

The Watershed News

Volume XVI, Issue I

Winter 2012

A Quarterly Publication for the Ossipee Watershed Published by the Green Mountain Conservation Group

Ben Kilham will be guest speaker at 14th Annual Meeting

On Saturday, January 21, the Green Mountain Conservation Group will celebrate its 14th Annual Meeting at Lakeview Neurorehabilitation Center in Effingham from 4:00 to 7:30 p.m. The evening will be a celebration of natural resource conservation in the Ossipee Watershed, honoring all of the volunteers, partner organizations, community members, towns and individuals that have helped conserve our shared resources over the past year.

The evening will commence with a social hour and refreshments at 4:00. This will be followed by community awards and election of GMCG officers and a dinner graciously hosted by Lakeview.

During dessert, featured speaker, Ben Kilham, noted New Hampshire Black Bear Biologist, will give a slide presentation: *Socialization of Black Bears: What I learned about Human Behavior.*"

Join us at this year's annual meeting to

meet Ben and learn more about his research on bear behavior and his work rehabilitating bears in New Hampshire. He may even treat us to stories about his recent trip to China!

Come meet fellow Watershed Neighbors and learn how you can make a difference in the Ossipee Watershed when you join the Green Mountain Conservation Group! The Annual Meeting is open to the public. A suggested donation of \$14 per person for dinner and the presentation is suggested, but no one will be turned away. To reserve tickets, contact 539-1859 or email gmcgnh@roadrunner.net. (Snow Date is January 28th)

GMCG extends a special thanks to Lakeview Neurorehabilitation for



Watershed Youth present Good Bugs-Healthy Water at Remick Museum

It is a unique experience when youth come together to present scientific findings to the community. Dec 1 the Ossipee Watershed was treated to a night of water quality results from the Ossipee and Sandwich Elementary Schools at the Remick Museum. Assisting with 2011 VBAP (Volunteer Biological Assessment Program) field collection of macroinvertebrates were Justin Chapman's 4th, 5th and 6th grade classes on the Cold River in Sandwich and Carolyn Hemingway, Jake Stephens and Cara McNevech's 6th grade classes in Ossipee who helped on the Bear Camp and Swift Rivers in Tamworth and Beech River in Ossipee.

Effingham and Freedom also participated in the VBAP field program this year but were unable to attend the presentation. The program is particularly important for GMCG as the school children provide the volunteer power needed to collect the macroinvertebrates in the field and help with data collection for the broader water quality monitoring program now entering its 11th year. If you would like to volunteer for the 2012 season or engage your local school, please contact GMCG for more information.



Aidan Carney, a fifth grader from Sandwich was also honored this year for his tshirt design and is featured here with the Ossipee and Sandwich students who collected data for GMCG and gave the presentation.

The Watershed News

The Watershed News is a quarterly publication of the Green Mountain Conservation Group, a non-profit, 501(c) 3, charitable organization established in 1997 and dedicated to the preservation of the natural resources in the Ossipee Watershed. The towns of Effingham, Freedom, Madison, Ossipee, Sandwich and Tamworth make up the boundaries of the Ossipee Watershed. This watershed includes one of the largest and deepest stratified drift aquifers in New Hampshire.

GMCG's purpose is twofold:

1. To provide an organizational structure for a coalition of citizens and local officials interested in identifying sensitive areas within the Watershed in need of protection;
2. To offer public educational events about conservation issues and possible solutions regarding the preservation of unique natural resources.

Through research, education, advocacy and land conservation we strive to promote an awareness and appreciation of our watershed's natural resources and encourage a commitment to protect them.

