# SANCTUARY

Newsletter of the White Memorial Conservation Center Vol. XXIX No. 3 Summer 2011

#### **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 Website: www.whitememorialcc.org



Whitehall Alfresco circa 1910

#### Lightning!!!!!!!

## by Thomas Alena, Meteorologist, Talcott Mountain Science Center

The sunshine on a warm, humid summer afternoon is suddenly extinguished. In a matter of minutes, distant rumbles of thunder are heard within the deepening darkness of the western sky. The stage is set for one of nature's most spectacular and energetic displays - lightning.

It is during such time that I like to devote my senses to the experience unfolding before me. The towering cumulus clouds build upward. You can watch them grow by staring at the sharp white outlines of their outer boundaries. I observe how a gusty southwest wind, which has been blowing all day long, comes to a sudden stop, bringing stillness to the air. With this new calm, sounds of birds and nearby mosquitoes replace the once dominant rustle of leaves. All around, there is a sense of anticipation as to exactly what this display of atmospheric convection will deliver. On rare occasions, it produces tornados or large hailstones, but more often strong straight-line winds and heavy downpours accompany the release of energy that has been building. One dangerous element that accompanies every thunderstorm is lightning.

Lightning is the spectacle of electron flow through the atmosphere. Under most conditions air insulates, or is resistive to, this flow of electrons, but under extreme voltages the air ionizes and allows the current to flow through it. The large voltages develop within

cumulonimbus thunderheads as rising air brings positive charges to the top and leaves the base of the cloud negatively charged. This is analogous to a giant battery the size of Mt. Everest floating above you.

In a fraction of a second, lightning can deliver as many electrons into the ground as would be pulled by 3000 hair dryers on full power. This current can explode trees and literally melt rock and sand. Near my home in Farmington, CT I've seen lightning's signature on both. In 2009, an 80-year old white pine tree was instantly blown to pieces under the power of a direct lightning strike. As the electricity flowed down the trunk into ground, the sap boiled and expanded, ripping apart the layers of the wood. Pieces of wood were observed over 100 feet from the site. The picture below attests to one of the fundamental rules of lightning safety: Never seek shelter under a tree during a



Figure 1: The remains of a white pine struck by lightning May 24th, 2009.

thunderstorm!!!!!

Another tree, an old maple, met a slightly different end when the discharge flowed through the main trunk, cracking it and flattening the main branches as if they were the peel of a banana laid flat. The picture below shows my daughter's expression as to this strange damage.



Figure 2: Total destruction of a stately maple by one lightning bolt.

Not every tree that gets hit comes to such a violent end. Sometimes, the current finds a path into ground only scarring the outermost bark and cambium. There are many such trees evident at White Memorial. Some repair themselves and go on to live full lives, others cannot recover from the wound and fall victim to insect infestation and die after a few years. Look for these damaged trees by noting a scarring in the outer bark.

(continued on page 2)

#### (continued from page 1)



**Figure 3:** Surface scarring to a white pine showing where the path of current flowed to ground.

When lightning's current is passed through the right mixture of sand and rock, it can heat the ground to thousands of degrees Fahrenheit instantly converting the material into its original molten state. The lava cools rapidly and forms tube-like structures in the sand and rock known as fulgurites. These glassy specimens are rare forms of earth where lightning hit.



**Figure 4:** Sedimentary rock and sands showing the tubes of fulgurite formed by rapidly melting and solidification.

The variety of damage to trees, soils, and other structures are likened to the variety of injuries suffered by people unfortunate enough to get hit by lightning. Remarkably 90% of victims survive a lightning strike; however most are left with permanent injuries predominantly cardiovascular and neurological disease. Most often the cause of lightning death is from cardiac arrest. Sometimes, immediate CPR performed on a victim can save them. <sup>1</sup>

While walking in the woods at White Memorial this summer, be aware of the weather forecasts prior to your walk. Plan your walk accordingly. Keep an eye to the sky and look for any growing cumulus clouds or areas of darkening sky. Many of our thunderstorms approach from a west – northwest

direction owing to the direction that cold fronts advance into Connecticut. At the first sign of thunderstorms, get into your car. It is the best place to be if you don't have a house to get into. Move the car away from large trees that can be brought down by strong winds that often accompany the storm.

