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One Step Further: Women's Access to and Control Over Farm and Forest Resources in the U.S. South*

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ABSTRACT The ownership and management of forested land by women in the United States has been largely unexamined. It may be inappropriately discounted, especially in regions such as the South, where private land ownership is extensive and forest industry is an important component of the economy. Here several data sources on female forest and woodland owner/operators are examined, focusing on the southern U.S. states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. It is clear that female-operated farms and farmlands are increasing, and that female farm operators employ different land use strategies from their male/other counterparts. Ownership of forest land (including both farm woodlands and private forests) is higher in the South than in other parts of the United States, although recent data are not available for the region. Many integrated research questions are directed toward examination of frequently asserted hypotheses: that women view forested land differently from male/other counterparts; that they have differing goals; and that despite constraints, women can maintain economic and ecological health through their management decisions.

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What do we know about women who own or manage forested land in the United States? Not very much, in part because of data limitations and in part because of a tendency to discount female forest landowners as 'just widows.' It is frequently suggested that 'just widows' inherit wooded land from husbands, but have no idea about forest management. Or, they are more likely to be cheated by unscrupulous timber buyers -- encouraged to sell to the first bidder. 'Just widows' are dependent on others (sons, bankers, assistance foresters) for decision-making and land use planning. 'Just widows' have little impact on the goods and services provided by forested lands¹. As with all generalizations, these assertions are not always true.

Discounting the impact of traditionally under-served forest landowners, such as women, ethnic and racial minorities, or small acreage landowners, is a strategic error, particularly in states where the forest products sector is important in the regional economy. As land concentration accelerates in rural areas (see, e.g., Wear and Bolstad 1998), maintenance of a mosaic of farm and forest landowners will ensure social and biological diversity. Women comprise a considerable portion of this mosaic, and thus are worthy of special study.

The scholarly and programmatic information on women in forestry in the developing world is vast. But there are only bits and pieces of information available on U.S. women who own or operate forest land. In this paper, some of these bits and pieces are assembled and some patterns and processes are suggested. The focus is on ten states in the southern United States: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. For the last several decades, these states have been considered the "woodbasket" of the nation; nonindustrial private forest landowners in these 10 states hold nearly 70 percent of all forested land (USDA Forest Service 2002).

¹I have been collecting such generalizations for eight years, after an extension colleague replied "oh, they're just widows" in answer to a question about female forest land owners.

Table 1. Comparison of Farm Operators and Farm Acreages, 1920 and 1982.

| | 1920 | 1982 | 1992 | 1997 |
|-----------------------------|--------------------|--------------------|-------------------|-------------------|
| Female farm operators | 111,072 | 33,709 | 35, 127 | 39,034 |
| Male/other operators | 1,931,447 | 465,434 | 369,722 | 365,274 |
| Total Farm Operators | 2,044,439 | 501,215 | 406,841 | 406,305 |
| | | | | |
| Female-operated acres | 6,951,456 | 4,533,329 | 5,196,565 | 5,830,018 |
| Male/other-operated acres | 154,661,179 | 104,632,572 | 89,074,215 | 89,432,555 |
| Total Farm Acreage | 161,612,635 | 109,165,572 | 94,270,780 | 95,262,573 |

Source: U.S. Census Office 1920; U.S. Bureau of the Census 1982, 1992, 1997.

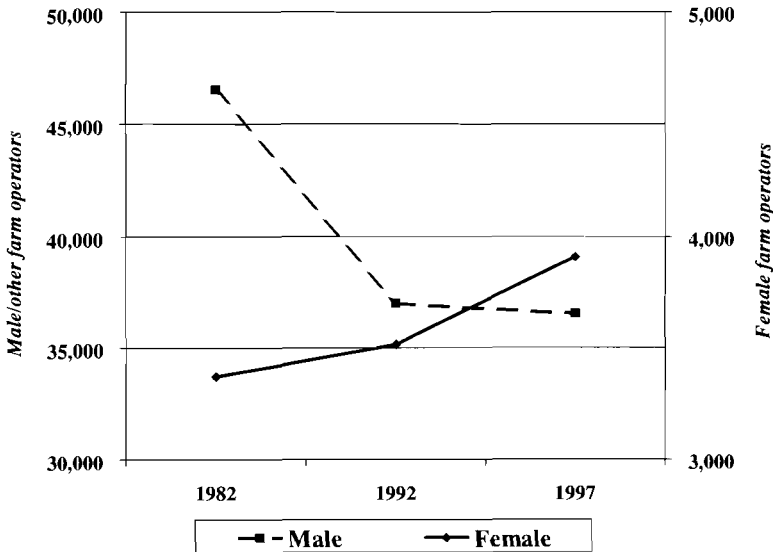
Women as Agricultural Property Owners

Historically, when land was settled in the eastern United States, ownership was generally recorded under the male head of household. In the South, however, women became agricultural property owners before the Civil War as the result of “married women’s property acts” (the first was passed in Mississippi in 1839). These laws were originally intended as mechanisms for retaining slaves within male parental control upon negotiation of a daughter’s marriage. As traditional land tenure patterns in the slave states were transformed following the Civil War, more southern women claimed rural and urban property ownership.

