

SANCTUARY

Newsletter of the
White Memorial
Conservation Center

Vol. XXXII No. 4
Fall 2014

Museum Hours:

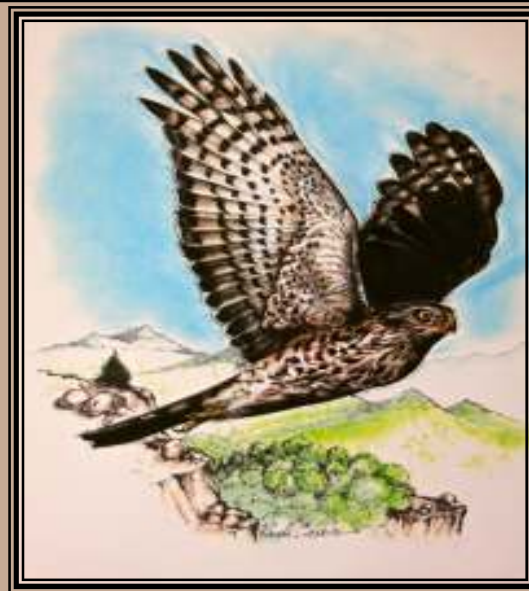
Monday - Saturday 9:00 A.M. - 5:00 P.M.

Sunday 12:00 P.M. - 5:00 P.M.

For Information

Phone: 860-567-0857

E-Mail: info@whitememorialcc.org



Migrating Sharp-shinned Hawk by Paul Carrier

Hawks and Hawk Watching

by Paul Carrier, Artist, Naturalist, and Avid Hawk Watcher since 1972

Photographs by Gordon Ellmers, Silhouettes by Paul Carrier

Our Hawks here in America are specialized avian predators at the top of their food chain. Each hawk (raptor) has a special prey species they depend upon, and by culling out the weak and sick, they help that species to continue to be a healthy and strong population.

Hawks also prevent their prey from becoming overpopulated, which would cause an unbalanced population that would not be in balance with the natural scheme of things. Raptors are one of nature's "Checks and Balances" predators for the environment.

Here in America we have three major families of Raptors. They are the Buteos, Accipiters, and Falcons.

Buteos are the Hawks we often see circling high up on outstretched wings for gaining height and moving on.



Silhouette of a Buteo: broad wings and broad rounded tails; often seen soaring in wide circles high in the air

Accipiters are the hawks of the forests, who live a more silent, secluded life of chasing their avian prey within the woods.



Silhouette of an Accipiter: Short, wide rounded wings; long tails, flap, flap, flap—sail flight.

Falcons are the real speedsters of the group, who catch their prey on the wing, usually in large open areas.



Silhouette of a Falcon: Streamlined—Long pointed wings; Long compressed tapered tails; Strong rowing wing beats; lose some pointed wing and tapered tail look when not in direct flight.

We also have several other birds of prey species that are specialists as well. One is the **Osprey** who specializes in catching fish.



Osprey

The **Harrier** flies low over open grasslands searching for prey; and lastly, our two majestic **Eagles**, the Bald and Golden.



Northern Harrier (Marsh Hawk)

(continued on page 2)

HAWK MIGRATION

At the end of each summer going into the fall, many raptor species begin a journey south to avoid the harsh winter to come. This is what we now call "Hawk Migration." Raptor enthusiasts eventually begin to gather in early September on outlooks in open areas and mountain sites within these Raptor migration corridors to observe and count their passing numbers. This new form of bird watching has become more popular through the years, with watch sites now

(continued from page 1)

scattered throughout our entire country. Here in the Northeast there are many popular sites to see hawks migrating. Here in Connecticut we also have a number of popular autumn sites scattered throughout our State. To name a few:

Booth Hill – West Hartland
Johnnycake Mt – Burlington
Torrington Middle School – Torrington
Chestnut Hill – Litchfield
White Memorial – Litchfield
Botsford Hill – Bridgeport
Lighthouse Park – New Haven

Booth Memorial Park – Bridgeport
Quaker Ridge – Greenwich

Though Raptors do migrate back in the early Spring, they are more scattered in numbers and come through over a longer period of time. There are some good concentrating points throughout the Northeast, but not many here in Connecticut that are regularly manned. To find info on how to get to and hours of a location, please call the local nature centers or Audubon Societies for that town.



Bald Eagle



*Hawk Watching at Booth Hill, West Hartland
Photo credit: Paul Carrier*



*Red-tailed Hawk
(Buteo)*



*Rough-legged Hawk
(Buteo)*



*American Kestrel
(Falcon)*



*Cooper's Hawk
(Accipiter)*

2014 BIRD SEED APPEAL



Uh Oh!

Photo by Leo Kulinski, Jr.

THE CONSERVATION CENTER ONCE AGAIN REACHES OUT TO YOU FOR HELP TO DEFRAY THE MONUMENTAL COST OF FEEDING THE BIRDS THIS WINTER. KEEPING OUR FEATHERED FRIENDS WELL-FED IS AN ANNUAL EXPENSE OF \$1200. YOUR DONATION, NO MATTER HOW SMALL, WOULD BE GREATLY APPRECIATED.

