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Forest Management in the Interface: Who Are Interface Landowners[1]

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Interface landowners are shaping the future of forestry. Many new interface residents are affluent, educated, and politically connected. They control large swaths of the forested landscape in the South. Their environmental interests should make them willing clients for the advice and services of natural resource professionals. And, perhaps even more importantly, they are becoming a powerful political constituency. This constituency has the power to affect the funding and policies of public institutions, as well as shape local, state, and regional regulations for acceptable management practices. It is critical that natural resource professionals learn to work with these landowners.

Characteristics of All Southern Forest Owners

Approximately 215 million acres of the southern U.S. is forested: 25 million (12 percent) of that total is owned and managed for the public by federal, state, and local governments; 61 million acres (28 percent) are owned by timber and investment-related businesses; 127 million acres (59 percent) are owned by families (individuals, partnerships, trusts, etc.) (Butler and Leatherberry 2004a; Wicker 2003).

The population of the South is projected to increase 24 percent by 2020, and the demand for forested land is increasing even faster. While these trends create serious challenges for natural resource management, not all forests are fragmenting and many large, contiguous forests remain. ***Table 1*** describes forested acres owned in the South by families, individuals, partnerships, trusts, and others (excluding industry, investment corporations, and public agencies).

Most of these forested acres (60 percent) are held in large tracts (greater than 100 acres) as are most of the public and timber industry forests. Still, this leaves more than 50 million forested acres divided into parcels smaller than 100 acres and owned by approximately four million people. Although they own only 23 percent of all southern forests and 40 percent of the family forests, their massive numbers make these owners of small forests an important political and economic force.

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Stated differently, about 90 percent of the people that may seek political or professional means to address their forest ownership concerns manage fewer than 100 forested acres, and most of these people manage forests smaller than 10 acres.

Each property owner is unique in his or her particular reasons for forest ownership, but some general patterns emerge (***Tables 2*** **and** ***3***).

As a general rule, owners of larger forested tracts are more likely to value income generated by things like timber, firewood, and hunting leases. Conversely, owners of smaller forests tend to emphasize amenity, identity, lifestyle, and ecological reasons for forest ownership. These trends *do not* suggest that owners of large forests care *only* about income and owners of small forests care *only* about aesthetics.

Generally, most owners appreciate the full range of economic, ecological, and social values their forests generate. Owners differ in how they prioritize these values. As a general rule, concerns about amenity and ecological values are higher for interface forests, regardless of size. Across all forested lands in the South, most landowners are concerned about insects and disease (61 percent), family legacy (58 percent), and fire (57 percent). A number of other threats to forest health are also important (Seev*Table 3*). Many are also concerned about rising property taxes (52 percent) and increasing regulations for harvesting operations (34 percent) (Butler and Leatherberry 2004b; Hull, Robertson, and Buhyoff 2004; Erickson, Ryan, and De Young ; Jacob 1997; Tyson, Campbell, and Grady 1998; Wear and Greis 2002).

Klunder and Walkingstick (2000) conducted a market segmentation analysis of forest owners in Arkansas in order to identify types of landowners that have similar motivations and management intentions. They identified four types of owners:

- **Timber managers.** This group treats their property like an investment, making periodic sales of timber and following best management practices. They are fully employed, have high incomes, and are well educated. Although interested in making money from the forest, they are also interested in conserving the resource base. They are unlikely to live on the land.
- **Resident conservationists.** This group is strongly interested in preserving natural beauty, wildlife, and natural values. They own fewer acres (70 percent own less than 50 acres). Some have planted trees. They are moderately educated, most having a high school diploma and some college, and have moderate income.
- **Affluent weekenders.** This group owns second homes on their forests. They are well educated and have very high incomes. They are not interested in making money from the land, few have hunting leases, and few have harvested timber. They are interested in amenities, so some plant trees and build roads and trails to enhance their property.
- **Lower income rural residents.** Members of this group typically grew up in rural areas and inherited their land. They tend to be less well educated and have lower incomes. They own smaller forests (60 percent own less than 50 acres). Many sell timber but few actively manage their forests. They are eager to use their land in other ways to make money.