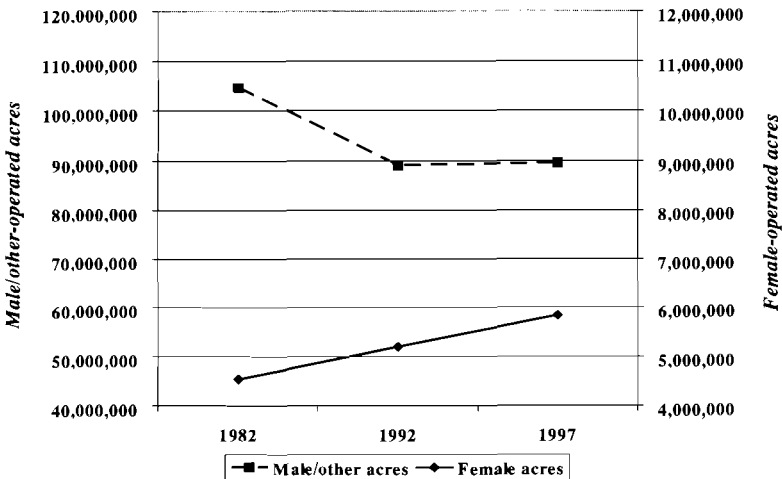
The earliest national disaggregation of farm operators by sex occurred in the 1920 census (immediately following passage of the 19th amendment). Female farm operators comprised 5.4 percent of all farmers (U.S. Census Office 1920). Sex-based disaggregation of data ceased for more than 50 years; it was resumed only in 1978. Between 1920 and 1978, total farm operator populations and total farm land declined precipitously (Table 1) and there is thus a striking discontinuity. In this paper I rely on information from the 1982, 1987, and 1997 Censuses of Agriculture, and, for land use data, special tabulations from these Censuses. Data validity must be questioned because the censuses lump into the “male” category

Figure 1. Trends in Farm Operators in Ten Southern States, Disaggregated by Sex. (Note use of secondary Y axis.)

Source: U.S. Bureau of the Census 1997.



(A) Farm operator numbers, disaggregated by sex.



(B) Farm acreage amounts, disaggregated by sex.

types of farm operations that are not solely female. However imperfect, the disaggregation of ownership data has led to new research capacity on women in agriculture (see, e.g., Effland, Hoppe, and Cook 1998; Effland, Rogers and Grim, 1993; Haney and Knowles 1988; Kalbacher 1982; Rogers and Vandeman 1993; Rosenfeld 1985).

On examination of recent sex-disaggregated data (Table 1), a striking pattern emerges. Although male/other operated farms continue to illustrate the prevailing downward trend, the number of female-operated farms has actually risen (Figure 1a). The proportion of female farm operators compared with all others has increased from 5.4 percent in 1920 to 9.6 percent in 1997. In 1997, 10 percent or more of farms in Georgia (10 percent), Florida (15.5 percent), South Carolina (10 percent), and Virginia (11 percent) were operated by women. The amount of land in farms operated by females has also risen (Figure 1b), although average farm size is still only about 60 percent that of male/others (189 acres compared with 296 acres).

Woodland in Southern Farms

Woodland is one of the four major land use categories employed by the Census of Agriculture.² In the entire United States, the ratio of woodland to total farm land is only 8 percent. However, in the southern "woodbasket" this ratio is often considerably higher, ranging from a low of 12 percent in Louisiana to a high of 35

²The 1997 Census of Agriculture defines woodland as including "natural or planted woodlots or timber tracts, cutover and deforested land with young growth which has or will have value for wood products, and woodland pastured. Land covered by sagebrush or mesquite was to be reported as other pastureland and rangeland or other land. Land planted for Christmas tree production was to be reported in cropland harvested, and land in tapped maple trees reported as woodland not pastured." A subset of woodland, woodland pastured, "includes all woodland not used for pasture or grazing during the census year. Woodland or forest land pastured under a per-head grazing permit was not counted as land in farms and, therefore, was not included in woodland pastured."

percent in Alabama, Georgia, and South Carolina (Table 2). Even so, the amount of woodlands on southern farms does not approach the amount of forest land owned and operated by non-farming private forest landowners (see below). Throughout the United States, woodland on farms comprises about 11 percent of total forest land and in the ten southern states it averages about 19 percent (Table 3).

