



MISSOURI ForestKeepers MONITOR

FALL 2006

INSIDE THIS ISSUE:

2 Adopt-A-Trail

Fall Activity:
Room for Rent

3 Featured Species

Treevia
Q&A

4 Welcome New Members!

5 Utilizing Eastern Red Cedar

7 Sometimes You Feel Like a Nut

8 What Do You Think?

Strange and
Extraordinary Trees

Celebrating 10 Years!

By Justine Gartner, Forestry Field Program Supervisor, Missouri Department of Conservation

THE MISSOURI FORESTKEEPERS NETWORK IS celebrating its 10th anniversary this year. Initiated in the summer of 1996, the program attracted 731 charter members. Today, the program has grown to serve more than 1,700 members throughout much of the state.

The initial goals of forestry education and statewide outreach still hold true today. We want to educate Missourians about the care and management of Missouri's trees and forests, and to enlist volunteer support in monitoring forests. We strive to engage members in hands-on forestry projects to increase understanding of forestry issues.

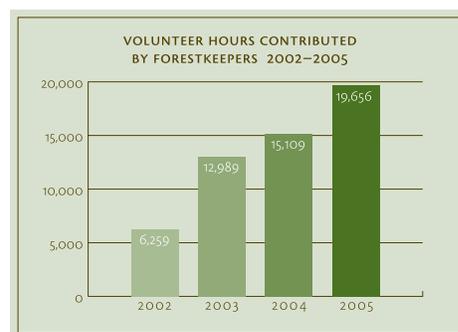
During the first year of the program, the charter members told us they wanted to know more about topics such as the gypsy moth, tree planting, using the program for scouts, riparian forests, and windbreaks. Over the years, we have addressed many of these topics through training sessions, various publications, and newsletter articles.

Efforts to teach Missourians earned the program the *National Arbor Day Foundation Education Award* in 1998. Today, the program continues to be unique. Over the years we have tried a variety of approaches to engage members, some of which were more appealing and successful than others. These approaches included: videos and identification cards for diagnosing and treating common tree pests; an educational advisory council; online training; and annual awards to recognize the achievements of our outstanding members.

2005 HIGHLIGHTS

Many Forestkeepers were initially attracted to the program because of the opportunity to get outside and work with Missouri's natural resources. Tree observations continue to be a staple activity in the program with 121 projects submitted last year. Members surveyed 2,023 total trees in 47 counties, and they identified 40 different tree species.

However, the activity reports submitted in 2005 demonstrate that members are doing much more than just forest health monitoring. Members participated in 511 forestry-related activities. Through these activities, Forestkeepers contributed a total of 19,656 volunteer hours during the year, representing labor valued at nearly \$345,000. This is a remarkable 30 percent increase in volunteer time from that reported in the Network in 2004!





MISSION:

To develop a network of informed citizens working to conserve, sustain and enhance Missouri's urban and rural forest resources through volunteerism, advocacy, and management.

EDITOR:

Nancy von Brecht

TECHNICAL EDITOR:

Justine Gartner

ASSISTANT EDITOR:

Michelle Johnson

DESIGN:

501creative, inc.

ILLUSTRATIONS:

Courtesy of the Missouri Department of Conservation

The Missouri

Forestkeepers Network is a statewide volunteer program administered by Forest ReLeaf of Missouri in partnership with the Missouri Department of Conservation. Membership is free.

FOR INFORMATION, CONTACT:

Forest ReLeaf of Missouri
4207 Lindell Blvd.
Suite 301
St. Louis, MO 63108

TOLL-FREE:

1-888-9-FOREST
(1-888-936-7378)

information@forestkeepers.org
www.forestkeepers.org

 printed on recycled paper with 30% post-consumer waste

Adopt-A-Trail Program

By Teresa Kight, Recreation Specialist, Missouri Department of Conservation

THE MISSOURI DEPARTMENT OF CONSERVATION currently manages 136 areas with designated trails and 695 miles of trails statewide. But trail management and maintenance are just two of the many responsibilities staff have on a Conservation Area. One way we can continue to provide quality hiking, horseback riding and mountain biking opportunities is by enlisting the help of volunteers. The *Adopt-A-Trail* program is a way for trail users to get actively involved in conservation by assisting area staff with monitoring, maintaining, and enhancing trails and trailhead facilities.