Yes! I'd like to help fill the bird feeders at the White Memorial Conservation Center with my gift of:

☐ \$5 ☐ \$10 ☐ \$20 ☐ \$50 ☐ \$100 ☐ Other \$ _____

Name: _____ **Address** _____ **State:** _____ **Zip:** _____

Please make your check payable to WMCC, 80 Whitehall Road, P.O. Box 368, Litchfield, CT 06759

Make a Difference

In her continuing series, Zoë Greenwood helps you find small ways to help the environment.

As I sit here writing this article, hubby is finishing up his supper. After supper, we are meeting dear friends, Robert and Pat, who are camping at Point Folly. We are going to have a campfire and s'mores. I love campfires. I love s'mores. I especially love campfires, or any kind of wood fire, for that matter. There is nothing like wood heat. It warms you to the core. The old timers say that it warms you three times: once when you cut it; once when you haul it, and once when you burn it. We have been blessed to be able to heat with wood for most of our more than forty year marriage. Oh sure, by March, I am tired of the wood chips and the dirt and the ashes. But right now, at the edge of autumn, I am anxiously awaiting our first wood fire.

Which brings me to the topics of firewood and burning wood and procuring wood. As most of you nature lovers have recently discovered, the dreaded Emerald Ash Borer has been discovered on White Memorial property in Morris and Litchfield. Those in the "know" have been expecting and dreading this invasive pest. We were all hoping that it would have been later rather than sooner, but that was just not

to be. The Emerald Ash Borer has been detected in a total of thirty-eight towns as of this writing. Through the years, Connecticut has been afflicted with other pests and diseases; namely Dutch Elm Disease which took most of the elms; American Chestnut blight which took the chestnuts; and Gypsy Moth which deforested great tracks of forests. Elm trees were widespread city-scaping trees. Chestnuts were an all-around, practical wood. It was rot resistant, had nuts which were important to man and beast alike, and was used in flooring, framing and furniture. Ash is used for furniture, baskets, baseball bats, tool handles and can be burned for heat while still green. Ash makes up four to fifteen percent of forested areas and about two to three per cent of the urban trees.

Lots of people camp and have fire pits in their back yard. This is the season of s'mores and campfires in the back yard or at a campsite. This is the season of putting wood away for next winter, if you are lucky enough to have your wood put up for this season. But, where do *you* get *your* wood? If you are lucky enough to have enough land for a wood lot, you are lucky enough. If you have to

purchase your wood from a lumberman, he already knows that it is illegal to move wood across state lines. But, just why is *that* so all-fired important? Well, these nasty pests hitch rides on unsuspecting firewood and are driven to unsuspecting home owners who may just be purchasing forest devastating pests along with the wood. That is why you can't take your own firewood to campsites. That is why when my mother in law, who no longer burns wood, had a prime oak tree go down on her property, we left it there and explained to her that she had to give it to her neighbor instead of her son.

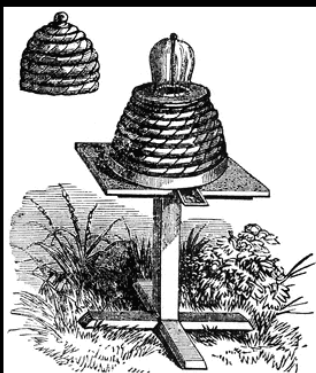
So, how do you make a difference? Know your wood source. Know where what you burn comes from. Don't be lazy or cheap but buy the wood at the campground where you are staying. Don't bring your wood somewhere else.

Make a difference for all of us.



A Planned Gift
can make a
difference
in your future
and ours.

www.whitememorialcc.org



Thanks to Mark Moorman
of
Sprain Brook Apiary, Woodbury
For Overseeing our
Honey Bee Observation Hive
again this summer!

AFTER SCHOOL ADVENTURES

For Grades K - 2: Wednesdays in October (Oct. 8, 15, 22, 29)

For Grades 3 and 4: Tuesdays in October (Oct. 7, 14, 21, 28)

For Grades 5 and 6: Thursdays in October (Oct. 9, 16, 23, 30)

All Classes 3:45 - 5:00 P.M.

Members: \$8.00 / session or \$25.00 / whole series

Non-members: \$12.00 / session or \$45.00 / whole series

Advance registration is required.

Call 860-567-0857 to register or visit www.whitememorialcc.org for more information.



THE WHITE MEMORIAL CONSERVATION CENTER
50 YEARS OF DISCOVERING NATURE 1964- 2014
PRESENTS THE 33RD ANNUAL

FAMILY NATURE DAY

SATURDAY, SEPTEMBER 27, 2014 11AM - 5PM

ADMISSION \$6.00

CHILDREN UNDER 12 & CENTER MEMBERS FREE

FEATURING

SKYHUNTERS IN FLIGHT + ATKA THE WOLF

RIVERSIDE REPTILES + THE BAT LADY

"NEW ONE" THE NORTH AMERICAN PORCUPINE

MUSIC BY: ROBERT MESSORE
& THE BOXCAR LILIES

HORSE DRAWN WAGON RIDES + CRAFTS FOR KIDS
GUIDED WALKS + DEMONSTRATIONS
BOOTHS & EXHIBITS + FOOD
LOCAL ARTISANS + SILENT AUCTION
BAKE SALE + THE POCKET LADY
MUSEUM OPEN HOUSE

WIN A TRIP FOR TWO
TO ICELAND IN OUR RAFFLE!