If we disaggregate woodland on farms by sex, a striking pattern emerges. Female farm operators tend to hold a higher proportion (36 percent) of their total farmland in woodland than male/others (26 percent). This pattern becomes even more interesting if we compare total woodland to total cropland, where the averaged proportions are 81 percent for females and 47 percent for male/others (Figure 2). Over two million acres of wooded property exist on female-operated farms in the ten southern states. More than 50 percent of female farm operators maintain woodland on farms except in Florida and Louisiana; since 1982 the amount of woodland on female-operated farms has doubled (Table 4).

Might age be the cause of the disparity between wooded land uses compared to cropped land uses? The average age of female operators in the ten study states is 58.5 years, and for male/others it is 55 years. In more than half of the states, however, the greatest proportion of female farm operators is over 65 (Warren, Gichuhi and Kebede 1995). Alternatively the disparity might reflect land tenure differences, since more female farm operators tend to own their land than male/others (Rogers and Vandeman 1993, Efland et al. 1993, Warren 1999; Warren et al. 1995).

Might land use reflect institutionalized disadvantages for women? Although participation in the Conservation Reserve Program, for example, is proportionately equal between female and male/other operators, female receipts of commodity credit loans and other government supports are considerably lower (Warren et al. 1995). There seems to be a chicken-egg conundrum here: do women get fewer commodity loans because they wish to maintain their land in forest, or conversely, do they maintain forest land because they do not receive commodity supports? Yet another possible hypothesis suggests that wooded land requires less annual labor, and thus is attractive to female operators.

From a glance at recent agriculture censuses, we can conclude that despite nationwide farm losses, female farm operators have managed to maintain and even increase their representation within the rural mosaic. They maintain disproportionately large amounts of their land in woodland, for reasons not yet well understood. We can look elsewhere to discover approximations of how much forest land in the South is actually owned by women.

Investigations of Women Who Own Forested Lands

Gathering data on owners of forest land beyond the Census of Agriculture's 'woodland-in-farms' category is a challenge, as availability and comparability are inconsistent. There are two sources of data that may serve to expand our understanding of women who owned forest land in the 1970s and the 1980s. The first is a survey of private forest landowners in the United States (Birch, Lewis and Kaiser 1982), in which sex-disaggregated data were obtained. The second is by examining individual state records of forest property ownership. Below are results from one study using Alabama Forestry Commission data gathered in 1973 and again in 1990 (Warren 1996).

Women as Private Forest Landowners in the 1970s

According to the 1978 Forest Service survey of private forest landowners (Birch et al. 1982), female forest landowners in the United States accounted for about 16 percent of all surveyed owners; they owned about 11 percent of the forest land. In the southern region, however, female forest owners comprised nearly 24 percent of all private owners and owned about 13 percent of all forest land (Figure 3). Private corporations, although few in number, owned 34 percent (Birch et al. 1982). Assuming that female-operated farm woodlands lands were included in the Forest Service's survey, female forest and woodland acreage exceeds that of the National Forests in the 10 southern states³.

³ A repeat survey of private forest landowners conducted in the early 1990s did not provide sex- or race-based disaggregated data (Birch 1996).

Table 2: Woodland on Farms, United States and Ten Southern States, 1997.

| | Farm operators | Woodland on farm (acres) | Total farm land (acres) | Ratio of woodland to farm land | Average amount of woodland (acres) | Average farm size (acres) |
|------------|-----------------------|---------------------------------|--------------------------------|---------------------------------------|---|----------------------------------|
| US | 743,011 | 71,465,431 | 931,795,255 | 8% | 96 | 1,254 |
| AL | 24,826 | 3,035,609 | 8,704,385 | 35% | 122 | 351 |
| ARK | 23,866 | 2,327,890 | 14,364,955 | 16% | 98 | 602 |
| FL | 8,885 | 2,132,308 | 10,454,217 | 20% | 240 | 1,177 |
| GA | 25,180 | 3,776,996 | 10,671,246 | 35% | 150 | 424 |
| LA | 8,000 | 952,149 | 7,876,528 | 12% | 119 | 985 |
| MS | 19,474 | 2,675,367 | 10,124,822 | 26% | 137 | 520 |
| NC | 31,171 | 2,639,726 | 9,122,379 | 29% | 85 | 293 |
| SC | 13,150 | 1,620,282 | 4,593,452 | 35% | 123 | 349 |
| TN | 46,229 | 2,613,402 | 11,122,363 | 23% | 57 | 241 |
| VA | 26,604 | 2,514,073 | 8,228,228 | 31% | 94 | 309 |

Source: US Bureau of the Census 1997.