Volunteers are asked to visit their adopted trail at least four times per year. Since the Department's *Adopt-A-Trail* program officially began three years ago, trails on 42 Conservation Areas have been adopted. A total of 41 volunteers or volunteer groups contributed over 1,000 hours to improve our trails in the past year.

If you would like to help care for a Conservation Area trail, visit www.mdc.mo.gov/trails, or contact me, Teresa Kight, at 573-522-4115, ext. 3636, or by e-mail at Teresa.Kight@mdc.mo.gov.

FALL ACTIVITY

A seasonal project to enjoy with the whole family

Room for Rent

WITH WINTER JUST AROUND THE CORNER, consider providing some habitat for your furry friends. Find an area in your woods that is away from human traffic. Explain to the younger participants in the project that animals need shelter, just like people. Some animals live underground, but others look for cracks and holes above ground.

You will need:

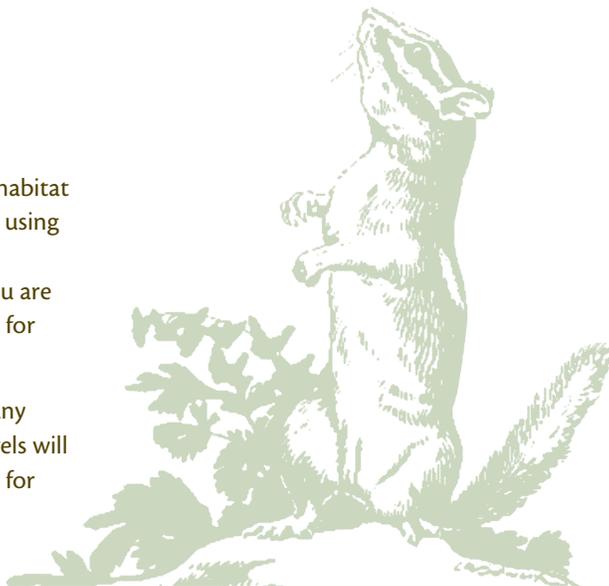
- Branches, sticks, logs, and rocks
- Heavy work gloves

Work with the natural materials to build a habitat for small animals by piling up the branches, using rocks or logs for support and layering. Get everyone involved in the construction! If you are really ambitious, build several more "rooms for rent" throughout the woods.

Visit the habitats occasionally. Do you see any evidence of animals? Chipmunks and squirrels will often sit on branches and eat seeds, so look for

seed debris. Also look for tracks and animal droppings – rabbits leave lots of traces. You might even find a snakeskin or a snake!

Adapted from the Backyard Woods program of The National Arbor Day Foundation and the USDA Forest Service, Northeastern Area



- The Mark Twain National Forest was established in 1934-1935 with four initial land purchases. Today, the forest spans 1.5 million acres across much of the southern half of Missouri.

& Q&A

Q: Can my students earn their own incentives?

A: *The Missouri Forestkeepers Network highly encourages student involvement. If your students conduct tree observations, please use the new Student Observation Form. Instructors are eligible to receive one of our regular incentives and students are eligible for one of our token student incentives when they submit their forms to us. Call us or go online to obtain one of these new forms.*

Q: Where can I find records of Missouri's champion trees?

A: *You can find a complete list of species at www.mdc.mo.gov/documents/forest/MOStateChampionTree.pdf. If you have a tree you would like to nominate for a champion, find out how at mdc.mo.gov/forest/IandE/MOChampionTrees/index.htm, or by calling your local forester at the Missouri Department of Conservation.*

Have a question about Forestkeepers, trees, or what you read in this issue? Contact us at information@forestkeepers.org or by mail to: Q&A, c/o Forest ReLeaf of Missouri, 4207 Lindell Blvd., Suite 301, St. Louis, MO 63108. We will respond to your question and we may even include it in the next issue.

