

Seeing the Forest Through the Deer

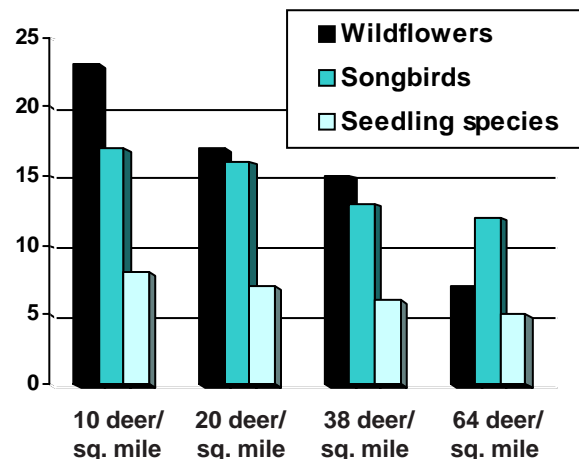
A popular objective for owning forestland is wildlife and the pleasure it provides. In Maryland, one species that contributes to this pleasure is the white-tailed deer. Seeing a movement in the brush, the flick of a white tail, and the graceful bounds of a deer can be thrilling no matter how many times you have experienced it. At the same time, hunters eagerly await deer season for recreation and food.

While deer are an important part of a forest ecosystem, an overabundance of deer has negative impacts on the future health and biodiversity of the forest. Some of these negative impacts are subtle enough to be unnoticed even by people who spend a lot of time in the woods.

Early Deer Populations

When Europeans settled our area, deer averaged 8-10 per square mile. Their populations were kept in balance with the forest ecosystem. Hunted to near extinction at the turn of the 20th century, white-tailed deer have made a remarkable recovery throughout the eastern U.S. because of protective game laws, freedom from natural predators, and an abundance of favorable rural and suburban habitat. In some parts of Maryland today, the density exceeds 150 per square mile and residents are well aware of deer damage to landscapes and agricultural crops, collisions with automobiles, and the increased incidence of Lyme disease. The impact on the health and diversity of the forest is more subtle but very significant.

Deer and the Forest



Numbers and varieties of wildflowers, songbirds, and seedlings decrease as the density of deer increases.

For deer and other wildlife, the availability of habitat—food, shelter, water, and space, dictates how many animals the habitat can support. This is *carrying capacity*. The *cultural carrying capacity* is the maximum number of the species that can coexist compatibly with local human populations. The *biological carrying capacity* is the number of the species the ecosystem can support in good physical condition over a period of time. The *biodiversity carrying capacity* is the maximum number of the species that can exist without negatively affecting the diversity of flora and fauna. Cultural and biological carrying capacities for deer usually are higher than the biodiversity carrying capacity.

Deer in Rural Woodlands
Videoconference
April 21, 2001- 9 a.m. to noon

- Deer in hardwood forests
- How bad is the situation?
- Economic and ecological impacts
- Deer-sensitive woodlot management
- Hunters and landowners working together
- Other topics + Call-in questions

Downlinked in Garrett and Washington counties.
See *Upcoming Stewardship Events*, page 4.

Impact of Deer on the Forest

Research in forested areas of Pennsylvania shows that when deer density is greater than 10 per square mile, the number and abundance of herbs, trees, shrubs, wildflowers, and wildlife species are impacted significantly by deer browsing. [See chart on page 1.] Significant losses of vegetation from deer browsing also have been documented in Maryland in Montgomery County parks. With high densities, deer browse all vegetation within 5-6 feet of the ground, thereby affecting forest regeneration and the future composition of the new forest. Deer tend to browse on tree species that are useful for forest products such as white ash, yellow poplar, hemlock, sugar maple, oak, and pine. Less desirable plant species take over. Natural resource professionals are concerned about the rapid increase in exotic and invasive species such as ailanthus and honeysuckle.

Forest landowners who are considering the harvest of forest products also must consider the impact of an overabundant deer population on the ability of the forest to regenerate after the harvest. When the forest is thinned or removed, light will stimulate new growth of ground vegetation. However, if the deer population is not managed, new growth may be browsed quickly, limiting the regeneration of the new forest. Developing trees may require tree shelters, repellents, or fencing to protect them.

Deer overbrowsing can reduce the habitat for other wildlife species such as songbirds that use lower levels of the forest for foraging, cover, and nesting. When deer density exceeds 10 per square mile, the variety and abundance of songbirds declines. Some species disappear altogether. Also lost are a winter food source for turkeys and protective cover for ruffed grouse and black bears.

Balancing Deer and Habitat

Enjoying deer while maintaining the health and diversity of your forestland is a challenge. In the absence of natural
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predators, how can we maintain a deer herd that is in balance with the available habitat? A closer look at the situation and some solutions will be presented in a videoconference, April 21. See the program outline in the box on this page and *Upcoming Stewardship Events* on page 4 for registration information. See *Take Note* on page 4 for other resources on deer and forest stewardship. [Research reported in "Whitetails Are Changing Our Woodlands," Stephen B. Jones, David deCalesta, and Shelby E. Chunko, *American Forests*, November-December 1993.]

