Sustainable forestry: commitment to the future. [Supplement, Vol. 19, No. 5] [October 1995]

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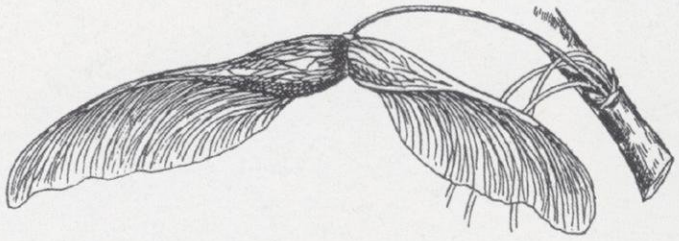
Commitment to the future

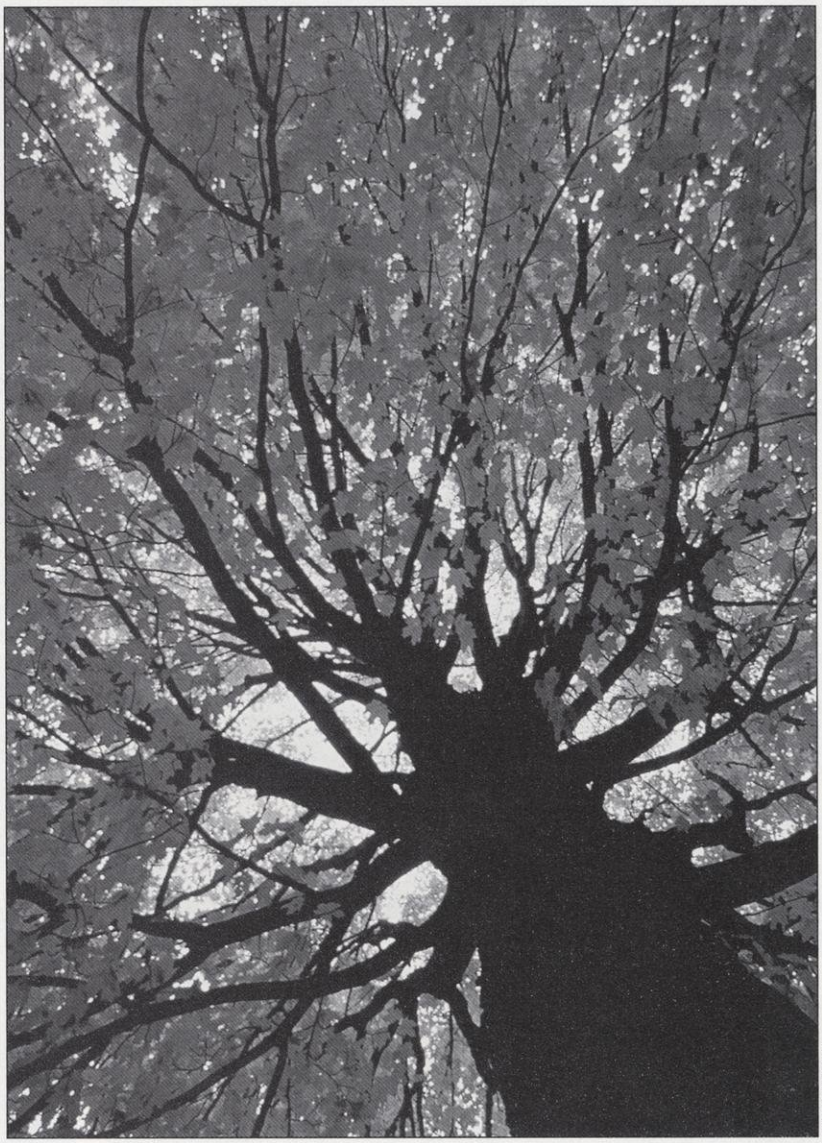
Unlimited potential



Consider the sugar maple seed. This tiny winged messenger carries the whole genetic history of a species. When that seed grows into a tree, stories older than time are revealed once again, to be elaborated upon during the life of the new sugar maple. And when a winged messenger from that new tree drifts down to the ground, it begins anew the growth that will connect past to present, present to future.

Like seeds, human knowledge about nature has the same opportunity for growth. It is rooted in the past, anchored by experiences gleaned from previous generations. With nurturing, and attention, it develops and expands, enhancing our ability to comprehend the world.

Our ideas and concepts about nature have led us to look ahead toward a time we cannot know. When we start to consider and prepare for the lives that will follow our lives, our potential comes to full flower. That's what **sustainable forestry** aims to achieve.

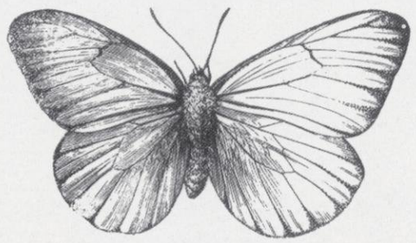


ARVID WIDVEY

The medium for growth

For a long time, forests seemed to be obstacles to human endeavors. Native American peoples used bark, roots and wood to fashion the necessities of life. They also used fire as a tool to drive the animals for more successful hunts and maintain grasslands that preferred species ate. European settlers spreading across the American landscape in the mid-1800s came in search of farms, not forests. Millions of acres of forested land were cleared for agriculture, and the seemingly endless forests of northern Wisconsin fed the growing nation's need for lumber, shingles and other wood products.