FEATURED SPECIES:

SUGAR MAPLE

Acer saccharum Marshall ssp. *saccharum*



Illustration courtesy of the Missouri Department of Conservation

A FALL FAVORITE, THE SUGAR MAPLE IS known for its brilliant display of leaves in autumn and as a source for maple syrup and sugar. It is an excellent medium to large landscape tree, potentially reaching 100 feet in height with a large, rounded crown. The wood is used for flooring, veneer and furniture, and the bark has many medicinal uses. Sugar maple is highly shade tolerant, but needs room to grow and does not do well in crowded and polluted conditions.

LEAVES: Opposite, simple; 3 to 6 inches long and wide; triangular in shape, with 3 to 5 lobes; generally dark green, then turning bright yellow, orange and red in autumn.

BARK: Gray and smooth on young trees; darker with irregular thick and/or scaly plates on older trees. The wood is reddish-brown,

tight-grained, tough and durable. Sugar maple is thus also known as hard maple.

FLOWERS: Emerge in the spring before the leaves; male and female flowers are usually found on the same tree; appear as long, droopy, hairy stalks that are yellow or greenish yellow in color.

FRUIT: Samara (winged fruit); ¾ to 1½ inches long; reddish-brown; usually in pairs; produced in late summer through fall.

HABITAT & RANGE: Sugar maples are found throughout much of Missouri. Many different cultivars are available.

Welcome New Members!

We would like to welcome the following new members to the Missouri Forestkeepers Network:

Jeff Bezona	Ilene Fleshman	Matt Koetting	Soaring Eagles 4-H Club, Sullivan
Barb Bisanz	Girl Scout Troop 198, Puxico	Lisa LaCombe	Steve Truitt
Chip Cantrell	Kathryn Hesse	Brian McLeod	Cathy Yates
Russell Clan	Connie H. Johnson	Brent, Fara, Austin & Chase Minnick	Karen Zimmerman
Ron Clasen	Cindy Jones	Richwood Wildcats 4-H	
Walter D. Elkins	Jordan Valley Ice Rink	Dave Smith	
Brittany Elliott			

We would also like to give a special welcome to the following schools and school groups which recently became members:

Boonville FFA	Gilman City R-IV	Maysville R-I	Seneca High School
Chadwick R-I	Hartville High School	Miller R-II	Sturgeon High School
Cole Camp FFA, Cole Camp R-I	Horticulture Class, Crowder College	Mount Vernon High School	Summersville FFA
Environmental Protection Club, Center High School	Independence Academy Daytreatment Program	NCCC, Bethany	Trenton FFA
Environmental Science Class, St. Charles West High School	Career & Technical Center at Fort Osage	North Central Missouri College	Troy FFA
Farm Management Upward Bound, Crowder College	Jefferson High School	Norwood High School	Warrensburg Middle School
	Malta Bend FFA Chapter	Parkway North Envirothon Group	Westran R-I High School, Huntsville
		Plato High School FFA	Woodland FFA, Marble Hill
		Putnam County R-I High School	

The Forestkeepers program provides opportunities for teachers and students to become involved in data collection, identifying Missouri trees, data analysis, and report writing. Participation in the Network can help educators meet several of the Missouri Show-Me Standards and the Missouri Science Grade Level Expectations. When teachers join the program, they receive a complete kit with all the materials they need to get their students started on their tree observations.

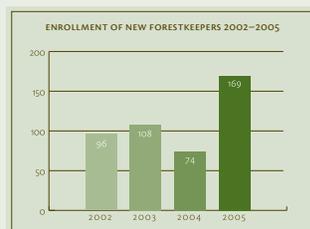
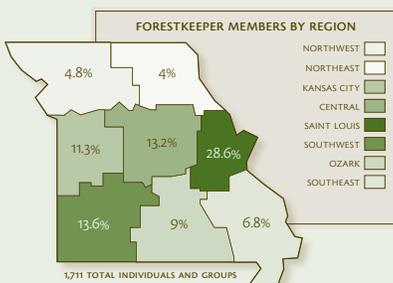
Do you know someone who might be interested in becoming a Forestkeeper? Call 1-888-9-FOREST or visit www.forestkeepers.org for details on joining our network of more than 1,700 citizens who are working to conserve, sustain, and enhance Missouri's urban and rural forest resources.

