame the raccoons, it sounds like we need to tighten our ship. Take care not to handle raccoon scat as it often contains a roundworm dangerous to humans and other mammals. In the wild, the raccoon's bandit mask may reduce glare, helping their vision in a similar way to the black face paint football players use below their eyes. Masks and ringed tails also act as camouflage, blending with shadows in boreal hideways.

What are two features key to most raccoon habitat? Trees and water seem to be the cornerstones. Despite their bulky form, raccoons are agile tree climbers. Their claws fit deftly into bark crevices and raccoons appear to literally bound up into the branches. Descending, these nimble creatures rotate their hind feet and come down head first! Although we may think instantly of wild spaces as habitat, raccoons are also well adapted to urban settings. The night shift in cities now regularly includes raccoons. On a recent visit to Ottawa, Ontario, I encountered some northern raccoons – same species, different nationality! In front of my uncle's townhouse, the sidewalk is graced by shade trees. A female raccoon framed by leaves in one tree faced a dilemma. She had two kits with her but she had not yet transferred a third from an adjacent tree. At 7:00 a.m., her shift was over but there was more work to be done. We left her in peace to find a solution and walked away, determined to see more wildlife by remembering to look up!

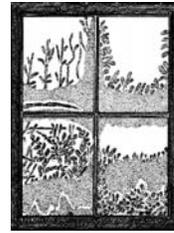
The three to seven kits that a female raccoon raises over the summer disperse in the fall or may overwinter with her. All feed heavily, with autumn acorns helping add to the fat layer they need for a dormant winter period. As the weather turns snowy and colder, raccoons find a snug spot, preferably a tree hollow for shelter from the elements. This dormancy is very different from the hibernation of groundhogs – raccoons readily wake up and wander about on warm, sunny, winter days.

I suspect your backyard is also a stage waiting for an audience. Watch for winter tracks, abandoned bird nests visible in the leafless trees, acrobatic squirrels leaping from tree to tree or birds searching for insects under the bark. The more you check the stage, the more characters join the cast. You will not be disappointed and the price can't be beaten!

NATURALIST'S LEGACY SOCIETY

Please let us know if you have named the Squam Lakes Natural Science Center in your will or other estate plans. Naturalist Legacy Society members are invited to donor recognition events and recognized in the Annual Report. Your participation may inspire others to follow your lead.

Contact Development and Communications Director Janet Robertson at 603-968-7194 x 12 or janet.robertson@nhnature.org for more information.



OPENING A WINDOW TO THE NATURAL WORLD

YOUR GIFT TO THE
ANNUAL FUND IS NEEDED

NEW!
RECURRING GIFT OPTIONS

For every child who experiences an up-close nature moment, for the moms and dads who count on a fun learning place to spend family time, for the volunteers who share their time to teach others, for the good feeling of knowing your gift can make a difference, please support the 2011 Annual Fund at whatever amount you can afford to give. No gift is too small...or too large!

Our Annual Fund goal this year is \$300,000 and we need your financial support more than ever to meet that goal. The Annual Fund helps to care for and feed our 80-plus ambassador animals, to maintain our buildings, trails, and exhibits, provide excellent educational programs, and makes it possible for us to provide new opportunities for more people to learn about New Hampshire's natural world.

New this year, you can now make a recurring gift to the Annual Fund. This is a way for you to make a larger gift, spread throughout the year through monthly or quarterly donations. It is convenient for you and provides dependable support for the Science Center. Your donation will be billed to your credit card and automatically renew each year. Once a year, we will send you a record of your giving history for tax purposes and give you an opportunity to update your pledge amount and account information. Of course, you can change or cancel your payments at any time although there is a minimum donation of \$10 per donation and a 30-day notice to cancel your authorization. Use the enclosed envelope to authorize a recurring gift or call the Development Office.

We welcome one-time gifts as before; you can use the enclosed envelope to mail your check. You can also donate online at our website, www.nhnature.org.

As we look forward to our 46th year, we thank you on behalf of the many thousands of children and families we serve.

You may contact Janet Robertson, Development and Communications Director at 603-968-7194 x 12 or janet.robertson@nhnature.org.

**Renew your membership online at
www.nhnature.org**

TRAIL'S END

After the Enron debacle, being a director of a public corporation lost much of its appeal. So much so that the fees companies have to pay directors have escalated sharply, often to six figures annually. (Antique author's note: my first job, in the treasurer's office of a railroad, included preparing directors' checks for the likes of Billy Rose and Tommy Manville – a princely \$125 per meeting!)

