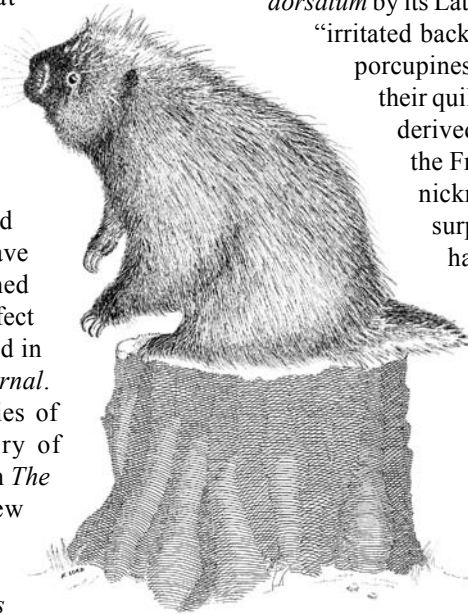




PORCUPINE ENCOUNTERS

By Margaret Gillespie, Illustration by Heather Lord

“When did you first start writing?” asked a docent as we chatted at Wild Encounters Day in March. I answered that I really began writing in a course during graduate school at Cornell University. It was a course on nature writing with Dr. Richard Fischer – a course with magic and challenge where the goal was to have our three writing projects published with a purpose! My article on the effect of road salt on maple trees appeared in the local newspaper, the *Ithaca Journal*. I read my synopsis about mysteries of bird migration on the Laboratory of Ornithology’s weekly radio spot. In *The Conservationist* magazine of New York State, my article was printed on – you guessed it – porcupines! Included in my writings for *Tracks & Trails* since 1995 is one on hawk migration and now, porcupines. More than nature works in cycles!



So, let me introduce you to the porcupine or *Erethizon dorsatum* by its Latin label. Translated, this name means “irritated back,” which is very descriptive of how porcupines respond to danger with the rising of their quills. The common name, porcupine, is derived from the Latin *porcus* or swine and the French *epine* meaning thorn, hence its nickname “quill pig.” It may come as a surprise that a quill is specially adapted hair which has tiny overlapping scales on the pointed black end. Like hair, porcupine quills cannot be thrown or shot. To be quilled, animals must come in contact with quills by biting the porcupine or by being hit by its tail. Older quills are relatively loose and pull free into the attacker in such an encounter. Once in another animal’s flesh, quills tend to be drawn inwards by the contracting muscles of the recipient, since the scales make it difficult for the quill to back out. This quill movement can be at a rate of an inch in 24 hours. Quills

Continued on page 7

FORGING TRAILS

WILDLIFE TOUR OF SCOTLAND: HEBRIDES AND HIGHLANDS JUNE 19-JULY 2, 2008

In June I had the pleasure of sharing my homeland with nine wonderful people on a Wildlife Tour of Scotland: Hebrides and Highlands. This trip is a very personal tour of Scotland. The itinerary is filled with special places where I was fortunate enough to work or live, mixed with a few additions I have added during previous tours and few stops this year that were even new to me.

A major focus of the trip was birds, but it is hard to look for birds in Scotland without also finding and exploring the mammals, plants, scenery, history, culture, and cuisine of Caledonia. During our 13 days together we visited wind-swept headlands, grouse moors, rocky shores, seabird-covered cliffs, rich farmland, white-sand beaches, forest, meadow, estuary, and ocean. I chose hotels that offered comfort, good food, excellent hospitality, and spectacular locations. Along the way we visited castles, bird reserves, ruins, stone circles, and visitor centers.

The trip began on June 19 when everyone arrived at Glasgow airport, having flown from Boston to Dublin. I met everyone at the airport and after picking up our van, we were off. We traveled north up the shore of Loch Lomond and then west towards Oban. The next morning we were off on the Oban ferry to Lochboisdale in South Uist. We spent the next two days exploring South Uist, Benbecula and North Uist in the Outer Hebrides.

On day five we left the Uists and caught the ferry to Skye. After a partial day on Skye, we returned to the mainland and travelled northeast to Easter Ross and Inverness-shire where we stayed for two nights. We explored Cromarty and the Black Isle.