By all means, NEVER seek shelter under a grove of trees. If you have no better alternative, get as far away from the tall trees, perhaps in a meadow and crouch down into a ball position, leaving only your feet touching the ground, but lowering your body to the lowest possible position. This reduces your risk of getting hit.

The thunder you hear is the result of rapidly expanding air along the path of the lightning bolt. Since sound takes about 5 seconds to travel one mile, you can calculate how far the bolt was from you by counting seconds after you see the lightning, then dividing by 5. Sometimes you hear distant thunder first, especially during daytime storms, because the daylight hides the flash. During nighttime storms however, distant lightning is seen well before any thunder is heard because the light can travel far greater distances than the sound can travel.

As summer approaches so do the inevitable thunderstorms. For many they are a spectacular display of nature's energy. Enjoy them, but be safe!



An evening thunderstorm as seen from Talcott Mountain Science Center in Avon, CT looking west.

The reason
lightning
doesn't strike twice
in the same place is
that
the same
place isn't there
the second time.

Willie Tyler

1 - Shattered Air - A True Account of Catastrophe and Courage on Yosemite's Half Dome, by Bob Madgic, Burford Book, 2005, pgs. 125-126.

#### Part V

## Playing The Numbers Game; The Evolution of a Bird Bander

by Gordon Loery, former WMCC Director of Research

#### Behold The Tortoise, <u>He Makes Progress</u> When His Neck Is Out

At the end of the last installment in this series I expressed enthusiasm about a proposed joint meeting of ornithologists and wildlife statisticians to be held at the Asilomar Conference Center in California and my determination to attend it. When I finally arrived at the meeting I found several delegates from Massachusetts (Manomet Bird Observatory) and New York (Cornell Laboratory of Ornithology) but, surprisingly, not one representative from a Connecticut organization. The conference itself more than met my expectations. In fact, I found it to be the most helpful meeting I have ever attended. It was a turning point in my whole banding career, opening doors that I had hitherto found

The beautiful setting for the five day meeting was a Conference Center on Monterey Bay just south of San Francisco. The Organizing Committee and Session Chairmen came from Australia, Hawaii, five far western states, Wisconsin, and Maryland. The participants included residents of at least 37 states and 18 foreign countries. Frequent refreshment breaks and poster papers in the evening provided many opportunities for valuable informal discussions. For me the most exciting field experience was the sight of a grove of nearby trees whose branches were covered not with leaves but with Monarch butterflies resting for the winter. You would have to go down to Mexico to see anything like this here on the East coast. The Pacific Ocean keeps the West coast warmer than a comparable site on the East coast.

My primary purpose in attending the conference was to find more productive ways to make use of my 25 years of chickadee capture - recapture data. Until that time I had been unable to find any statisticians in New England who could help me. Now, I soon found out, I had come to the right place. Wildlife managers have traditionally used what is known as the Lincoln index to obtain estimates of the population size of a species in which they were interested. Working with a closed population gave them an estimate but only for a given moment in time. Two statisticians - G. M. Jolly and G. A. F. Seber working independently, began looking for a new model that could handle data from an open population changing over time. They could then take a moving picture of a population rather than just a single snapshot. As sometimes happens they both came up with the same solution at the same time. But

instead of rushing to see who could get published first and get credit for the innovation, they agreed to publish together with separate articles adjacent to each other in the same 1965 issue of Biometrika. It became known as the Jolly-Seber model.

Unfortunately not many U.S. statisticians had become familiar with this innovation by 1980. George Jolly came over from Scotland to be one of the session leaders at this conference and help to bring us up to date.

The Jolly-Seber model and the recent refinements of it can produce estimates of recruitment rates (rates at which new individuals enter a population by birth or immigration) and survival rates (rates at which existing individuals remain in a population by avoiding deaths or emigration) over a period of time. With these newer estimates we can ask all sorts of new questions. The answers should give us a better understanding of our ever changing world. This is what I had been looking for over the years.

