

## **Radon in South Carolina**

Taken from SC DHEC & EPA Websites

(Editor's Note: We ran an article on Radon last summer and decided it needed to be rerun when a friend and FOLKS member told us that his home recently tested 23.5 pCi/L)

### **Radon is a cancer-causing, radioactive gas**

Radon is a naturally occurring radioactive gas released in rock, soil, and water from the natural decay of uranium. While levels in outdoor air pose a relatively low threat to human health, radon can accumulate to dangerous levels inside buildings. You can't see, smell, or taste it, but an elevated radon level in your home may be affecting the health of your family.

Exposure to radon is the second leading cause of lung cancer in the United States and the number one cause among non-smokers. The U.S. Environmental Protection Agency estimates that radon causes more than 20,000 lung cancer deaths in the country each year. Only smoking causes more lung cancer deaths. If you smoke and your home has radon, your risk of lung cancer can be higher.

### **Radon is found all over the United States**

Radon has been found in elevated levels in homes in every state. No area of the country is free from risk. Indeed, two homes right next to each other can have vastly different radon levels. Just because your neighbor's house does not have an elevated level of radon does not mean that your house will have a low radon level. The only way to know if your home is under the EPA action level of 4 pCi/L is to test.

High levels of radon in homes usually come from the surrounding soil. Radon gas enters through cracks and openings—such as sump pump lids and plumbing features—on the lower levels of your home. Hot spots include basements, first-floor rooms, and garages, but radon can be found anywhere in your house.

### **You should test for radon**

Testing your house for radon is easy to do. If your house has a radon problem, you can take steps to fix it to protect yourself and your family. You can find out if your home has an elevated radon level by conducting a simple test. It's as easy as opening a package, placing a radon detector in a designated area, and, after a set number of days, sending the detector back to a lab for analysis. The lab will then inform you of your radon test results.

Radon test kits are available at your local home improvement or hardware store, or in some cases from your state radon office. You can also order them from the National Safety Council (NSC) or radon testing companies. Another option is to hire a qualified tester to do a radon test for you. Contact your state radon office about obtaining a list of qualified testers. Information about testing your home for radon and finding a test kit is also available by calling 1-800-SOS-RADON. Obtain a free test kit by contacting the S.C. Radon Hotline **1-800-768-0362** or write to the S.C. DHEC Radon e-mail address [RADON@dhec.sc.gov](mailto:RADON@dhec.sc.gov). Be sure to follow the instructions in the test kit.

Radon is measured in picocuries per liter of air (pCi/L), a measurement of radioactivity. EPA and the Centers for Disease Control and Prevention recommend that homes with radon levels at 4 pCi/L or higher should be fixed. EPA also recommends that Americans consider fixing their homes for radon levels between 2 pCi/L and 4 pCi/L. Based on a national residential radon

survey completed in 1991, the average indoor radon level is about 1.3 pCi/L in the United States. The average outdoor level is about 0.4 pCi/L.

The **S.C. Radon Zones map** accompanying this article shows the areas in South Carolina with the highest potential for elevated indoor radon levels. However, the EPA recommends that all homes be tested for radon regardless of geographical location.