80 WHITEHALL ROAD, LITCHFIELD, CONNECTICUT
LOCATED OFF ROUTE 202
BETWEEN LITCHFIELD AND BANTAM
FOR MORE INFORMATION: 860-567-0857
WWW.WHITEMEMORIALCC.ORG



White Memorial's Earthworm Inventory and Assessing Their Impacts to the Ecosystems

by James Fischer, Research Director

We are embarking on a new investigation that explores one of the most vital natural resources that we conserve and that is the soil. Soil supports the trees and other plants that inhabit each of our most critical habitats. It is habitat for an entire array of species that serve as producers and consumers, from invertebrates to fungi. In particular, we are investigating the earthworms that are often referred to as ecosystem engineers. Contrary to what you have heard about earthworms, they may not be the best animal inhabiting all habitats. In fact, they may be threatening our most critical habitats by changing the ecological processes that sustain the native plants and animals. These native plants and animals did not adapt and evolve to ecosystems that had earthworms.



Seasonal Technician Zachery Brown pours mustard juice into a sampling quadrat.

This story begins approximately 15,000 years ago when this landscape was covered by a one-mile thick glacier. The glacier scoured the landscape and carried away the soils. The glacier slowly but eventually recessed, leaving behind a landscape consisting of exposed bed-rock covered by smaller rocks, gravel, and sand that were deposited by the melting glacial ice. The soil was formed over many years by colonizing plant-like organisms: lichens, mosses, and simple fungi. They collected nutrients from rain and broke down the rock into smaller pieces. Invertebrates colonized this new niche by being carried by the wind or by their own flight. This new niche provided plants or other animals to consume. Organic material accumulated and contributed to the formation of the soil that

supports larger and more diverse plants and animals.

Native North American earthworms colonized the glaciated regions when populations south of the glacial maximum moved northward. Pioneer species either followed river and stream corridors, moved in mass emergence when the environment was conducive, or were transported by other animals that moved large distances with worm cocoons trapped in mud or dirt in their coat or feet. These observations were confirmed when fossilized earthworms originated within the last 10,000 years in northern regions. Therefore, some species could be referred to as native species but prior research conducted in Connecticut indicates that most of the earthworms in the state are introduced species from other continents, such as Europe, Asia, and Africa. Additionally, research performed in other regions of North America indicates that the colonization and dominance of introduced earthworms impact forest habitats in several important ways. The ability of the forest to recover after a disturbance, also referred to as forest regeneration, is affected. Many plants and tree seedlings do not germinate or grow as well in soils that are heavily disturbed by introduced earthworms. Ground nesting songbirds, like the Ovenbird, are less likely to find a suitable nest site when there are fewer plants growing on the forest floor and when they attempt to nest in impacted habitats their nest success is very low. The colonization and dominance of certain invasive plants are strongly related to the colonization and spread of introduced earthworms. Earthworms impact the recruitment of young Blue-spotted Salamanders because introduced earthworms change the soil organisms that juvenile salamanders eat. Juvenile salamanders prefer invertebrates and fungi that inhabit soils that are relatively free of earthworms. Overabundant earthworms consume most of the leaf litter on the forest floor, which then exposes the soil to the sun and rain and thereby increases the likelihood of soil erosion after every storm. Silt in streams chokes the stream inhabitants and increases the amount of nutrients flowing into lake and

ponds. The added nutrients encourage overabundant algae and plant growth. Nutrient loading negatively affects drinking water supplies or other activities that people do like swimming, fishing, and boating.

We are left with some important questions: *What earthworm species inhabit White Memorial and where did they originate? What impact are earthworms having on our critical habitats and species, since these species adapted and evolved in ecosystems where no earthworms existed? What are the implications of invading earthworms on wildlife conservation and forest management?*



Worms that emerged after solution was poured on the ground.

There are two primary methods that we use when searching for earthworms. The first method we refer to as "debris searches". We flip cover-boards that we use to monitor amphibians and snakes to collect earthworms. The second method is called "mustard extraction". We place a sampling square that measures 0.25 square meter and pour a mixture of 40 grams of yellow ground mustard that has been mixed with approximately 4 liters of water. Earthworms almost immediately emerge out of the soil, where we are waiting to collect them. The mustard irritates their skin and as the water percolates through the soil they emerge within a few minutes. Every worm is later identified to species using a dissection microscope and various dichotomous keys that have been developed by taxonomists from around the world.

(Continued on page 11)

Fall Calendar of Events

For more information on any of our programs, please call us at 860-567-0857 or visit www.whitememorialcc.org

SEPTEMBER



SEPTEMBER 27th 33rd ANNUAL FAMILY NATURE DAY

*Sky Hunters in Flight
Riverside Reptiles*

Atka the Wolf + The Bat Lady

"New One" the Porcupine

Music: The Boxcar Lilies & Robert Messore

11:00 A.M. - 5:00 P.M.

See page 4 for details.

28-Oct. 4 Museum Kids Free Week *
Courtesy of Joan and Jack Benham
honoring Wesley D. Parcell

OCTOBER

1 *Hiking & Healthful Eating
with Gerri Griswold*
See page 7 for details.



3 *Hawk Talk with Paul Carrier*
See page 7 for details.



4 *You Have a Gall!*
*Learning About Plant Galls
with Peter and Barbara Rzasa*
See page 7 for details.



11 *Tree Identification Walk
with Lukas Hyder*
10:00 A.M., Meet in the Museum parking lot.