#### Reaping the Rewards

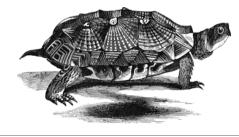
One of the speakers who caught my attention at the Asilomar Conference was Ken Pollock from the Statistics Department of North Carolina State University in Raleigh. Not long after I returned from San Francisco I found out that he was offering a short course designed as an introduction to the new statistics for state fish and game employees. I enrolled in it and took a 50 page copy of my chickadee capture-recapture data with me to Raleigh. When I showed the data to Ken Pollock and his colleague Jim Nichols, the U. S. Fish and Wildlife statistician at Laurel, Maryland, they were impressed. They showed me how to organize it so that the statisticians with the new models could use it. I was told I could expand a single sampling period to 3 months (I chose November - January, the period which I catch most of my returns.) All of this led up to an 8 page manuscript "Dynamics of a Black-capped Chickadee" Population (1958-1983)" published in the peer -reviewed, scientific journal Ecology in 1985. In it we reported finding that (a) the establishment of the Tufted Titmouse as a resident, nesting, new kid on the block species disrupted the existing population of its cavity nesting relative, the Black -capped chickadee. This disruption included an effect on both the survival and recruitment rates of the chickadees but was only temporary. (b) There was no apparent correlation between extreme winter cold (0°F or below) and chickadee survival rates despite their small size, but this may have been at least partially the result of a reliable source of food and reported nocturnal

communal roosting. (c) The clear-cutting of a near-by Red Pine plantation had no major detrimental effect on the wintering chickadee population.

A second article published in Ecology in 1987, "Age-Specificity of Avian Survival Rates: An Analysis of Capture-Recapture Data For A Black-capped Chickadee Population" reported finding that first winter birds have a lower survival rate than older birds as expected. However, it could not be determined if this was the result of a higher death rate or a permanent emigration rate or a combination of the two. Secondly we found there is an increase in mortality with age which contradicts the usual assumption that after the first year survival rates are constant with age.

A third article, "Capture-Recapture Analysis of a Wintering Black-capped Chickadee Population in Connecticut, 1958-1993" was published in the A.O.U.'s <u>The Auk</u> in 1997. This time we used a somewhat different model from that of Jolly-Seber. It revealed a gradual decline in both chickadee annual population size and survival rates from 1959 – 1991. We suggest that may be due to a gradual maturing of the surrounding forest replacing pioneering trees such as birch with harder to excavate trees such as maples and oaks.

I have received hundreds of requests for reprints of the above articles from all over the world including such out of the way places as the "stan" countries surrounding Russia. I have also received compliments from leading individual ornithologists. Once when the three U.S. ornithological research organizations held a joint annual meeting they invited J. D. Lebreton to come over from France to deliver the key note address. During one of the breaks between sessions as I was browsing around a local bookstore with my name tag on he came over and congratulated me on my chickadee articles. Another time I heard an ornithologist lecturing about European research preface his remarks by saying my work with chickadees tied in very nicely with that of the Europeans. It all began with my controversial trip to California in 1980. Many thanks to the example of the Tortoise.



## Summer Calendar of Events

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

## JUNE

29 - July 5 Museum Kids Free Week\* In Memory of Louise W. Willson

## **JULY**

Edible Plant Walk with Andy Dobos and Deneen Bernier from Three Red Trees School of Natural Living See page 7 for details.



INDEPENDENCE DAY Museum Closed



Museum Kids Free Week\* Courtesy of the J. Denis O'Toole Family honoring Helen Ryan Donnelly

6 Year of the Turtle

CT DEP Biologist Jenny Dickson discusses native turtles, their natural history, and why it is the Year of the Turtle. 6:30 P.M., A.B. Ceder Room

Fireside Reading: The Wind in the Willows with Ilvy Dulac and Jane Coughlin See page 7 for details.



Outdoor Concert with Jae Wolf See page 7 for details.



15/16 A Celebration of the Bantam River See page 7 for details.



17 Fly Casting with Dr. Frank Schildgen from Trout Unlimited 1:00 P.M., A.B. Ceder Room Lawn

22 Star Party: Saturn 8:00 P.M., A.B. Ceder Room



23 Evening at Little Pond Wildlife Biologist Dave Rosgen leads a dusk

walk in search of herons, frogs, beavers, and more. Ages 10 and up. Meet at the South Lake St. entrance to Little Pond. 6:00 P.M.



Second Annual Iceland Affair featuring the US Concert Debut of Icelandic Recording Artist Svavar Knutur!

See page 7 for details.

## **AUGUST**

3 - 9 Museum Kids Free Week\* Courtesy of Joan and Jack Benham honoring Brianna R. Parcell



Striking Weather! Talcott Mountain Science Center Road Trip See page 7 for details.