Tree Farmers Increase Voice

Maryland's Tree Farm System is changing. It is beginning a new phase to help Tree Farmers throughout Maryland communicate with each other, make their voice heard, and promote the benefits of Tree Farming and sustainable forestry. Regional and statewide gatherings are proposed.

To facilitate these plans, the first Maryland Tree Farm officers were elected recently through ballots mailed to all certified Tree Farmers in the state. Assuming leadership of the governing body of the Maryland Tree Farm System are Howard Anderson, president; Robert W. Krauss, vice-president; Norma Jean Tierney, secretary; Donald Malaney, treasurer; and Billy Laws, John H. Colton, and Robert Hanson, directors. Two standing committees, the Maryland Tree Farm Operating Committee and the Maryland Tree Farm Action Council, will administer the Tree Farm program in the state.

Being in the Tree Farm program is one way to practice good stewardship of your property using a management plan. Under the guidance of a licensed forester, goals are set and reviewed periodically. As with the Forest Stewardship Program, a certified Tree Farm may qualify for reductions in property taxes. The program is free. Contact your DNR forester for information on enrolling.

A statewide meeting of certified Tree Farmers is planned for September. For information on that meeting or to express your ideas on what Tree Farmers need or can do, contact Howard Anderson, Maryland Tree Farm System, 888-455-7400, or any officer.

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Published three times a year and distributed to more than 4,800 forest landowners, resource professionals, and others interested in forest stewardship. For a free subscription or to send news items, dates, and comments, phone 301-432-2767 x310; fax 301-432-4089; e-mail vs12@umail.umd.edu; or mail to *Branching Out*, Maryland Cooperative Extension, 18330 Keedysville Road, Keedysville MD 21756. The sponsoring agencies' programs are open to all citizens without regard to race, color, sex, or physical ability.

www.naturalresources.umd.edu

Your Link to Maryland's Forest and Wildlife Resources

A new natural resources web page can assist you with forest stewardship and related efforts. Developed by Maryland Cooperative Extension, the Internet web page at the above address is filled with information and links to many other sites.

What is a forest stewardship plan?

What is the selling price of timber?

Where can I find natural resources information and organizations?

What workshops and courses on forest stewardship are scheduled?

How can deer damage be controlled?

What's available for youth?

How can I generate additional income?

What's the Coverts Project?

Where can I read past issues of *Branching Out*?

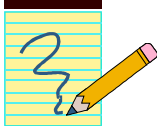
The answers to these and many other questions can be found at *www.naturalresources.umd.edu*. Each issue of *Branching Out* will be posted as it is published. Try reading *Branching Out* online. If you prefer it that way, contact us to remove your name from the hard copy mailing list.

The Maryland Tree Farm System recently announced Mr. and Mrs. Malcolm Morris of St. Mary's County as Maryland's Outstanding Tree Farmer of the Year for 2001 and Mount St. Mary's College and Seminary, Emmitsburg, as Maryland Outstanding Institutional Tree Farm of the Year. Look for articles on these forest stewards in the next issue.

Nonlethal Wildlife Control

A task force on nonlethal control of wildlife has been appointed to advise the Secretary of Maryland Department of Natural Resources. The twelve-member group will study scientific documentation concerning the effectiveness of wildlife management techniques, examine the causes of conflicts between humans and wildlife, assess current wildlife management policies, and make recommendations for the use and funding of nonlethal wildlife management techniques. Information on the task force is available from DNR, 1-877-620-8DNR x 8546 or its website www.dnr.state.md.us/dnrnews/pressrelease2000/112700.html. Comments also can be made through the web site.





Take Note

Newly revised! *Managing Deer Damage in Maryland*, EB 354, 26 pages. Has new information on deer repellents. \$2 from your county Cooperative Extension office.

Evaluating the Effectiveness of Maryland's Best Management Practices for Forest Harvest Operations. Maryland Department of Natural Resources' four-year study. 32-page report indicates that when BMPs are used, there is no significant change in sediment loading, water temperature, stream habitat conditions, or aquatic insect populations. Contact your local DNR office to receive a copy of the report.

Forest Landowners' Guide to the Federal Income Tax, updated Agriculture Handbook 718, 171 pages, has the latest information on financial and tax planning. Available online at: www.fs.fed.us/spf/coop/ or from the U.S. Government bookstores, bookstore.gpo.gov/locations/index.html, or 202-512-0132.

Websites:

National Timber Tax Website: www.fnr.purdue.edu/ttax

Tax Tips for Forest Landowners for the 2000 Tax Year:

[www.southernregion.fs.fed.us/spf/documents/](http://www.southernregion.fs.fed.us/spf/documents/Tax_Tips_Final%20_2000.pdf)

[Tax_Tips_Final%20_2000.pdf](http://www.southernregion.fs.fed.us/spf/documents/Tax_Tips_Final%20_2000.pdf)

Estate Planning for Forest Landowners: [www.soforest.net/](http://www.soforest.net/pdfs/estate.pdf)

[pdfs/estate.pdf](http://www.soforest.net/pdfs/estate.pdf)

Special forest products: www.sfp.forprod.vt.edu

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Please send changes of address.