Continued on page 2

FORGING TRAILS *continued from page 1*



Then it was time to explore further east and south. We spent three nights and two days in beautiful Strathspey with its ancient pine forests and lochs and then went up and over the Lecht – the most remote road in Britain – through Tomintoul – the highest village in Scotland – and over the Royal Deeside.

The final leg of our journey took us down the east coast through Dundee and then to Edinburgh. Our final day was spent exploring the East Lothian coast before returning to Glasgow and our flight back to Boston.

Along the way we travelled over 1,000 miles by road, tallied 117 species of birds, and seriously depleted Scotland’s reserves of haggis, porridge, and black pudding. I have posted a detailed, day-by-day, illustrated overview of the trip on our website, check out the following link http://www.nhnature.org/pdf/scotland_review.pdf.

Forging Trails is written by Executive Director Iain MacLeod.

You may contact Iain at 603-968-7194 x 23 or iain.macleod@nhnature.org.

NEWSBRIEFS

◆ Summer saw a few changes in animal care staff. Animal Care Assistant Joanne Braley left her job at July’s end after more than three years. She’s not far away though, as she will now be working (with animals again) at the Plymouth Animal Hospital. We also said good-bye to Animal Care Manager Cortney Cote in August. Cortney has been on staff for over six years. During Cortney’s tenure, she started the enrichment program for our captive animals, the Science Center received accreditation from the Association of Zoos and Aquariums and, the popular Animal Enrichment Day was initiated. Cortney will be studying veterinary medicine at Ross University in St. Kitts, British Virgin Islands. Animal Care Assistant Rachel Cilley was on medical leave in June and returned in July. New Animal Care Assistant Lauren Moulis is a 2008 graduate of Plymouth State University, with a BS in Environmental Biology. Her hometown is Manchester and she has been an animal care volunteer since 2005. Animal Care Manager Katie Mokkosian joined the staff in late July. Katie grew up in Salem, NH. She attended Boston University and received a BA in Biology with a focus on animal behavior and ethics. During college she interned at Disney’s Animal Kingdom. After college Katie was a zookeeper at Franklin Park Zoo in Boston. Later she went to the Bronx Zoo, spending the past three years there as a wildlife animal keeper.



***Katie Mokkosian, Lauren Moulis,
Rachel Cilley (l to r)***

◆ Tom Anderson was a late addition to this summer’s Education Program Intern roster. He will graduate this fall from the University of Rhode Island in Kingston where he studies animal management. Tom grew up in Laconia where his mom teaches math at Laconia High School. Of his intern experience, Tom says, “It’s been great spending my summer here after having visited throughout my childhood.”

◆ New this year, we joined forces with the Squam Lakes Association and the Squam Lakes Conservation Society to carry out a 24-hour bio-inventory of the Squam Range. Expert scientists



SQUAM LAKES NATURAL SCIENCE CENTER

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The 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 the Squam Lakes Natural Science Center sent to all members. Comments about the newsletter are welcomed by newsletter editor Janet Robertson at 603-968-7194 x 12 or janet.robertson@nhnature.org.

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VOLUNTEER PROFILE

MARI HOELL

By Laura Dentel



Mari Hoell does some library research on and with help from the Blanding's turtle.

LD: You drive all the way from the Seacoast to volunteer here! What initially interested you and what keeps you coming back to help us in so many capacities?

MH: First of all, there is no other place in New England that has everything the Science Center does. And when I learned out about the volunteer program, it really intrigued me! The volunteer program is multifaceted; I have

learned so much and in turn feel that I am able to impart that knowledge to our visitors. Many times we volunteer in an effort to give back – I feel that the Science Center has actually given me more than I have given! The knowledge I have gained and the people that I have been acquainted with have made it so worthwhile.

LD: Do you have any favorite moments or experiences while volunteering?

MH: I really enjoy doing the Turtle Talks. The questions and looks of wonder from the children always make the talk more exciting!

LD: Do you have a favorite animal?

MH: Oh, that is a tough one. I love all of the animals – but, if I had to choose, I would say the Mountain Lions, River Otters and the Turtles!

LD: If you could add one new live animal exhibit on the trail, what would it be?