Table 3: Ratio of Woodland on Farms to Total Forest Land in the United States and 10 Southern States (1997).

| | Woodland on Farms (acres) | Total forest land (acres) | Ratio of woodland on farms to total forest land |
|----|---------------------------|---------------------------|---|
| US | 71,465,431 | 748,922,000 | 11% |
| AL | 3,035,609 | 22,987,000 | 27% |
| AR | 2,327,890 | 18,771,000 | 20% |
| FL | 2,132,308 | 16,285,000 | 15% |
| GA | 3,776,996 | 24,405,000 | 31% |
| LA | 952,149 | 13,812,000 | 6% |
| MS | 2,675,367 | 18,580,000 | 16% |
| NC | 2,639,726 | 19,302,000 | 17% |
| SC | 1,620,282 | 12,495,000 | 9% |
| TN | 2,613,402 | 14,396,000 | 26% |
| VA | 2,514,073 | 16,074,000 | 12% |

Source: U.S. Bureau of the Census 1997; USDA Forest Service 2002.

Women as Owners of Large Forest Tracts in Alabama

More than 75 percent of Alabama is forested and forestry industries are important employers in the state. In 1973, 18 percent of all individual forest landowners with county holdings greater than 500 acres were women (approximately 860 women)⁴ (Warren 1996). This proportion had increased to 22 percent in 1990, although total Alabama forest land had actually declined by about 8 percent. In 1990, women owned more than 30 percent of the forested land in seven Alabama counties (Covington: 50.3 percent, Lowndes: 38.2

⁴ This conclusion was a result of identifying female names from landowner lists compiled by the Alabama Forestry Commission (1973 and 1990). The count was extremely conservative; any name that might be male was counted as male (e.g., Stacey), resulting in a possible undercount of female owners.

Table 4: Woodland on Female-Operated Farms in Ten Southern States, 1997.

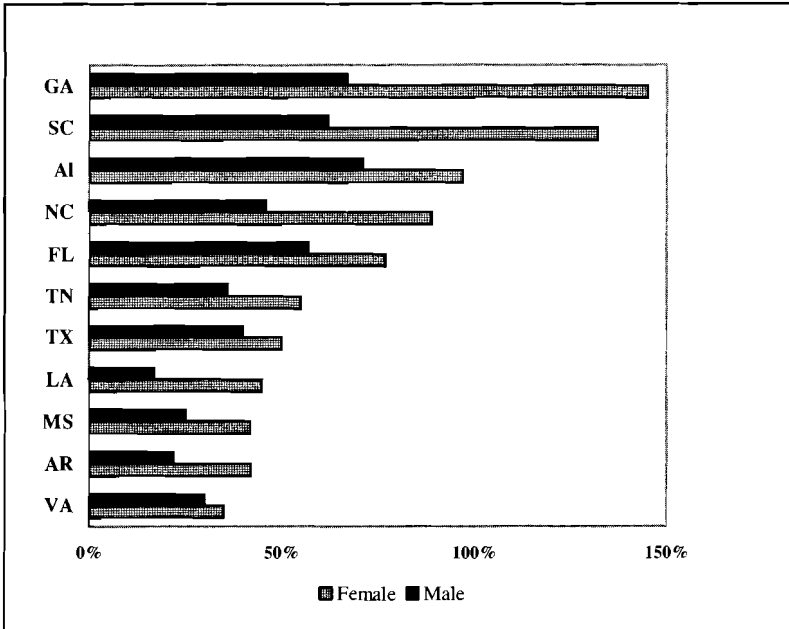
| | Total woodland acres 1997 | % of female-operated farms with woodlands 1997 | % increase in woodland acreage 1982-1997 |
|--------------|----------------------------------|---|---|
| AL | 234,859 | 57% | 133% |
| AR | 173,054 | 54% | 114% |
| FL | 195,186 | 22% | 128% |
| GA | 373,581 | 59% | 156% |
| LA | 71,147 | 36% | 114% |
| MS | 249,807 | 65% | 152% |
| NC | 174,640 | 61% | 103% |
| SC | 164,957 | 63% | 173% |
| TN | 211,442 | 59% | 114% |
| VA | 199,670 | 58% | 95% |
| <i>Total</i> | 2,048,343 | 53% | 128% |

Source: USDA National Agricultural Statistics Service 2000.

percent, Washington: 37.2 percent, Greene: 35.5 percent, Etowah: 35.4 percent, Autauga: 33.8 percent, and Pickens: 32.6 percent) (Figure 4). (All but one of these counties are in the coastal plain where forestry is big business.) In a further 16 counties, women owned between 21-30 percent of the forest land. In five counties, women accounted for over 30 percent of all forest land owners.