See page 2 for addresses and phone number.

Upcoming Stewardship Events

April 7: Southern Maryland Forestry seminar, for forest landowners and others; Doncaster Demonstration Forest; all day; fee; contact David Gailey, 301-934-2543.

April 18: The Business of Silviculture: Keeping the Forest Working; for landowners and professional foresters; 5 CFE credits approved by SAF for foresters; Nanticoke, PA; 9 a.m. to 4 p.m.; fee; contact Danielle Young-Kocovsky, 814-863-1113, dxy8@psu.edu.

April 21: Deer in Rural Woodlands videoconference, for forest landowners, professionals, land managers, and others. Two locations: Garrett Community College, McHenry, contact Mike Kozier, 301-334-6955; and Western Maryland Research & Education Center, Keedysville, \$5 registration by April 19, contact Cindy Mason, 301-432-2767 x301, ct11@umail.umd.edu.

April 28: Growing Ginseng for Domestic and Asian Markets workshop; also includes goldenseal and black cohosh; New Castle, VA; no fee; contact Ann Rogers, 540-345-6781, annr99@aol.com.

May 19: Forestry Field Day, hands-on seminar for forest landowners and others; evaluate your forest land for wildlife and timber enhancement, harvest techniques, portable sawmill, forest management plans, etc.; Sugarloaf Mountain Forestry Demonstration Area in Frederick County; registration fee; contact Mike Kay, 301-473-8417.

June 7: Maryland Tree Farm Operating Committee, Annapolis, 10 a.m. Contact Jeff Bracken, 304-258-4681.

June 8-9: Western Maryland Loggers & Forestry Field Day for forest landowners, professionals and others; equipment show and educational programs for adults and youth; Garrett County fairgrounds, McHenry; admission fee; contact Maryland Forests Association, 301-895-5369, mfa@hereintown.net.

July 25: Maryland Tree Farm System Board of Directors meeting, place to be announced. Contact Howard Anderson, 888-455-7400.

Return Service Requested

Non-native plants can invade forest habitats, especially when the forests are fragmented and there is more edge.

Invasive Forest Plant Control

The Maryland Tree Farm System recently announced two awards. Mr. and Mrs. Malcolm Morris of St. Mary's County are Maryland's Outstanding Tree Farmer of the Year for 2001 and Mount St. Mary's College and Seminary, Emmitsburg, is Maryland Outstanding Institutional Tree Farm of the Year.

The Morris's have owned and managed 171 acres on Maryland Route 5 under a forest management plan in the Tree Farm System for the past seven years. Their main objectives are the producing forest products and maximizing the wildlife attributes of the property.

They completed 61 acres of regeneration harvest in Virginia and loblolly pine stands and followed that with site preparation burning and replanting with loblolly pine. They are active in the local community and promote the benefits of reforestation to other farmers and tree farmers. Mark Muir, DNR forester, said the Morrises "always uses professional forestry advice. . . are very energetic in managing their timber and perform the management practices to maximize the highest yields possible."

Mr. & Mrs. Morris will be entered in the Northeast Regional Outstanding Tree Farmer of the Year contest in the year 2002.

For the first time, recognition was given to an outstanding institutional Tree Farm in the state. Mount St. Mary's College and Seminary owns 760 acres of woodland and has been a certified Tree Farm since 1990. Their primary objectives are education, recreation, soil and water conservation, and forest and wildlife management. They have been very active in road and trail maintenance and planting of riparian forest buffers on 20 acres. Over the past five years they accomplished a 40-acre pine thinning, an intermediate harvest in a 23-acre hardwood stand, established a 20-acre warm season grass meadow and monitored their hardwood stands for Gypsy moth control. According to Michael Kay, DNR forester, Mt. St. Mary's College and Seminary have been good stewards of their large property for many years, managing the property on a multiple use strategy encompassing education, forest management, wildlife, aesthetics, and soil and water conservation. Their forest land is widely used by students and faculty for educational classes and areas to commune with nature.

Congratulations to these two outstanding examples of forest management. Although in different settings, each is practicing sound forest management while inspiring others to promote sustainable forestry.

.2.2 The first Maryland Tree Farm officers were elected recently. Elected through ballots mailed to all certified Tree Farmers in the state were Howard Anderson, president; Robert W. Krauss, vice-president; Norma Jean Tierney, secretary; Donald Malaney, treasurer; and Billy Laws, John H. Colton, and Robert Hanson, directors.

According to the Maryland Tree Farm System Constitution and Bylaws adopted at the first annual Maryland Tree Farm meeting last year in Easton, these officers and directors will be the governing body for the Maryland Tree Farm System. Two standing committees, the Maryland Tree Farm Operating Committee and the Maryland Tree Farm Action Council, will be the administrators of the Tree Farm program in the State. The Maryland Tree Farm System is changing, growing, and beginning a new phase of development to provide Tree Farmers throughout Maryland with a way of communicating and coming together to promote the benefits of Tree Farming and sustainable forestry. Anyone with questions or comments may contact the Maryland Tree Farm System by calling 1-888-455-7400.