MH: A moose exhibit would be a natural, due to our location. However, I have been told that they are difficult animals to have in captivity. We don't have any rabbits at the center, and that would be a nice addition – children and adults seem to have a natural liking for rabbits and bunnies.

LD: Tell us a little about your background.

MH: I grew up in Wolfeboro on Lake Winnepesaukee. I graduated from the University of New Hampshire in Durham with a BA in Criminal Justice/Pre-Law and have lived on the Seacoast ever since then. As a child I wanted to go to Tufts University and become a vet. As

I got older, realization that my brain wasn't as "science" oriented as it could be, coupled with the thought of having to put down sick animals, steered me away from the Vet and Zoology degrees. Although my love for all animals grew strong! Thus, at this point in my life, volunteering at the Science Center has afforded me the opportunity to learn about and work with animals. [Mari also helps with marketing efforts here. Ed.]

LD: Tell us a little about your job as General Manager of Tanger Outlets in Kittery.

MH: I oversee the operations, marketing, and maintenance of the mall. My favorite part is the marketing and promotion. I am very involved with state and local tourism departments. I also enjoy assisting the stores by promoting them to visitors and shoppers.

LD: What do you like to do in your free time?

MH: In the summer, much of my free time is spent at the Science Center! I love the relaxing drive up to the lake, the interaction with the visitors, and of course, the ANIMALS! In my free time, I also enjoy reading, hiking, gardening, and traveling to new places.

LD: Where is your favorite vacation spot?

MH: Seattle, Washington is one of my very favorite cities to visit! When I was there, I also spent time in the San Juan Islands, off the coast. Now, that is place to contemplate retirement! The whale watch with the orca whales was one of the most exciting excursions that I have ever taken!

NEWSBRIEFS *Continued from page 2*

from all over New Hampshire joined together and donated their time to lead 34 trips to 19 locations where they identified as many different species as possible. We are still tallying the results – we are nearing 800 species! We are still waiting for the final tally of Lepidoptera, which should be another 40-50 species. This is a provisional list, which will be verified in the coming weeks: Birds – 107, Fungi – 56, Macroinvertebrates – 64, Mammals – 17, Odonates – 18, Vascular Plants – 338, Amphibians, Reptiles and Fish – 27, and Lepidoptera – 25. The total equals 767 and counting! A grant from the Squam Environmental Fund of the New Hampshire Charitable Foundation – Lakes Region funded this project. Thanks also to these businesses that provided food: Cabot Creamery Cooperative, Canoe, D Acres, Lakes Region Coca-Cola Bottling Company, Longhaul Farm, Squam Lake Inn, and Walter's Basin.

◆ The fourth annual Animal Enrichment Day was enjoyed by almost 600 visitors on July 16. Special animal enrichment activities were held throughout the day including an introduction where visitors learned what animal enrichment is and saw the tools and toys the staff use, the "Human Dig Box" where blindfolded kids used their senses to forage for candy, and a craft table where visitors made treats and decorated items for Science Center animals. Special thanks to our sponsor: Tootsie Roll Industries.

- ◆ Thank you to Bill Driscoll Associates, Cross Insurance, and Tanger Factory Outlets for sponsoring the annual Volunteer Recognition Dinner on August 26.
- ◆ Fall is a beautiful time to be on Squam Lake and new this year, *Nature of the Lakes* cruises, will continue through October 16 instead of ending August 31. These 90-minute cruises are led by a naturalist every Tuesday, Wednesday, and Thursday at 4:00 p.m. *Explore Squam* also continues three 90-minute cruises daily through October 19 at 11:00 a.m., 1:00 p.m. and 3:00 p.m.
- ◆ Enjoy live animal presentations and crafts for children at Autumn Festival on September 27. Wildlife expert and enthusiast Warner Shedd, author of *Owls Aren't Wise & Bats Aren't Blind*, will talk about myths and misconceptions concerning wild animals. Wildlife artist, writer, and naturalist Rosemary Conroy will demonstrate live drawing and painting. She'll also answer questions about art, animals, and how she combines them. Her artwork will be on display and reproductions and note cards will be for sale. Thank you to Community Guaranty Savings Bank of Plymouth for sponsoring this event.
- ◆ Save this date for fun! Halloween Hoot N Howl will be one night only this year: Saturday, October 25.

