Midsouth Forest Area Trends

Richard A. Birdsey and William M. Williams
Midsouth Forest Area Trends

Richard A. Birdsey and William H. McWilliams

INTRODUCTION

The Forest Inventory and Analysis Unit of the Southern Forest Experiment Station (Forest Survey) conducts periodic inventories at approximately 10-year intervals of the forest resources of the Midsouth States (fig. 1). This report contains a summary of forest acreage estimates made between 1950 and 1985. The statistics are based on published Forest Survey reports and survey archives. Because each state is inventoried successively in a continuous cycle, area estimates were adjusted to common years through interpolation between actual survey dates, and extrapolation to earlier or later years. Minor adjustments were made for definitional or procedural changes that have occurred in the survey process. Area estimates by ownership classes were adjusted to conform with enumerated data on public landholdings in each state. Forest Service planting records and long-range ownership trends were used to provide cross-tabulations by owner and forest classes for some of the earlier surveys.

Area estimates for 1985 were based on past trends, planting records, and statistical reviews by individual State study teams. Preliminary estimates from ongoing surveys and various midcycle survey updates were also used. This compilation was part of a review of the Southern timber supply situation.

No estimates of statistical reliability have been made due to the extensive use of interpolation and non-statistical data sources. The reader may refer to a companion Resource Bulletin to obtain an estimate of data reliability for each state and for the Midsouth as computed from recent survey data (McWilliams and Birdsey 1985).

FOREST AREA TRENDS

One of the most significant trends in the Midsouth has been the steady increase in the acreage of planted pine (fig. 2). Between 1955 and 1982, the Soil Bank years, many acres of idle farmland held by nonindustrial private owners were planted to pine (fig. 3). Since 1965, the forest industry has been increasing the harvest of natural pine and oak-pine, and replacing these stands with planted pine. Forest industry now owns more pine plantation acreage than any other forest class (fig. 4), and owns 64 percent of all planted pine in the Midsouth (fig. 5).

Currently, 9 percent of all Midsouth timberland is planted pine, up from 6 percent just 8 years ago. The estimates of pine plantation area do not include stands that were planted but are classified oak-pine or hardwood because hardwoods comprise the majority of stocking (table 1). Most of this acreage represents partially successful plantations and plantations with intensive hardwood competition. The situation is very common in young stands where planted pines have not yet attained dominance over natural hardwood regeneration, or where hardwood control measures have not yet been applied.

Natural pine accounts for 20 percent of all Midsouth timberland, down from 28 percent in 1952. Nonindustrial private owners, holding 58 percent of the total, are the principal landholders of this forest class (fig. 6).

Another significant trend in the Midsouth has been the decline in bottomland hardwood acreage. Land clearing in the Mississippi River delta and other bottomland areas has claimed 4 million acres since 1962. Most of the clearing has occurred on land held by nonindustrial...
private owners who still control the majority of the bottomland forest acreage (fig. 7).

Nonindustrial private owners hold 78 percent of all upland hardwood acreage, and this share continues to climb (figs. 8, 9). The increase coincides with a decline in natural pine and oak-pine, which is caused by selective harvests of pine timber and clearcutting without adequate pine regeneration. Additions to upland hardwood acreage also occur when pasture or cropland is taken out of production. One-half of all agricultural land that reverts to forest is dominated by hardwoods (fig. 10).

The long-term trends indicated by these data show that natural pine is declining at the fastest rate of any forest class in the Midsouth, roughly 300 thousand acres annually since 1952 (fig. 11). This overall downward trend occurs despite a slight increase between 1952 and 1962. The decline since 1970 has averaged 490 thousand acres per year. If this rate were to continue unabated, the Midsouth would lose all of its natural pine by the year 2025.

It is more likely, however, that an equilibrium will be reached before 2025. Land clearing and type conversion rates respond to economic and social pressures which vary over time. For example, the rate of bottomland forest clearing was much higher between 1962 and 1970 than between 1970 and the present. Furthermore, these statistics represent net changes, while in fact there is a constant shifting among forest types of a magnitude much greater than the net shift (Birdsey and others 1981). A forthcoming Forest Service analysis of the Southern timber supply situation will present the current "best estimates" of future timberland trends.