Board of Directors

Noreen Downs, Chairman
Don Johnson, Vice Chairman
Anne Cunningham, Treasurer
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Town Representatives

Effingham, Doug Caron
Freedom
Madison, Marcia McKenna
Ossipee, Jean Hansen
Sandwich, Peter Pohl
Tamworth
Maine, Peter Zack

Members at Large

Al Levesque, Effingham
Carol Felice, Madison
Alice Custard, Freedom

Staff

Executive Director, Blair Folts
Youth Coordinator, Stephanie Doyle

Let 2012 be a Renaissance of Awareness

By Blair Folts
Executive Director

2011 was a challenging year. Grant funding was down, yet the pressure on our shared natural resources continued to rise. GMCG had many different projects on the table and was further challenged by staff changes which left the organization with only the Executive Director. Throughout a very difficult year, I was left humbled by the outpouring of volunteer help, generous donations and increased board participation. As much as 2011 was difficult, it also was one of the most rewarding ones. And in some ways, I experienced a "renaissance of awareness" which I want to share and invite you to experience in 2012.

This awareness comes from being humbled by community commitment to protect our natural resources, particularly our very special aquifer. It arose from watching municipal officials, water quality volunteers, youth volunteers and a fifth grader who taught me how to sample my own well water. Over the past three years, I have been again humbled to watch volunteers from all six town planning boards work together to draft aquifer protection ordinances that were put to ballot in their towns this past year. I saw young and old residents from across the watershed and from very different economic backgrounds, come together over one issue—shared water resources and a concern about water quality.

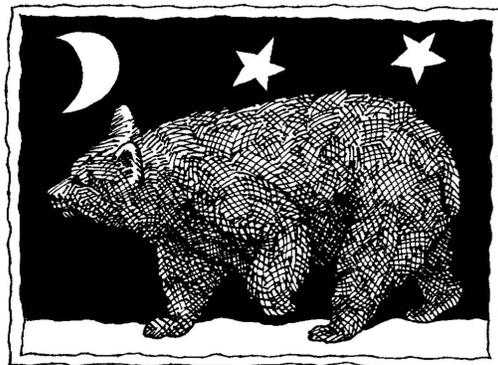
With staff changes and no program director in the middle of the year, I was not sure how we could keep all the water quality and school programs going, complete annual grant writing and reporting on schedule, and also conduct a search for a new program director. And then it happened. Volunteers came forth as I have never witnessed. They appeared to continue sampling the rivers on their own and worked out a schedule to determine who would take the samples to the lab and when. Other folks appeared to help clean Huntress House, put the office in order,

answer phones, write letters, finish filing...the list goes on.

The Research Committee convened and helped meet the needs of the VBAP school program so that the elementary schools could continue with another year of collecting the macroinvertebrate data. The GMCG Board added new duties to their already busy list and created a hiring committee and a new personnel committee. A giant tapestry of volunteers was born and came forth to run GMCG. Once again, I was humbled and honored to share in this web.

I learned a big lesson, too. We need a renaissance of our own awareness. The education has been provided. The people who care are numerous and committed. For the most part, we are aware of what we need to do to protect our shared resources. We need now to listen to our children and to be conscious of all that is precious here and all that we need to conserve in order to live the quality of life we value in the Ossipee Watershed. We need to continue to plan for growth and development in ways that will further protect our priceless resources and quality of life.

Let us go forward in 2012 with a new awareness of our resources, a new appreciation for the abundance of clean drinking water, dark skies and healthy forests. Let us listen to our kids who say "why would you want to hurt the environment...that just doesn't make sense..." Here's to working together in 2012 toward a watershed-wide renaissance of awareness. Happy New Year!



Bear 2011 Emeilyn Alderi

Stephanie Doyle will lead the Youth Coalition in 2012

GMCG has hired Americorp Volunteer Stephanie Doyle to oversee the Youth Coalition in 2012. Stephanie is part of a federal program called AmeriCorps. Most often referred to as the domestic Peace Corps, over 75,000 members nation wide provide direct service in many fields to communities across the country.

Stephanie, originally from Southern New Hampshire, graduated from the University of West Florida with a Bachelor's Degree in Nature and Society. She spent time interning and volunteering at the Florida Department of Environmental Protection working in the Sea Grass Lab on a habitat restoration project. Stephanie will continue the GMCG programs initiated in the Watershed schools over the past three years as well as introduce exciting new programs for youth and families.