www.nhnature.org

NATURAL ADVENTURES

WILD ABOUT ART ARTIST-IN-RESIDENCE ROSEMARY CONROY

Rosemary Conroy, a naturalist, writer, and wildlife artist who lives in Weare is our featured "artist-in-residence" during September. Rosemary regularly employs the Science Center's exhibit animals as models for the colorful paintings she exhibits throughout the region. You may also know her as the voice for *Something Wild*, a natural history program that airs weekly on New Hampshire Public Radio. During September, Rosemary will offer on-trail painting demonstrations, a one-day workshop, and exhibit her work here. And, as part of the on-the-trail activities during Autumn Festival on September 27, Rosemary will do live demonstrations of drawing and painting and will answer questions about art, animals, and how she combines the two successfully in her career. Throughout September, Rosemary's artwork will be on display and reproductions and note cards will be available for sale at the Howling Coyote Gift Shop.

INTRODUCING ROSEMARY CONROY

Saturday, September 6
11:00 a.m. and 1:00 p.m.

All ages

"Artist in Residence" Rosemary Conroy, whose colorful paintings often depict our bears, otters, mountain lions, and deer will offer short presentations on how she creates her artwork as well as give some insight into the joys and challenges of using live animals for her models.

No charge to attend

CAPTURING WILDLIFE ON PAPER: A BEGINNER DRAWING WORKSHOP

Saturday, September 13
10:00 am to 4:00 pm

Age 16+

Learn to draw your favorite furry creatures with award-winning NH wildlife artist Rosemary Conroy during this hands-on workshop. Suitable for beginners, you'll learn how to capture the personality of your subject animal along with tips and techniques for making them look believable. Best of all, you'll have live Science Center animals for your models! Teacher attendance certificates available. Materials provided.

Cost: \$65/member; \$80/non-member

BUILD WITH NATURE LIKE ANDY GOLDSWORTHY

Sunday, September 14

Using natural materials, we'll work together to create a temporary work of art in nature. Using Goldsworthy and Science Center trails as inspiration, we'll focus on the qualities of our chosen natural materials and the design of our work as it relates to the site. Our work will be recorded through digital photography.

Cost per program: \$20/member; \$24/non-member

Reservations and advance payment required unless otherwise stated. Programs are subject to cancellation if minimum enrollment is not met.

BIRD IDENTIFICATION SERIES

RAPTORS ID AND MIGRATION

Thursday, September 11, 7:00 to 9:00 p.m.

Saturday, September 13, 9:30 a.m. to 12:30 p.m.

All ages

Join Iain MacLeod for another in this series of in-depth bird identification workshops, this time focusing on the raptors. Every fall, thousands of migrating raptors – hawks, eagles, ospreys, falcons, and harriers – fly from their nesting areas in northern North America to their wintering ranges in the southern US and Central and South America. This workshop will use detailed color images to point out the finer points of identifying these birds up-close and afar. Iain will also explain the dynamics of migration and provide information on where to watch this annual spectacle. On Saturday, we will watch the open skies over the Science Center property to see what raptors we can identify (in years past we have seen hundreds of Broad-winged Hawks here as well as Ospreys, American Kestrels, Sharp-shinned Hawks and Cooper's Hawks).

Cost: \$45/member; \$55/non-members

SQUAM KAYAK

Saturday, October 4

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

Ages 12+

Join us for a collaborative program between Squam Lakes Natural Science Center and Squam Lakes Association (SLA). We will paddle beautiful Squam while enjoying the first colors of fall foliage. A Science Center naturalist, along with an SLA guide will accompany you on your exploration. Bring your own boat or rent one from SLA. Register with SLNSC.

Cost: \$25/SLNSC or SLA member; \$35/non-member

Kayak rental: \$10/boat

SCIENCE CENTER LAKE CRUISES

EXPLORE SQUAM

Through October 19

Daily at 11:00 a.m., 1:00 p.m., 3:00 p.m.

NATURE OF THE LAKES

Through October 16

Tuesdays, Wednesdays and Thursdays

4:00 – 5:30 p.m.