11 *Sensory Wisdom Walk
with Marlow Shami*
1:00 P.M., Meet in front of the A. B.
Ceder Room. Pre-registration is required.

13 **COLUMBUS DAY**
Museum Closed



18 *Fall Family Hike with Carrie Szwed*
Dress for the weather! 2:00 P.M., Meet in
front of the A. B. Ceder Room.

24 *Star Party*
Astronomy program with star
gazing to follow, weather permitting.
7:00 P.M., A. B. Ceder Room



25 *Celebrating Connecticut's
Apples with the New England
Apple Association*
2:00 P.M., A. B. Ceder Room
Pre-registration is required.



* Free admission to Children ages
12 and under when accompanied by an adult.

25 *The Litchfield Historical Society
and WMCC present
A Halloween Spooktacular!*
See page 7 for details.



NOVEMBER

1 *Fall Family Fun with
Andy Dobos and
Deneen Bernier of
Three Red Trees School
of Natural Living*
See page 7 for details.



5 *Hiking & Healthful Eating
with Gerri Griswold*
See page 7 for details.



8 *Lazy Birding at Point Folly
with Carrie Szwed*
9:00 A.M. - 12:00 P.M., Stop by anytime at
the Point Folly observation platform.



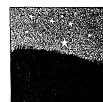
9 - 15 **Museum Kids Free Week***
In honor of Louise W. Willson

11 **Wildlife in Winter
Veterans Day Program**
See page 10 for details!

15 *Autumn Leaves in Watercolor
with Betsy Rogers-Knox*
See page 7 for details.



21 *Star Party*
Astronomy program. Star gazing
will follow, weather permitting.
7:00 P.M., A. B. Ceder Room



22 *Circumnavigating Five Ponds
with Gerri Griswold*
11:00 A.M., Meet in front of the A. B.
Ceder Room. Bring lunch. Dress for the
weather! Call 860-567-0857 to pre register!

22 *Give a Hoot!
Felting Workshop
with Robin McCahill*
See page 7 for details.



23 *The Green Man
A Musical Afternoon
with Michael McDermott & Friends*
See page 7 for details.



27 / 28 **THANKSGIVING**
Museum Closed



29 *Walking the Cranberry Pond Trail
with Gerri Griswold*
2:00 P.M. Meet in the Museum.

DECEMBER

3 *Hiking & Healthful Eating
with Gerri Griswold*
See page 7 for details.



6 *Stories in Wildlife Tracking with Andy
Dobos and Deneen Bernier*
8:00 P.M., A. B. Ceder Room



12 **Museum Open House**
Stroll through the Museum.
Sip Mulled Cider.
Wrap up your holiday shopping.
Take 10% off all purchases!
6:00 P.M. - 8:00 P.M.



13 *The Photography of
Leo Kulinski, Jr.*
See page 7 for details.



14 **Litchfield Hills Audubon Christmas
Bird Count.** To volunteer, email Ray
Belding: hoatzin1@optonline.net

20 *Nowhere is a Place: Travels in Chilean
Patagonia with Gerri Griswold*
2:00 P.M., A. B. Ceder Room

21-27 **Museum Kids Free Week ***
Courtesy of Tara and Arthur Diedrick
In honor of Adele and Joseph d'Assern

25 / 26 **CHRISTMAS**
Museum Closed



27 *Film: Chasing Ice*
2:00 P. M., A. B. Ceder Room



December 29, 30, 31, Jan 2
Wild & Wacky Winter Camp!
See page 10 for details.

JANUARY

January 1, 2015
HAPPY NEW YEAR! Museum Closed

3 *Winter Walk Along the Lake Trail &
Butternut Brook Trail with Marlow Shami*
1:00 P.M., Meet in the Museum.

Adult Nature Study Workshops and Saturday Programs: Fall 2014



Hiking & Healthful Eating with Gerri Griswold
October 1, November 5, December 3, 2014, 6:00 P.M.
A. B. Ceder Room
Members: \$15.00 Non-Members: \$25.00 Per Session

Take a brisk walk and tuck into a delicious, healthful, and easy to prepare meal. It's all about YOUR health and well being! Sign up early! Space is limited to 20 per session. This series sold out way in advance last summer!



Fall Family Fun with Andy Dobos & Deneen Bernier
November 1, 2014, 1:00 P.M. - 4:00 P.M.
Meet in front of the A. B. Ceder Room.
Members: \$20.00 Non-Members: \$25.00

Families learn about the world around us through games, exploration, and adventure. Bring water, good shoes, and clothing for the weather and playing outside. You will leave filthy, fabulous, and fulfilled! Cost is per child.



Hawk Talk with Paul Carrier
October 3, 2014, 7:00 P.M., A. B. Ceder Room
Members: \$10.00 Non-Members: \$15.00

Paul Carrier is very active in the annual Hawk watch and migration for this area. He developed a guide for hawks seen in the northeast during migration for the NorthEast Hawk Watch (NEHW). Learn about identifying raptors that are often very difficult to ID from your place on terra firma and theirs so high above.



Autumn Leaves in Watercolor
November 15, 2014, 1:30 P.M., A. B. Ceder Room
Members: \$35.00 Non-Members: \$45.00

Here is a sterling opportunity to learn botanical illustration from world renowned illustrator Betsy Rogers-Knox! Explore different techniques in this fun approach to painting our beautiful fall leaves! All supplies included! All levels welcome! This class is suitable for ages 12 and up.



