



The
NATURALISTS' CLUB
NEWSLETTER

Springfield Science Museum at the Quadrangle, Springfield, Massachusetts

January to March
CALENDAR of EVENTS

January

- 7 Saturday Wildlife Tracking: Find & Follow the Signs, *Russell*
- 18 Wednesday JANUARY MEETING: Sharks, Rays & Skates: Anatomy, Behavior & Myths
- 21 Saturday Winter Wildlife Walk in Bear Hole, *West Springfield*
- 29 Sunday Sketching at the Greenhouse, *South Hadley*

*Groundhog Day -
February 2*



February

- 4 Saturday Snowshoe Along the Rail Trail, *Southwick*
- 11 Saturday Walking through Winter, *Quabbin*
- 15 Wednesday FEBRUARY MEETING: Wildlife Resources in America – A History
- 18 Saturday Registration Deadline for Looking Ahead to Spring: Birds, Boats, & Bikes II

March

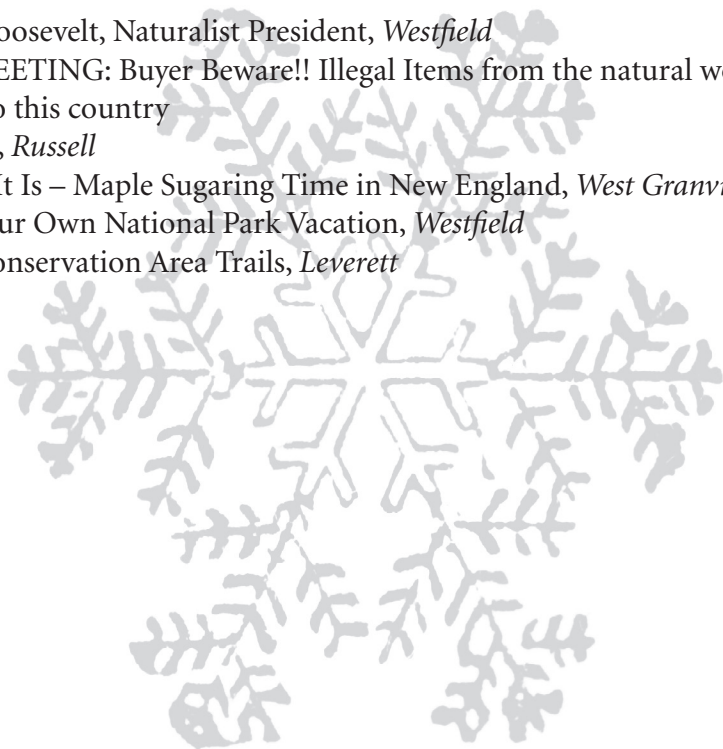
- 11 Saturday Theodore Roosevelt, Naturalist President, *Westfield*
- 15 Wednesday MARCH MEETING: Buyer Beware!! Illegal Items from the natural world brought into this country
- 18 Saturday Build A Box, *Russell*
- 19 Sunday How Sweet It Is – Maple Sugaring Time in New England, *West Granville*
- 25 Saturday Planning Your Own National Park Vacation, *Westfield*
- 26 Sunday Cave Hill Conservation Area Trails, *Leverett*

The pine stays
green in winter . . .
wisdom in hardship.

~ Norman Douglas

And finally Winter, with
its bitin', whinin' wind,
and all the land will be
mantled with snow..

~ Roy Bean





NATURALIST'S CORNER

CURIOUS ABOUT GALLS?

Gall, or Oak-apple, produced by Cynips quercus-inanis, showing the internal cobwebby structure. Gall: a vegetable excrescence produced by the deposit of the egg of an insect in the bark or leaves of a plant, ordinarily to the action of some virus deposited by the female along with the egg, but often to the irritation of the larva. -Whitney, 1911

It is a beautiful winter day. Our hike takes us through a fallow field that just two months earlier was bordered by blazing yellow goldenrod. Now-browned leaves droop from stems topped with inflorescences of tiny fluffy seedheads. Something else catches the interest of my hiking companion. We look closer to find a ball-shaped swelling on the stem. “What is that?” she asks. Before I can answer, she points out another on a nearby plant.

“This is a really interesting thing,” I begin. “It’s a gall.” Now, I’m not sure how much she wants to hear galls, but this manipulation of plants by animals just fascinates me, so over the years I’ve researched, dissected and journaled about galls.: Each is uniquely designed by an organism such as a bacteria, fungus, mite, nematode or insect.