At the time of the Alabama study, there were no female state assistance foresters, and most forestry professionals believed that female owners were not active managers of their land. Indeed, many were startled to learn the extent of female forest holdings. A study currently ongoing in Alabama, however, will include information on women who own forest land in several black belt counties (Crim, Dubois and Bailey 2002); this should illuminate the status of and conditions for women forest landowners in parts of Alabama.

Figure 2: Proportion of Total Woodland to Total Cropland Maintained in Farms (1997).



Source: USDA National Agricultural Statistics Service 2000.

Women as owners of forestry businesses

As shown in Table 5, women own about 11 percent of all forestry businesses (SIC Code 9) in the United States. However, in only two of the ten southern states (Arkansas and Mississippi) do female owners exceed the national average. Unfortunately, without contemporary sex-disaggregated data on female private forest landowners, it is difficult to draw any conclusions from this data.

Discussion

What, if any, conclusions can be drawn from these quantitative data on female forest and woodland owner/operators? A set of preliminary investigations indicates that women are a substantial sub-class of forest land owners/operators. It is also clear that regional differences exist, based both on land capacity and on artifacts of original

Table 5: Women-owned forestry-related businesses.

| | Businesses | Women-owned | % of total |
|-----------|-------------------|--------------------|-------------------|
| US | 14,051 | 1,478 | 11% |
| NC | 595 | 35 | 6% |
| GA | 659 | 39 | 6% |
| AL | 548 | 51 | 9% |
| LA | 388 | 37 | 10% |
| VA | 358 | 36 | 10% |
| SC | 299 | 31 | 10% |
| TN | 186 | 20 | 11% |
| AR | 355 | 51 | 14% |
| MS | 555 | 83 | 15% |
| FL | 410 | S | N/A |

Source: USDA 2002.

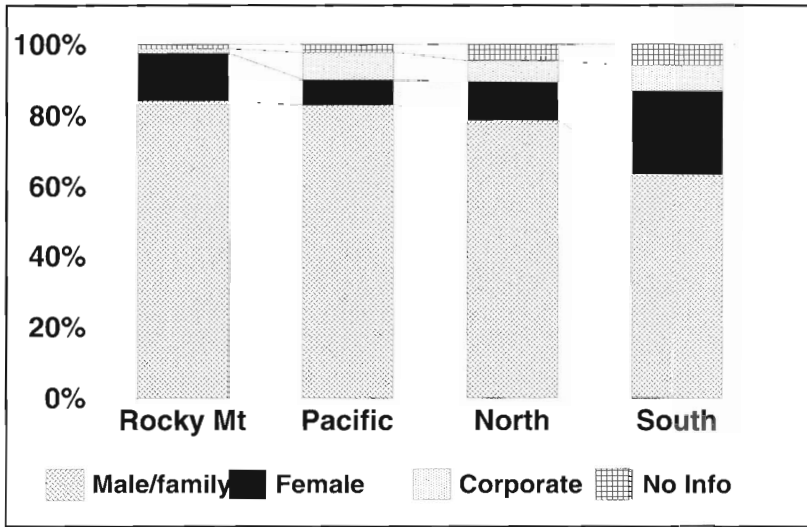
land settlement patterns. In the northeast, mid-Atlantic, and southern states, where land holdings are generally smaller than in western regions, women have higher representation in the total population of owner/operators.

There are also other pattern differences. In a period of declining farm ownership and of farm land concentration, the number of female farm operators has risen. However, average acreages still are lower than those of male or joint owner/operators, both for woodland on farms and for private forest land. In the south, women maintain more of their farm land in woodland than male/others; this pattern is much more significant when we compare the higher ratios of woodland to cropland that female operators maintain.