Table 4 describes the management activities of each of these landowner types, specifically for Arkansas. Note how timber managers and lower-income rural residents are much more likely to emphasize economic gain.

Interface Forests and Forest Owners

The interface regions where people are purchasing land have one or more of the following characteristics (Jacob 1997; Rudzitis and Johansen 1989; Zipperer 1993):

• Tourist destination. A booming tourism industry may bring newcomers in search of jobs to interface areas. In addition, tourists who become fond of an area often return to build second homes or retire.

• Retirement destination. Retirees seek low cost of living, lower taxes, mild climate, scenery, and other qualities typical of southern rural forested areas.

• **Resource production.** Timber, minerals, agriculture, and related resource extraction or processing industries attract seasonal and permanent employment.

• **Trade and professional centers.** Companies attract and keep employees by locating in regions high in amenities and services desired by a highly educated and mobile workforce.

• **Counterculture opportunities.** Some people settle in rural, forested areas seeking to live in intentional and sustainable communities, art communities, or to live more simply, organically, more cheaply, and with more privacy. These landowners may be called New Pioneers.

A study of people in urbanizing Virginia counties who recently bought small acreage forests (2 to 50 acres) shows patterns relevant to natural resource professionals throughout the South (Kendra and Hull 2005). Many of these new owners are motivated by lifestyle concerns. They want to live simply, near nature, as part of a small community, away from the crime and bustle of urban areas, and on land where they can grow some food and recreate (***Table 5***). These new owners of interface forests fall into one of six market segments according to their forest ownership needs and abilities (Kendra and Hull 2005).

Absentee investors. These landowners (4 percent of new owners) are, on average, slightly older than landowners in other segments (53 years). They derive 14 percent of their income from their land, a much higher percentage than any other group. They have a modest education and, as the name implies, more than 90 percent reside away from their forests. Almost one-fourth (23 percent) inherited the land and more than one-third (38 percent) plan to sell it in less than seven years. They express strong concerns about private property rights. They are the only ones to rate economic-related reasons as most important for forest ownership, but they still seem remarkably unconcerned about their forests. They are the least likely to actively manage their lands. They say they do not have time to do so.

Career professional. These landowners (13 percent of new owners) focus mostly on career and professional development. More than 61 percent have a bachelor's degree. They derive less than 1 percent of their income from the land yet have the highest annual household income. They are unlikely to own additional property and one quarter plan to sell their land within seven years. They are unlikely to engage in any active management except planting vegetation for privacy. Almost half of the group say they do not manage their forest because they think their property is too small (17 acres on average) or otherwise not suited for management.

Wildlife preservationists. This group (16 percent of new owners) has the highest proportion of unmarried (30 percent) and retired (22 percent) people, and an average age of 52 years. About 38 percent have professional or management careers. They have a long-term outlook: almost half plan to pass their land on to heirs, and those who plan to sell their land do not expect to do so for an average of 18 years. The average amount of land owned is 32 acres. They are suspicious of foresters and say they "probably will not" participate in land management, except to improve wildlife habitat. They prefer to let nature take its own course.

New pioneer farmers. Members of this group (21 percent of new owners) want to raise animals and grow food on their land, not practice industrial or income-driven farming. They derive only 3.2 percent of their income from their land, have the lowest level of education (70 percent did not have a college degree), and the lowest income, which is still considerably higher than the national median. They own, on average, 40 acres, and most (68 percent) live in the forest, the highest percentage of any group. They are likely to sell only if area population climbs too high. They are the most eager of all landowners to engage in active management, although more than 50 percent say they probably will not develop a written management plan; 36 percent say they do not have money for management; 35 percent say they do not have equipment; 30 percent say they do not know how; and 29 percent say they do not have the time.