There are over 2,000 kinds of galls found on North American plants alone. Each is uniquely designed by an organism such as a bacteria, fungus, mite, nematode or insect. Some of the organisms that induce galls provide specific benefits for plants. These include bacteria within root galls of leguminous plants that assist with the uptake of nitrogen. Other gall-inducing organisms cause agricultural headaches. Most are benign. The gall itself – plant material the gall maker has caused to grow – provides food and shelter for the occupant.

“This is a goldenrod ball gall,” I say. “It’s made by the picture-winged fly,” *Eurostes solidagnis*, also called goldenrod gall fly. Individual gall-maker species are very particular about the type of plant they parasitize. In this case, the female goldenrod gall fly lays an egg in the stem of *Solidago altissima* in the spring. The egg hatches in ten days. The larva bores down into the stem, giving off auxin and cytokinins in its saliva. These hormones stimulate the plant’s cells to divide rapidly. These extra cells form a gall surrounding the larva, who stays there for a full year. The larva can also counteract a plant’s natural defenses. Jasmonic acid – another hormone – is often produced by plants in response to an herbivore’s attack; it triggers release of compounds that prevent the offending insect from digesting the protein it seeks from the plant, making the feeding on that plant moot. But the larva turns off this defensive mechanism. After a year, the larva pupates within the gall, and a few weeks later the adult emerges. Goldenrod gall flies live only two weeks “on the outside” – enough time to mate and allow females to lay the eggs that begin the cycle all over again.

“Here’s another one,” my little girl says.

“And another one! This one has a big hole in it,” she notes as she plucks the stem.

“Gee,” I say, taking it from her to examine, “seems this larva got dug out of his gall by an enterprising bird – maybe a chickadee or woodpecker.” Getting an idea, I ask my young companion to collect a complete gall, which she promptly does. “Do you want to see what’s inside?” There is no doubt that this interests her. I take out my Swiss army knife, kneel down to use a thigh as a table, and carefully slice through the gall tissue, right down the middle. Prying the two pieces apart, we find an inner chamber that houses a tubby, whitish little larva.

“Ewww,” she says. First reaction. Wait for it... I put the larva in my hand. In a couple seconds she says, “Let me see.” There we go – curiosity trumping skittishness. We examine the little fellow for a minute before continuing on our hike.

We soon find ourselves in a forest setting. Here she happens upon another natural thing that interests her. “Look what I found.” She presents me with an oak twig with a brown golfball-sized growth. “What is this?” she asks.

I'm pleased that she is finding things that I actually know. "That's an oak apple gall."

"Another gall?"

"Yup – this one is made by a wasp that laid her eggs at the base of a bud this past spring."

"Look, it has a hole in it."

"That's where the adult came out of its protective gall this summer."

Let's break it open and see what's in there." She's getting the hang of these galls now. The brown, crispy gall breaks open quite easily to reveal an almost hollow cavity, with radiating fibers. These filaments are the remnants of vessels that transported nutrients and water to and from the larva that once nestled in a chamber at its center.

"Look," she exclaims as she examines the interior of the gall more closely, "There's a bug in here." Sure enough, another little critter is finding the gall a convenient place to spend the winter, but its plans have been foiled by our curiosity.

On your hikes this winter, be on the lookout for galls of all sorts. They'll be on leaves, stems, buds, and roots of woody and herbaceous plants. If curiosity overtakes your revulsion, take a peek inside, but realize this dooms the larva. Better to let sleeping bugs lie. ~ Nancy Condon

No animal, according to the rules of animal-etiquette, is ever expected to do anything strenuous, or heroic, or even moderately active during the off-season of winter. ~ Kenneth Grahame

Wildlife Tracking: Find & Follow the Signs, *Russell*

Saturday, January 7, from 10 a.m. to noon

Leader: Jim Pelletier

Registration: Please contact Laura Stinnett

laura.stinnette@gmail.com; (413) 454-3232

by January 2nd

Meeting Place: Noble View Outdoor Center,
635 S. Quarter Road

Join Berkshire Wildlife Tracker Jim Pelletier to learn who is out and about at Noble View this winter.

Berkshire Wildlife Trackers are trained wildlife monitors who document wildlife activity. The information they collect serves as a database to help decisionmakers protect wildlife and their habitats. Jim is a seasoned tracker and excellent guide. We'll spend a short time inside, then head outdoors. A laminated Animal Tracks ID card will be provided for a donation of \$5. After the hike, we'll warm up with hot cocoa. Offered in conjunction with the Noble View Education and Program Committee.

Sharks, Rays and Skates: Anatomy, Behavior and Myths

Wednesday, January 18, at 7 p.m.