Celebrating 10 Years *(continued from page 1)*

MEMBERSHIP

Enrollment in the program jumped in 2005 with 169 individuals and groups becoming members. That brought the total membership in the Network to 1,711 individuals and groups overall.

Members live in most counties in the state. Only Holt, Mercer, and Atchison counties in northwest Missouri do not have a Forestkeeper residing in them.



NEW ACTIVITIES

• *The First Annual Hunt for Strange and Extraordinary Trees* was held last fall. Members responded with some truly amazing images! (Selected photos from the hunt may be viewed on the Network's website at www.forestkeepers.org.)

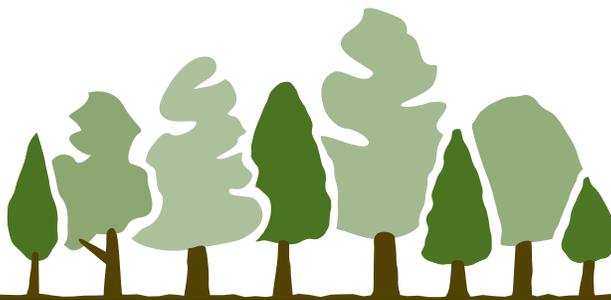
• This newsletter was redesigned to include expanded articles and new features, giving members an opportunity to learn even more about Missouri's trees and forests.

• An official logo was designed for the Network to give the program a stronger identity.

• New correlations linking Forestkeeper activities to the current teaching standards were developed for teachers.

• A *Forest Mentor & Apprentice Program* was announced to help new members get started on their tree observations and other Forestkeeper activities.

Missouri's forests are among our most important natural resources. The Missouri Department of Conservation is proud of our partnership with Forest ReLeaf of Missouri in administering the Missouri Forestkeepers Network. But most importantly, we are proud of, and very grateful for, the many contributions of the members and citizens who volunteer to help us care for this critical resource. Thank you for 10 wonderful years. We look forward to many more to come!



FORESTKEEPERS BULLETIN

Utilizing Eastern Red Cedar

HAVE YOU EVER WONDERED WHAT EASTERN red cedar (*Juniperus virginiana*) trees are good for? Missouri's most abundant native conifer is considered by many to be nothing more than a weed tree. There are, however, a surprising number of beneficial uses for eastern red cedar in wood products, as a landscape tree, and for wildlife habitat.

GROWTH CHARACTERISTICS

To better understand how eastern red cedar can be utilized, it helps to know something about its growth characteristics. It is considered a dioecious species, which means that male and female flowers form on separate trees. The female trees display a conspicuous fruit in the fall which is a bluish green, berrylike cone. Eastern red cedar is considered the most widely distributed conifer in the Eastern United States. It can grow on soils ranging from dry rock outcrops to wet sites. It grows best on deeper, well-drained soils. Eastern red cedar is one of the first species of trees to invade abandoned fields and pastures.



GLADES

In the Ozarks, eastern red cedar often grows on areas called glades that are characterized by dry rock outcrops and thin soils, generally on south-facing slopes. Native warm-season grasses grow on glades and are beneficial to wildlife because of their

nutritional and nesting value. Eastern red cedar can invade glade areas and grow so densely that the trees shade the ground and prevent the growth of the native grasses and forbs. In these situations, natural resource managers sometimes recommend cutting and prescribed burning to restore the glades. This improves the native warm-season grasses, forbs, and the associated wildlife habitat.

WOOD PRODUCT USES

Harvested eastern red cedar can have significant value to a landowner. Looking at the cross section of a cut log, the most valuable portion is the red-colored heartwood located in the center. This heartwood contains an oil that gives cedar its distinctive odor as well as its resistance to decay. The lighter colored sapwood on the outside of the log does not contain this oil and is therefore not resistant to decay.

When grown in competition with other cedars, eastern red cedar can produce good quality, salable lumber. Stands of cedar can be thinned of mature trees, leaving the smaller diameter trees to grow for future harvests, when they will produce a much greater volume of lumber. Harvesting the smaller (5 to 7 inch diameter) trees is generally not cost effective for landowners. Larger diameter trees (14 inches plus) may grow to form fissures and cracks, making full utilization of the wood difficult.