Several of the Science Center's trustees have, and several currently do, serve on public boards of directors. Companies are looking for many of the same traits we are, e.g. experience, wisdom, and relevant expertise. There's also considerable overlap in function: both select and compensate the senior most management, both exercise financial oversight, both help guide the enterprise strategy, and both serve on committees like Governance, Compensation, and Audit.

And the surprising thing, for me at least, is that our trustees invest at least as much if not more time at their Science Center "job" as do public company directors.

The comparison breaks down after a while – company directors aren't responsible for soliciting community support for their organizations, and they receive big checks instead of writing them. But if you accept the central premise that we engage the same people for essentially the same functions – and that trustees can't dial down their experience and wisdom when working on a nonprofit – then we are getting one heck of a deal.

The Science Center is blessed with a marvelous volunteer force, without whose help we could not operate. Many of them bring unique and valuable skills, and all of them humble me in their dedication and commitment. The purpose of this post is to highlight the contributions of one subset of volunteers: our bargain-baby Board of Trustees. Thanks, guys!

Trail's End is written by Laurie Beeson, Chairman of the SLNSC Board of Trustees. You may contact Laurie at 603-968-2409 or lbeeson@worldpath.net.

NEWSBRIEFS continued from page 5

of New Hampshire Awards honor outstanding contributions to volunteerism throughout the state.

- ◆ Blue Heron School teachers Laura Mammarelli and Jordan McDaniel attended a Nurtured Heart training in October, which Laura organized for the New Hampshire Montessori Association. Montessori and early childhood teachers from across the state attended.
- ◆ Janet Robertson, Development and Communications Director, took part in a two-day conference presented by the Council on Fundraising and the Association of Fundraising Professionals/ Northern New England Chapter. Dick McPherson, author of *Digital Giving: How Technology is Changing Charity*, was the keynote speaker at the conference held in November in Manchester.
- ◆ Marketing and Visitor Services Manager Amanda Gillen attended the Northern New Hampshire Tourism Conference in November. She participated in workshops on "Public Relations: Working with the International Market" and "Marketing: Do Your Own Marketing Assessment."
- ◆ In November, Jeremy Phillips exhibited at the New Hampshire Parent Teachers Association conference in North Conway to share information about Science Center programs with parent teacher organizations, which often organize field trips and school programs.
- ◆ Community Guaranty Savings Bank of Plymouth generously sponsored Autumn Festival, on September 24. Author Michael Tougas delighted his audience sharing his misadventures about his life in rural Vermont. Volunteers engaged many visitors with live animal demonstrations and crafts for children. Longhaul Farm offered lunch for sale.
- ◆ Halloween Hoot N Howl lived up to its name with laughter, applause, and shrieks heard across field and forest. Despite

the cold night, 321 people, many in costume, enjoyed guided tours featuring creative outdoor skits performed by staff. Special thanks to Moultonborough Girls Scout Troops 10896, 12269, 10093, and 10062 who carved the jack-o-lantern pumpkins decorating the trail. Thank you also to our wonderful volunteers and these contributors of food and supplies: Dunkin Donuts, Plymouth; Hannaford Supermarket, Meredith; Longview Farms, Plymouth; Moulton Farm, Meredith; Shaw's, Gilford; and Tootsie Roll Industries.



Brian Eaton, Amanda Gillen, and Jeremy Phillips performed a skit called "Stop Messing with Wildlife."

- ◆ Thinking about holiday shopping for all of the nature lovers in your life? Visit the Howling Coyote Gift Shop on three Fridays in December—the 2nd, the 9th, and the 16th, from 10:00 a.m. to 2:00 p.m. Other times are available by appointment; please call 603-968-7194.
- ◆ Another great gift idea is a Squam Lakes Natural Science Center membership to bring that special someone Nearer to Nature all year! Membership benefits include free trail admission, discounted rates on lake cruises and programs, a 10% discount at the Howling Coyote Gift Shop, AZA and ANCA reciprocal admission discounts, and much more.

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Stewardship.

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www.mvsb.com/values

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FRIDAYS

DECEMBER 2, 9, & 16
10:00 a.m.–2:00 p.m.

Otherwise open by appointment;
please call 603-968-7194.

**WISH
LIST**

- golf cart
- riding lawn mower trailer
- Stop Saw
- card table
- small library card catalog
- 6- or 8-foot plastic folding table
- new or low-hour, late model 130–150 hp, 4-stroke outboard engine
- small TV/DVD flat screen combo
- lawn and garden treasures for Kirkwood Gardens Day sale
- hand pruners
- used desktop or laptop computers no more than 4 years old

For Animal Care

- bath towels
- old perfume or cologne and spices
- dog treats (unopened)
- dehumidifier
- a specific bird cage—call for details



SQUAM LAKES
NATURAL SCIENCE CENTER

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And, be sure to spread the word!