DEFINITION OF TERMS

Timberland. --Land at least 16.7 percent stocked by forest trees of any size or formerly having such tree cover, and capable of producing crops of industrial wood. Land that is currently developed for nonforest use or withdrawn from timber utilization through statute or administrative regulation is excluded.

Forest Class

A classification of Forest Survey plots according to forest type (based on the plurality of all live trees tallied) and stand origin.

Pine plantations.--Forests in which pines comprise the plurality of stocking and that originated from either planting or direct seeding.

Natural pine.--Forests in which pines comprise the plurality of stocking with no evidence of artificial regeneration (includes stands established by seed trees).

Mixed pine-hardwoods.--Forests in which hardwoods comprise the plurality of stocking, but in which pines comprise 25 to 50 percent of the stocking.

Upland hardwoods.--Forests in which upland hardwood species, singly or in combination, comprise the plurality of stocking, except where pines comprise 25 to 50 percent of the stocking, in which case the plot would be classified as mixed pine-hardwoods.

Bottomland hardwoods.--Includes forest in which bottomland hardwood species, singly or in combination, comprise a plurality of stocking except where pines comprise 25 to 50 percent, in which case the plot would be classified mixed pine-hardwoods.

Ownership Classes

National forest.--Federal lands which have been legally designated as National forests or purchase units, and other lands under the administration of the Forest Service.

Other public.--Land owned by federal (excluding National forest land), state, county, or municipal governments.

Forest industry.--Land owned or leased by companies or individuals operating wood-using plants.

Other private.--Privately owned land excluding land owned by forest industry.
LITERATURE CITED


<table>
<thead>
<tr>
<th>State</th>
<th>Mixed pine-hardwoods</th>
<th>Hardwoods</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>447</td>
<td>218</td>
<td>665</td>
</tr>
<tr>
<td>Arkansas</td>
<td>307</td>
<td>194</td>
<td>501</td>
</tr>
<tr>
<td>Louisiana</td>
<td>237</td>
<td>280</td>
<td>517</td>
</tr>
<tr>
<td>Mississippi</td>
<td>381</td>
<td>286</td>
<td>667</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>176</td>
<td>131</td>
<td>307</td>
</tr>
<tr>
<td>Tennessee</td>
<td>52</td>
<td>78</td>
<td>130</td>
</tr>
<tr>
<td>Texas</td>
<td>142</td>
<td>139</td>
<td>281</td>
</tr>
<tr>
<td>Midsouth</td>
<td>1,742</td>
<td>1,326</td>
<td>3,068</td>
</tr>
</tbody>
</table>

\[1/\]
Includes upland hardwoods and bottomland hardwoods.
Figure 1.—States and survey regions of the Midsouth.
Figure 2.--Timberland area by forest class for all owners in the Midsouth, 1952-1985.

Figure 3.--History of tree planting in the Midsouth by ownership class and year.
Figure 4.--Timberland area by forest class for forest industry owners in the Midsouth, 1952-1985.

Figure 5.--Proportion of planted pine by ownership class in the Midsouth, 1985.

Figure 6.--Proportion of natural pine by ownership class in the Midsouth, 1985.
Figure 7.--Proportion of bottomland hardwoods by ownership class in the Midsouth, 1985.

Figure 8.--Proportion of upland hardwoods by ownership class in the Midsouth, 1985.

Figure 9.--Timberland area by forest class for nonindustrial private forest owners in the Midsouth, 1952-1985.
Figure 10.--Reversions of agricultural land to timberland by forest class.

