



# Research *Review*

## *Whose Woods Are These?*

### Big Changes Looming in Family Forest Ownership

Some big changes in the northeastern and midwestern woods are coming in the next few decades, but it is more about people than trees. These changes will come about with the aging of the current generation of family forest owners. Twenty percent of America's family forests are owned by people who are 75 years or older. Their lands (tens of millions of acres of family forests, that is, nonindustrial private forests) will ultimately be passed on to their heirs or sold to new owners. These lands are mostly in smaller parcels (less than 200 acres), but the sum total is astonishing. And what ultimately happens to these lands will affect the trees and the forests and consequently all of us. Forest fragmentation and development are a threat to the integrity of the forested watersheds on which the 123.4 million people (U.S. Census 2007 estimate) in cities, suburbs, and rural areas of the Northeast and Midwest depend.

**Without a doubt, [this will be] the largest intergenerational transfer of forest land in our nation's history and we are not ready for it.**

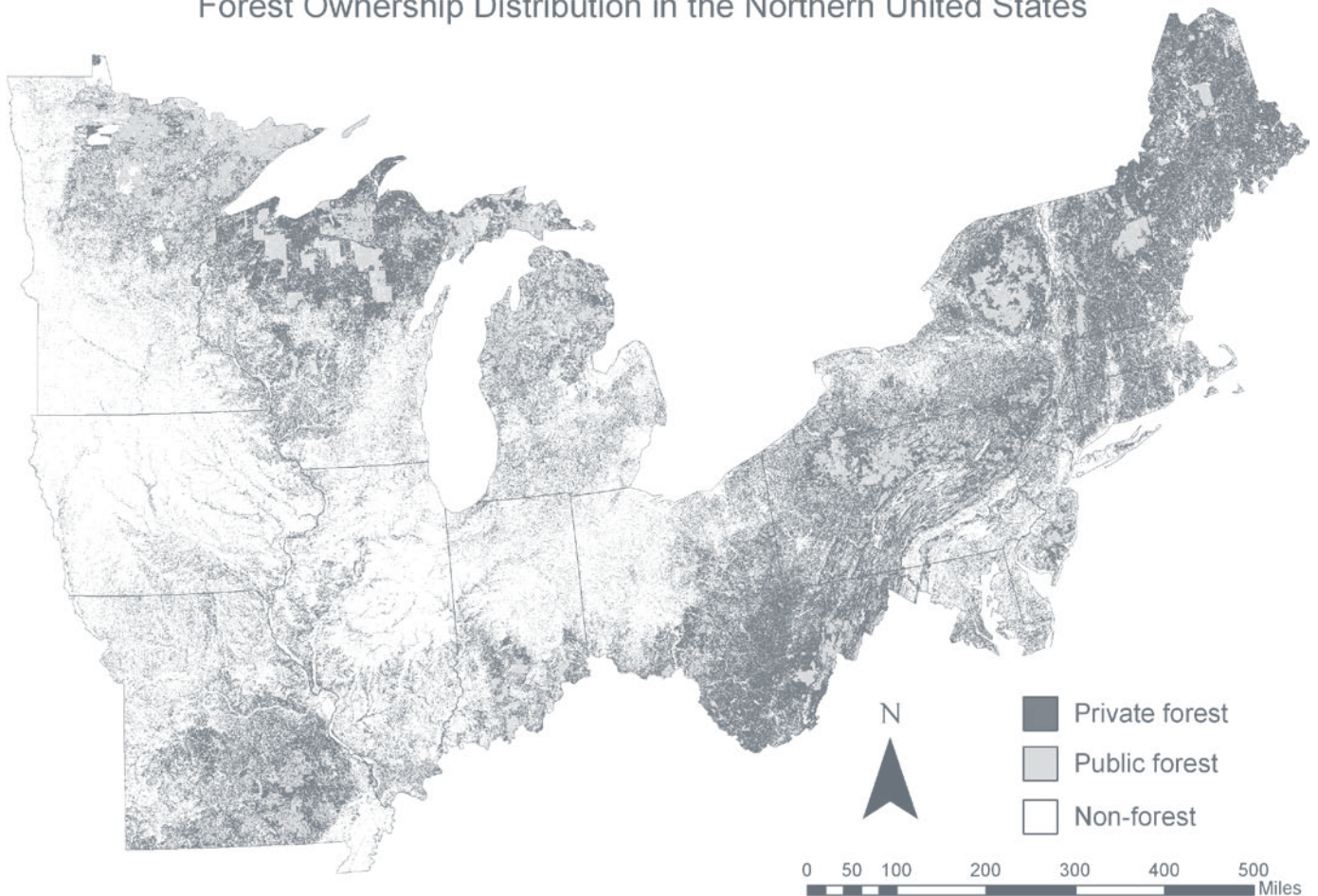
*Al Sample, president, Pinchot Institute for Conservation*

