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RESPONSE

What Is Happening In and Outside America's Private Woodlands?

Burnell C. Fischer and Tatyana B. Ruseva

Destructive logging of nonindustrial private forests and harvesting without forester involvement is "what's happening in the woods." As Coufal et al. maintain, this deserves the attention of the forestry profession, a serious discussion, and timely action. According to the authors, forestry and SAF continue to discuss destructive logging "while seemingly ignoring the problem of so many private woodlands being harvested without the involvement of a forester" (Coufal et al.). The implied assumption links the presence or absence of a forester to particular outcomes on private forestlands. Although a valid empirical question, we believe we need to start looking at the issues raised by Coufal and colleagues differently.

The Lines Have Been Redrawn

Forests are complex socioecological systems providing a range of ecosystem goods and services, and subject to different property rights regimes (Ostrom 2009). Some features of forests are common-pool resources (CPR) [1] (e.g. hunting, habitats for wild plants and animals), others have public good [2] characteristics (e.g. water purification, pollination, carbon sequestration, aesthetics) (deGroot 2002, Fisher et al. 2009). Many landowners manage their woodlands without a forester because they may not see forests as having CPR characteristics, and because they may not see the need to consult a professional in their purely private decisions. In addition, these landowners think of a timber sale first and foremost as an economic decision, and many make these types of decisions (investing in stocks, purchasing real estate, insurance, etc.) without the advice of a financial advisor. For example, a 2009 survey of retiring baby-boomers (age sixty and older) found that 60% make retirement-related decisions without a professional financial advisor (Stonehouse 2009). How do professional foresters, then, get involved in harvesting processes on private lands without intruding? Why do we need forester involvement on private forestlands?

In this response, we attempt to shed light on the above questions. We elaborate on key concepts of forest governance and probe the scope of debate needed to identify workable solutions to destructive logging. We need to recognize that the complex and nonlinear nature of biophysical processes (Ostrom 2009), growing diversity and interconnectedness of social and ecological interactions (Barabasi 2002, Bascompte 2009), changing generational, ethnic, and urban profiles of America's private landowners (Koontz 2007, Bruyere et al. 2009), and increasing interest in the public value of private forests are all factors contributing to the changes occurring on private lands. "The lines," using Gifford Pinchot's words, have been redrawn (Pinchot 1919). We need to start looking at what is happening both in and outside America's private woodlands to better understand the incentives for selective cutting and the implications for professional forestry.

Forests As a Bundle of Property Rights

Institutions, such as property right systems, are key determinants of the use and misuse of forest resources (Constanza and Farber 2002, Ostrom 2005). Specifically: "Different bundles of property rights, whether they are de facto or de jure, affect the incentives individuals face, the types of actions they take, and the outcomes they achieve" (Schlager and Ostrom 1992). Various aspects of forest ecosystem services (timber, wildlife habitat, carbon sequestration) can be associated with different property rights regimes and users, and subject to different rights of access, management, allocation, and appropriation (Ruhl et al. 2007). In addition, the difference between "owners, who hold a complete set of rights, and all other users who do not hold complete rights," and their respective discount rates shapes forest management decisions and the provision of ecosystem services (Schlager and Ostrom 1992).

The ramifications of "unregulated" timber harvesting as an ecologically harmful practice become even more salient once viewed through the prism of forests as a bundle of ecosystem services. As Coufal and colleagues acknowledge "high-grading impacts all values of the forest" (Coufal et al., p.4). A legally-defined and enforceable framework of property and use rights that recognizes the public goods and CPR characteristics of forests can have important implications for the existing incentives to harvest (Ostrom 2009, Lant et al. 2008). If we believe that private forests provide important ecosystem services enjoyed by society, then the need for forester involvement in timber harvesting becomes a pertinent question.

Diversity of Actors and the Need for Collaboration

A recent survey of district foresters in Indiana reveals that public professional foresters on average spend only about 3 hours per week on on-the-ground forest management (e.g., timber stand improvement, timber marking). Most of their time is devoted to administering nonindustrial private forests assistance programs (12 hours/week), writing management plans, and working with landowners related to the Indiana Classified Forest and Wildlands program (13 hours/week); leaving much of the on-the-ground work to private consultants or landowners themselves (Ruseva 2009). Research shows that direct contact with a forester or natural resource professional enhances forest stewardship practices on private lands (Egan et al. 1999, Greene et al. 2005, Kilgore et al. 2007). Rarely, however, is a distinction made in interactions with different resource professionals (public, private, industry). Both public and private foresters serve the interests of woodland owners, yet, they may operate under different incentives and engage in distinctive activities.

There is a diversity of actors (timber buyers, loggers, public and private foresters, other resource managers, neighbors, relatives, etc.) involved in different steps of the timber harvesting process. Collaboration among these actors is an important consideration in any approach to sustainable harvesting. More than half of district foresters in Indiana believe that a great deal of their collaborations with others, such as landowners, private consulting foresters, forest product industry, land trusts, and citizen groups, lead to forest improvement, development of trust and working relationships, and participation in nonindustrial private forests assistance programs (Ruseva 2009).