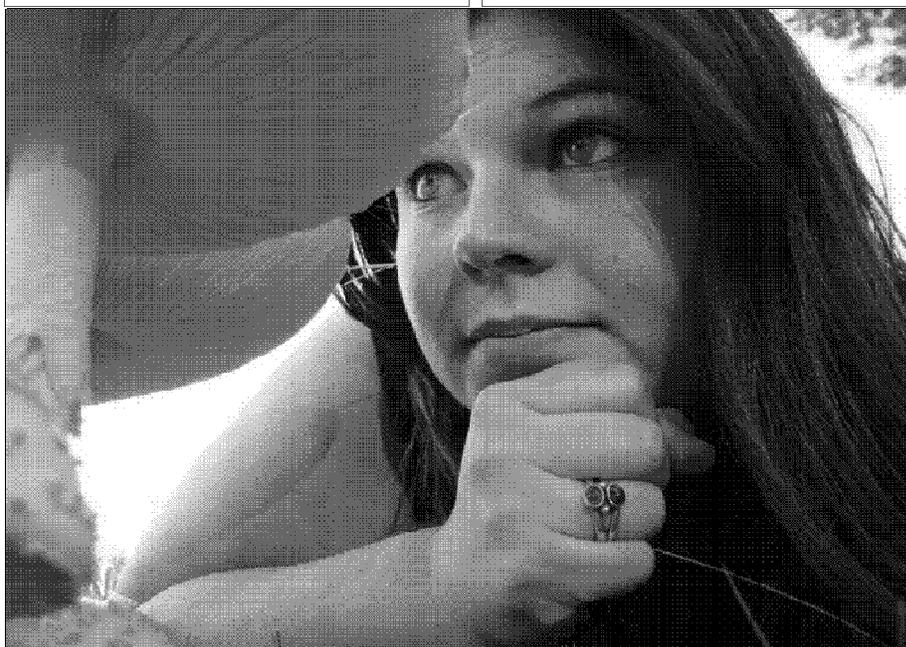
2012 begins with continued partnership with the Moultonboro Academy and New Hampshire Fish and Game on the Trout in the Classroom program. In addition, Ossipee Central School will join the program this year. Under inspiration from 6th grade teachers Ms. Hemmingway, Ms. McNevich and Mr. Stephans, the entire sixth grade will participate. Thanks to funding from the NH Moose License Plate Conservation Grant Program, "Moose Plate Grant," GMCG has been able to donate a chiller and aquarium for the fish eggs to Ossipee Central School so the class can participate and have

the opportunity to raise trout in their classroom. Come Spring, the classes will release the trout in local streams and rivers. This unique program teaches students about the life cycles of trout as well as the importance of keeping our water clean.

Another program that Stephanie will be coordinating for GMCG and the Youth Coalition is GET WET! now in its third year. The program (Groundwater Education Through Water Evaluation and Testing) was developed by Theresa Thornton at the University of Maine with the goal of teaching students and their families about ground/drinking water resources. Students from across the watershed will be trained to collect well water samples at home and bring them to the classroom for testing for chlorides, nitrates, pH, hardness, iron and conductivity.

In addition to overseeing established programs, Stephanie further plans to host a series of walk/talks to spark conversation about conservation issues. If you are interested in learning more about the Youth Coalition and upcoming programs or if you would like to help foster this new coalition, there will be an important Education Committee meeting on January 23 from 5-7 pm at the Community School in Tamworth. GMCG hopes the coalition will become youth driven. All ages are invited to attend this meeting.

If there is a topic you would like to see discussed or an event you would like to see GMCG present, please contact Stephanie her gmcgnhwqm@roadrunner.com or 539-1859.