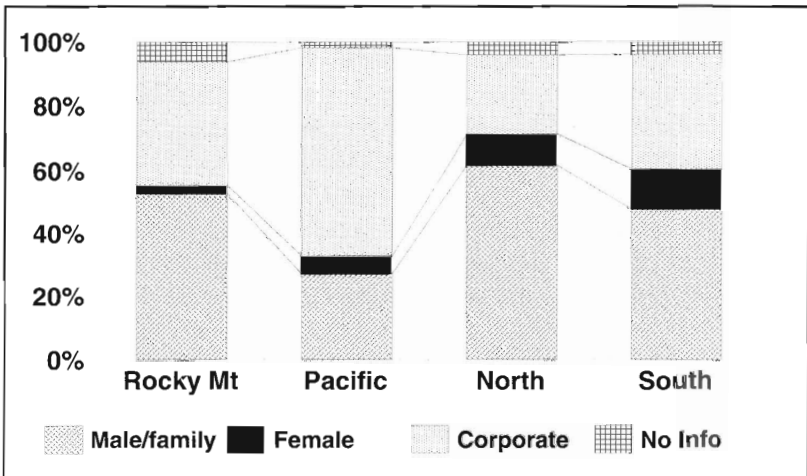
For non-farming private forest land owners, we have little contemporary information. However, in the late 1970s, women comprised about 24 percent of forest land owners and owned 13 percent of the land. Using farm operator patterns and private forest landowner data from Alabama as proxies, at least we can assert that little ground has been lost between the 1970s and 1990s.

Figure 3. Disaggregated Profiles of Private Forest Landowners in Four Regions of the United States 1978.

Source: Birch, Lewis and Kaiser 1982.

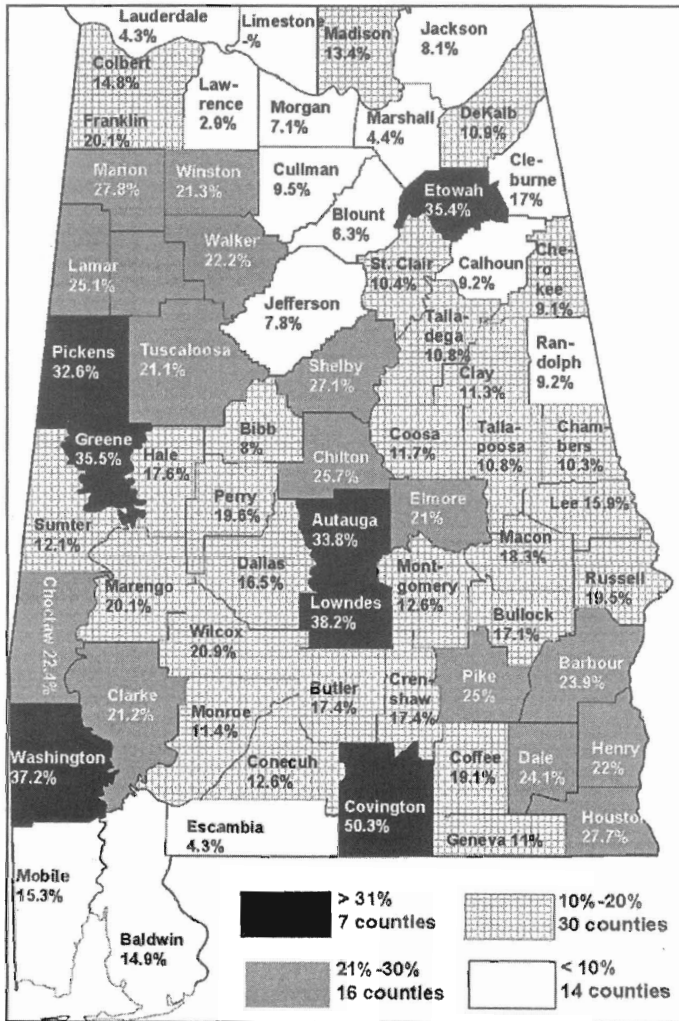


(A) Forest land owners.