#### **ACREAGE OF PRIVATE FORESTS OUTNUMBERS THAT OF PUBLIC FORESTS**

Although many people think of forests in the United States as governmentally owned, this is a false impression. In the East, forests are primarily privately owned (81 percent, 314 of 387 million acres), and of this private forest land, most is owned by families and individuals (70 percent, 220 of 314 million acres). Even in the West, where forests make up only a small percentage of total lands and most forests are primarily publicly managed (70 percent, 256 of 365 million acres), there are still 109 million acres of private forest land.

*continued on page two*

## Forest Ownership Distribution in the Northern United States



### Data sources:

Forest area - USGS National Land Cover Database 2001  
Ownership - CBI Protected Areas Database, Version 4.0  
State and countries - ESRI Data & Maps 2006

### Produced by:

USDA Forest Service, Northern Research Station  
Forest Inventory and Analysis, Family Forest Research Center  
Brett J. Butler (29-Aug-08)

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In the northern United States (20 states: Maine to Maryland and Minnesota to Missouri), 74 percent (128 of 172 million acres) of forest land is privately owned. Families and individuals dominate the private ownership (73 percent, 94 of 128 million acres). The New England States are heavily forested outside of the urban areas because one-time agricultural lands were largely abandoned in the early 1900s and have since regrown into forests. In the rest of the Northeast, there are active agricultural lands and considerable urban lands, but still substantial amounts of forested lands.

States in the Midwest are dominated by forests in the northern tier, and by agricultural fields interspersed with many acres of woodlands in the Farm Belt (Iowa, Illinois, Indiana, southern Wisconsin, Minnesota, and Michigan). There are many national

forests (especially in the northern parts of the Midwest) and parks in the Northeast and Midwest, as well as state forests, parks, and game lands, but most forested lands are owned privately, for home sites, recreation, or investment, and many are family legacies passed down for generations. There are about 5 million family forest owners across the 20 states; most of these owners have relatively small parcels of land, but additively, these acreages are substantial.

From farmers with a woodlot on “the back forty,” to city folks owning land as a country retreat, to tree farmers intensively managing their woods, there is a wide diversity of family forest owners. One thing that almost all of them share is a deep love of the land. They want to do what is right, but many do not know just what this is, and there are barriers preventing them from

doing it. Increasing our understanding of family forest owners will help us help family forest owners and this will allow them to continue to provide the goods and services that society has come to expect from our forests.

## KEEPING FAMILY FORESTS INTACT AND HEALTHY

What the family forest landowners do with their lands in the next several decades will have a substantial effect on all of us here in the Northeast and Midwest. Many family forests are in hilly or mountainous uplands, areas that are important for urban and suburban watersheds as well as homes for wildlife and sources for forest products. These are important, even priceless, environmental services—clean water, clean air, wood products, and countless amenities—that benefit all residents throughout the region. In addition, the landowners benefit from the aesthetics, tranquility, and recreational aspects of their land.

Although some family forest owners use consulting foresters or extension agents for advice and assistance, most are unprepared for the technicalities of land management and land use, especially estate planning. Poor estate planning may force the sale or division of the land, which in turn can lead to subdivision and development.