Stephanie Doyle is an outdoor enthusiast and passionate about mycology

Ten years of data show that road salt is degrading water quality

By Michelle Daley

Will stream conditions improve over the next ten years? In 2002 the Green Mountain Conservation Group (GMCG) partnered with the New Hampshire Water Resources Research Center (NH WRRC) at the University of New Hampshire to collect water quality data in the Ossipee watershed. GMCG is committed to protecting the natural resources in the Ossipee watershed and recognized that the 50% projected increase in human population from 1998 to 2020 (Sundquist and Stevens 1999) is the type of rapid growth that could put the water resources in the watershed at risk. In 2004, GMCG and the NH WRRC selected seven stream sites which would be monitored year round to better understand if long-term changes in water quality were occurring. It often takes more than ten years of data to determine if water quality is getting better, worse or staying about the same and GMCG is now in a position to start analyzing these trends with assistance from the NH WRRC.

GMCG and NH WRRC appreciate all the volunteers who have worked hard to collect data over the past ten years and we encourage you to keep up the good work! Now is not the time to stop collecting data. Now is the time to keep the data collection going so we can better understand how, or if, the health of the watershed is changing over the next decade and beyond.

One thing that we have learned from data collected so far is that road salt, typically in the form of sodium chloride, is having a negative impact on streams and rivers in the watershed. Road salt became widely used in the 1940's when New Hampshire adopted an "all roads clear" policy. Sodium can cause high blood pressure in humans and chloride can impair the health of fish and other aquatic species. Therefore, the EPA has set standards for public drinking water supplies and for freshwater streams and rivers. These standards are often referred to as maximum contaminant levels (MCL). To date, streams measured in the Ossipee watershed have not exceeded the EPA MCL of 230 mg/L of chloride, but

some streams are approaching that level. The data collected clearly show that chloride concentrations in streams increase when more of the watershed is covered by roads and more road salts are applied (Figure 1).

The ONLY way to reduce sodium and chloride in our groundwater and stream water is to apply less road salt. Salt does not stick to soils, is not taken up by vegetation (it is actually harmful to them) and no stormwater system can remove it. Road salt goes where the water goes, either to the groundwater or receiving stream. It is not a question of if road salt will reach our stream and groundwater supplies; it is just a question of how long it will take to get there. Currently, no good alternates to the typical road salt deicer exist. However, there are several ways in which the efficiency of road salt application can be increased to reduce the total amount of road salt applied while still maintaining safe driving conditions. The Technology Transfer Center (T²) at UNH offers workshops to do just that with their "Salt Reduction in Winter

Maintenance" workshops (<http://www.t2.unh.edu/>). Pervious Pavement is a new technology that the UNH Stormwater Center (<http://www.unh.edu/erg/cstev/>) is investigating and this is a promising way to reduce road salt application since this material requires much less deicing and has a higher safety rating than conventional pavement. We challenge all the winter maintenance crews to increase their efficiency of road salt application so that less salt is applied and the water quality does not continue to decline over the next decade.

For more information on research activities at the NH Water Resources Research Center, please visit the website at: <http://www.wrrc.unh.edu/research.htm>.

Michelle Daley is Associate Director of NH Water Resources Research Center at UNH.