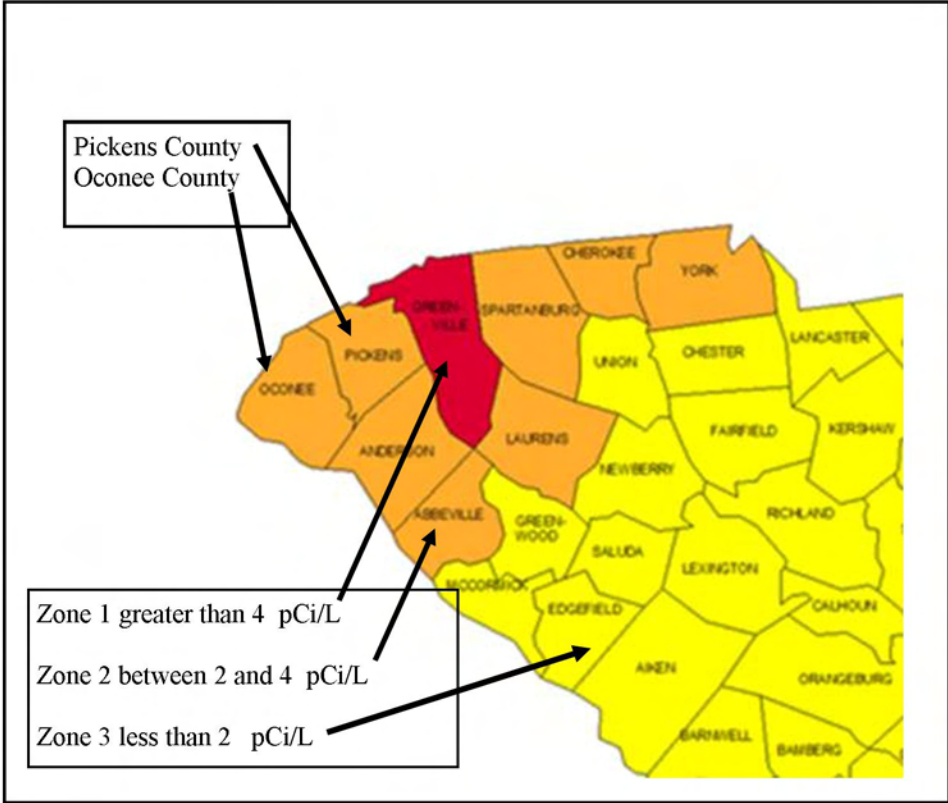
### **You can fix a radon problem**

The cost of making repairs to reduce the radon level depends on several factors, including how your home was built. Most homes can be fixed for about the same cost as other common home repairs, like painting or having a new hot water heater installed. The average cost for a contractor to mitigate radon levels in a home is about \$1,200, although costs can range from \$800 to approximately \$2,500. Look in your local phone book or call your state radon office to locate radon mitigators in your area if you find an elevated radon level in your home.

### **New homes can be built with radon-resistant features**

Radon-resistant construction methods can be effective in reducing radon entry. When used properly, these simple and cost-effective techniques can help reduce the accumulation of radon gas in homes.

Every new home should be tested after occupancy, even if it was built using radon-resistant construction methods. If radon levels above EPA's action level at or above 4 pCi/L are detected, it is easier and less expensive to reduce radon levels in homes that have been built with radon-resistant construction techniques.



## **Duke Energy Commences Access Area Improvements**

The Recreation Management Plan (RMP) which is now before the FERC (Federal Energy regulatory Commission) will guide the recreational improvements on Lakes Keowee and Jocassee until the Keowee Toxaway license expires in 2016. There are significant, much needed, improvements planned over the coming years. As an example of the types of improvements, shown here is a photo of the recently-constructed courtesy dock at Fall Creek Access Area. For more information on the RMP improvements see: <http://www.keoweefolks.org/news/duke-presents.html>. In the next issue we will outline all of the future improvements.



## President's Corner

By Bill Graham

From time to time we have written about the Low Impact Development (LID) Project. In this issue we'd like to go back to the beginning and bring you up to the present and describe what still need to get done.

We started with an idea that we could make a significant contribution to maintaining and preserving Lake Keowee and its watershed, by constructing a group of LID elements on the FOLKS property and using them to educate, and maybe even, excite, homeowners, builders and developers.

We started with a grant request to the SC Competitive Grant Program in April 2006 which was sponsored by Senator Thomas Alexander. Additional grants were obtained from the Max and Victoria Dreyfus Foundation and the Cliffs Communities. Once in a financial position to start, we began to work with Professor Mary Haque and one of her Horticulture Classes to develop a formal plan. This involved regular interactive meetings with the class; listening and critiquing their presentations and finally resulted in a "consensus" plan put together by Renee Byrd a Clemson University graduate student. A copy of that plan is shown as figure 1.