Forest fragmentation and development can seriously affect watersheds by interrupting the flow of groundwater and reducing the ability of soils and aquifers to store water. They also disturb wildlife by introducing clearings and edges, thus positively altering habitats for some species (deer) and negatively altering for all those birds that require deep woods for nesting. By building more roads, invasive nonnative plants, insects, and diseases can penetrate further into the deep forest. These problems are added onto the current stress load on forests from acid precipitation, extreme weather and climate change, native insects and diseases, and excess deer. So what's a family forest owner to do?

## NORTHERN RESEARCH STATION PROVIDES INFORMATION FOR FAMILY FOREST OWNERS

Most family forest owners just muddle through, but others go to the experts—either hiring a consulting forester or using local state

service foresters. Forest Service researchers and various Forest Service State and Private Forestry specialists provide stewardship information to all interested parties. But for the most part, the forestry community knows very little about the people they are not reaching: who they are, what they need, and how they want it.

The Forest Inventory and Analysis program (FIA, aka, the “tree counters”) has built, maintains, and updates a database on information about forests trees and their productivity and health since the 1930s. Since the 1990s, however, FIA has been characterizing forest owners as well. The Northern Research Station's Dr. Brett J. Butler coordinates the National Woodland Owner Survey, which provides data on the attitudes, behaviors, needs, concerns, and demographics of family forest owners. With this information, Butler is working with a broad spectrum of partners who reach out to family forest owners with information that will help them keep family forests as forest. In 2006, he relocated to Amherst, Massachusetts, to initiate the joint U.S. Forest Service—University of Massachusetts Family Forest Research Center.

## KEEPING FAMILY FORESTS AS FORESTS

The National Woodland Owner Survey provides information to increase public awareness of the importance of private family forests for the general population, not just landowners. The value of ecosystem services provided by private forest lands is priceless and we as a society need to provide family forest owners with information, motivation, and rewards for good forest stewardship.

## ASSISTANCE FOR FAMILY FOREST OWNERS

The National Woodland Owner Survey results are being used by the forestry community and rural landowners' groups, such as the Sustainable Family Forests Initiative. This initiative is a partnership of various branches of the Forest Service, state forestry agencies, university extension specialists, landowners' groups, and academics working to better understand who family forest owners are and how to communicate with them. Ultimately, they want to “help keep family forests as forests” and “increase sustainable forestry on family forest lands.”

The National Woodland Owner Survey has found that a constant minority of family forest owners (15 to 30 percent) avail themselves of stewardship information and guidance—that is, those who know where to go for information and help, keep getting it; the ones who don't know (the majority), continue to be in the dark. How do programs reach that uninvolved majority? Information from the National Woodland Owner Survey is being used to rethink, redirect, and redesign programs and communications strategies to reach out beyond the usual audience. Lessons from social marketing research are leading to redesign of web pages, billboards, publications, and many other methods that will help make stewardship communication more effective and efficient.

### STUDYING THE NEXT GENERATION OWNERS

Although the National Woodland Owner Survey is concentrating on the current generation of family forest owners, it has spawned a parallel study examining the next generation of owners. The U.S. Forest Service and the Pinchot Institute for Conservation are collaborating to better understand who the next generation of owners is likely to be. Dr. Catherine Mater, a fellow at the Pinchot Institute, and her colleagues have been interviewing the children of current owners to find out about their ties to the land and their intentions and concerns for its future. Most have had little involvement with the land and do not want to do so until they inherit it. That being said, most want to inherit it. There is a high potential that there will be major changes in landowners' characteristics, attitudes, and behaviors, issues that future iterations of the National Woodland Owner Survey will track.

### CONCLUSIONS

Family forests owners dominate the North's forested landscape now, and they will continue to do so in the future. Their lands are the backbone of the verdant sylvan environment that provides society with vital ecosystem services; clean water, clean air, wood products, and countless amenities. The collective decisions of these landowners will affect the distribution and management of the Northeast and Midwest's forests in the future. As their attitudes and behaviors change, the Northern Research Station will continue to survey America's family forest owners—the critical link between society and forests.