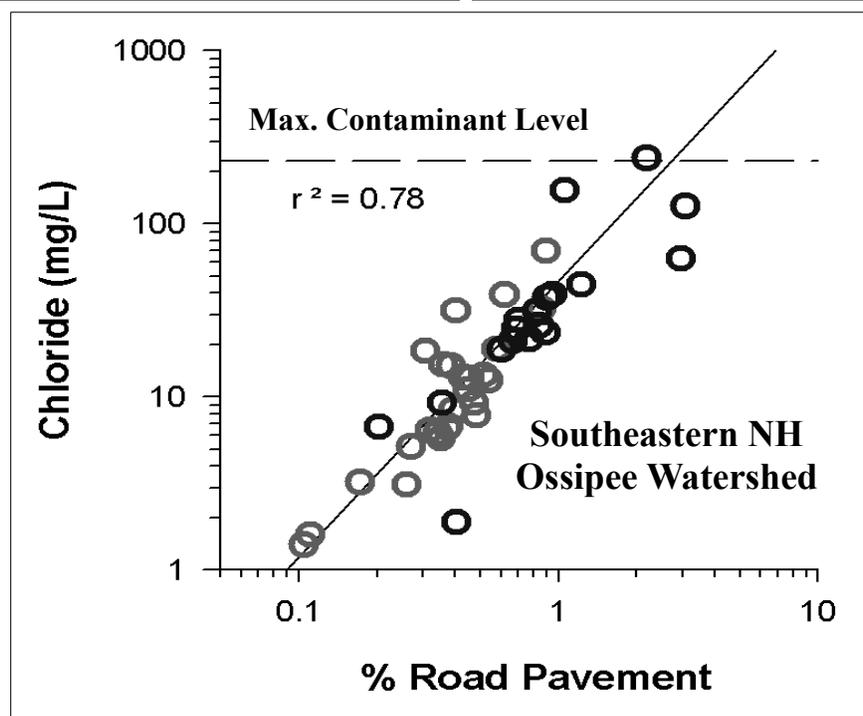


Figure 1. Average chloride concentration in Ossipee streams (green circles) and streams in seacoast NH (blue circles) streams vs. the % of road pavement covering the corresponding watershed.

NH Eagle Count Readies for 32nd Year

by Chris Martin

January 2012 marks the 32nd consecutive winter that NH Audubon has coordinated the state's Midwinter Bald Eagle Survey. Part of a national effort, this annual count provides long-term data on both breeding and non-breeding segments of the eagle population, as well as an opportunity to monitor important wintering habitat. In addition to generating data on eagle trends, distribution, and habitat, the count is a tradition for many, and helps raise public awareness of Bald Eagles and their conservation.

New Hampshire started participating in the Midwinter Survey in the Winter of 1980-81. Back then, seeing an eagle in the state was highly unusual, and they were on both the state and federal Endangered Species lists. But after three decades of eagle population recovery, many in the Granite State now expect to see eagles (plural!) on our rivers, lakes, and estuaries, no matter what the season! We focus our midwinter counting efforts primarily in the state's five major eagle wintering areas: the Androscoggin River, Connecticut River, Great Bay/Coastal area, Lakes Region, and Merrimack River.

As we prepare for the 2012 count, let's quickly review past results.

Last year on the official Midwinter Survey Day (Saturday, January 8, 2011), we found a total of 54 Bald Ea-

gles. This included 37 adult birds, 15 immatures, and two others whose plumage/age were not determined. The total was down about 10% from the record-setting 61 eagles seen on the 2009 and 2010 counts, but that wasn't too surprising, as snowfall confronted many volunteer observers on the 2011 count, especially in the southwestern part of the state.

For logistical reasons, we actually count eagles in the Lakes Region on the Thursday before the statewide date. So while Saturday's falling snow presented some visibility challenges, Thursday's Lakes Region count took place in beautiful, mild sunlit conditions with no precipitation. And – no surprise here – top regional honors for most eagles seen on the 2011 Midwinter Survey went to the Lakes Region, where 14 individual eagles were counted. But both the Merrimack River and the Great Bay/Coastal areas followed close behind with 13 birds apiece tallied on Survey Day. And a total of 72 volunteers turned out for the counts.

For some long-term perspective, 10 years ago (2001) we tallied 42 eagles, 20 years ago (1991), we counted just 19, and 30 years ago (1981) we found only 8. The number of eagles present in New Hampshire in winter is clearly increasing!

NH Audubon monitors bald eagle abundance and distribution in New Hampshire throughout the year under a contract with the NH Fish & Game Department,

and with additional support from TransCanada. Additional eagle studies are funded by the National Fish & Wildlife Foundation and by donations to NH Audubon's Conservation Department. And thanks to all the volunteers who donate their time to participate in these counts!