Figure 11.--Average annual change in timberland acreage by forest class in the Midsouth, 1952-1985.
Table 3.—Area of timberland in Arkansas, by ownership and forest class, selected years 1952-1985

<table>
<thead>
<tr>
<th>Ownership and forest class</th>
<th>Year</th>
<th>1952</th>
<th>1962</th>
<th>1970</th>
<th>1977</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forest industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other private</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total, all ownerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- - - - - - - - thousand acres - - - - - - -
Table 4.—Area of timberland in Louisiana, by ownership and forest class, selected years 1952-1985

<table>
<thead>
<tr>
<th>Ownership and forest class</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Forest</td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>59</td>
</tr>
<tr>
<td>Natural pine</td>
<td>159</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>107</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>68</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>142</td>
</tr>
<tr>
<td>Total</td>
<td>535</td>
</tr>
<tr>
<td>Other public</td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>3</td>
</tr>
<tr>
<td>Natural pine</td>
<td>27</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>33</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>40</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>210</td>
</tr>
<tr>
<td>Total</td>
<td>313</td>
</tr>
<tr>
<td>Forest industry</td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>10</td>
</tr>
<tr>
<td>Natural pine</td>
<td>1,085</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>612</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>474</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>1,533</td>
</tr>
<tr>
<td>Total</td>
<td>3,714</td>
</tr>
<tr>
<td>Other private</td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>31</td>
</tr>
<tr>
<td>Natural pine</td>
<td>3,354</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>1,892</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>1,464</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>4,736</td>
</tr>
<tr>
<td>Total</td>
<td>11,477</td>
</tr>
<tr>
<td>Total, all ownerships</td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>103</td>
</tr>
<tr>
<td>Natural pine</td>
<td>4,625</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>2,644</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>2,946</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>6,621</td>
</tr>
<tr>
<td>Total</td>
<td>16,039</td>
</tr>
</tbody>
</table>
Table 5.--Area of timberland in Mississippi, by ownership and forest class, selected years 1952-1985

<table>
<thead>
<tr>
<th>Ownership and forest class</th>
<th>Year</th>
<th>1952</th>
<th>1962</th>
<th>1970</th>
<th>1977</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td>79</td>
<td>123</td>
<td>101</td>
<td>80</td>
<td>99</td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td>436</td>
<td>460</td>
<td>467</td>
<td>519</td>
<td>378</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td>288</td>
<td>241</td>
<td>228</td>
<td>252</td>
<td>283</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td>108</td>
<td>145</td>
<td>133</td>
<td>143</td>
<td>161</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td>125</td>
<td>140</td>
<td>132</td>
<td>129</td>
<td>132</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>1,036</td>
<td>1,109</td>
<td>1,119</td>
<td>1,123</td>
<td>1,053</td>
</tr>
<tr>
<td>Other public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td>10</td>
<td>17</td>
<td>24</td>
<td>28</td>
<td>39</td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td>217</td>
<td>197</td>
<td>225</td>
<td>174</td>
<td>141</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td>177</td>
<td>124</td>
<td>126</td>
<td>118</td>
<td>148</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td>68</td>
<td>76</td>
<td>75</td>
<td>69</td>
<td>85</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td>211</td>
<td>197</td>
<td>201</td>
<td>166</td>
<td>191</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>683</td>
<td>611</td>
<td>651</td>
<td>555</td>
<td>604</td>
</tr>
<tr>
<td>Forest industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td>78</td>
<td>208</td>
<td>348</td>
<td>482</td>
<td>977</td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td>851</td>
<td>883</td>
<td>927</td>
<td>843</td>
<td>651</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td>670</td>
<td>534</td>
<td>543</td>
<td>689</td>
<td>633</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td>358</td>
<td>456</td>
<td>450</td>
<td>562</td>
<td>513</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td>564</td>
<td>601</td>
<td>617</td>
<td>719</td>
<td>786</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2,521</td>
<td>2,582</td>
<td>2,885</td>
<td>3,295</td>
<td>3,560</td>
</tr>
<tr>
<td>Other private</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td>117</td>
<td>297</td>
<td>460</td>
<td>531</td>
<td>609</td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td>3,643</td>
<td>3,593</td>
<td>3,489</td>
<td>2,644</td>
<td>1,781</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td>3,174</td>
<td>2,406</td>
<td>2,265</td>
<td>2,393</td>
<td>2,496</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td>3,007</td>
<td>3,642</td>
<td>3,334</td>
<td>3,466</td>
<td>3,588</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td>2,672</td>
<td>2,704</td>
<td>2,572</td>
<td>2,498</td>
<td>2,381</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>12,613</td>
<td>12,642</td>
<td>12,120</td>
<td>11,532</td>
<td>10,855</td>
</tr>
<tr>
<td>Total, all ownerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td></td>
<td>284</td>
<td>645</td>
<td>933</td>
<td>1,121</td>
<td>1,724</td>
</tr>
<tr>
<td>Natural pine</td>
<td></td>
<td>5,147</td>
<td>5,133</td>
<td>5,108</td>
<td>4,180</td>
<td>2,951</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td></td>
<td>4,309</td>
<td>3,305</td>
<td>3,162</td>
<td>3,452</td>
<td>3,560</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td></td>
<td>3,541</td>
<td>4,319</td>
<td>3,992</td>
<td>4,240</td>
<td>4,347</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td></td>
<td>3,572</td>
<td>3,642</td>
<td>3,522</td>
<td>3,512</td>
<td>3,490</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>16,853</td>
<td>17,044</td>
<td>16,775</td>
<td>16,505</td>
<td>16,072</td>
</tr>
</tbody>
</table>
Table 6.--Area of timberland in Oklahoma, by ownership and forest class, selected years 1952-1985