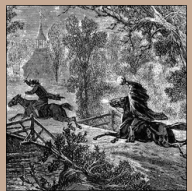
You Have Gall! Plant Galls with Pete & Barb Rzasa
October 4, 2014, 10:00 A.M., A.B. Ceder Room
Members: \$10.00 Non-Members: \$15.00

Gall enthusiasts Pete and Barb Rzasa will pique your curiosity about plant galls and the insects that make them. You've probably seen these weird plant cell growths on plants and trees and wondered what they were. The program includes a lecture and hike to find galls!



Give a Hoot: Felting Workshop with Robin McCahill
November 22, 2014, 10:00 A.M., A. B. Ceder Room
Members: \$55.00 Non-Members: \$65.00

Create a magical handmade gift for a loved one (or for yourself!). Using soft wool and a special barbed felting needle, sculpt an owl of your choice. This one day workshop allows you to finish your bird in time to adorn your home for the holidays. All materials included!



Litchfield Historical Society & WMCC Present a Halloween Spooktacular!
October 25, 2014, 6:30 P.M., A. B. Ceder Room
Members: \$25.00 Non-Members: \$35.00 LIMITED!

The Legend of Sleepy Hollow at the Tapping Reeve School, a walking tour of Gallows Lane, and spooky treats and a meet and greet with an owl and bat in the Ceder Room! Costumes optional! Flashlights essential!



The Green Man: An Afternoon of Music with Michael McDermott & Friends
November 23, 2014, 2:00 P.M., Carriage House
Members: \$15.00 Non-Members: \$20.00

100% of the proceeds from this beautiful concert benefits the Conservation Center. This joyful afternoon on the Sunday before Thanksgiving includes music by Joni Mitchell, James Taylor, Luka Bloom, and many more.



The Photography of Leo Kulinski, Jr.
December 13, 2014, 7:00 P.M.
A. B. Ceder Room
Members: \$25.00 Non-Members: \$30.00
DINNER INCLUDED! BYOB
& YOUR OWN PLACE SETTING!

All of the holiday hub bub no doubt has you on edge! EXHALE...Spend this evening with Leo as he indulges us in a montage of his very favorite photographs. Kulinski has been White Memorial's court photographer for years. Expect breathtaking images of Apple Hill, whales, the moon, musicians, his beloved white-tailed deer, Veronica the Red-tailed Hawk, and the stories behind the images. Before the presentation you will indulge in a beautiful beef bourguignon dinner. Comfort and joy await you!

_____ Hiking & Healthful Eating....Oct 1__Nov 5__Dec 3_____	Member: \$15.00	Non-Member: \$25.00
_____ Hawk Talk.....	Member: \$10.00	Non-Member: \$15.00
_____ You Have Gall!.....	Member: \$10.00	Non-Member: \$15.00
_____ Halloween Spooktacular.....	Member: \$25.00	Non-Member: \$35.00
_____ Fall Family Fun.....	Member: \$20.00	Non-Member: \$25.00
_____ Autumn Leaves in Watercolor.....	Member: \$35.00	Non-Member: \$45.00
_____ Give a Hoot! Felting Workshop.....	Member: \$55.00	Non-Member: \$65.00
_____ The Green Man: A Musical Afternoon.....	Member: \$15.00	Non-Member: \$20.00
_____ The Photography of Leo Kulinski, Jr.....	Member: \$25.00	Non-Member: \$30.00

Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ e-mail _____

Please circle one: member non-member

Payment enclosed: Program fee: \$ _____ Membership fee: \$ _____ Total \$ _____

Make check payable to White Memorial Conservation Center and mail to:
 White Memorial, P.O. Box 368, Litchfield CT 06759

Become a member of the White Memorial Conservation Center and take advantage of the member discount, along with free admission to the Nature Museum, a discount in the Gift Shop, and receipt of the quarterly newsletter and calendar of events. Your tax-deductible fee will help sponsor programs like these. A family membership is \$50.00 per year and individual is \$35.00.

For more information call 860-567-0857.

Volunteer Spotlight

Andy Dobos and Deneen Bernier

Story and photograph by Gerri Griswold

Andy Dobos and Deneen Bernier are regular fixtures at the Conservation Center. They are members of our Education and Activities Committee and major players in Saturday programming with popular wildlife tracking classes, bird language classes, and primitive skills workshops, many of which they offer to the public at no cost. They own and operate the *Three Red Trees School of Natural Living* www.threeredtrees.com and are considered among the best in their field.

Andy Dobos grew up at White Memorial. As a student in the Litchfield school system he took part in programs here. His parents would bring him here as well. "I remember Field Day and the specific stations. I remember Jeff Greenwood had a chipmunk in a trap. I remember the old library. I always took for granted that being out in nature was part of my life and I thought I'd have to go elsewhere to find "a real job". I was completely connected to nature as a kid." Dobos thought he would study science in college but ended up in art. He earned a BFA in Sculpture from the Montserrat College of Art in Beverly, Massachusetts. He loved working in wood. He was curious about the material not only in the visual sense but how it affected the other senses as well.

In wildlife tracking Andy applies what he knows from drawing and sculpture. Understanding shape and form is key. "Never mind what you know about it but what you actually see. This picnic table is one image but when you really look closely it becomes something different." When Dobos returned home after college he decided to take his first tracking class. After class they would sit around and rub two sticks together and make fire. "That was it! White Memorial was my entry into what I do."