Generally, when trees reach 8 to 12 inches in diameter at breast height (DBH), and can produce two or more logs, they are ready for harvest. In this case, a log is defined as a length of approximately 4½ feet, unlike hardwood logs, which are generally cut to 8 feet or more (although some high quality cedar logs are also cut to 8 foot lengths). Cedar logs can be utilized for lumber up to where the stem

By Greg Cassell,
Resource Forester,
Missouri Department
of Conservation

continued on next page >



**PREVIOUS
TECHNICAL BULLETINS:**

- #1 Our Upland Oak-Hickory Forests
- #2 Bottomland Forests
- #3 Missouri's Coniferous Forests
- #4 Urban Forests and Plantations
- #5 The Gypsy Moth
- #6 Dogwood Anthracnose
- #7 The Japanese Beetle in Missouri
- #8 Butternut Canker and Its Dwindling Host
- #9 Asian Longhorned Beetle
- #10 Chip Mills in Missouri
- #11 Community Forestry
- #12 Proper Pruning
- #13 How to Hire an Arborist
- #14 Can These Trees Be Saved?
- #15 Maintenance of Backyard Trees
- #16 Selecting Professional Tree Care
- #17 Tree Protection During Construction
- #18 Poison Ivy
- #19 Tick-Borne Diseases
- #20 Chiggers
- #21 Snakes of Missouri
- #22 Managing Your Forest
- #23 Are You Protecting Missouri's Water?
- #24 Selling Timber the Smart Way
- #25 Timber Stand Improvement
- #26 Benefits of Livestock Fencing
- #27 Edge Feathering
- #28 Managing for White-Tailed Deer
- #29 Turkeys & Woodlands
- #30 Underutilized Trees for Missouri Landscapes
- #31 Managing Your Yard for Trees and Grass
- #32 Windbreaks: Protection That Grows
- #33 Evergreens: Selections for Your Landscape
- #34 Specialty Forest Products
- #35 Heating with Wood

You can access these bulletins online at www.forestkeepers.org by clicking on "Newsletters" on the homepage.

Utilizing Eastern Red Cedar

continued from page 5

tapers to a diameter of 5 inches. The short logs are generally cut into 4 to 6 inch-thick square or rectangular boards, known as cants. These cants are then sent to secondary mills to be made into the final product.

The price that landowners receive for cedar logs at the mill is based on the diameter at the small end of the log. As mentioned above, the smallest log the mills will accept is 5 inches in diameter at the small end. The prices offered are generally what the mill will pay for logs that are delivered to them. It is therefore important, when cutting your own logs, to know what log size a mill will require before you begin work. Cedar buyers who come to your property to harvest the trees will generally only give you one-third the delivered price.

Eastern red cedar is used in a variety of products and novelty items. The fragrance from the oil is thought to inhibit insects, such as moths, so cedar is used in products such as chests and closets where clothing is stored. The wood is sometimes used for flooring, furniture, and bird houses. Cedar logs can also be used for fence posts. Waste wood that remains after the eastern red cedar log has been cut into lumber can be chipped for pet bedding and mulch.

LANDSCAPE USES

Although not highly utilized for landscaping, eastern red cedar can be planted to accomplish specific needs around your home and outbuildings. It makes an effective windbreak when planted in the right location. Homeowners who wish to block views of adjacent property can plant it as a screen. As an evergreen, it can provide welcome color in your yard throughout the winter months.

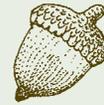
WILDLIFE USES

Eastern red cedar is a valuable wildlife tree. Many species of birds eat the fruit and the foliage can provide an emergency food source for other animals during extreme winter conditions. Cedar provides good cover and bedding areas for wildlife, especially during the winter months, and animals use groups of cedar trees for shelter from wind and precipitation. Birds use the tree for nesting and roosting.

To help you decide how best to utilize eastern red cedar on your property, contact your local Missouri Department of Conservation forester. To find the forester in your area, visit www.forestkeepers.org and click on the "Ask the Forester" page, or call 1-888-9-FOREST.