Skipping a few intermediate steps, under the leadership of Bud Search, we started to put some elements into the ground with the assistance of Clemson students, Boy Scouts from Troops 45 and 120, Master Gardeners, students from the Cherokee Creek Boy's School and FOLKS volunteers.

The first elements developed were: native plan beds in front of the FOLKS HQ; and a small rain garden right in front of the building. Time went by and we embarked on some heavy duty work – the design and installation of the concrete driveway and the pervious concrete parking areas. We are very appreciative of the work done by Goldie and Associates on the design and development of specifications for the concrete work. All during this time, the drought worsened and we decided to add a feature whereby we would capture some of the rainfall going through the pervious parking areas and collect it in two underground concrete tanks (almost looks like the good old "cisterns"). We plan on utilizing this 2000 gallon "reservoir" to drip irrigate some of the plants that will eventually be planted on the backside of the property.

Almost concurrent with the installation of the concrete, second year carpentry students from the Hamilton Career Center, under the direction of their instructor, Dawson Alexander, embarked on building a new tool shed which will be "crowned" by a green roof of sedums and ice plants. Again here, we are thankful for the engineering work supplied by The Reserve to design this load bearing structure. The "loaded weight of the green roof will be approximately 2.5 tons. The students work around the "unseasonal rain" and the freezing temperatures for their class time of 2 hours each day of the week.

The growth medium and clippings for the green roof were donated by Saul's Nursery in Atlanta and the propagation of the plants was done by two more graduate students – Erin Cook and Christa Jordan under the coaching of Dr. Jeff Adelberg at the Clemson University Greenhouses.

What still needs to be done? The design and building of several rain barrels; designation of and planting of a native plant buffer along the edge of the woods behind the headquarters;

the design and installation of the drip irrigation system; the design and installation of several “special” gardens such as butterflies and hummingbirds and, perhaps, an herb garden. If any of you are interested in helping to bring the physical part of the project to completion, come on by the office.

The final and most important phase will be the development, printing and dissemination of printed materials describing the functionality of and directions on how you can tackle some of these projects.

We are very excited about the LID project and we are equally excited about the prospects of working with both the Oconee and Pickens County Councils on the implementation of lake-protective measures to help assure the long term health and beauty of Lake Keowee and its watershed. In both cases there have been new Councilmen elected and we look forward to working with them on this important mission.

 **NEWS**

Pickens County

February 7<sup>th</sup>-

**Junior Geologist at Table Rock State Park from 9:00-12:30.** Geology is the study of the origin, history, and structure of the earth. This is done through observation of landforms and rocks and minerals. In this program students will study the geologic composition of the upstate region, which is known for its granitic domes and exposed rock faces. Students will be introduced to geological processes and to skills used by geologists in the field. The cost of this program is \$10.00 and is for youth ages 8-13. Contact the Pickens County Extension Office for more information or to register.

March 7<sup>th</sup>-

**Regional Forestry Project training at Clemson DNR Office.** Learn the skills needed to compete in the 4-H Forestry Competition and how to instruct others. This 1 day training will instruct individuals in the four areas of tree measurements, compass and pacing, tree identification, and written examination. The purpose of the 4-H Forestry Project and Competition is to provide the opportunity to develop leadership skills, develop an appreciation of the need and importance of conserving woodlands as a source of income, raw materials and enjoyment, and to acquire the information and understanding of practical forestry skills in forest management and the use of forest and wood products. This training will provide 2 tracks, Senior Aged Youth and Adult Volunteer Leaders. Registration is \$5.00 and the training runs from 9:00-2:00. If you have questions, please contact your 4-H extension agent.

