Exploitation and Greed in Eastern Hardwood Forests

Will foresters get another chance?

By Ralph D. Nyland

The 1980s brought a period of change within the eastern hardwood forest, highlighted by a resurgence of exploitation that most foresters thought had long vanished from the landscape. This slide of sound forestry set up the '90s as a decade of reckoning, and may give landowners only two choices. They can continue high-grading and systematically removing the reserves of large trees and choice species, just as careless cutting depleted the region's forests during the 1920s, '30s, and '40s. Or they can opt for a sweeping program of silviculture and responsible stewardship. However, foresters may not find themselves in a position to influence the decision, any more than they seemed able to prevent the decline of forestry during the last decade.

Depletion Scare

Renewed exploitation seemed unlikely during the 1950s, amid forecasts of a shortfall in wood supply for a growing national and worldwide population. Data suggested that heavy cutting and forest clearing during the early 1900s had depleted the growing stock and brought the production potential of eastern forests to a dangerously low level (e.g., USDA Forest Service 1955). This seemed to shock the forestry community and the nation, and appropriate silviculture was promoted as a positive alternative for the future.

During the 1960s, new surveys revealed net increases in total wood supply and forest acreage. These statistics suggested a period of rebounding and regrowth; nevertheless, analysts continued to forecast a shortage of sawlog-size materials within the eastern forests, particularly among choice species. In addition, foresters began to worry about the continued availability of timber as more and more people from urban areas purchased old farms and woodlots to use primarily as weekend sanctuaries and sites for second homes. To combat the trend, they recommended intensified management to increase the supply of desirable timber on other lands, and concurrently to maintain an acceptable forest environment across the landscape (USDA Forest Service 1973).

Ralph D. Nyland is professor, SUNY College of Environmental Science and Forestry, Syracuse, NY.
A later Forest Service assessment (1980a) relieved worries about satisfying future demand. In fact, the forestry community claimed some credit for reversing the trends in forest production and productivity. Foresters argued that because of judicious management, growth had exceeded removals (cut and drain) for sawtimber by 1.7 times, and by 2.2 times for total growing stock. Cutting had continued to remove large-diameter trees and traditionally popular species, but supplies of many choice ones improved. For example, in New York State black cherry sawtimber volume increased by 139%, white ash by 87%, and mixed oak by 25% (Furgeson and Mayer 1970, Considine and Frieswyk 1982). This suggested that withdrawals of low-quality and small-diameter trees could be increased substantially without adverse effects. Yet national recommendations continued to call for intensified management to ensure better stocking, promote more rapid residual tree growth, and improve species composition (USDA Forest Service 1980b).

Intuition and some spotty statistics suggested a pattern of improving conditions through the early 1980s (USDA Forest Service 1980a). Stocking and volume likely increased, and regeneration of open sites probably enlarged the forest area. Adverse weather, pests, harvesting, intertree competition, and old age altered volumes and acreages, size and species mixes, and stocking and production levels. These led to different opportunities for management and use than prevailed in earlier years. So the forestry community continued to express pride in its accomplishments, claiming to have turned forest practices from “timber mining” to more reasonable management.

Diameter-Limit Cutting
In the 1970s, some analysts proposed that oil shortages would dramatically increase demands for wood as a fuel or chemical feedstock and thus stimulate the market for poor-quality and small-diameter trees. That would open unprecedented outlets for thinning and improvement cutting, and provide a major impetus...
for intensified management across the private woodlands that dominate the East. Use of sawmill residues for in-plant energy production did rise, but the subsequent drop in oil prices dampened widespread demand for roundwood as fuel. As a result, the '80s brought only spotty increases in fuelwood markets, and stumpage prices for hardwood fiber remained low. This deterred any major expansion of thinning and improvement cutting, and hoped-for advances in silviculture lagged.

While demand for poor-quality and small-diameter trees did not match the increment of growing stock, the export market for logs and lumber among choice species increased dramatically. Beginning in the early 1970s, demand helped push lumber prices to new levels (Holmes et al. 1990). To capitalize on the opportunity, sawmills cut and shipped abroad prime hardwoods. To get the raw materials, they raised stumpage prices for desirable species such as oak, black cherry, yellow birch, and white ash. This prompted many landowners to shift priorities to extracting salable logs, rather than practicing silviculture to enhance the productive potential and value of their growing stock.