6 A Serenade for the Bats 7:00 P.M., A.B. Ceder Room. Activity Shed, Green Barn



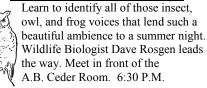
13 Film: An Uncommon Curiosity: At Home and in Nature with Bernd Heinrich 2:00 P.M., A.B. Ceder Room

13 Full Sturgeon Moon Kayak Paddle with Robyn Dinda. Bring dinner! Meet at North Shore Road. For more information call Robyn at 860-567-0738.

17 - 23 Museum Kids Free Week\* Courtesy of Tara and Arthur Diedrick honoring Ann and Arthur Diedrick

20 Old Fashioned Having with Horses Members of the Northwest Connecticut Draft Horse Association show us how it was done in the good old days! 10:00 A.M., A.B. Ceder Room, Sawmill Field

Things That Go Bump in the Night 20



21 Fly Casting with Dr. Frank Schildgen from Trout Unlimited 1:00 P.M., A.B. Ceder Room Lawn

26 Star Party: The Moon 8:00 P.M., A.B. Ceder Room





27

Nature Stories by the Fire Potluck dinner and fireside story telling with Fran Zygmont, Dave Tripp, and YOU! See page 7 for details.

## **SEPTEMBER**

"Litchfield": Book Signing and Museum Open House with Ralph White 6:30 P.M. - 8:00 P.M. in the Museum

3 Reptile and Amphibian Walk Wildlife Biologist Dave Rosgen leads a walk around Ongley Pond in search of our coldblooded friends. Meet in front of the A.B. Ceder Room, 2:00 P.M.

LABOR DAY Museum Closed



**Conservation Inspiration** 

Dinner and Fireside Reading of Leopold, Thoreau, Carson, and others with author David Leff See page 7 for details.

Museum Kids Free Week\* In Memory of Louise W. Willson

10 Poison Ivy: Facts, Myths, and More Advanced Master Gardener Donna Katsuranis is itching to tell you all about this scourge! 2:00 P.M., A.B. Ceder Room

11 Reflection and Remembrance: Robert Messore on Apple Hill Let nature and beautiful music comfort you on this special day. Concert is at 2:00 P.M. on Apple Hill. Meet at 1:15 P.M. in the Museum parking lot.

Call 860-567-0857 to pre-register.

Museum Kids Free Week\* In Memory of Louise W. Willson

17 Hawk Watch and Other Fall Migrants Park yourself at the picnic tables in front of the Ceder Room and help Dave Rosgen count the flurry of migrating hawks and songbirds above your head! 2:00 P.M.

23 Star Party!



Weather permitting, star gazing begins at 8:00 P.M. in the Sawmill Field.

#### September 24, 2011 30th Annual Family Nature Day



FM 97.3 WZBG Sky Hunters in Flight: Brian Bradley, Falconer Forest Park Zoo Wildman Steve Brill Riverside Reptiles Mortal Beasts and Deities The Bat Lady Music by Nancy Tucker

> See back page for information!

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

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

#### Community Service at White Memorial

by Lukas Hyder, Forest Superintendent

Spring of '11 has once again been a busy time with volunteer groups at White Memorial and continues the trend of past years. The groups contribute time and talents and continue to have a positive impact on the property.

The Marvelwood School from Kent started their weekly Wednesday community service visits at the end of April and will continue until the end of their spring term. They helped with multiple projects including raking, campground cleanup, cleaning up an old dump, building cleanup, etc.

On May 13<sup>th</sup>, 28 sixth graders from Washington Montessori arrived and did a great job of removing non-native invasive plants (including honeysuckle, bittersweet, and barberry) on Windmill Hill.

Speaking of Windmill Hill, on the 30<sup>th</sup> of April, a large group of Boy Scouts from Troop 102 in Naugatuck spent the morning cleaning the campground. They cleared the sites of debris, garbage, and leaves as well as maintained all the ditches on the road.

That same Saturday (April 30th) the Boy Scouts from Troop 123 in Manchester spent several hours removing invasive bittersweet, honeysuckle, and barberry from the woods near Pine Grove II, where they were camping.

A hearty and heartfelt thanks to all these groups for a job well done. It is a great help to us in accomplishing things that would not otherwise be possible.

## www.whitememorialcc.org

I loved being outside.
We'd hold lightning bugs
in our fingers
and pretend
they were diamond rings.