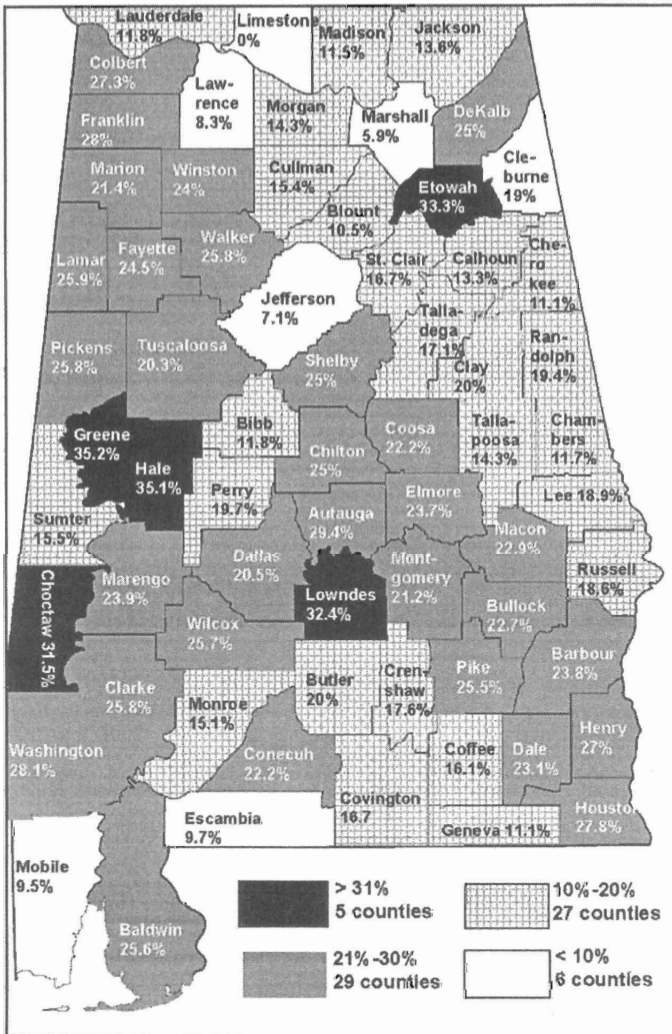
(B) Forest land acreage.

Figure 4A. Alabama forest land owners, 1990. Proportion of forest land owned by women.



Source: Alabama Forestry Commission 1990.

Figure 4B. Alabama forest land owners, 1990. Proportion of female owners of forest land.



Source: Alabama Forestry Commission 1990.

Directions for future research

There remain innumerable research questions about women's ownership and management of forested land. Initially it will be useful to examine the socio-demographic and legal factors that define women's access to and control over forest and woodland resources in the United States. Under what conditions do women acquire, own, and operate forested land? Inter- and intra-generational inheritance are assumed to be the primary form of acquisition⁵; however, with increasing equitability in real property division following divorce, other intra-generational transfers are occurring. Additionally, there may be discernable patterns of intentional acquisition of forested land for enjoyment and investment purposes.

Regarding forestry practices, it has been suggested that annual labor and capital inputs are less onerous in forestry than in agriculture. However, there is local evidence (on a state-by-state and county-by-county basis) that women are slighted in the distribution of knowledge about and opportunity for healthy and productive forest management. Not all states institute extension programs such as North Carolina's "Women in the Woods," nor do all county rangers provide advisory services for female forest owners. Sex-disaggregated data on participation in the Conservation Reserve Program can be obtained from special tabulations of the Census of Agriculture, but there is yet no regional accounting for women's participation in other forestry support and incentive programs.

Clearly changes both in attitude and accounting for female participation in the forest economy are required. Many women are highly credible forest managers, who "stay on top of things" when they do obtain programmatic assistance. Formal professional education of women as foresters is increasing; perhaps higher degrees and positions in industry, extension, and universities will subvert some of the traditional behaviors that are still encountered, not only in the South.

As attitudes among forestry professionals change, attitudes towards the outputs of goods and services from forested land will

⁵ Legal barriers become evident in cases where women inherit only a life interest in property.

also change. It is frequently asserted that women's motivations in forest management are different from those of their male/other counterparts – leaning as much or more toward conservation as production. If women do tend to cooperate more frequently and more effectively (see, e.g., Rose 1994), we can expect female owner/operators to participate actively and willingly in cooperative forestry enterprises, and in joint management or landscape management efforts.

All of these research hypotheses are complicated by methodological issues. How do we identify female owner/operators in order to determine the extent to which they are under-served (Warren and Sills 2002). How can we usefully compare county-specific or state-specific studies in order to obtain a reasonably reliable regional overview? How can we make useful disaggregations of data, or find comparable data sets?

Large scale quantitative research studies will not answer some of the most interesting questions about women who own and operate forest land. The demographic and social patterns, motivations and behaviors, and land use decisions made by female forest land owners will best be understood through the use of qualitative and quantitative methods combined. Continued integrated research will address overarching hypotheses: that women view forested land differently from male/other counterparts; that they have differing goals; and that despite constraints, women can maintain economic and ecological health through their management decisions.

References

- Alabama Forestry Commission. 1973. *Alabama Forest Landowner List: 500 Acres or More*. Montgomery: Alabama Forestry Commission.
- , 1990. *Alabama Forest Landowner List: 500 Acres or More*. Montgomery: Alabama Forestry Commission.
- Birch, T.W. 1996. *Private Forest Landowners of the United States*. Northeastern Forest Experiment Station, Resource Bulletin NE-134. Washington DC: US Department of Agriculture, Forest Service.