At the same time that export markets expanded across the region, vast acreages of second-growth stands also developed into small-sawtimber status. These had regenerated following heavy liquidation cuts of the late 1800s and early 1900s, and from natural reforestation of former agricultural sites. As the fast-growing components of these generally even-aged communities (often valuable shade-intolerant species) grew into merchantable size, many landowners began to cut the largest (dominant and codominant) and best trees, leaving behind depleted and poorly stocked stands ill-suited to sustain high levels of future production. And by deciding to cash in on the worth of these trees, they initiated the second great exploitation of the eastern hardwood forest (Nyland 1986, 1988).

**Results of Exploitation**

As a result of this exploitation, many second-growth stands now contain only poor-quality stems, less valuable species, and variable stocking and crown cover. The low-vigor and genetically inferior residual trees grow faster than before, but not as well as the dominants and codominants extracted during the diameter-limit cutting. The treatment also created two-aged stands with (1) a newly formed shade-tolerant understory and (2) a slow-growing residual overstory of low-value, poor-quality trees. In most cases, the stands lack a seed source for valuable shade-intolerant species. This portends a long-term conversion in composition that promises lower market values in the future, especially among oak communities.

Exploitation has had less severe consequences among uneven-aged communities. Those stands include (1) residual farm woodlots that landowners historically treated by periodic diameter-limit cutting (largely to remove volume they could sell under the prevailing market conditions), (2) stands regenerated from heavy liquidation cuttings of the early 1900s, and (3) some residual old-growth. Most lacked a regular structure or balance but contained multiple age classes that regenerated following past diameter-limit and species removal cuttings.

Landowners of the 1980s who revived or continued historic diameter-limit cutting in their uneven-aged stands left a residual of immature trees with less variation in diameters and age classes. The growing stock included both good and poor phenotypes. A new age class formed under the irregular residual stand at many sites, often from shade-tolerant advance regeneration of good parentage. However, in some cases the cuttings uncovered an understory that interfered with the regeneration of desirable trees, leaving the stands with an understory dominated by noncommercial and low-value species.

**High demand for second homes gives landowners a lucrative inducement to... dispose of their cutover woodlands**

Demand for second homes gives landowners a lucrative inducement to dispose of their cutover woodlands.
The Greed Factor

In some areas, unfavorable taxes and high ownership and operating costs pressured landowners to begin this new exploitation. Lacking an outlet for poor-quality and small-diameter stems, many found diameter-limit removal of valuable trees the most ready source of revenue. This treatment represented a choice, deliberate or not, to take from the forest the product of time. It seemed especially attractive because landowners did not need to invest in controlling the cutting intensity or the character of the residual stand. Yet they failed to recognize that the felled trees represented the means to provide continuing yields, and that heavy cutting to remove the best trees would leave few options for the future.

While financial pressures to cover operating costs forced some decisions, such widespread exploitation more likely was a result of the greed factor that became prevalent in society during the 1980s—the desire for a quick financial fix or maximum payoff. Society became obsessed with personal gain, short-term profit, a high rate of return, and immediate satisfaction. Greed gained favor as people engineered leveraged buyouts financed by junk bonds and took an immediate payback on their investment. This scared the financial managers of many enterprises. They reduced investments in modernization and opted to live off the “half-life” of failing machinery. Firms kept smaller inventories and only produced in response to specific orders. For many companies, this resulted in reduced production capacities and decreased competitiveness.

Greed took hold in the forest as well as the factory, as people saw a chance to liquidate their timber assets and either use the money immediately, or place it in investments that seemed to offer extraordinary short-term returns. This obsession diverted landowners from recognizing that exploitative cutting would reduce the value and steadiness of future growth. It also conflicted with societal demands for greater accountability in forest land management. To many, exploitation offered a new perspective on managing resources and opportunities.

This exploitation to satisfy short-term financial interests produced unavoidable long-term costs. Production potential has been lost and management opportunities are foregone. The loss will become immediately apparent in reduced radial increment of the weak residual trees and a longer wait for stands to support another diameter-limit removal. It will also mean an inevitable long-term conversion to species with lower market value (particularly in stands with an interfering understory) and logs that will command only lower prices.