March 21<sup>st</sup>-

**Culinary Cooking Clovers Event will be held at the Pickens County Extension Office from 9-12:30.** This event is for young people aged 12-15 years that are interested in the culinary field. This culinary experience will cover the creation of brioche, sweet bread. The cost of the course is \$15 per child to cover the cost of supplies. Each child will receive the recipes taught and a plate full of the delicacies that they create. Registration is limited to the first 9 paid registrants. The event is being taught by Chef Robin Porter. Contact the Pickens County Extension Office for more information or to register.

April 4<sup>th</sup>-

**Junior Herpetologist at Jones Gap State Park from 9:00-12:30.** Herpetology is the study of reptiles and amphibians. This program will cover amphibian and reptile species that are present in the upstate region. Students will be able to identify common species of reptiles and amphibians in the upstate region at the completion of the program. The cost of this program is \$10.00 and is for youth ages 8-13. Contact the Pickens County Extension Office for more information or to register.

April 4<sup>th</sup>-

**Storm Drain Marking Program Pickens County Extension Office and then countywide.** If you wish to participate please contact the Pickens County 4-H Agent at 864-878-1394. This will be an excellent activity for groups looking for a service learning project.

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Pickens County 4-H Agent  
[marguer@clemson.edu](mailto:marguer@clemson.edu)  
864-878-1394 ext 111  
PO Box 995

222 W. Main Street  
Pickens, SC 29671

## BIRCHWOOD CENTER MOVING TOWARD ITS HOME

By Dot Jackson

Several months ago a disgruntled Columbia woman sent an email to the site manager at Birchwood Center for Arts and Folklife, in northern Pickens County. "I drove all the way up there and could not find Birchwood Center," the lady fumed. "And nobody I asked knew where it is, either!"

Well, strange as it may seem, that's kind of by design -- at least for the short term. At the center of Birchwood's beginnings and plans for the future is the near-200-year-old Sutherland-Masters House, a relic of unstable floors and suspect ceilings, porches dappled with bear-droppings, interior graffiti ranging from vulgar to violent, and walls that in spring roar like jet engines, with hiving bees.

Not a place for carefree visitation. "A money pit!" one founding board member groaned, upon first sight. On the other hand, events sponsored by Birchwood Center, at other places, do invite and draw enthusiastic crowds. Since its first program at Table Rock State Park, a 2003 centennial celebration of the birth of "Red Hills and Cotton" author Ben Robertson, the budding center has collaborated with the park in annual book and author fairs, annual arts and crafts shows and sales, music and poetry programs and local history discussions.

Last winter Birchwood and the Pickens Museum joined to offer the museum's first hosted stage play, mountain playwright Gary Carden's take on the Pickens County outlaw-hero Lewis Redmond, "The Prince of Dark Corners." Several programs have been held at McKinney Chapel. Two of the best-attended were a political stump-meeting and a day for sharing backyard archeological treasures, at the Oolenoy Community Building.

The "traveling road show" solution plays into Birchwood's intent to serve all of the Upstate region. The next large event, a series of folk-based theater workshops and more live showings of "The Prince of Dark Corners," now filmed and shown frequently on ETV, is coming later this winter to Rosewood Center, an excellent small theater in Liberty, and in part to Littlejohn Community Center in Clemson.

The exact direction of their efforts was not clear to the founding members, in the year 2000, when they bought the old homestead, with its up-close view of Table Rock. Long abandoned, the place was hidden in thickets of pine, sweetgum and poison ivy. Vandals had been active; ancient shrubbery poked branches through broken windows to bloom inside, while the outlines of a once-busy stagecoach road still skirted the side porch.

Built sometime in the early 1800s, the place was bought in 1813 by Amos Ladd Sutherland and his wife Mary Keith, Pumpkintown pioneers. It is believed to have been the first hostelry in the Table Rock area, replaced, or augmented, by a hotel on the mountain built in 1843 by members of the Sutherland family. In 1914, the old farm was bought by the Masters family, who lived there until 1983.