Loretta Lynn



## Volunteer Spotlight: Lindsey Abramson, Sam Foster, Ashley Hayes

Photo and Story by Gerri Griswold, Director of Administration and Development

This quarter we salute three extraordinary young women who have served as powerhouse volunteers for the Conservation Center over the last few years. All three will be graduating from Wamogo Regional High School this June and all three will be attending Northwestern Connecticut Community Technical College (NWCCTC) this fall.

#### Lindsey Abramson

Lindsey has served as a Monday volunteer in our gift shop since October 2008. She also assists Miss Bunny with our summer Story Hours for young children. A Torrington resident, Lindsey is very close to her parents, brother, and grand parents and her dog, Max. This fall she will be studying history and political science at NWCCTC. In her spare time Lindsey enjoys crocheting and reading. She is particularly fond of the summer trips she takes with her family to Cape Cod and New Hampshire.

#### Sam Foster

Sam began her volunteer work in January 2009. Not only does she assist in the gift shop on Monday she also plays an indispensible role on Saturdays assisting Dave Rosgen with animal care, birthday party programs and blue bird nest box maintenance and monitoring. Sam lives in Torrington with her parents, brother, and sister. Sam's aunt brought her to White Memorial at a very early age on hikes and visits to the Museum. She would like to attend UCONN and pursue a major in animal science. In her spare time Sam enjoys writing stories and spending time with her friends and pets.

#### Ashlev Haves

Ashley resides in Bantam with her parents, brother, and favorite cat Taz. She has been a very devoted volunteer in our gift shop as well as an animal care giver since 2008. Ashley often spends five or even six days a week volunteering! Her down time is spent reading, writing, and drawing her favorite subject matter: wolves. A fascination with these magnificent creatures began in the third grade. "They are just so beautiful!" After spending time at NWCCTC, Ashley would like to pursue a career in animal science with the ultimate goal of helping...what else???...wolves!



Girl Power! Ashley Hayes (L), Sam Foster (C) and Lindsey Abramson (R)



Bantam Fuel \* Sunset Views, LLC
Union Savings Bank
Litchfield Hills Audubon Society \* Woods Pit BBQ & Mexican Cafe
Executive Auto Sales, Inc. / Litchfield Ford \* Litchfield Bancorp
Ericson Insurance Services, LLC
S.H. Smith & Company \* Webster Bank
Frank E. Fisher & Sons , LLC \* Torrington Savings Bank
Litchfield True Value / Just Ask Rental

Thunder is good.
Thunder is impressive;
but it is lightning
that does all the work.





#### WHITE MEMORIAL CONSERVATION CENTER, INC. ANNUAL MEETING MINUTES MAY 6, 2011

The Annual Meeting of the White Memorial Conservation Center, Inc. was called to order by President Diedrick at 3:30 pm. on May 6, 2011 at the White Memorial Foundation office.

The minutes of the May 7, 2010 Annual Meeting were approved upon motion of Mr. Samponaro and second by Mr. Schoelzel.

Mr. Samponaro presented the report of the Nominating Committee. Upon motion of Mr. Ching and second by Mr. Plunkett the Secretary was authorized to cast one ballot for the slate as presented.

Center staff Gerri Griswold, James Fischer, and Jeffrey Greenwood reported on accomplishments for 2010 and plans for 2011. The staff were commended and thanked for the great job they have done over the past year.

As there was no further business, upon motion of Mr. Plunkett and second by Mr. Booth, the meeting was adjourned at 3:59 pm.



#### SUMMER FUN FOR KIDS

Some Classes Still Have Openings!



This coming summer promises to be a good one for our summer programs for children. We have expanded the Wee Discoverers program (story-hour type series for preschoolers ages 4 and 5) from one hour to two hours. It will be held on five Tuesdays from 9:30 – 11:30 a.m. and led again by Bunny Mosakowski. The good news from Nature Adventurers is that both Jane Dickinson and Debbie Goepel are returning this summer to conduct the programs starting on June 27 and running until August 5. This series runs from 9:30 a.m. – 1:00 p.m. and is offered to children entering grades 1 and 2 in the fall.

The <u>Natural History Explorers</u> programs for children entering grades 3 through 9 will again be handled by Jeff Greenwood with Sarah Carpenter assisting. Explorers begins on July 5 with weekly sessions running until August 19. They meet daily from 9.30 a.m. - 3.30 p.m.