Diversity of Values in Private Forest Management

Coufal et al. maintain that "timber harvesting is the economic engine that drives most management for all values on small, private forestland holdings" (p. 4). Although historically this has been the case, there is a growing group of landowners, for whom forest ownership and management is not simply an economic decision, but one that is driven by cultural aesthetics and the amenity values of forests (Koontz 2007). We need to recognize the heterogeneity among landowner values in forest management, in conjunction with the broader economic (tax policies, demand for biofuels, carbon offsets from forests), legal (property rights systems, land trusts), and social forces (interpersonal communication) driving individual decisionmaking and land use practices. This can help us better understand the potential leverage of professionals and their role in sustainable forestry.

Greater forester involvement in the future will depend on the extent to which forester contributions can serve the needs of forest owners as well as respond to the changing values in society (Luckert 2006). In heeding R.W. Behan's article on the myth of the omnipotent forester (Behan 1966), Marty Luckert raises the question, "Has the forestry profession been adapting as society's values for forest resources are changing, or have we reverted to the attractive simplicity and guised professionalism of managing forests for 'what is best for the land'"? (Luckert 2006).

Integrating Different Perspectives and Values

While Coufal and colleagues call that "it's time forestry and SAF took a professional position on high grading" (p.3), we argue that the perspectives and values of other relevant participants need to be incorporated as well, if a real solution to sustainable timber harvesting is to be identified. Resource owners, users, loggers, local communities, and citizen groups are all relevant actors that need to be part of the debate—not only members of the forestry profession. As Marty Luckert puts it, "… forest management issues revolve around values, not around professional judgment. Although having professional knowledge about how forests may respond to alternative uses is important, it is the values associated with those uses that are frequently the causes of conflict. Therefore, forest management is about the values of clients, who belong to diverse groups and carry diverse values. It is not about the values of foresters." (Luckert 2006).

In closing, the lines have been redrawn by value changes and processes taking place both in and outside America's private woodlands. In light of this, we need to update Pinchot's words, according to which foresters "must act either with foresters for the public interest, or with lumberman for a special interest" (Pinchot 1919). Rather, professional foresters need to collaborate with resource owners and users of forest resources, including local communities and other resource professionals—in an agreement over the CPR characteristics of private forestlands and recognition of the bundle of ecosystem services they supply—if workable solutions to high-grading are to be realized. We believe there is no single solution or panacea to destructive logging, but rather a multitude of engaged solutions (see, Ostrom et al. 2007, Goldman et al. 2009).

Endnotes

[1] CPRs are rival, but non-excludable goods.
[2] Public goods are nonrival and nonexcludable goods. They are consumed jointly and simultaneously.

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RESPONSE

More Needs to Happen in the Woods

David Wm. Smith, CF

I would agree that the two issues Coufal and others proposed are important, but I strongly suggest that the first, "Why are so many acres of nonindustrial private woodlands harvested without the involvement of a forester?", is the real question and that the second is a subset or often a result of the first. I would also like to greatly expand the geographical scope and discussion of the problem to include all upland hardwoods (and probably the bottomland hardwoods also) in the Eastern United States that rely on natural regeneration as the source of the next stand. In my opinion the problem is probably much more complex than the present discussion implies and certainly is most germane to the eastern hardwoods. Pine plantation management is far more advanced in virtually every category, and because artificial regeneration is generally used for establishing the next stand, control of stand development is much less complex than in naturally regenerated mixed hardwood stands. There are three major components of any forest resource management decision. First, it has to be biologically possible; second, it must be socially and politically acceptable; and third, it must be economically feasible. These three components are totally intertwined, but it must be clearly understood that if you do not get the biology right, the goals will not be achieved. The focus of the following discussion is heavy on the biological component.

As a long-time student of hardwood silviculture, I strongly oppose "high grading," but in reality I know that it is probably going to occur on private lands. I say this because of the real and often perceived need for an immediate monetary return by the landowner—with the landowner having virtually no background in or understanding of the long-term economics involved (perhaps 50 to 150 years into the future) in the decision to "take the best and leave the rest" and making the unwise choice to ignore the long-term implications and unintended consequences of their decision. Our goal as professional foresters is to greatly reduce that occurrence. When working with a landowner and he/she chooses to "high grade" or use some form of "selective cutting," I believe we have the ethical responsibility to provide, in writing, our best professional opinion of the outcomes and unintended consequences of the decision, and to provide alternatives to the decision to "high grade." In my more than 40 years of experience in mixed-hardwood silviculture, I have observed that when making forest management decisions, most landowners have only a very limited understanding or knowledge of the importance of stand history, condition, composition, structure, quality, age, and health; site quality, exotic invasive plant implications, endangered plant/wildlife implications, wildlife impacts in the understory, the silvics of the perhaps 15–30 tree species that may be present on a site at any given time; and that all of these stand attributes are constantly changing. As they say, "the only thing constant in a forest is change."

Another key point is that the recommendations for achieving forest management objectives, especially in eastern mixed upland hardwood stands that rely on natural regeneration, vary tremendously from site to site. There may be 15 different tree species in a New York hardwood forest and 15 species in a Tennessee forest, or 15 species on one side of a ridge and 15 on the other side, but only two or three may be common across all sites, and even the common species will most likely grow and develop at different rates at all four sites. In other words, you will not find the silvicultural treatments necessary to meet the stated objectives in any textbook or research paper, but instead they must be individually formulated based on the site-specific conditions at the time. In New York or at high elevations in West Virginia, sugar maple may be a dominant and high-value species, and the single-tree selection method of regeneration could be a very valid and effective harvest method to regenerate the stand and