PLEASE JOIN US FOR THE 2012 MIDWINTER SURVEY! NH Audubon will be conducting the 2012 Midwinter Bald Eagle Survey on Saturday, January 7, 2012 (except on Thursday, January 5, 2012 in the Lakes Region). We hope that you will be able to help us. For more information, or to volunteer, [contact Chris Martin](mailto:contact@chris.martin) at NH Audubon.

Visit <http://ocid.nacse.org/nbii/eagles/> to learn much more about the National Midwinter Bald Eagle Survey. And, if you'd like, you can also listen to a brief audio commentary about bald eagles and the state's midwinter eagle count on NH Public Radio's Something Wild web page. Just enter <http://www.nhpr.org/magestic-winter-eagles>, and then click on "Listen" to hear the story.

Chris Martin is a senior biologist with NH Audubon.



Photo by Jeff LeGrow

Watershed Conversations

Editor's Note: Watershed Conversations is intended to provide a forum for the six towns of the Ossipee Watershed to share news of their conservation and planning activities and an opportunity to find creative solutions regarding watershed issues.

Think Locally; Act Watershed.

Madison

The Madison Conservation Commission is organizing a fact and information sheet to accompany timber cut applications to educate owners about the opportunity to reseed a landing site wildlife habitat area. Many finished timber cuts leave the landing site in poor condition while stabilization, lime application and seeding can create a great place for improved nutrient plantings for wildlife. The commission hopes to have a fact sheet available in 2012.

Ossipee

Ossipee Conservation Commission has conserved 4.1 acres of land bordering the Beech River off Annie Nichols Road thanks to the Harry C. Merrow Family Trust which generously donated the property to the town for conservation purposes, and to prompt action by the Board of Selectmen to accept and place the land under a conservation easement

held by the town Conservation Commission. The land lies upstream of the historic Beech River Shutter Mill on Route 16B. Some years ago the Merrow family donated to the town over 8 acres of Beech River property located downstream of the dam at the shutter mill. Together these properties conserve significant river frontage within the Ossipee Watershed and also provide a scenic spot in the heart of town for public recreation.

Thurley Forest Project

The Dan Hole Pond Watershed Trust has contracted to acquire and conserve 220 acres of forestland below Knox Mountain in Center Ossipee. The property abuts 400 acres previously protected by the Trust, thereby creating over 600 acres of contiguous conservation land. The land will be open to the public for passive recreation as well as protecting valuable wildlife habitat and upland water resources that feed the aquifer downstream. Approximately 300 acres on Thurley Mountain and along Gulf Brook will be managed as "forever wild" and the

remainder for sustainable forestry. The Trust must raise \$200,000 to acquire the new parcel and is seeking donations. Contributions can be sent to DHPWT, P.O. Box 8, Center Ossipee, NH 03814. For information about the project or the Trust readers are invited to call Bob Pratt (539-2073) or email danholepondtrust@gmail.com. The Trust has now conserved over 800 acres of priority Ossipee forestland and wildlife habitat.

Sandwich

Since 2010 the Sandwich Conservation Commission has taken the lead in working on a comprehensive plan to restore the town's Beede Falls-Sandwich Notch Park. The banks of the Bearcamp River need to be stabilized to prevent further erosion, the footpath needs to be relocated, and the temporary bridge needs to be replaced with a permanent one. Permits for this extensive work are in place. The Conservation Commission and town are currently exploring potential funding sources so that this major project to restore the 80-year old park can move forward towards completion.

GMCG launches new Website

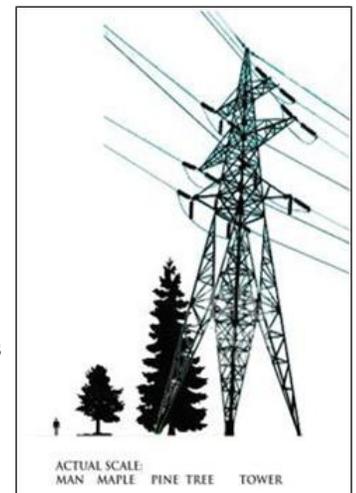
After 10 years, GMCG has redesigned its website thanks to the help of GMCG volunteer and Board Chair, Noreen Downs who worked with a local website expert Jeff Fongemie, to create a new and updated site. Jeff lives with his wife Jo Ann in Freedom where he provides design and development of highly intuitive, professional websites for small and medium sized business organizations. For more information see <http://www.fongemie.com> or call Jeff at 207.619.4806.