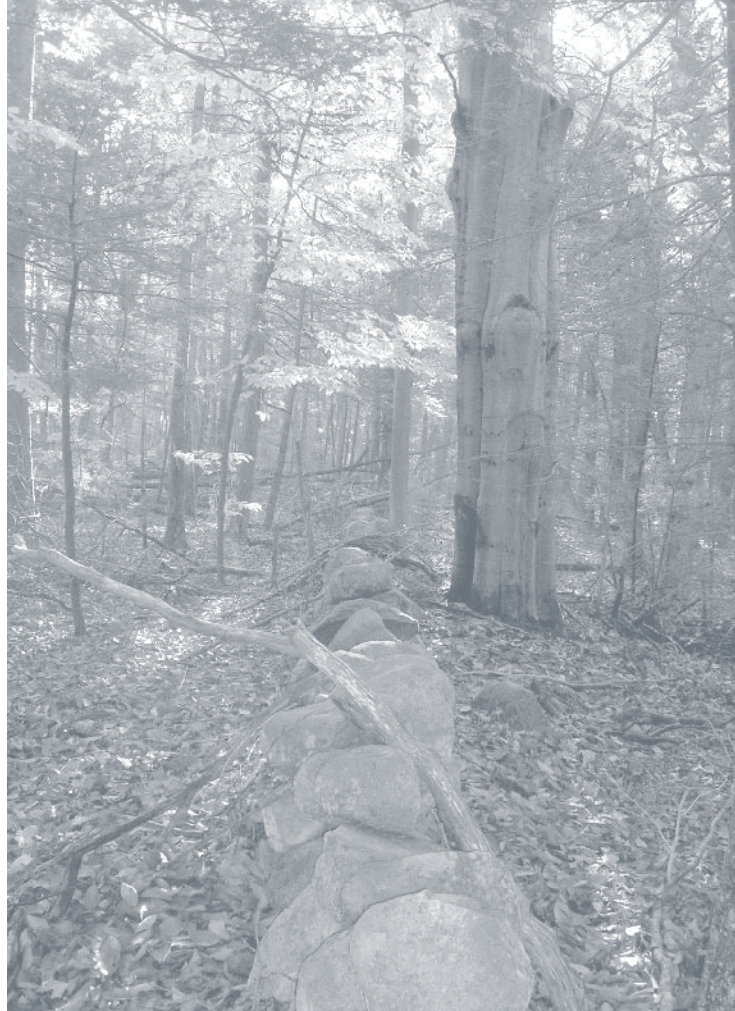


Photo by Brett Butler, U.S. Forest Service

**Stone walls in the forest mark the location of old field boundaries.**

### Biography

**Dr. Brett J. Butler** has worked for the U.S. Forest Service since 1998 and has coordinated the National Woodland Owner Survey for NRS Forest and Inventory and Analysis since 2000. He earned his B.S. in natural resource management and engineering from the University of Connecticut in Storrs (1995) and his Ph.D. in forest science from Oregon State University in Corvallis (2005). He is currently stationed in Amherst, Massachusetts, and reduces his carbon footprint by biking to work. Contact him at [bbutler01@fs.fed.us](mailto:bbutler01@fs.fed.us); 413-545-1387; or U.S. Forest Service Northern Research Station, 160 Holdsworth Way, UMass, Amherst, MA 01003; website: <http://www.nrs.fs.fed.us/people/bbutler01>



*Trees count, so we count trees—  
and I count people who own trees*

Brett Butler's version of the FIA motto

# Family Forest Owners' Top Ten\*

## Issues and Concerns

- 1 Insects and tree diseases
- 2 Keeping land intact for future generations
- 3 Wildfire
- 4 Trespassing
- 5 High property taxes
- 6 Vandalism and illegal dumping
- 7 Wind and ice storms
- 8 Air and water pollution
- 9 Undesirable plants
- 10 Development of nearby lands

## Reasons for Owning Family Forests

- 1 Beauty and scenery
- 2 Family heritage
- 3 Privacy
- 4 Nature protection
- 5 Connected to home or cabin
- 6 Investment
- 7 Hunting or fishing
- 8 Part of farm or ranch
- 9 Hiking, snowmobiling, and other recreation
- 10 Timber production

\*From the National Woodland Owner Survey

Photo by Brett Butler, U.S. Forest Service

## References and Resources

### Websites:

United States Forest Service, Northern Research Station: [www.nrs.fs.fed.us](http://www.nrs.fs.fed.us)