<table>
<thead>
<tr>
<th>Ownership and forest class</th>
<th>Year</th>
<th>1952</th>
<th>1962</th>
<th>1970</th>
<th>1977</th>
<th>1985</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>17</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td>28</td>
<td>40</td>
<td>84</td>
<td>83</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>18</td>
<td>30</td>
<td>36</td>
<td>38</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>151</td>
<td>130</td>
<td>83</td>
<td>75</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>14</td>
<td>18</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>213</td>
<td>223</td>
<td>219</td>
<td>219</td>
<td>214</td>
<td></td>
</tr>
<tr>
<td>Other public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td>56</td>
<td>61</td>
<td>37</td>
<td>42</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>45</td>
<td>52</td>
<td>32</td>
<td>36</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>291</td>
<td>203</td>
<td>194</td>
<td>185</td>
<td>175</td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>29</td>
<td>28</td>
<td>80</td>
<td>81</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>421</td>
<td>344</td>
<td>343</td>
<td>344</td>
<td>344</td>
<td></td>
</tr>
<tr>
<td>Forest industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>1</td>
<td>6</td>
<td>29</td>
<td>210</td>
<td>489</td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td>129</td>
<td>126</td>
<td>365</td>
<td>268</td>
<td>123</td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>109</td>
<td>111</td>
<td>256</td>
<td>260</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>593</td>
<td>546</td>
<td>241</td>
<td>233</td>
<td>246</td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>57</td>
<td>76</td>
<td>42</td>
<td>44</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>889</td>
<td>865</td>
<td>933</td>
<td>1,015</td>
<td>1,055</td>
<td></td>
</tr>
<tr>
<td>Other private</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>3</td>
<td>22</td>
<td>11</td>
<td>11</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td>515</td>
<td>505</td>
<td>265</td>
<td>263</td>
<td>284</td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>435</td>
<td>444</td>
<td>348</td>
<td>342</td>
<td>365</td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>2,371</td>
<td>2,184</td>
<td>2,178</td>
<td>1,834</td>
<td>1,724</td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>228</td>
<td>305</td>
<td>323</td>
<td>291</td>
<td>263</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,552</td>
<td>3,460</td>
<td>3,125</td>
<td>2,741</td>
<td>2,657</td>
<td></td>
</tr>
<tr>
<td>Total, all ownerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>6</td>
<td>33</td>
<td>50</td>
<td>238</td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>Natural pine</td>
<td>728</td>
<td>732</td>
<td>751</td>
<td>656</td>
<td>530</td>
<td></td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>607</td>
<td>637</td>
<td>672</td>
<td>676</td>
<td>595</td>
<td></td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>3,406</td>
<td>3,063</td>
<td>2,696</td>
<td>2,327</td>
<td>2,210</td>
<td></td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>328</td>
<td>427</td>
<td>451</td>
<td>422</td>
<td>395</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,075</td>
<td>4,892</td>
<td>4,620</td>
<td>4,319</td>
<td>4,270</td>
<td></td>
</tr>
</tbody>
</table>
Table 7.--Area of timberland in Tennessee, by ownership and forest class, selected years 1952-1985