GMCG also extends a huge thank you to David Maple, one of our original web designers, and thanks him for his decade of website maintenance and assistance.

And thank you to all the volunteers who have helped and continue to help with so many aspects of GMCG's day to day operations! We couldn't do it without you!

Northern Pass update

Northern Pass is a corporate partnership between Northeast Utilities, PSNH and Hydro-Quebec proposing to construct 180 miles of high tension lines from Canada through New Hampshire to lower New England. There has been wide spread outcry against the project as it will not benefit NH and will instead forever change our natural landscape. In addition, it will lower the property values of our neighbors in the North Country. To learn more current news please visit: www.livefreeorfry.org; www.forestsociety.org/np; www.nonorthernpass.org/nh



Winter Calendar

Saturday January 7th & Saturday February 25th, Bald Eagle Survey Days. Huntress House, Effingham, 9am.

Meet at Huntress House at 9 am for coffee and survey site assignments. Dress warmly as we will be outside in search of Bald Eagles.

Saturday January 21st. GMCG 14th Annual Meeting and presentation by Ben Kilham. Lakeview NeuroRehabilitation Center, Effingham, 4:00-7:30pm. Take a look at the year in review, learn about ways you can volunteer, meet fellow watershed friends and enjoy a delicious meal hosted by Lakeview. There will be a short business meeting and community awards followed by a presentation by NH's black bear expert, Ben Kilham. Suggested donation for tickets are \$14 per person. To reserve tickets please call GMCG before January 20th.

Monday January 23rd. Youth Coalition & Education Committee Meeting. Community School, Tamworth, 5-7pm.

Come be part of the brainstorming and guide the youth coalition for 2012. Open to community members with a willingness to mentor youth and be part of the creative process.

Saturday February 4th, Animal Tracking Workshop. Huntress House, (GMCG office) Effingham, 11am.

Ever wonder what has been leaving footprints behind in your backyard? Well get ready for one exciting afternoon. Join Barbara Bald for a fun and informative lesson on animal tracking followed by an expedition into the woods behind Huntress House. Bring your sense of adventure and prepare to be trudging through the snow.

Friday February 17th– Monday February 20th, Great Backyard Bird Count.

Count birds for at least fifteen minutes in your backyard, out on the trail, or anywhere else you can find them. Tally the number of birds you see and submit an online checklist at <http://gbbc.birdsource.org/gbbcApps/input>.

To keep up with events & opportunities, "Like" GMCG on Facebook today at: www.facebook.com/gmcgnh

And please visit GMCG's new website www.gmcg.org!

Special Thanks to GMCG Partners & Supporters: NH Department of Environmental Services, UNH Cooperative Extension & Water Resources Center, Little Family Foundation, Adelard A. & Valeda Lea Roy Foundation, Dorr Family Foundation, NH Charitable Foundation, Quimby Foundation, Pequawket Foundation, PSNH, Davis Foundation, Norcross Wildlife Foundation, Environmental Protection Agency, Magic 104 FM & WMWV radio, Lakes Region Planning Commission, NH Fish & Game, Remick Museum, The Society for Protection of New Hampshire Forests, NH Audubon, The Nature Conservancy, Saco River Corridor Commission, The Conway Daily Sun, The Mountain Ear, Carroll County Independent, RCAP Solutions, American Ground Water Trust, University of Maine, White Mountain Survey, Camp Calumet, Camp Huckins, Camp Robin Hood, Camp Marist, Camp Cody, the towns of Effingham, Freedom, Ossipee, Madison, Sandwich, Tamworth, K.A. Brett School, Mustang Academy, Sandwich Central School, Ossipee Central School, Effingham Elementary School, Freedom Elementary School, GALA, The Community School, local businesses, watershed volunteers, board members& loyal supporting members, THANK YOU and Happy New Year!