Tolman Auditorium, Springfield Science Museum

Speaker: Dr. Jason Ramsay, a.k.a. The Shark Guy!



Dr. Jason Ramsay, a functional anatomist and Assistant Professor of Anatomy and Physiology at Westfield State University, has spent his professional career studying the form and function of a group of fish that elicit both fear and intrigue: the sharks, stingrays, and skates. Dr. Ramsay is an expert on the jaws and teeth of these fish and will discuss how the anatomy of these and other features has revealed a great deal about the behavior and ecology of both living and extinct species. He will also address – and in some cases bust – myths associated with these fish and their behavior. Dr. Ramsay welcomes any questions and discussion about sharks both local and nonlocal. Dr. Ramsay is an active member of The American Elasmobranch Society (AES), a group dedicated to the study and conservation of sharks and their relatives. He is also a biological illustrator and works in many forms of artistic media to display the beauty and complexity in the natural form of living things. His illustration, above, depicts the local spiny dogfish, *Squalus acanthias*.

Winter Wildlife Walk in Bear Hole, West Springfield

Saturday, January 21, from 10 a.m. to around noon

Leader: Dietrich Schlobohm (413)788-4125

Registration: Please call Dietrich.

Meeting and Place: The “Four Corners”, where Prospect Ave. and Morgan Road intersect near the Mass. Turnpike.

In winter, nature appears to slow down, and creatures large and small seek shelter from the harsh elements. While many animals themselves become less visible, their presence can be more readily detected and studied through field signs such as tracks and scats (droppings) they leave behind. Signs of deer, fox, coyote, squirrel, raccoon, beaver, otter and other animals are especially evident when Mother Nature blesses us with a blanket of snow. Our pace will be a slow walk, with frequent stops to examine tracks and other signs left by passing animals. Finding and interpreting left-behind evidence is something like deciphering a good mystery: it’s challenging and fun. If we don’t have enough snow cover we will focus on other areas of animal activity. Please dress warmly, wear good, warm, footwear, and pack a snack. Our outing will last about 2 hours. All ages are welcome but please leave pets at home. Heavy rain or bad weather cancels; rain date is Saturday, January 28th at the same time.

Sketching at the Greenhouse, South Hadley

Sunday, January 29, from 1 to 3:30 pm.

Leader: Christine Yario

Registration: Please call Christine at (413) 203-1381.

Meeting Place: Mount Holyoke College Talcott Greenhouse

Soak in the warmth of a beautiful greenhouse in January and experience the diversity of the world of plants. Bring hand-held sketching materials as there isn’t a lot of room for easels, etc. Bring warm clothes if you’d like to walk outside through the campus, which is a botanic garden with many beautiful outdoor scenes to sketch. Bad weather postpones to the same time on Sunday, February 5.

Snowshoe Along the Rail Trail, Southwick

Saturday, February 4, from 9 a.m. to noon

Leaders: Tom & Nancy Condon

Registration: Please contact Nancy at (413) 297-0778 or spiderwoman@russellma.net.

Meeting Place: Red Riding Hood’s Basket Café, 108 Congamond Road

Let’s hope the drought is over by now and we have a fresh foot of snow on the ground. Join us for a hike along the Southwick Rail Trail. This section, which winds its way between South Congamond and Goose Ponds, is perhaps the most remote of the trail. It offers plenty of opportunity to watch for wildlife and their tracks, so bring along your binoculars. We will hike a mile or two down the trail before yo-yoing back to our cars. At the end, we can stop in for a cup of hot chocolate or coffee at Red Riding Hood’s. They make some pretty tasty muffins as well. Let’s hope there is snow, so bring along your hiking poles and snowshoes. Don’t have snowshoes? We have a few pairs to lend out. We’ll do the trip if there is no snow, but rain cancels.

Walking through Winter, Quabbin

Saturday, February 11 from 10 a.m. to mid-afternoon

Leaders: Dave and Suzy Gallup (413) 525-4697

Meeting Place: Belchertown, Rt. 9 and 202, near CVS Plaza

Join us for a snowshoe hike through the forest on a frosty winter day! Snowshoeing is invigorating, especially when the forest is covered with a thick blanket of snow, making things tranquil and silent. We will discover animal tracks along the way and learn about the natural history of the area. If there is no snow, we will hike! Dress warmly and bring a lunch. Bad weather cancels. Call Dave with any questions, for directions, or if you need snowshoes to use – we have extras!