USFS, Northern Research Station, Forest Inventory and Analysis: [www.nrs.fs.fed.us/fia](http://www.nrs.fs.fed.us/fia)

USFS, National Woodland Owner Survey: [www.fia.fs.fed.us/nwos](http://www.fia.fs.fed.us/nwos)

USFS, State & Private Forestry Stewardship Program: [www.na.fs.fed.us/stewardship/](http://www.na.fs.fed.us/stewardship/)

USFS, S&PF Estate Planning Resources: [www.na.fs.fed.us/stewardship/estate/estate.shtml](http://www.na.fs.fed.us/stewardship/estate/estate.shtml)

The Sustaining Family Forests Initiative: [www.sustainingfamilyforests.org](http://www.sustainingfamilyforests.org)

The Pinchot Institute for Conservation: [www.pinchot.org](http://www.pinchot.org)

### Technical Publications:

Brett J. Butler. 2008. **Family Forest Owners of the United States, 2006**. GTR-NRS-27. Newtown Square, PA: USDA Forest Service, Northern Research Station. [www.nrs.fs.fed.us/pubs/5758](http://www.nrs.fs.fed.us/pubs/5758)

Brett J. Butler. [n.d.]. **Forest Ownership**. In W. B. Smith: Forest Resources of the United States, 2007. Washington, DC: USDA Forest Service.

Brett J. Butler, Mary A. Carr. 2008. **Who Owns America's Forests?** NRS-INF-06-08. Newtown Square, PA: USDA Forest Service, Northern Research Station. [www.nrs.fs.fed.us/pubs/5794](http://www.nrs.fs.fed.us/pubs/5794)

Brett J. Butler, Earl C. Leatherberry. 2004. **America's Family Forest Owners**. Journal of Forestry. 102(7):4-9. [www.nrs.fs.fed.us/pubs/6906](http://www.nrs.fs.fed.us/pubs/6906)

Brett J. Butler, Earl C. Leatherberry, Michael S. Williams. 2005. **Design, Implementation, and Analysis Methods for the National Woodland Owner Survey**. GTR-NE-336. Newtown Square, PA: USDA Forest Service, Northeastern Research Station. [www.nrs.fs.fed.us/pubs/7546](http://www.nrs.fs.fed.us/pubs/7546)

Brett J. Butler, Mary Tyrrell, Geoff Feinberg, Scott Vanmanen, Larry Wiseman, and Scott Wallinger. 2007. **Understanding and Reaching Family Forest Owners: Lessons from Social Marketing Research**. Journal of Forestry. 105(7): 348-357. [www.nrs.fs.fed.us/pubs/3248](http://www.nrs.fs.fed.us/pubs/3248)

Geoff Feinberg, Mary Tyrrell, Brett J. Butler. 2007. **Getting the Attention of Family Forest Owners: Lessons from Social Marketing Research: Summary of a Priori Segmentation and Prime Prospect Analysis**. [www.sustainingfamilyforests.org/pdfs/sffi\\_summary.pdf](http://www.sustainingfamilyforests.org/pdfs/sffi_summary.pdf)

Judith Langer. 2008. **Family Forest Owners: Insights into Land-Related Stewardship, Values, and Intentions**. [www.sustainingfamilyforests.org/pdfs/Focus\\_Group\\_Report.pdf](http://www.sustainingfamilyforests.org/pdfs/Focus_Group_Report.pdf)

Catherine M. Mater, V. Alaric Sample, Brett J. Butler. 2005. **The New Generation of Private Forest Landowners: Brace for Change**. The Pinchot Letter. 10(2): 1-4. [www.pinchot.org/pubs](http://www.pinchot.org/pubs)

Tanya Mohn. 2007. **Family Forestry: Generational Shifts Loom for Big Tracts of American Woods**. The New York Times. June 14, 2007: C6. [www.nytimes.com/2007/06/14/business/smallbusiness/14sbiz.html?pagewanted=print](http://www.nytimes.com/2007/06/14/business/smallbusiness/14sbiz.html?pagewanted=print)

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