At this point there are many openings for registration in all three programs. However the Nature Adventurers week of July 18 – 22 has only 2 openings left and Explorers I Session III (July 18 – 22) is already fully enrolled. So don't wait too long to get registered or you might miss the boat!



## White Nose Syndrome Update

Reprinted from The Earth Times www.earthtimes.org



The U.S. Fish and Wildlife Service (FWS) has released a plan for managing white nose syndrome - a disease devastating bat populations - across state and provincial boundaries. The plan aims to ensure a cohesive response between U.S. states, tribal governments, and Canadian provinces.

The plan provides a framework for investigating and responding to the disease, outlining who is responsible for which activities, and how they will coordinate their efforts. Seven working groups covering areas such as communications, diagnostics, and epidemiological and ecological research will coordinate activities within their designated areas. State-level agencies will share responsibility for monitoring and managing the disease with the help of guidance provided through these working groups and federal funding.

White nose syndrome has spread to 18 U.S. states and four Canadian provinces. Since identified in 2007, the disease has killed over 1 million bats in eastern areas. Though it has primarily devastated eastern regions, it is spreading rapidly west, making environmental groups in western regions increasingly anxious. Many sites like the Oregon Caves National Monument now screen visitors for shoes and clothing worn to areas of potential infection.

White nose syndrome has broad environmental effects, as bat guano is a major source of nutrients in cave ecosystems and bats play a large role in controlling populations of certain insects including mosquitoes. The disease also has significant economic affects, as insect-eating bats save the government over \$3 billion with their

pest-eating services, says the FWS.

White nose syndrome seems to cause bats to wake from hibernation and leave the cave, according to the FWS. It may also cause bats to hibernate closer to cave entrances or in far colder temperatures, and is associated with high death rates. Scientists are trying to understand exactly how the disease kills bats. Evidence suggests it may lead to dehydration, flight inhibition, and heat loss, although research has shown skin infection may play a primary role in mortality. The FWS expects management of the disease will continually adapt as new findings become available.

Most of the species affected have long lives (5-15 years) and low reproductive rates (one offspring a year), making recovery difficult, the FWS explains.

## Nature Study Workshops and Saturday Workshops: Summer 2011



Edible Plant Walk July 2, 2011, 12:00 P.M. - 4:00 P.M. Meet in the Museum.

Members: \$20.00 Non members: \$30.00



Fireside Reading: Wind in the Willows July 8, 2011, 6:30 P.M., Meeting Barn and Keinholz Fire Pit Members: \$20.00 Non members: \$30.00



Jae Wolf Concert in the Activity Field July 9, 2011, 3:00 P.M. Activity Field Members: \$10.00 Non members: \$15.00



A Celebration of the Bantam River July 15, 2011, 6:30 P.M., A.B. Ceder Room July 16, 2011, 6:30 A.M. on the Bantam River and Litchfield Town Beach Members: \$15.00 Non members: \$20.00



Iceland Affair! July 30, 2011, 12:00 P.M.- 4:00 P.M. **FREE** Svavar Knutur in Concert July 30, 2011, 7:00 P.M.

Activity Shed Suggested Donation: \$10.00



Striking Weather! August 5, 2011, 7:00 P.M. Talcott Mountain Science Center, Avon, CT Members: \$10.00 Non members: \$15.00



Nature Stories by the Fire & Pot Luck August 27, 2011, 7:00 P.M. Meeting Barn and Keinholz Fire Pit Members: \$10.00 Non members: \$15.00



Conservation Inspiration Fireside Reading and Dinner with David Leff September 9, 2011, 7:00 P.M. Keinholz Fire Pit and Meeting Barn Members: \$20.00 Non members: \$25.00

Andy Dobos and Deneen Bernier from Three Red Trees School of Natural Living will help you learn some common, easily identifiable edible wild plants and how to responsibly harvest and prepare them. Bring a notebook, camera, protection from the elements, and a cup or mug for tea at the end of the walk. Pre-registration and pre-payment are required.

Thespians Ilvy Dulac and Jane Coughlin bring to life Mole, Mr. Toad, The Chief Weasel, Mr. Badger, and other characters in this "for adults only" excerpt readings from Kenneth Grahame's classic animal tale. Sit down to a delicious recreation of Ratty's Picnic before the reading! Pre-registration and pre-payment are required. Bring your own wine or beer!