Deneen Bernier grew up in Maine and like Andy, was always outside. In spite of this, she was afraid of the forest. "I always needed to see my parent's house. I had special places outside where I would pretend to be with animals. I remember if I played outside all day how good I felt." Deneen became a cracker jack tree climber. "I LOVED to climb trees!" She attended the University of Southern Maine in Portland. "It was a big city for me. Very big and very different. I struggled with what I wanted to do." In her fourth year, Bernier's advisor said, "You have to pick a major." "What really excited me was playing outside. Being outside and working with people to solve problems thrilled me." In the field of Therapeutic Recreation, Deneen found her home.

Bernier finally became tired of being afraid of the forest and began taking wilderness survival classes (you can see where this is heading). Through her connection with nature, her fears subsided. "I was completely liberated and ready to move anywhere." It was a couple of years before the paths of Andy and Deneen crossed but when they finally did, sparks flew. Andy invited Deneen to Litchfield and one of the first places to which she was introduced was White Memorial. And we all lived happily ever after....

"I want to take wildlife tracking into something the level of birding," says Dobos. As for Bernier, "[In wildlife tracking] I like the story. You could follow it for three hours." In the future Andy and Deneen would like to offer multiple day, full immersion classes in tracking and also offer guided tours. Bernier loves teaching yoga to children. "We look forward to spending many years at White Memorial. When we tire of our own backyard then we come to this backyard. It's our home away from home."

The Conservation Center is so incredibly fortunate and grateful to have Andy and Deneen as part of its family.



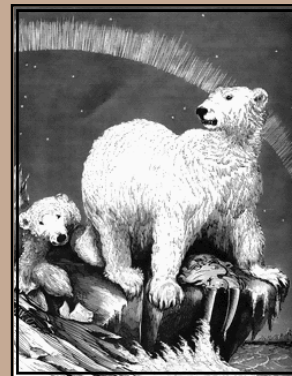
Tree Huggers! Andy Dobos and Deneen Bernier hanging out at White Memorial!

'TIS THE SEASON FOR CRAFTS !

FOR GRADES 1 & 2 : WEDNESDAY, DECEMBER 10
FOR GRADES 3,& 4 : THURSDAY, DECEMBER 11 & 18
ALL CLASSES: 3:45 – 5:15 P.M.

MEMBERS: \$8.00 / SESSION, NON-MEMBERS: \$12.00 / SESSION
ADVANCE REGISTRATION IS REQUIRED.

CALL 860-567-0857 TO REGISTER OR VISIT: WWW.WHITEMEMORIALCC.ORG
FOR MORE INFORMATION.



White-Nose Syndrome Updates for the 2013 / 2014 Surveillance Season

By Dr. Johnathan Sleeman, Center Director, USGS National Wildlife Health Center

Wildlife management agencies in three states – Arkansas, Michigan, and Wisconsin – reported their first confirmed cases of white-nose syndrome (WNS) among clinically affected cave-hibernating bats this past winter season, increasing the total number of affected states to 25. Although no new Canadian provinces were added in winter 2013/2014 to the five that are affected, continued expansion of the disease was reported in Nova Scotia, New Brunswick, Quebec, and Ontario, as well as the Midwestern and Southeastern United States. Evidence of clinical WNS now extends as far west as Jackson County, Missouri, which is on the border with Kansas, as far south as Paulding County, Georgia, and as far north as the 49th parallel in Quebec. Non-lethal PCR-based swab surveillance for the causative fungus, *Pseudogymnoascus destructans* (*Pd*), was expanded into Great Plains and southern states last winter, and the fungus was detected for the first time in several central Mississippi counties. Despite the addition of several new states to the list of WNS confirmed states, there were not any large geographic jumps in the continued spread of white-nose syn-

drome during the winter 2013/2014. Wide-spread detection of *Pd* and clinically ill bats in multiple counties throughout Missouri indicates that the disease is now endemic there.

Also of note, Woodward County, Oklahoma, classified in spring 2010 as “WNS suspect,” was removed from the official list of areas suspected to be contaminated with *Pd* based on ongoing surveillance and subsequent reanalysis of archived samples at NWHC using an improved molecular test (PCR). As a result, Cave Myotis (*Myotis velifer*) has been removed from the list of species found to harbor *Pd*, although this species likely remains at risk for infection as WNS continues to spread westward. More information is available about these changes at <http://www.whitenosesyndrome.org/news/> (posted May 7, 2014) *Pseudogymnoascus destructans* was also recently identified by molecular testing (PCR) of a silver-haired bat (*Lasionycteris noctivagans*) hibernating at a site in Delaware known to be contaminated with the fungus since winter 2011/2012. View the current map of WNS Occurrence by County created by the Pennsylvania Game Commission

at http://nwhc.usgs.gov/disease_information/white-nose_syndrome

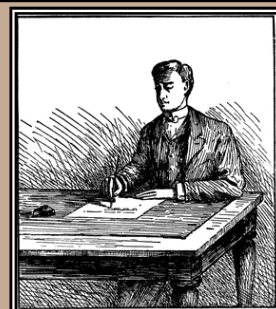
Continued surveillance during the winter hibernation period through spring emergence (based upon swab-sampling of bats and hibernaculum substrates) is highly encouraged next season in states at the edge of known *Pd* distribution, adjacent states of unknown status, as well as strategic sites identified in western states. In addition to detecting *Pd* presence in new sites lacking clinical disease, cluster sampling around recently identified *Pd* contaminated sites will help assess the rate and distance of *Pd* movement and evaluate risk factors thought to be associated with its detection at hibernacula. Surveillance options outside this time period or geographic region also exist as does continued monitoring for *Pd* exposure in bats within the WNS endemic region.