Camp Huckins alums Helen Pelletier and Rena Glickman visit the watershed for the holidays and remind you that

**Your Membership Will Make a Difference.
PLEASE renew your 2012 membership today!**

Every drop counts! Thank you!

(Please make checks payable to Green Mountain Conservation Group P.O. Box 95, Effingham, NH 03882)

Vernal Pool ___ \$25 **Stream** ___ \$50 **Pool** ___ \$25 **Pond** ___ \$100 **Lake** ___ \$250 **Aquifer** ___ \$500 **Other** ___

NAME _____

ADDRESS _____

PHONE _____ **EMAIL** _____

Are you interested in being a GMCG Volunteer? **YES**

PLEASE RENEW YOUR MEMBERSHIP TODAY and encourage your family, friends and neighbors to join GMCG. Thank you! GMCG is a not profit 501 (C)3 tax-exempt organization. We are funded by grants from foundations, memberships, and donations. Please consider us in your estate planning. We accept donations of real property, stocks, bonds,



Nonprofit
Organization
U.S. Postage Paid
Effingham, NH
Permit No. 10

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www.gmcg.org

The Watershed News

Save the Date!
GMCG 14th
Annual Meeting
with guest speaker
Ben Kilham
January 21, 2012
4-7:30 PM

EVERY PERSON CAN MAKE A DIFFERENCE AND EACH PERSON SHOULD TRY.

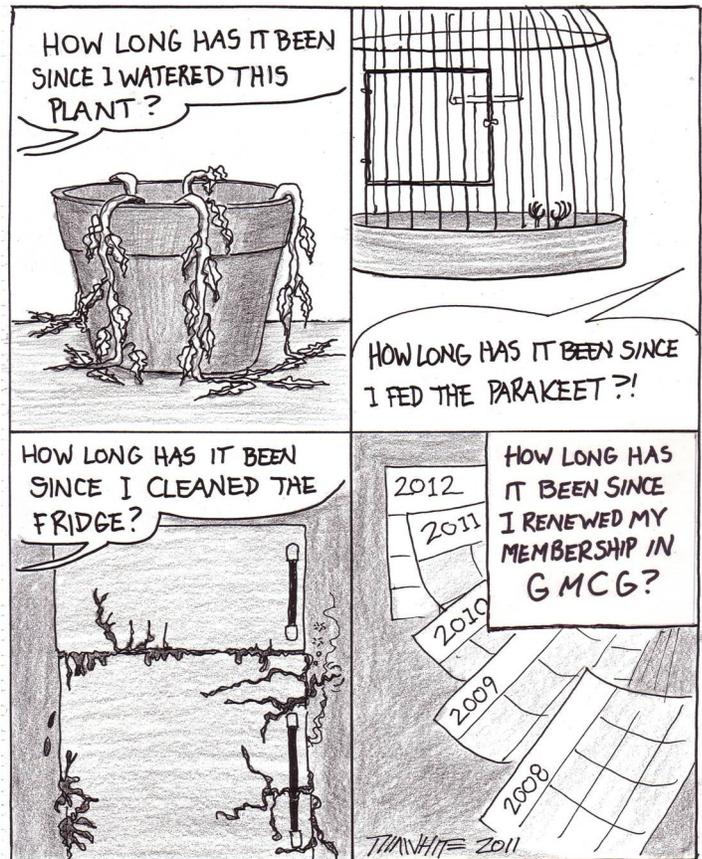
**Deadline for
Spring Newsletter
submissions is March 10th**

Of water's Charge (winter)

Hemlock Skirt

Weighed down by
Winter's frilly white
In prolonging Season's delight
But for the Wind-Sun rouge
Bent on undressing
Snowstorm's futile longings!

By Kamal Nath



ITS JANUARY—Please don't forget to
renew your GMCG Membership!
THANKS and Happy New Year!