What to do with such a place? First thing, clean it up. With the woods pushed back, and many truckloads of rubble carted off to the landfill, old gardens came to life, and a plan emerged. In line with the original idea, the place would be a retreat, with quiet cabins in the woods for tradition-based craft and study. Studios would house the teaching of all manner of arts and early living.

The focus was never to be on demonstration, of such matters as quilting, weaving, open fire cookery, heirloom gardening and dozens of other skills. It would be a teaching center, for learning by actual doing until proficiency was gained that could be taught to others. The idea was perpetuation of the best of our upland culture.

Another facet emerged: film-making. The center's first effort, done on no budget, just for fun, was a three-minute farce called "Toasterella," that won a place at a University of South Carolina film festival several years ago. Now awaiting a final edit is an hour-length serious documentary on Eastatoee Valley, with a mass of footage now in reserve for more films and archiving.

A set of excellent plans for a compact set of buildings on the three and a half acre site was contributed by Tony Niemeyer and Buddy Thompson, of The Reserve, a major benefactor. The building program is temporarily on hold while the national economy flounders, and in the interim, the attention of the dozen-member board, and an equal number of advisors, is going into the stabilization of the old house, so that it will be preserved and can be safely used by the center.

Currently, Birchwood business is run out of a decrepit trailer behind the old house, which is at 187 Birchwood Road, near Table Rock. But better times are coming. Watch that spot! (For more info, consult [birchwoodcenter.org](http://birchwoodcenter.org), on the Internet. Or call the center at (864) 898-1418.)

## FOLKS Fishing Stories - Catfish Stuck in Bass

November 11, 2008 – Bill Walker

I was boating up the North end of the Lake to visit friend when I spied a something white in the water a hundred yards ahead. Since I always try to pick up floating trash when I see it, I altered course to intercept and reached for long handled landing net to scoop up whatever it was.

As I approached I saw it moved and it appeared to be an injured fish. I almost let it go when I saw that it was a good sized spotted bass swimming upside down, so I netted it anyway to see what the situation was. And I was surprised at what I found

The spotted bass was about 14" long and had stuck in it throat a 7-inch channel catfish. (See the picture.) As you may know, these catfish have long sharp spines in the leading edge of each of the front lower stabilizing fins, and when threatened, these catfish spread their spiny fins straight out from their bodies. Well, apparently this bass had tried to swallow the catfish headfirst, and part way down the catfish had succeeded in spreading its fins. When the bass had struggled to dislodge the catfish, the spines on the catfish's fins had actually penetrated each cheek of the Bass, and were sticking out on each side of the bass' face. Both the bass and the catfish appeared to be alive!

I quickly filled the old cooler I carry as a live well, and turned on the aquarium aerator that I use to keep fish alive in the water, and continued on to my friend's place hoping to get a long thin clippers that I could use to reach into the bass's mouth and clip off of the spines of the catfish so that each could go their way.

By the time I reached my friends house, and we found some long clippers, the bass had miraculously freed itself from one of the spines, and the catfish was most of the way out. We operated to remove the other spine, and the catfish, once released, swam happily away. The spotted bass continued to swim upside down, so I kept it in the cooler with the aerator going for observation hoping the extra oxygen in the water would help it recover.

I noticed that the belly of the bass was quite swollen, as I had seen the bellies of bass that I have caught and brought up from deep water. My theory was that the bass attacked the catfish on the bottom in deep water, got entangled, and rose too quickly to the surface. Unfortunately, the bass did not survive, as it could not recover from floating upside down with its air bloated tummy.

I have heard that there is a technique for releasing the air from fish brought too quickly up the depths, and that it involves sticking the bass in the correct spot with the equivalent of a hat pin. However, I have never seen it done, and did not know how to do it with this bass. If anyone out there has done it and can explain what to do, please send the explanation to the FOLKS Sentinel for publishing in a later issue.