Planners. These forest owners (21 percent of new owners) are younger (42), the most highly educated (25 percent have an advanced college degree), and the wealthiest. They own relatively large

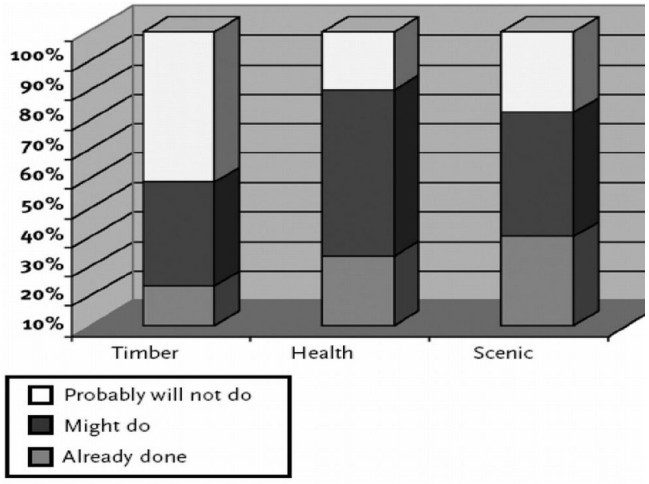
tracts (70 acres). They already actively manage their land and are willing to do more, but feel hindered by lack of equipment (36 percent), time (28 percent), money (26 percent), or know-how (23 percent). The combination of their wealth, their interest in amenities, their willingness to manage, and a lack of time to be personally involved may make members of this segment prime targets for forestry consulting.

Young families. This group (19 percent of new owners) seems motivated by quality of family and community life. The average age of people in this group is 45. More than two-thirds (68 percent) have children living at home, and their average income is at the lower end of this affluent new owner group. They own small tracts of land (14 acres), which 57 percent plan to pass on to their children. People in this segment are unlikely to actively manage their land, but they are the most likely to regularly inspect it. They say they "might" engage in management if they knew what to do, though many worry that they do not have enough land to matter.

Management Intentions and Actions

Interface forest management is similar to rural forest management in that it strives to be economically feasible, ecologically sustainable, and socially acceptable. However, it does tend to place more emphasis on the ecological and social goals as well as heightened concerns about fire, invasive plants, and trespass. When timber harvesting for profit occurs in interface forests, it is often done under more restrictive conditions than in the rural forests. There are fewer verbal agreements and more written contracts, more independent or third party estimations of volume and stumpage price, more restrictions on what and how trees are harvested, increasingly specific site restoration requirements, and more difficulty finding market outlets for traditional forest products.

New owners of interface forests are not adverse to management. However, many are more concerned about protecting amenities and ecological qualities than maximizing profit. A survey of people that recently purchased forested land in rapidly growing counties of Virginia found that 49 percent of all respondents agreed with the statement "I would be willing to accept less money from a timber sale if the logging actions protected other forest qualities." Sixteen percent of respondents disagreed with this statement and 35 percent were neutral (Kendra and Hull 2005). New interface forest owners are also much less likely to engage in managing trees for profit (***Figure 1)***.



New owners of small forests in Virginia were asked whether they would cut trees on their recently purchased forests in order to generate income from timber, forest health, and scenic quality .

Source: Kendra and Hull 2005.

Figure 1. Willingness of Virginia Small Forest Owners to Cut Trees

In most cases, interface forest landowners are not preservationists intent on minimizing human intervention; they will engage in forest management practices to create desired conditions. ***Figure 2*** and *Table 6* show that many new landowners would manage their land to improve wildlife habitat, improve forest health, increase privacy, improve scenic views, reduce fire risk, and control pests, even if doing so involved pruning or removing trees or applying pesticides. This implies that these new landowners are not opposed to management, but rather they have many excuses for not managing their land. Many have not ever thought about engaging in management activities to improve the qualities of their forests, and some say they do not have the time, money, or knowledge to manage it. Others wonder if their small parcels have enough forest where management can make a difference. All of these issues can be addressed through information, demonstration, consulting, and outreach programs.