Have YOU signed up to receive our weekly email newsletter, **THE HABITATTLER?**

Calendar of Events
Program Reminders
Top 10 Notable Sightings
The Tail End Video
And more....

info@whitememorialcc.org





WHITE MEMORIAL THANKS

Northwest Community Bank + Litchfield Bancorp

Krummi Travel LLC + Cabela's ...and

An Anonymous Donor

for making our

33rd Annual Family Nature Day possible.

PARENTS & TEACHERS,

CHECK OUT WHAT WE CAN OFFER YOUR CHILDREN!

GROUP / SCHOOL PROGRAMS

POND PROWL
TAKE A HIKE
SENSE-SATIONAL STUDY
AMAZING ADAPTATIONS
THE POWER OF PLANTS
OUR LOCAL ECOSYSTEMS
CLASSIFY THIS :
(FOR ANIMALS OR PLANTS)
WAY TO GROW, CRITTER
...AND MORE!

VISIT OUR WEBSITE FOR A
COMPLETE LIST OF PROGRAMS
AND MORE INFORMATION.

MANY PROGRAMS CAN BE
CONDUCTED AT
YOUR FACILITY!

PROGRAMS CAN BE BOOKED
BY CALLING:
860-567-0857

VACATION PROGRAMS



Wildlife in Winter

November 11, 2014 (Veteran's Day)

Grades 1- 3: 9am-12pm , Grades 4- 6: 1pm - 4pm

Members: \$14.00 Non-members: \$20.00 Advance registration is required.



Wild & Wacky Winter Camp

December 29 - 31, and Friday, January 2

Grades 1- 3: 9am-12pm , Grades 4- 6: 1pm - 4pm

Members: \$50.00 Non-members: \$80.00 Advance registration is required.

AFTER-SCHOOL PROGRAMS



OCTOBER: After School Adventures

See page 3 for details!

DECEMBER: 'Tis the Season for Crafts

See page 9 for details!

SCOUT PROGRAMS



Custom-designed programs for all cub scouts, and
girl scouts to help fulfill badge requirements!

We offer free camping to all non-profit organizations!



The Nature Effect By Marlow Shami

*The true miracle is not walking on water or walking in air,
but simply walking on this earth.~ Thich Nhat Hanh*

Did you have a special "fort" as a child -- an outside hideaway, a place immune to the stresses of civilization? Whether you grew up in a city, suburb, or rural landscape you most likely found your sacred place in a tree, rock formation, gazing out an open window, or on an apartment roof. Back then being a part of nature was instinctive. It attracted us just as the sun inspires the flower's bud to bloom. A visit could bring creative imaginings, renewal, a sense of protection, warmth, comfort, or emotional mirroring.

Living in a mass-technological culture makes this life affirming relationship with nature more difficult to access. Society's unnatural pace, multi tasking, and nature anemic values mute the sensory connections -- our lifelines with nature -- hence our authentic vitality is often numbed.

Our species has a very real need to be in contact with the out-of-doors natural world. Professor Emeritus at Harvard E. O. Wilson proposed the Biophilia hypothesis in 1984 which suggests there is an instinctive bond between humans beings and other living systems. A robust body of research now supports Wilson's hypothesis. Anecdotal stories from attendees of my fifteen years of teaching *Nature as Healer* workshops supports what sages have known for thousands of years; we are apart of nature, not a part from nature. Richard Louv's book *The Nature Principle* is an informative resource on this important topic.

You may not be climbing trees or building forts anymore (yay if you are!), but you can still leverage the *Nature Effect* every time you walk outside, or even gaze out the window with a view of the natural world. Be sure to bring your awareness right into that very experience, that very moment. Notice the sounds, colors, smells, emotional connection you experience as you take in the landscape, sky, flora and fauna. With practice you will be able to access nature's antidote.

Community Outreach Coordinator Update By Marlow Shami

Our membership continues to rise! Please continue sharing your love of nature and White Memorial with friends, family, and people you are meeting for the first time. FORWARD The Habitattler (our free weekly e-newsletter). We ascertained from our spring survey that word of mouth is THE most common means by which people learn about us. Talk WMCC up and help grow a community of conservation minded people. Education is key to preservation and sustainable living!



Of all the seasons,
autumn offers the most
to man
and requires the least of
him.