## **Leaves Should Not be Blown into the Lakes**

By Ben Turetzky

Every year FOLKS receives telephone calls during the fall asking whether blowing leaves into the lake is ok. The answer doesn't change – it is not good for the lake. The last call we got this year involved someone piling leaves onto a tarp and carrying them down to the lake and dumping them in and it was within the city limits of Seneca, where they collect the leaves when you place them at roadside!! The difficulty is that we see leaves dropping into the lake all the time and think nothing of it, but the difference between that random falling of leaves and blowing a whole yard into the lake is very significant.

What happens when someone dumps leaves into a lake? Simply put, they decay, and release phosphorous, which in a narrow shallow cove, can cause algae growth. In addition when the alga dies and settles to the lake bottom, it decays and uses up oxygen which is needed for fish and other aquatic life. The net result, except for the time lag, is just the same as blowing excess lawn fertilizer into the lake or stream. These acts are not done by people who want to hurt the lake; they just don't think about what they are doing.

The South Carolina Department of Health and Environmental Control (DHEC) produces a map with the heading "It's your lake; watch what you put into it!"

## **Faucet Flows**

Faucets account for more than 15 percent of indoor household water use—more than 1 trillion gallons of water across the United States each year. WaterSense labeled bathroom sink faucets and accessories can reduce a sink's water flow by 30 percent or more without sacrificing performance. We could save billions of gallons each year by retrofitting the country's 222 million bathroom sink faucets with models that have earned the WaterSense label.

An extensive list of brands and models may be found at:  
[http://www.epa.gov/watersense/pp/lists/find\\_faucet.htm](http://www.epa.gov/watersense/pp/lists/find_faucet.htm)

## Oconee County Comprehensive Plan Review

The comprehensive plan is the master plan used to guide future growth in the county. This plan inventories existing conditions, states the needs and goal of the community, and provides implementation strategies for reaching the goals stated in the plan. Each local plan must include the following elements: **population, economic, natural resources, cultural resources, community facilities, housing, land use, transportation**, and a **priority investment** element. State law requires that each locally adopted plan be reviewed every five years and rewritten every ten years

The plan may be found at the following url:

<http://www.oconeesc.com/planning/ordinances/Comprehensive%20Plan%20July%202004.pdf>

You have an opportunity to provide suggestions and solutions on-line or by mail. Just go to: [http://www.oconeesc.com/planning/comprehensive\\_plan\\_update/publiccommentform.pdf](http://www.oconeesc.com/planning/comprehensive_plan_update/publiccommentform.pdf)

The Planning Department Staff has scheduled a meeting for February 4<sup>th</sup> from 3-5 pm in County Council Chambers – the subject will be: Population and Transportation Elements. Due to the closeness in time to this issue getting into your hands we have sent out a broadcast email (to those of you who have given us your email address – If you wish to be included in such emails just send us a email and request to be added.

The additional dates and topics have not yet been determined. FOLKS will send out email notices of each meeting. Please take this opportunity to review the 2004 Comprehensive Plan and comment to the Planning Department.

## **Groundhog Day: The Life and Times of the Weather Predicting Woodchuck**

Candace Cummings  
Urban Wildlife Specialist  
Clemson University

Since 1887, members of the Punxsutawney Groundhog Club in Punxsutawney, Pennsylvania have made quite a to-do over the emergence of the groundhog named Punxsutawney Phil on February 2<sup>nd</sup>. This much anticipated event traces its origins to Europe where centuries ago Europeans sought to predict the final stages of winter by keeping an eye out for badgers. In this country we watch for the groundhog (or woodchuck), hoping that when it leaves its burrow it won't see its shadow. Folklore has it that if he is seen on an overcast day, spring will come early. However, if he sees his shadow and is frightened back into his burrow, six more weeks of winter weather will follow.