Aside from the long-term financial consequences, landowners lost the opportunity to participate in a newly rising societal desire to enhance ecosystem stability and widen the range of values realized from deliberately maintained forest areas. Further, the exploitation left many landowners with little incentive to continue in forestry. In fact, the high demand for second homes gives landowners a lucrative inducement to subdivide their own properties into smaller parcels and to dispose of their cutover woodlands. This liquidation will mask the exploitation that preceded the sellout.

The Sad Legacy

This downward slide should have stirred dismay in the forestry community. In earlier decades foresters had decried high-grading and vowed to reshape the future. In an attempt to fulfill this promise, they organized research and demonstration projects, and used the press and television to publicize successful management projects. They pressured the government to offer incentives to landowners who would implement programs of silviculture, and gave awards to those who exemplified outstanding forestry. Despite these efforts, greed took precedence across the landscape as a majority of owners found exploitation more profitable than responsible stewardship.

Perhaps the slide into exploitation reflected a perception that the forestry profession lacked sincerity. While foresters, forest products companies, and forestry agencies talked good stewardship in public forums, they seemed to condone exploitation in practice. Few spoke out strongly against diameter-limit and species removal cuttings. Many actually encouraged these timber sales, eagerly buying the logs with no questions asked. Others engineered cutouts on the land under their control, as potential financial opportunities apparently pushed aside historic concerns for good management in the boardrooms and among stockholders. Exploitation followed.

One Last Chance?

Given society’s embrace of the greed factor, and its translation into renewed exploitive cuttings across the landscape, responsible forestry appears at its deathbed across most of the eastern hardwood forest. Even more worrisome, foresters seem powerless or unwilling to effect a change. They continue to promote increased diameter-limit cutting, and the shuck, well-worded messages from professional and industry groups promoting good forestry continue to be ignored by landowners. Clearly, foresters did not prevent the recent surge of high-grading and probably won’t have much influence on the future. Instead stockholders, investors, and landowners will likely decide independently whether to continue the financial revolution of the ’80s or to press for a new stewardship of the ’90s. Foresters will follow their lead.

Perhaps this decade will provide one last chance for foresters and the wood products industry to promote good forestry by adopting a more aggressive posture. They could take the initiative to forcefully encourage acceptable forest practices for all woodlands. Forestry companies and agencies could initiate regional demonstrations of innovative practices on public and corporate lands, and keep those properties free of exploitation to show the future potential. Foresters might thereby emerge
as the leaders of good stewardship, thus helping society recognize the dual role of forests: as producers of goods and services, and as essential habitats perpetuated by responsible management. Perhaps they can arrest the greed factor and bring a new beginning to eastern forestry.

While such a “new perspectives” mentality has begun to emerge within the forestry community (Salwasser 1990, Clark and Stankey 1991), the potential is unclear. If society elects to continue following the greed factor, that will further diminish the potential for responsible forestry. The wrong choice by forest landowners will solidify the second great exploitation that has already begun to reshape the region’s forests. That would lead eastern forestry to a certain death, except as a vestige of historical interest.

Literature Cited


USDA FOREST SERVICE. 1955. Timber resources review. USDA For. Serv., Washington, DC.


1. Include SAF in your personal financial planning.

2. Ask someone else (a friend of forestry) to include SAF in his or her financial planning.

If you would like to know more about planned giving to SAF, or if you know someone else who might be interested, please write or call:

Society of American Foresters
5400 Grosvenor Lane
Bethesda, MD 20814
(301) 897-8720

In today’s complex world, financial planning—especially estate planning—is a necessity. The plans you make today will ensure your future financial well-being.

The same can be said of forestry. The continued vitality of forestry depends in large measure on provisions that are made for it today.

When you plan your finances, please consider making a gift to SAF. Or consider asking someone who has been helped by the profession of forestry to include SAF in his or her financial planning. By doing so, you will help ensure that the profession to which you have devoted your working years will continue to benefit future generations.

There are several methods for giving to SAF, each with special provisions and special tax considerations.

Trusts—providing income for you and your survivors for life, with remaining assets to SAF.

Annuities—based on your gift to SAF and providing income starting at retirement, or before.

Gifts of real estate—a home or a farm with your retained right to live in and manage the home or farm.

Life insurance—SAF is named beneficiary.

Wills—with SAF as sole or contingent beneficiary.