~ Hal Borland

White Memorial's Earthworm Inventory

Continued from page 5

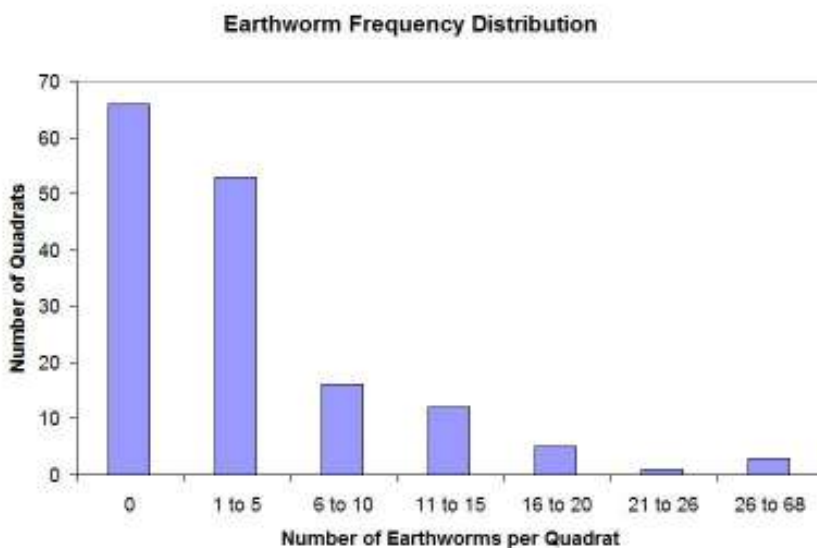
Another method that is often used is to dig up the soil and search for earthworms by hand but this method requires a little too much time. Nevertheless, hand digging might be suitable to search for certain species than the methods we are currently using. Therefore, we need to make as much of a sampling effort this season to ensure we encounter as many species as possible.

I am writing this article on August 25, 2014 and we've been collecting earthworms since July 28, 2014. We have randomly sampled a total of 156 quadrats using the mustard extraction and 51 debris searches under coverboards. We have collected over 800 earthworms. Mustard juice quadrats yields a wide range of individual worms per quadrat (see chart). In one case, our earthworm team collected a total of 68 worms in one mustard juice

quadrat; remember this is a square piece of soil that measures approximately 11 inches on each side! That is a lot of worms, indeed! Nevertheless, 42% of the sampling quadrats did not yield any earthworms. This is not to say there were not any earthworms at that site generally because often a quadrat located very close by would detect multiple individuals. This demonstrates that earthworms are distributed in a clumped arrangement like most other living organisms.

Randomly selecting points throughout the property has many advantages but it can have some disadvantages. Points often do not fall into smaller critical habitats or into stands that are invaded by introduced plants. Our first research question is to inventory as many earthworm species. We must sample as many specific micro-habitats to ensure we encounter all of the

possible species. This sampling regime is referred to as stratified sampling. This sampling effort will tell if there is a strong enough pattern between invasive plants or specific critical habitats and earthworms. To date, we have sampled an additional 46 mustard juice quadrats within various strata.



There are several characteristics that you can use to distinguish between earthworm species. The worms ranged in size from 0.75 inches to 6 inches long. Some species are strongly pigmented while other species are not. The setae or little hairs that earthworms use to grip the soil around them are arranged in several different patterns. The clitellum or swollen band that signifies when an earthworm is going to reproduce can be in several different shapes and sizes. You can count the segments

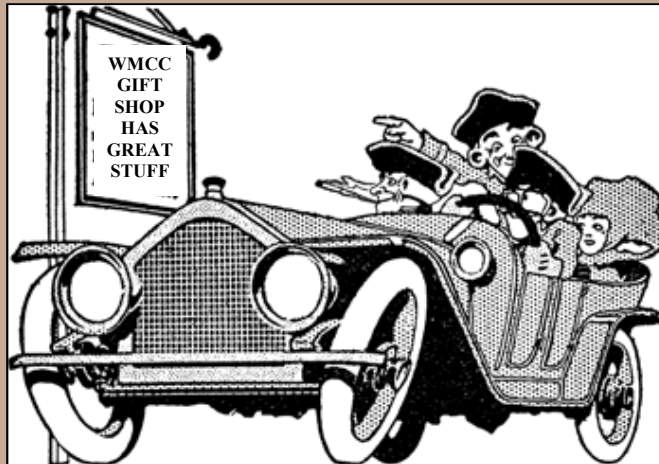
and where these characteristics and several others are found in relationship with the segments. To date, I have identified at least 9 species but it is still the initial stages for this project and I am very confident that I will continue to verify that several additional species inhabit White Memorial. So far, 1 of the 9 species is a native species to the North American continent.

Fortunately, there have been a few locales on the property where we have not detected any worms. This may be due to there being so few worms or our methods are not thorough enough. Nevertheless, these locales could start to help us compare where there are many earthworms observed. These comparisons will help us learn how our forest ecosystems and other critical habitats are impacted by earthworms.



DON'T GET MALLED!

**THE MUSEUM GIFT SHOP
HAS SOMETHING FOR EVERYONE ON YOUR HOLIDAY LIST.**



**WE FEATURE UNIQUE ITEMS
HANDCRAFTED IN CONNECTICUT.**

SAVE TIME, GAS, AND AVOID THE MASSES!

**MUSEUM OPEN HOUSE DECEMBER 12, 2014
6:00 P.M. - 8:00 P.M.!**



WHAT'S INSIDE THIS EDITION OF SANCTUARY

Make a Difference	3
Family Nature Day.....	4
Research.....	5
Events Calendar.....	6
Workshops.....	7
Volunteer Spotlight.....	8
White Nose Update.....	9
Children's Programs.....	10



Non-Profit Organization
U.S. POSTAGE PAID
TORRINGTON, CT
06790
PERMIT NO. 313

ADDRESS SERVICE REQUESTED

The White Memorial Conservation Center
P.O. Box 368
Litchfield, CT 06759