Adults - \$20 • Youth (ages 3-15) - \$16

Senior (ages 65+) - \$18 • 2 and under - free

AUTUMN FESTIVAL

Saturday, September 27

Generously sponsored by
Community Guaranty Savings Bank



Community Guaranty Savings Bank

SAVE THE DATE

HALLOWEEN HOOT 'N HOWL

Saturday, October 25

NATURALIST'S CORNER

FALL IN NEW HAMPSHIRE

By Eric D'Aleo

There is nothing quite like fall in New Hampshire with the crisp, cool mornings and pleasant afternoons that are relatively free of biting insects. The shorter day length and cooler temperatures bring many changes in our daily routine as well as those in the natural world. Many animals like bear, deer, porcupine, squirrels, and other wildlife take advantage of the bountiful harvest by feeding on nuts, seeds, fruits, and berries, known as hard and soft mast, which the season provides. I sometimes stop and find myself identifying with the chipmunk running back to its borrow with a cheek full of seeds, while I help peel bushels of apples for our yearly supply of applesauce, apple butter, and stewed apples. However, like the chipmunk every once in a while I'll stop to enjoy the "fruits" of my labor.

As I spend a morning moving a stack of wood from the yard to the cover of the carport, I notice the fleeting visit of many songbirds, hawks, and waterfowl as they pass through the area to warmer, more food-laden climates. Their exertion of energy for their long distance travel will bring them to areas where food will be more available, just like my moving wood will mean I'll be more able to find it this winter under less snow.

The turning of the fall foliage also reminds me that I have only a few more weeks of warmer weather to take time to explore the trails and woodlands near my home. While out in the woods I'll notice more signs of animals; bird nests from the summer become visible as the leaves fall away, deer and moose tracks, scat and rubbings are spotted more often as the males travel farther distances as they begin to enter the rutting season. However as the weather turns less hospitable I find myself a bit more inclined to stick closer to home like the porcupine. I may venture outside but do so at a more leisurely pace giving me the chance to enjoy this brief season. I invite each of you to do the same in the next few weeks – whether it's the annual hawk and songbird migrations, the change of foliage in the area, enjoying the fall harvest, or anticipating the approach of hunting season give yourself the opportunity to relax and enjoy this brief season of transition.



Gardener's Notebook and Kirkwood Gardens are sponsored by the Belknap Landscape Company, Inc.
www.belknaplandscape.com

GARDENER'S NOTEBOOK

FALL - AN IDEAL TIME TO PLANT NEW SHRUBS AND TREES

By Joan Mayerson

If you're looking for an attractive shrub that is native to New England and a good food source for birds don't overlook the American Cranberry Bush, also called Highbush Cranberry (botanical name *Viburnum trilobum*). Several of these may be found in Kirkwood Gardens.

This hardy, deciduous shrub grows to about 15 feet high with a width of 12 feet. The leaves are dark green and have an attractive shape with three lobes, similar to the grape, which makes for interest when neither flower nor fruit is seen. Spring flowers are white and shaped like a flattened lace cap (as with many *viburnum*). In fall, the leaves turn a lovely red or burgundy, while the bright, red berries are edible and last throughout much of the winter. Grouse, pheasant, and birds such as the cedar waxwing, cardinal, and robin enjoy the berries, particularly in late winter when other sources of food may be scarce.

Several cultivars of *V. trilobum* can be found including 'Compactum,' which is the most common, but the fall color is yellow rather than red. 'Bailey Compact' is a more dwarf form (but it does grow to six feet) and the fall foliage is red. 'Alfredo' is the newest of the cultivars; its form is more compact and the fall foliage is red. 'Hahs' is even more dwarf with larger fruit. 'Wentworth' was cultivated to produce large edible berries for jelly and jam making. Early in the season the berries will be rather tart but are full of pectin; later, after hard frosts, they become sweeter.

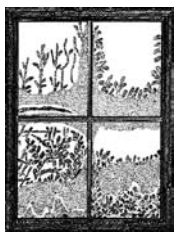
Planted three feet apart, viburnum can be grown as a tall attractive hedge. You should shape and prune after flowering to keep it from becoming leggy. Left alone, it requires little maintenance and is mostly trouble free. If you do choose to add a viburnum to your garden, choose a location that is somewhat moist and well-drained, in either sun or part shade. Plant early enough for the roots to take hold before winter (September or October would be best).