<table>
<thead>
<tr>
<th>Ownership and forest class</th>
<th>Year</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National Forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Natural pine</td>
<td>126</td>
<td>94</td>
<td>104</td>
<td>93</td>
<td>94</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>152</td>
<td>108</td>
<td>106</td>
<td>109</td>
<td>110</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>274</td>
<td>384</td>
<td>388</td>
<td>356</td>
<td>380</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>564</td>
<td>591</td>
<td>600</td>
<td>558</td>
<td>584</td>
</tr>
<tr>
<td>Other public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>40</td>
<td>56</td>
<td>39</td>
<td>21</td>
<td>18</td>
</tr>
<tr>
<td>Natural pine</td>
<td>25</td>
<td>9</td>
<td>48</td>
<td>44</td>
<td>42</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>156</td>
<td>110</td>
<td>121</td>
<td>102</td>
<td>93</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>259</td>
<td>360</td>
<td>410</td>
<td>378</td>
<td>390</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>60</td>
<td>73</td>
<td>69</td>
<td>58</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>550</td>
<td>608</td>
<td>687</td>
<td>603</td>
<td>603</td>
</tr>
<tr>
<td>Forest industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>9</td>
<td>38</td>
<td>55</td>
<td>112</td>
<td>141</td>
</tr>
<tr>
<td>Natural pine</td>
<td>89</td>
<td>73</td>
<td>77</td>
<td>63</td>
<td>59</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>148</td>
<td>106</td>
<td>165</td>
<td>143</td>
<td>127</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>432</td>
<td>645</td>
<td>787</td>
<td>814</td>
<td>859</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>86</td>
<td>112</td>
<td>92</td>
<td>97</td>
<td>107</td>
</tr>
<tr>
<td>Total</td>
<td>764</td>
<td>974</td>
<td>1,176</td>
<td>1,229</td>
<td>1,293</td>
</tr>
<tr>
<td>Other private</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>55</td>
<td>198</td>
<td>221</td>
<td>180</td>
<td>159</td>
</tr>
<tr>
<td>Natural pine</td>
<td>1,453</td>
<td>988</td>
<td>790</td>
<td>823</td>
<td>826</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>1,715</td>
<td>1,004</td>
<td>1,203</td>
<td>1,100</td>
<td>968</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>6,645</td>
<td>8,147</td>
<td>7,607</td>
<td>7,770</td>
<td>7,852</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>805</td>
<td>855</td>
<td>537</td>
<td>599</td>
<td>652</td>
</tr>
<tr>
<td>Total</td>
<td>10,673</td>
<td>11,192</td>
<td>10,358</td>
<td>10,472</td>
<td>10,457</td>
</tr>
<tr>
<td>Total, all ownerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>106</td>
<td>297</td>
<td>317</td>
<td>313</td>
<td>318</td>
</tr>
<tr>
<td>Natural pine</td>
<td>1,693</td>
<td>1,164</td>
<td>1,019</td>
<td>1,023</td>
<td>1,021</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>2,191</td>
<td>1,328</td>
<td>1,595</td>
<td>1,454</td>
<td>1,298</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>7,610</td>
<td>9,536</td>
<td>9,192</td>
<td>9,318</td>
<td>9,481</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>951</td>
<td>1,040</td>
<td>698</td>
<td>754</td>
<td>819</td>
</tr>
<tr>
<td>Total</td>
<td>12,551</td>
<td>13,365</td>
<td>12,821</td>
<td>12,862</td>
<td>12,937</td>
</tr>
</tbody>
</table>
### Table 8. Area of timberland in Texas, by ownership and forest class, selected years 1952-1985