- Birch, T.W., D.G. Lewis, and H.F. Kaiser. 1982. *The Private Forest-Land Owners of the United States*. Resource Bulletin WO-1. Washington, DC: US Department of Agriculture, Forest Service, Northeastern Forest Experiment Station.
- Crim, S., M. Dubois, and C. Bailey. 2002. "Characterization of Underserved Forest Landowners in Rural Alabama." Presented at the Annual Meetings of the Rural Sociological Society, August, Chicago.
- Effland, A.B., D.M. Rogers, and V. Grim. 1993. "Women as Agricultural Landowners: What Do We Know About Them." *Agricultural History* 67(2):235-61.
- Effland, A.B.W., R.A. Hoppe and P.R. Cook. 1998. "Minority and Women Farmers in the U.S." *Agricultural Outlook* 251:16-21.
- Haney, W.G. and J.B. Knowles. 1988. *Women and Farming: Changing Roles, Changing Structures*. Boulder:Westview Press.
- Kalbacher, J.Z. 1982. *Women Farmers in America*. ERS-679, U.S. Department of Agriculture. Washington DC: U.S. Government Printing Office.
- Rogers, D.M. and A.M. Vandeman. 1993. *Women Farm Landlords in the United States*. AIB- 681, ERS, U.S. Department of Agriculture. Washington DC: U.S. Government Printing Office.
- Rose, C.M. 1994. *Property and Persuasion : Essays on the History, Theory, and Rhetoric of Ownership*. Boulder:Westview Press.
- Rosenfeld, R. 1985. *Farm Women : Work, Farm, and Family in the United States*. Chapel Hill: University of North Carolina Press.
- US Bureau of the Census. *1982 Census of Agriculture*. Washington, DC: U.S. Government Printing Office.
- *1987 Census of Agriculture*. Washington, DC: U.S. Government Printing Office.
- *1992 Census of Agriculture*. Washington, DC: U.S. Government Printing Office.
- *1997 Census of Agriculture*. Washington, DC: U.S. Government Printing Office.

- US Census Office 1920. *Fourteenth Census of the United States*. Washington, DC: U.S. Government Printing Office.
- USDA Forest Service. 2002. *Forest Resources of the United States, 2002, (Table 2). 2002 RPA Forest Resource Assessment Draft Tables*. Retrieved 5/1/02.
(http://www.ncrs.fs.fed.us/4801/FIADB/rpa_tabler/Draft_RPA_2002_Forest_ResouceTables.pdf)
- USDA National Agricultural Statistics Service Data Lab. 1995. "Special Tabulations of the 1982 and 1992 Censuses of Agriculture, June 1995. Land in Farms Disaggregated According to Sex and Land Use, Eleven Southern States." Washington, DC: USDA.
- , 2000. "Special Tabulations of the 1997 Census of Agriculture, July 2000. Land in Farms According to Land Use, Disaggregated by Sex and Racs, Eleven Southern States." Washington, DC: USDA.
- USDA (U.S. Department of Agriculture). 2002. *1997 Economic Census Minority- and Women-Owned Businesses United States*. Retrieved 5/1/02.
(<http://www.census.gov/epcd/mwb97/intromwb.htm>).
- Wear, D.N., and P. Bolstad. 1998. "Land Use Changes in Southern Appalachian Landscapes: Spatial Analysis and Forecast Evaluation." *Ecosystems* 1(6):575-94.
- Warren, S.T. 1996. "Female Forest Land Ownership Strategies in the South: Management Options, Opportunities, and Constraints." Presented at the 6th International Symposium on Society and Resource Management, May 18-23, Pennsylvania State University.
- , 1999. "Getting Beyond 'They're Just Widows': Female Ownership of Natural Resources in the U.S. South". Presented at the Southeastern Women's Studies Association, 22nd Annual Conference, March 26-28, Raleigh, NC.
- Warren, S.T., W. Gichuhi, and E. Kebede. 1995. "Stand Up and Be Counted: Female Farm and Woodland Operators in the South". Presented at the Land Tenure Center Conference, "Who Owns America? Land and Resource Tenure Issues in a Changing Environment," 21-24 June, University of Wisconsin, Madison, WI.

Warren — One Step Further: Women's Access 113

Warren, S.T. and E.O. Sills. 2002. "Turning Every Stone: Identifying Limited-Resource, Traditionally Under-Served Forest Landowners in the Coastal Plains of North Carolina and Virginia." Presented at the Annual Meetings of the Rural Sociological Society, August, Chicago, Illinois.