Jae is one of our perennial favorites...and yours too! Bring your aching heart, lost soul, soaring spirit...and a blanket, picnic, or lawn chair to the old apple tree in the Activity Field and let the music and aura of this incredible man elevate your day. Light refreshments will be served. Pre-registration and pre-payment are required.

Friday evening enjoy wine and hors d'oeuvres and a glorious pictorial tribute to the changing seasons presented by Washington Chef, Photographer, and Adventurer, Horst Antosch. Saturday morning at 6:30 A.M. meet at the boat launch on Whites Woods Road for an early morning interpretive paddle down the Bantam River ending at Litchfield Town Beach where you will be treated to a delicious breakfast prepared for you by Gerri Griswold. Call for more information.

Sample Icelandic foods. Meet Icelandic Horses, dogs, sheep, and chickens. View compelling documentaries about the eruption of Eyjafjallajokull and the Gyrfalcon. Enjoy a presentation by frequent flyer Gerri Griswold showcasing the natural wonders of this spectacular nation. THIS EVENT IS FREE! The day will be capped off with the first USA concert by Icelandic recording artist Svavar Knutur. Mr. Knutur's latest CD, Amma: Songs for My Grandmother, hit the top of the Icelandic music charts. His stunning melodies and poetic lyrics in both English and Icelandic will end this celebration on a very high note! www.svavarknutur.com Pre-registration for the concert is required. A suggested donation of \$10.00 can be made at the door.

Meteorologist Tom Alena invites you to his playground! Experience a virtual thunderstorm inside the TMSC's premier theater *The Hypospherium*. Learn about severe thunderstorms, hailstones, tornados, downbursts, and lightning! Create a real tornado! Every family attending will receive a surprise to take home! Refreshments will be served. This program is limited to fifty participants. Pre-registration and pre-payment are required!

This first of its kind program is the brain child of life long friends and birders Fran Zygmont and Dave Tripp. Hear some of their favorite stories and contribute some of your own experiences in nature. Bring a dish for supper and your own wine or beer. We'll supply soft drinks, dessert, set ups, and a crackling fire. Pre-registration and pre-payment are required.

A collage of energizing and restorative readings from the works of Aldo Leopold, Henry David Thoreau, Rachel Carson, E.O. Wilson, and others interpreted at the fireside by author and former Deputy Commissioner of the Connecticut Department of Environmental Protection, David Leff. Mr. Leff's performance will be preceded by a delicious dinner in the Meeting Barn next to the fire pit. Copies of Mr. Leff's work will be available for purchase. Don't miss this unique event!

Edible Plant Walk	Member: \$2 Member: \$1	0.00 N	Non Member: Non Member:	\$30.00 \$15.00
Celebration of the Bantam River Svavar Knutur in Concert Striking Weather	Suggested don Member: \$1	ation: \$1 0.00 N	10.00, Pay at Non Member:	the door. \$15.00
Nature Stories by the Fire	Member: \$1	0.00 N 0.00 N	Non Member:	\$25.00
Name				
Address				
City				
Phone	e-mail			
Please circle one: member non-member				
Payment enclosed: Program fee: \$ Membership fee: \$	Total:	\$		

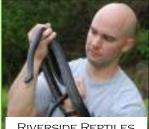
Become a member of the White Memorial Conservation Center and take advantage of the member discount, along with free admission to Nature Museum, discount in the Gift Shop, and receipt of the quarterly newsletter and calendar of events. Your tax-deductible will help sponsor programs like these. A family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

For more information call 860-567-0857 www.whitememorialcc.org

## **30TH ANNUAL FAMILY NATURE DAY SATURDAY SEPTEMBER 24, 2011**

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

ADMISSION: \$6.00... CENTER MEMBERS AND CHILDREN UNDER 12 FREE



RIVERSIDE REPTILES



MORTAL BEASTS & DEITIES



SKY HUNTERS IN FLIGHT



THE BAT LADY





WILDMAN STEVE BRILL

**FM 97.3 WZBG BROADCASTING** LIVE!



NANCY TUCKER

THE **FOREST PARK** Zoo



#### <u>PLUS!!!!!!!</u>

**KAYAK RAFFLE** 

**GUIDED NATURE WALKS** 

NATURE CRAFTS **FOR KIDS** 

**BOOTHS AND EXHIBITS** 

**BOOK & BAKE** SALE

CRAFT FAIR

<u>Food</u>

**HORSE DRAWN** WAGON RIDES

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