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>National Forest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>29</td>
<td>33</td>
<td>43</td>
<td>34</td>
<td>49</td>
</tr>
<tr>
<td>Natural pine</td>
<td>444</td>
<td>417</td>
<td>434</td>
<td>424</td>
<td>404</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>70</td>
<td>67</td>
<td>54</td>
<td>75</td>
<td>90</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>50</td>
<td>48</td>
<td>18</td>
<td>22</td>
<td>27</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>61</td>
<td>58</td>
<td>29</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>654</td>
<td>623</td>
<td>578</td>
<td>576</td>
<td>593</td>
</tr>
<tr>
<td>Other public</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>4</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Natural pine</td>
<td>57</td>
<td>59</td>
<td>55</td>
<td>55</td>
<td>47</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>34</td>
<td>28</td>
<td>22</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>18</td>
<td>84</td>
<td>73</td>
<td>60</td>
<td>66</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>19</td>
<td>29</td>
<td>43</td>
<td>57</td>
<td>56</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>132</td>
<td>210</td>
<td>201</td>
<td>200</td>
<td>201</td>
</tr>
<tr>
<td>Forest industry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>16</td>
<td>92</td>
<td>174</td>
<td>523</td>
<td>1,182</td>
</tr>
<tr>
<td>Natural pine</td>
<td>1,623</td>
<td>1,732</td>
<td>1,753</td>
<td>1,361</td>
<td>893</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>619</td>
<td>688</td>
<td>800</td>
<td>906</td>
<td>764</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>341</td>
<td>379</td>
<td>400</td>
<td>523</td>
<td>458</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>448</td>
<td>498</td>
<td>514</td>
<td>530</td>
<td>548</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3,047</td>
<td>3,389</td>
<td>3,641</td>
<td>3,843</td>
<td>3,845</td>
</tr>
<tr>
<td>Other private</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>55</td>
<td>158</td>
<td>232</td>
<td>206</td>
<td>356</td>
</tr>
<tr>
<td>Natural pine</td>
<td>3,519</td>
<td>2,957</td>
<td>2,341</td>
<td>2,101</td>
<td>1,719</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>1,455</td>
<td>1,531</td>
<td>1,582</td>
<td>1,521</td>
<td>1,569</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>2,477</td>
<td>2,344</td>
<td>2,463</td>
<td>2,439</td>
<td>2,450</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>1,742</td>
<td>1,748</td>
<td>1,681</td>
<td>1,540</td>
<td>1,385</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9,248</td>
<td>8,738</td>
<td>8,299</td>
<td>7,807</td>
<td>7,479</td>
</tr>
<tr>
<td>Total, all ownerships</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pine plantations</td>
<td>104</td>
<td>293</td>
<td>457</td>
<td>769</td>
<td>1,595</td>
</tr>
<tr>
<td>Natural pine</td>
<td>5,643</td>
<td>5,165</td>
<td>4,583</td>
<td>3,941</td>
<td>3,063</td>
</tr>
<tr>
<td>Mixed pine-hardwoods</td>
<td>2,178</td>
<td>2,314</td>
<td>2,458</td>
<td>2,524</td>
<td>2,447</td>
</tr>
<tr>
<td>Upland hardwoods</td>
<td>2,886</td>
<td>2,855</td>
<td>2,954</td>
<td>3,044</td>
<td>3,001</td>
</tr>
<tr>
<td>Bottomland hardwoods</td>
<td>2,270</td>
<td>2,333</td>
<td>2,267</td>
<td>2,148</td>
<td>2,012</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>13,081</td>
<td>12,960</td>
<td>12,719</td>
<td>12,426</td>
<td>12,118</td>
</tr>
</tbody>
</table>

Timberland area trend estimates are presented for the Midsouth and for its individual states. Planted pine has increased to a 9 percent share of all Midsouth timberland. Natural pine has decreased from 28 percent to 20 percent of timberland between 1952 and 1985. Bottomland hardwood areas continue to decline. Upland hardwood type acreage is increasing.

Additional keywords: forest area, forest trends, forest ownership, forest type.