The truth is, the woodchuck, or groundhog, is a furry butterball in the rodent family who when emerges in late winter, is usually checking for a potential mate—not the weather. Looking a little like a chunky pear with brown grizzled fur, this underground architect, is a true hibernator—as early as September or as late as November, the woodchuck finally waddles down its burrow, crawls into its nest and falls into a deep sleep. Breathing as little as ten times an hour, the woodchuck hibernates--while maintaining a body temperature between 37 and 57 degrees. The woodchuck will hibernate until he emerges in late winter to search for a mate. Then the mated pair will resume hibernation until spring. Many animals may sleep during the winter months, but only a few—like the woodchuck-- are true hibernators. Only animals who can store enough food reserves in the form of accumulated body fats are able to hibernate. In addition to the usual white fat which insulates and helps warm the body, hibernating animals have another kind of fat known as brown fat. Cells of brown fat produce body heat up to 20 times faster than white fat.

From late February to early March (depending on latitude), the woodchuck emerges from its burrow and begins to look for a mate---not his shadow. He does this by sniffing each burrow for a single female. He then wags his tail and enters her burrow hoping she desires his company. Many times she does not, and will throw him out. But he is persistent, and eventually she gives in to his advances. The pair will then sleep some more until the arrival of the young when the female banishes the male again from the burrow.

The burrow system, is an engineering marvel, and kept impeccably clean. With plenty of vegetation like grass, clover or even your vegetable garden around for food the woodchuck digs a burrow system consisting of a tunnel system and a few chambers. One chamber is for sleeping and raising young and one is for a toilet area. These burrow entrances are often easy to see in many sloped, grassy or weedy areas throughout the upstate of South Carolina. Often woodchucks can be seen standing guard on their hind legs at the burrow entrances. Communicating with sharp whistles and grunts the woodchuck can warn the colony of danger.

Since woodchucks are herbivores and prefer tender green plants, a favorite dining spot may be your garden. They may ravage beans and peas, and take their fill of carrot tops, lettuce, cabbage and squash. Once a colony of woodchucks is established, it is difficult to get rid of

them. If you find yourself in this situation here are a few options: In gardens, the most permanent method of woodchuck control is fencing. A sturdy fence at least 3 feet high will keep out most animals. If woodchucks burrow under, bury the fencing an additional 1-2 feet below ground level. Supplementing the fence with a strand of electrified wire 4 to 5 inches off the ground will help deter them. Removing ground cover, stumps, woodpiles and undergrowth will make the area less inviting. No commercial repellents are registered as effective for woodchucks. However, home remedies like placing a can filled with a pungent substance like pine oil, in the burrow, may encourage the woodchuck to move out. Avoid using this method in spring or summer when young may become stranded inside the burrow. Spraying around the garden with a homemade mixture of ground hot peppers, garlic, water and liquid soap will also repel them.

As a last resort, live traps for woodchucks should be placed near the entrance of the burrow or near the feeding area. Bait the trap with fresh cabbage leaf, apple slices or a commercially prepared bait. Late summer is the best time to trap.

So, if he doesn't really predict the weather...I wonder...how much wood could a woodchuck chuck, if a woodchuck could chuck wood?

## SC DNR DOINGS

Ask DNR!-Have a question about hunting, fishing, boating, natural resources or wildlife conservation? Submit your question, wildlife fish and game photos and wild game recipes at [www.dnr.sc.gov/dnrradio/ask\\_dnr.html](http://www.dnr.sc.gov/dnrradio/ask_dnr.html), then listen for "Life's Better Outdoors" with host Mike Willis. Join DNR communications director Mike Willis for "Life's Better Outdoors" each Saturday at 11 a.m. on Sports Radio 1400theteam.com in Columbia and on the Clemson University radio program Your Day, the first Wednesday of each month from noon to 1 p.m., statewide on the SCETV radio network.

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Terry – please use the logo supplied in the header.