PORCUPINE QUIZ

- Which of these animals is NOT closely related to porcupines?
A. Muskrat B. Mouse C. Opossum
- True or False? Porcupines hibernate during the winter.
- How many quills does a porcupine have?
A. 10,000 B. 30,000 C. 50,000
- What animal is an effective predator of porcupines?
- Are porcupines herbivores or omnivores?

1. C - Muskrats and mice are in the order Rodentia with porcupines 2. False 3. B 4. Fisher 5. Herbivores

Answers:



OPENING A WINDOW TO THE NATURAL WORLD

A few years ago I sent a membership renewal notice that said I loved working here so much that I would almost work here for free. Well, my feelings haven't changed since then and I want to tell you why: In short, it's the people!

It's our volunteer corps (who do work here for free!) made up of the most inspiring, generous people I know, including our dedicated Board of Trustees. It's my coworkers who work so tirelessly, are so smart and creative and such fun. It's the school children whose energy and excitement reverberates across the grounds. It's our members who loyally renew every year and come back with fresh enthusiasm each visit. It's the people from area businesses who donate in kind goods and services. And it's our donors – like you – large and small, who take the time to send donations whenever we ask. The flood of donations resulting from each request means we can care for and feed our live animals, maintain our buildings, trails, and exhibits, and most importantly, continue to offer a wide variety of quality natural science programs for all ages and audiences. We could not do this without support from your charitable donations. We try not to overwhelm you with too many requests every year, although it must sometimes seem that we do. We know we compete with many other worthy organizations for your philanthropy; we are grateful for your gifts. And so I remind you that it is almost time to ask you for your support of the Annual Fund this year. In October we will contact you with a request for a donation. Please consider making a new gift or increasing your gift. Thank you. (And don't tell Iain what I said about working for free....)

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

NATURALIST'S LEGACY SOCIETY

If you have already named the Squam Lakes Natural Science Center through your will or other estate plans, please let us know. As a member of the Naturalist's Legacy Society, you will be invited to donor recognition events and recognized in the Annual Report, unless you prefer to remain anonymous. Recognizing legacy donors allows us to express our appreciation and may also inspire others to give support through their own estate plans.

We are grateful for these memorial and honorary gifts received from April 1 through June 30, 2008:

*In memory of Joan Harris Hawkey
Cornelia Hugel*

*In honor of the marriage of
Bonnie Hunt and Robert Maloney
Joanne Bennett*

*In memory of John Jacoby
Patricia Cameron*

*In memory of the Mains of White Oak Pond
Margaret and Paul Cannon*

*In memory of Charles Nickel
Katherine Nickel*

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renew your membership online at
www.nhnature.org

WISH LIST

- Large coolers
- Range (propane) for intern cottage
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- Pine needles
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- Baby strollers for admissions
- Wheel chair for admissions
- Clean 5-gallon buckets
- Canister vacuum with attachments for gift shop
- Lawn and garden tools, ornaments, and accessories

TRAIL'S END

FORGING NEW TRAILS

I've come to realize, after a year as the Chairman of your Board of Trustees, that I've been incredibly fortunate to inherit a well-oiled machine. There are many components: Admissions, Education, Fundraising, the Howling Coyote, to mention but a few from the first half of the alphabet – but all mesh together and play their part in ensuring the success of the Science Center. And successful it is; after more than 40 years we're still going strong, expanding, introducing new themes, balancing our budget – in a word, thriving.

None of this “comes easy.” Many, many people contribute to our success – Donors, Trustees, Volunteers, and so on. And, I'm reminded daily, by questions, observations, suggestions, etc. from the many of you who participate in them, the richness of what we offer – summer activities for children, trips to Scotland, lake cruises, animal enrichment, school programs, and many more – I'm constantly amazed. At the center of our success is our Staff and at the center of the Staff is our Executive Director Iain MacLeod; he and they, his team, orchestrate the Science Center's many activities. Thanks for making my life so easy!