Snow was falling,
so much like stars
filling the dark trees
that one could easily imagine
its reason for being was nothing more
than prettiness. ~ Mary Oliver





Wildlife Resources in America

Wednesday, February 15, starting at 7 p.m.
Tolman Auditorium, Springfield Science Museum
Speaker: Dave Lovejoy



Man walking on the Midway Geyser Basin Boardwalk in winter. Photo by Jeff Vanuga

The history of wildlife species in this country, from pre-European settlement times to the present, can be summarized in three words: Abundance, Depletion, and Restoration. Most wildlife populations were once quite large, then declined drastically during the 200 years after settlement, and have since been restored thanks to a large number of conservation-minded individuals, organizations, and government action. This slide-illustrated presentation will summarize the history of American wildlife. Particular attention will be given to the individuals involved in the establishment of Yellowstone National Park, a major event in the story of wildlife management in the United States.

Theodore Roosevelt, Naturalist President, Westfield

Saturday, March 11, from 2 to 3:30 PM
Westfield State University, Wilson Hall Room 223 (The Museum)
Leader: Dave Lovejoy (413) 572-5307
Meeting Place: On weekends, some of the doors to Wilson Hall may be locked, but the door next to the Greenhouse will be open for you.

The Club Newsletter for October to December 2016 included a recommendation of a recent book by Darrin Lunde – *The Naturalist: Theodore Roosevelt, A Lifetime of Exploration, and the Triumph of American Natural History*. We will meet in the Westfield State University Museum to discuss this book and to enjoy the various natural history exhibits in this small museum. Dave will also present a short slide presentation highlighting some of the accomplishments of TR, this nation's foremost example of an "environmental President." If you are interested in this program but have not seen Lunde's book, please come anyway!



Buyer Beware! Illegal Items from the Natural World brought into this country

Wednesday, March 15, starting at 7 p.m.
Tolman Auditorium, Springfield Science Museum
Speaker: Mickey Novak

Join us for this fascinating topic presented by Mickey Novak, who has previously presented programs on the Atlantic salmon restocking programs at the Cronin National Salmon Station. Mickey is a federal wildlife officer and will share some interesting stories about items brought into the United States from all over the world. He will even bring some of the contraband for us to see. Mickey has been employed by the federal government for 42 years and has served as a park ranger and naturalist at Yellowstone, Grand Canyon, Everglades and at a large number of national wildlife refuges.

Build A Box, Russell

Saturday, March 18, from 9 a.m. to 1 p.m.
Leaders: Tom & Nancy Condon
Registration: Please contact Nancy
(413) 297-0778; spiderwoman@russellma.net
Meeting Place: Our place on the mountain in Russell.
Please call us for directions.

It's almost time for the birds to return after their southern hiatus. Are you ready? Come swing a

hammer with us and put together a bird box to welcome your favorite species. We'll provide the wood and refreshments. Heck, we'll even provide some hammers! At the end, you can take the box home and set it up in your yard to give those returning birds a great place to raise their young. Dress for the weather as most of the work will be done out in our garage. This is a great activity for the young, so bring along your kids, grandkids, or whomever else you'd like!

How Sweet it is! Maple Sugaring Time in New England, West Granville

Sunday, March 19, starting at 11:30 a.m.

Leaders: Dave & Suzy Gallup

Registration: Please call us at (413) 525-4697 so that we can let Maple Corners know how many of us to expect!

Meeting Place: Westfield State University commuter parking lot

Join us for a pancake brunch with freshly made maple syrup at the Ripley's Maple Corner Farm, which has been run by the same family for over 100 years! After brunch we will learn about the process and history of maple syrup production. Then, conditions permitting, we will hike to the maple forest, about one mile round trip, to see how the sap is harvested from the trees. For ages 8 and up.

Planning Your Own National Park Vacation, Westfield

Leader: Jack Megas

Saturday, March 25, starting at 1 p.m.

For meeting place and to register: Please call Jack at (413) 782-3962.

Over the last 50 years, Jack has visited over 150 National Parks and National Wildlife Refuges, and has even taken some of you along. He would like to pass on his experiences, resources, and suggestions. Join us to begin planning your next adventure!

She turned to the sunlight
And shook her yellow head,
And whispered to her neighbor:
"Winter is dead." ~ A.A. Milne

Naturalists' Reading List ...

The Invention of Nature: Alexander von Humboldt's New World

by *Andrea Wulf*. 337 pp.

Recommended by Jack Megas

Almost forgotten in the English-speaking world, this 19th century German explorer, naturalist, and writer helped to create modern environmentalism. His writings inspired Darwin, Goethe, John Muir, and Thoreau.

The Wild Trees: A Story of Passion and Daring

by *Richard Preston*. 320 pp.

Recommended by Norm Davis

This book tells about the people that climb, measure, and study the giant redwoods of the West Coast.