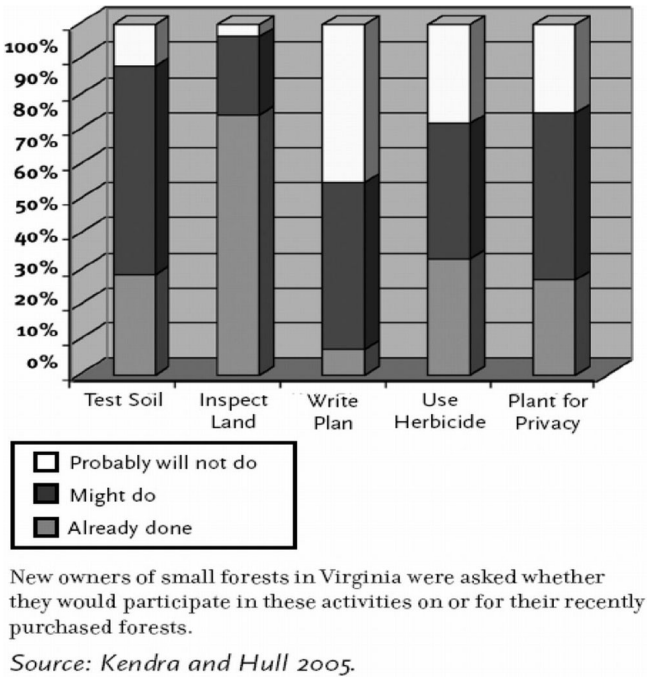


Figure 2. New Landowner Willingness to Engage in Various Forest Management Actions

Unfortunately many interface landowners are unsure whether to trust foresters. Three-quarters of new owners surveyed were either neutral about or outright skeptical of forester's ecological ethics: 31 percent believed that foresters simply are more interested in making money than in sustaining the ecological health of the land (Hull, Robertson, and Buhyoff 2004).

Anecdotal evidence suggests that these findings are not limited to Virginia, where the study was conducted. The public's lack of confidence in forestry ethics is a liability that the profession has been fighting for some time (Bliss 2000). The findings of this survey suggest that this problem has not gone away and interface landowners may be skeptical of the environmental policies and practices espoused by professional foresters. It also suggests that consultants and public foresters offering professional services to this affluent, educated, and politically connected clientele must find ways to convince landowners of forestry's expertise and ethics.

Another challenge for forest management in the interface is that few landowners have taken the time to consult professionals about any aspect of land management. Generally, throughout the South, only about 5 percent of all forest owners have developed a formal plan for forest management. The forest management plan has been one of the traditional vehicles for distributing professional forestry advice, but this approach seems ineffective for most interface landowners. Consequently, new methods of distributing information and influencing forest management are needed for the interface areas.

Forests and Forestry Have New Neighbors

Residential migration to interface areas increases pressures on forested communities by increasing development and demand for community resources. New development is often concentrated near sensitive and publicly owned amenities (i.e., water, ridge lines), further increasing the pressure on these amenities and the number of people concerned about them. Some studies find that newcomers are more likely to object to traditional land uses such as timber harvesting and agriculture because they find them offensive and dangerous or because these uses compete for residential and other preferred uses. That is, forest management produces odor, noise, traffic, pesticide drift, mud on the road, and competes with housing developments and retail stores for the same land (Lee, Field, and Burch 1990).

Expectations of property rights change as an urban value system and formal decision-making process replace rural values and informal community negotiations. What is appropriate and reasonable in a subdivision can come into serious conflict with what is appropriate and reasonable where commodity production practices dominate. For example, running an all-terrain vehicle (ATV) through a mud hole near one's home may be considered harmless fun in a rural setting, but becomes a punishable violation of both wetland regulations and trespass laws as an area urbanizes. Interface forests are the subjects of an increase in formal postings, boundary delineation, zoning code enforcement, and remedies to property disputes via legal rather than informal means. Both the rights and the obligations associated with property ownership are treated more formally in the interface.