But, we cannot afford to become complacent. Such a “well-oiled machine” needs constant attention to make sure it is providing services attuned to the demands of its constituents. This is why your Board of Trustees last year commissioned a review of our strategy. Bob Snelling and his “ad hoc committee” of Trustees and Staff, labored throughout the winter to produce an excellent guide for the coming years, *Forging New Trails*. Endorsed by the Board at its May meeting, *Forging New Trails* has been posted on our website (www.nhnature.org/pdf/Strategic_Plan_2008.pdf). I would encourage you to read it, asking yourself such questions as:

Are we trying to do too much? Are we addressing our mission appropriately? Do we deliver on No Child Left Inside?

It will be late fall/early winter before the Staff, who are running flat out until then, can turn their attention to the five operating plans called for in *Forging New Trails* so there is time for your inputs! Remember, September is “back to school time” for parents and grandparents, as well as kids!

*Trail's End is written by Peter M. Wood, Chairman of the SLNSC Board of Trustees.
You may contact Peter at 603-968-7194 x 27 or peter.wood@nhnature.org.*

PORCUPINES *continued from page 1*

are replaced similarly to hair as new ones grow. With approximately 30,000 quills, porcupines have a formidable defense, even though its underside is without quills and thus vulnerable.

With the amazing features that quills have, you may be wondering, “What animal could possibly catch and eat porcupines?” The most adept predator of porcupines is the fisher which swiftly circles the porcupine, attempting to bite the porcupine's muzzle. Eventually tiring the porcupine, the fisher can reach the lower neck, and belly where the porcupine has no quills. Although we may wish to pick sides in this predator-prey relationship, both roles are part of balance in the natural world.

What relatives do porcupines have? Porcupines from other parts of the world include tree porcupines with prehensile tails found from tropical South America into Mexico, as well as African crested porcupines with long quills forming a crest on their head, neck and back. Other prickly, but unrelated creatures include the spiny anteater or echidna of Australia and the hedgehog, an insectivore native to Europe, Asia, and Africa. Belonging to the order Rodentia, porcupines in North America are gnawing animals related to such animals as beaver, groundhogs, muskrats, and squirrels. All are herbivores having large paired incisors in front which keep growing throughout their lifetimes. Behind the incisors is a space with no teeth called a diastema region, followed by grinding molar-like teeth.

“Porcupette” is a name for the young porcupines which are born after a seven month gestation period with all their types of fur, including quills! Fortunately for female porcupines, the quills are wet, soft, and flexible when porcupettes are born but these quills dry quickly and are available for protection on the same day. For up to six months porcupettes can be found with the females although they nurse for less than two months. Over the summer porcupines feed on many plants found along the forest floor as well as greens like clover and raspberry on woodland edges, foraging mostly nocturnally. If you hear strange sounds in the night – even shrieks, whines, moans, and sobs – the porcupine comes with a wide variety!

During the winter porcupines remain active but confined to a smaller area by snow cover. Feeding now turns to the inner bark of trees – the cambium or growing layer under the rough outer bark – and also to tender branches of favorite trees like hemlock. Sometimes fallen hemlock branches provide a clue to look up for the culprit that dropped them. Porcupines ably climb trees for feeding and protection from weather but also seek shelter in rocky crevices and jumbled boulders.

I waited until this point in writing “Porcupine Encounters” to look back over the porcupine article I wrote 30 years ago! As a tribute to my beginnings and the invigorating ride since then, I quote the last paragraph of my article in *The Conservationist*. “Porcupines are unique, fascinating creatures with real appeal. After all, what other animal in our forests can be classified as a walking pin cushion?”



Saturday, October 25
HALLOWEEN
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Enjoy an eerily entertaining 40-minute guided tour.

Tours feature live skits with a seasonal theme and leave every 10 minutes, starting at 6:00 p.m., with the last tour at 7:30 p.m.

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Cost: \$8 member; \$11 non-members

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Reservations and advance payment required.



Autumn Festival

Saturday, September 27

Make a day of it! Enjoy live animal presentations and crafts for children at this enjoyable family festival. Programs by wildlife author, expert and enthusiast Warner Shedd about myths and misconceptions concerning wild animals. and by New Hampshire wildlife painter, freelance writer and naturalist Rosemary Conroy.

**Live animal presentations • Crafts for Children
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