Cave Hill Conservation Area Trails, Leverett

Sunday, March 26, time T.B.A.

Leader: Carole Dupont

Registration and meeting place: Please contact Carole at (413) 896-0124 or drbyo@verizon.net,

Join us for a trip back through human and geologic history. We'll start by viewing the new-growth forests grown up following the logging that once made way for the Leverett Town Farm. These young forests are nestled among older forests, certified vernal pools, wetlands, cliffs and rock clusters, and seasonal streams that feed Cranberry Pond. We'll also peer back through geologic time, exploring the continental suture between two of the blocks that are now part of the North American continent. The eastern section of the Cave Hill Conservation Area is part of the Gander Terrane, a microcontinent at one time located north of Africa. The Poplar Mountain Gneiss and the Dry Hill Gneiss both formed about 600 million years ago on the Gander Terrane. The Gander Terrane collided with North America around 430 million years ago. The western part of the Cave Hill Conservation Area has rocks that were never a part of the Gander Terrane but formed later, right here in North America. These volcanic and sedimentary rocks were deeply buried and deformed around 380 million years ago, when yet another continental collision added to our continent the rocks upon which Boston is now built. These and other geologic features make Cave Hill a hugely valuable site for local naturalists and geologists. Please join us to explore history in a beautiful spot!

Events Sponsored by MassAudubon

Most events require registration fees. For details, please visit massaudubon.org

Sea Turtle Rescue Documentary Film Debut Wellfleet Bay Wildlife Sanctuary, Dennis, MA

Saturday, January 14

Join us for the world premiere of a film chronicling the historic 2014 sea turtle cold-stun stranding season at Wellfleet Bay. Viewing of the documentary will be followed by a panel discussion. There will also be an opportunity to meet the filmmakers at a special event at the Cape Cod Museum of Art.

Superbowl of Birding

Joppa Flats Education Center, Newburyport, MA

Saturday, January 28

Winter is a wonderful time to bird in northeastern Massachusetts and southeastern New Hampshire. In celebration of this season, Joppa Flats is hosting the Superbowl of Birding XIV.

The Merrimack River Eagle Festival 2017

Joppa Flats Education Center, Newburyport, MA

Saturday, February 18

Please join in for a grand celebration of eagles, special winter residents at Joppa Flats!

He who marvels at the beauty of the world in summer will find equal cause for wonder and admiration in winter.
~ John Burroughs

Looking Ahead to Spring...

Birds, Boats, & Bikes: Discover the Delmarva Peninsula – A Semi-guided Trip, Ocean City, Maryland

Saturday, April 8 to Saturday April 15

Leaders: Tom & Nancy Condon

Registration: Please call Tom (413-454-2331) or Nancy (413-297-0778) or email spiderwoman@russellma.net, by February 18th.

Come enjoy the beautiful beach on the Delmarva Peninsula. April is a fine time to explore the wonderful variety of shorebirds and to stroll the beaches of Ocean City. Bring your bike to pedal the many miles of paved trails. Bring your canoe or kayak to paddle right up to observe the wild horses that graze along the quiet bays of Assateague Island National Seashore. Take a hike to catch sightings of the endangered Delmarva squirrel. Chincoteague Island and Blackwater National Wildlife Refuge are also great destinations in the area. Each day, Tom and Nancy will lead an outing to a different destination. You can join us or do your own thing. We'll meet up again for dinner to share our tales of adventure. Please plan to arrange transportation and lodging on your own (we can share suggestions!). You can stay the whole week or just part of it. Boat and bike rental is available. Call or email us with questions.

Spring Flower Shows

The Amherst Orchid Society Annual Show and Sale, Northampton

Saturday and Sunday, February 25 and 26

Smith Vocational and Agricultural High School, 80 Locust Street (Route 9, west of town), next to the Cooley Dickson Hospital. For further information, visit amherstorchidsociety.org

Smith College Bulb Show, Northampton

Lyman Conservatory, 16 College Lane

Saturday, March 4 to Sunday, March 19 from 10 a.m. to 4 p.m. most days, plus 4 p.m. to 8 p.m. on Fridays. For further information about the show, please visit <http://www.smith.edu/garden/Home/events.html> or call (413) 585-2740.

Mount Holyoke Annual Spring Flower Show – Spring Pools

South Hadley

Talcott Greenhouse, MHC Botanic Garden

Saturday, March 4 to Sunday, March 19 from 10 a.m. to 4 p.m. For further information, visit https://www.mtholyoke.edu/botanic/flower_show or call Talcott Greenhouse at (413)538-2116.