Suggested Readings

Forestry Community or Granfalloon?: Do Forest Owners Share the Public's Views? by John Bliss, Sunil K. Nepal, Robert T. Brooks and Max D. Larsen, 1994. *Journal of Forestry 92(9): 6-10.*

The Effects of Population Growth on Timber Management and Inventories in Virginia by David N. Wear, Rei Liu, Michael J. Foreman and Raymond M. Sheffield, 1999. *Forest Ecology and Management 118: 107-115.*

Here's How to Write an Iron-Clad Timber Sale Contract by Steve Wilent, 2001. *The Forestry Source* July 2001: 14.

The Boom in Forest Owners-A Bust for Forestry? by Lester DeCoster, 1998. *Journal of Forestry* 96(5): 25-28.

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Zipperer, W. C. 1993. Effects of urbanization on natural resource management. In Nurturing the Northeastern Forest: Proceedings of Joint Meeting of the New England Society of American Foresters and the Maine Chapter of The Wildlife Society (Forestry and Agriculture CFRU Information Report 33). Eds. R. D. Briggs and W. B. Krohn, 153–165. 1993 March 3-5, Portland ME: University of Maine, College of Natural Resources and Forestry, and Maine Agricultural and Forest Experiment Station.

Table 1. Family Forests in the South in 2003

Size of forest (acres)	Total acreage and percent of forests this size	Number of owners and percent of forests this size
1-9	7,255,000 5-7%	2,424,000 56.1 %
10-49	26,890,000 21%	1,338,000 31%
50-99	18,996,000 14.9%	288,000 6.7%
100-499	43,993.000 34.5%	243,000 5.6%
500-999	11.132,000 11%	18,000 0.4%
1000-4999	13,749,000 10.8%	8,000 0.2%
5000+	5,543,000 4.3%	<1,000 < 0.1%
Total Family Forest	127,559,000	4,320,000

Source: Butler and Leatherberry 2004a.

Table 2. Important Reasons for Owning Family Forests[a]

Ownership Objective	Owners Rating this Objective Important (thousands)	Acres Owned by People Rating this Objective Important (millions)
Family Legacy[b]	2,286 (53%)	82 (64%)
Aesthetics	2,805 (65%)	75 (59%)
Land Investment	1,906 (44%)	70 (55%)
Nature Protection	2,121 (49%)	63 (49%)
Privacy	2,391 (55%)	61 (48%)
Hunt & Fish	950 (22%)	54 (42%)
Timber	487 (11%)	53 (41%)
Other Recreation	920 (21%)	35 (28%)
Part of home site	1,397 (32%)	31 (24%)
Firewood	480 (11%)	14 (11%)
Nontimber products	271 (6%)	13 (11%)
No Answer	144 (3%)	3 (2%)

[a] Forest owners rated each reason on a 7-point scale. Reasons rated as *very important* or *important* are reported in the table.

[b] Family legacy is defiined as promoting traditional values for raising a famly as well as long-term financial security.

Source: Butler and Leatherberry 2004a.

Table 3. Major Concerns of All Southern Forest Owners

Most Important Concerns	Acres (%)	Landowners (%)
Insect/plant disease	77,441,000 (61%)	1,877,000 (44%)
Family legacy	74,249,000 (58%)	2,048,000 (48%)
Fire	73,161,000 (57%)	2,056,000 (48%)
Property taxes	66,780,000 (52%)	2,184,000 (51%)
Trespassing	61,952,000 (49%)	1,807,000 (42%)
Dumping	60,050,000 (47%)	1,951,000 (45%)
Storms	52,261,000 (41%)	1,655,000 (38%)
Air/water pollution	45,574,000 (36%)	1,759,000 (41%)
Harvest regulation	42,271,000 (34%)	1,377,000 (32%)
Endangered species	37,399,000 (29%)	971,000 (22%)
Lawsuits	36,327,000 (28%)	1,167,000 (27%)
Land development	35,713,000 (28%)	1,502,000 (35%)
Timber theft	35,712,000 (28%)	1,094,000 (25%)
Noise pollution	27,271,000 (21%)	1,115,000 (26%)