Sometimes You Feel Like a Nut



Adapted from an article by Francis Skalicky, Metro Media Specialist, Missouri Department of Conservation

WE ALL KNOW WHAT ACORNS ARE, BUT IT'S OF LITTLE CONCERN TO MOST OF US WHEN THESE OAK SEEDS RIPEN AND FALL TO EARTH IN AUTUMN. IF YOU ARE A MEMBER OF THE ANIMAL KINGDOM, THOUGH, YOU HAVE A COMPLETELY DIFFERENT PERSPECTIVE ON ACORNS. ACORNS ARE THE PRIMARY FOOD SOURCE FOR DUCKS, SQUIRRELS, DEER AND TURKEYS.

Acorns and other tree nuts and fruits are collectively known as mast. Since oak trees are common throughout this area, acorns make up the bulk of the mast produced. If animals find acorns, they survive; if they don't, they die. For many species of animals, it's that simple. The importance of acorns to wildlife cannot be overstated.

Acorns are a primary food source for deer in the fall and, when acorns are plentiful, deer don't have to move as much to forage. In the fall, deer need the nutrition for courtship and mating activities, and also to fatten up for the lean months ahead. In winter, acorns are the primary factor that will determine whether or not they survive the winter.



For many squirrel populations, acorns are a staple. Fluctuations in squirrel numbers have been directly linked to mast production. Acorns are at the top of the food list for turkeys as well. Insects, berries and grass seeds are also parts of a turkey's diet, but studies have shown acorns are the No. 1 food for wild turkeys throughout the year. Quail also find acorns to be a valuable food source in the fall and winter.

Popular game animals are not the only creatures that need acorns. Many types of birds and small mammals depend on them too. One particularly heavy consumer of acorns is the bluejay. Bluejays not only eat acorns, they also store them for future meals. One study documented 50 bluejays transported and cached 150,000 acorns in 28 days—about 110 acorns per day for each bird. And you thought squirrels worked hard at storing nuts!

Bluejays scatter their acorn storage sites over a large area. Soft, damp soils provide numerous locations and a quick means of covering up the nuts. These storage sites are also locations where acorns are most likely to grow. Consequently, bluejays provide a valuable service by dispersing nuts and planting oak trees.

If you want a varied population of wildlife on your property, oak trees are a requirement. The Missouri Department of Conservation publication, *Wildlife Management for Missouri Landowners*, provides information about how landowners can manage their land for various types of wildlife. This free publication is available at www.forestkeepers.org or www.mdc.mo.gov/landown/wild/landmgmt/.

Another free publication, *Missouri's Oaks and Hickories*, provides information about the state's 21 species of oak trees and the various species of hickory trees found in Missouri. It can be found at www.mdc.mo.gov/forest/landE/oak_hickory/. Both publications may be requested by mail by contacting Justine Gartner at the Missouri Department of Conservation, 1-573-522-4115, ext. 3116. Additional information about oak trees and wildlife management can be found on the Department of Conservation's website, www.missouriconservation.org.

ONE STUDY FOUND THAT
A BLUEJAY CAN STORE
ABOUT 110 ACORNS IN A
SINGLE DAY!



What Do You Think?

This fall, you will receive a voluntary survey so you can tell us what you think about the Missouri Forestkeepers Network. Please take a few minutes to complete the questionnaire and return it to help us chart the future of the program. If you are one of the first 25 respondents to return your completed survey by December 1, we will send you the new pocket *Trees of Missouri Field Guide* as our thanks for your participation and input!

BACK BY POPULAR DEMAND:

Strange and Extraordinary Trees



We are pleased to announce that *The Second Annual Hunt for Strange and Extraordinary Trees* will be held this winter. Watch your mailbox for details and keep an eye out for the strangest and most extraordinary trees in your area!

Selected photos from last year's hunt may be viewed online at www.forestkeepers.org.



Return Service Requested

c/o Forest RelLeaf of Missouri
4207 Lindell Blvd., Suite 301
St. Louis, MO 63108



Non-Profit
Organization
U.S. Postage
PAID
St. Louis, MO
Permit No. 3900