Forest owners rated each reason on a 7-point scale. Both *very important* and *important* are reported in the table. Percentages represent the percent out of the total number of landowners or acres. The categories are not exclusive because many owners rated more than one reason as important.
Source: Butler and Leatherberry 2004a, Table 18.

Table 4. Management Actions by Arkansas Forest Landowners

Management Activity	Timber Managers	Resident Conservationists	Affluent Weekenders	Low Income Rural Residents
Sold timber in past	23	0	10	14
Sold timber last year	12	1	4	4
Thinned trees to improve growth	9	5	2	4
Planted trees	6	7	4	2
Improved wildfire habitat	10	11	8	5
Developed roads	5	4	3	1
Developed trails	4	3	3	1
Cell entries are the percentage of the total 866 Arkansas respondents who said they had conducted the management activity on their land. The percentages total is over 100 because respondents could select more than one activity. Source: Klunder and Walkingstick 2000.				

Table 5. Motivations of New Interface Landowners

Live Simply	Be free to do what I want, build and fix things with my hands, build my own house/barn, have privacy, live a simpler life
Naturalism	Take care of birds and wildlife, keep scenery looking nice, participate in natural processes, study nature, preserve nature and regional history while doing what is right for the environment
Romantic Ruralism	Live in a small community, trust my neighbors, pay less taxes, avoid pollution, and stay healthy
Escapism	Get away from other people; be independent; escape the cost, poverty, and crime of city living
Parenting	A safe place for kids to ply: good peers, good values, and good schools
Regionalism	Improve regional water quality, reduce erosion, help local economy, and develop roots in one place
Spirituality	Connect with a higher power, reconnect with spirituality, feel closer to God, get back to basics
Farming	Raise farm animals, ride horses, and grow some of my own food
Recreation	Hunt, drive all-terrain vehicles, practice outdoor skills, collect firewood and edible plants
Social Ties	Live closer to friends, family, and people like me
Build Estate	Buy neighboring lands to accumulate a larger landholding that I can leave to future generations
Finance	Regular income, help with special expenses such as college tuition, medical bills, and retirement
Source: Kendra and Hull 2004. Listed in order of importance as rated by new interface landowners.	

Table 6. Management Interests of New Owners of Small Virginia Forests

I already do or might do this on my land	Total	Absentees	Careerist	Wildlife	New Farmers	Planners	Families
Regularly inspect land	96	82	95	93	95	99	100
Improve wildlife habitat	90	55	77	93	89	94	97
Have soil tested	88	60	81	86	88	92	94
Prune/cut to improve forest health	81	50	68	76	82	89	88
Plant vegetation for privacy	75	32	71	67	80	83	78
Kill vines in trees	74	48	62	40	80	76	80
Prune/cut to improve views	72	52	69	63	74	81	76
Use herbicides or pesticides	71	40	71	65	77	73	77
Written management plan	55	46	34	50	48	70	64
Prune/cut to improve timber	49	54	31	45	37	63	58
Graze livestock	47	44	27	36	23	59	78
Remove exotic species	46	21	26	50	48	51	53
Use a prescribed fire	45	34	31	38	40	55	57
Plant valuable tress for timber sale	43	37	29	35	35	55	57
Grow specialty crops for profit	42	28	22	43	28	52	59

Respondents were asked if they would engage in each of these management actions and given three answer choices: *already do, might do,* and *probably will not do*. Respondents are new owners of small forests in Virginia.
Source: Kendra and Hull 2005.