Within a few decades, the notion of an inexhaustible forest proved to be a myth. Beset by the ax and fire, the number of trees dwindled. Without a steady supply of trees, the state's new forest products industry faltered. Some leaders, realizing that forests had potential for economic value if they could be harvested again and again, took steps to begin the reclamation of Wisconsin's forested lands in the early 1900s.



Awareness of the environmental value of forests emerged at about the same time. Erosion and flooding on the cutover and burned over lands led to a better understanding of the role of forests in protecting watersheds. Forests could provide habitat for wildlife in a landscape that was now largely agricultural. And forests could offer outdoor recreation like hunting, camping and hiking for an increasingly urban populace.

These values evolved into a concept of protecting the young forests from the devastating effects of wildfires, insects and diseases. In some areas, nature reclaimed the cleared lands. In others, trees were planted to return abandoned, barren farmland back to forest.

Forest management methods for timber production were continually improved as new research became available. By the 1950s the reforestation habit was well established. Under the ownership of many different public and private entities, huge tracts of forest land had been reclaimed and made productive across the decades.

The new forests attracted more and more people seeking a variety of outdoor experiences. In response, the concept of multiple-use management was born in the 1960s. Timber production remained paramount, but other uses began receiving more attention. Parts of the forest were managed to enhance game habitat for better hunting. More campgrounds were added. Trails for hiking, skiing and snowmobiling crisscrossed the forest. The forests, it seemed, could accommodate everyone's desires.

Scattered across the landscape

Advances in ecology — the study of the interrelationships of plants, animals and the physical environment — suggest that a century of harvest and management by different owners significantly altered Wisconsin's forests.

The great northern forest of presettlement times consisted of a mixture of young and old coniferous and deciduous species. A variety of birds, animals, fungi and understory plants flourished in the different-aged, mixed-species stands.

After years of overharvest and management, young deciduous trees like aspen became a major component of the northern forest. For some species like ruffed grouse, this was ideal habitat; for others formerly found in the region, like the ram's head lady slipper, it was not as suitable. As the forest changed and habitats were altered, the populations of forest species that relied on them fluctuated as well. Today, the number of acres covered in aspen is decreasing as the young forest matures.

The patterns of human settlement further changed Wisconsin's forests. Farms, villages, towns, cities and roads carved the large continuous forest into pieces. The splintering is especially apparent in southern Wisconsin's oak forests, which exist mainly as "islands" surrounded by farms and urban growth.

Concerns over these forest changes on plants and animals prompt reconsideration of questions such as:

- What happens when the interrelationships linking forest life are disrupted?
- What are the implications of leaving behind fewer forest species for the next generation and the generations thereafter?
- Can we provide enough timber to satisfy our need for forest products and, at the same time, protect the biological diversity of the forest?
- Can both the current economic health of timber-based rural economies and the long-term health of the forest be maintained?

DON BLEGEN

- Can the forest ecosystem be protected given that parts of the forest landscape are fragmented and held by different owners?
- Can we use forests for recreation without ruining the experiences we seek or the resources we value?
- Who should decide how forests are managed?

An idea spanning time and space

Sustainable forestry reaches beyond the traditional focused goal of timber production to place forest management within a larger framework. It is a guide for balancing the economic, ecological and social needs of today with the needs of the generations to come.

Sustainable forestry approaches forest management from two angles: time and space.

Time: If there's any profession accustomed to looking toward the future, it's forestry. For decades, Wisconsin's managed forests have met consumer demand for timber.

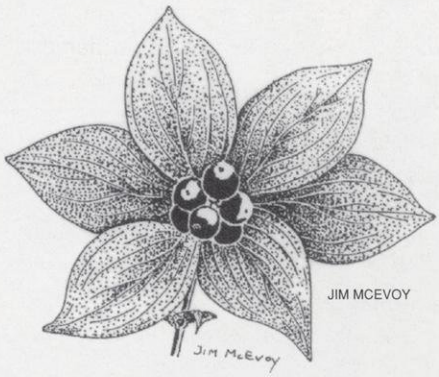
Sustainable forestry takes the long view: We can harvest some trees, let the forest regenerate and extend harvest rotations to encourage trees of different ages, heights and diameters in the forest. By favoring a variety of tree species, we can begin the process that will leave future generations a healthy, biologically diverse forest — a forest capable of supplying a varied forest products industry and supporting tourism and recreation.

Ecological diversity ensures the ongoing health of the forest; economic diversity ensures the ongoing health of the human community. To support generations of people, we must support generations of trees and the rest of the living community that comprise the forest

Space: Our forests — owned by an array of public and private entities, managed stand by stand for different purposes, and fragmented by human-imposed boundaries and urban development — need to be addressed on a much larger geographic scale to preserve biological diversity and economic security.

A "larger scale" means looking at all forested land within, say, a watershed; building a shared vision between owners and users about what the forest can provide, and comparing and adjusting those desires within a regional, national and global forest framework. Landscape-scale management demands strong communication and sincere negotiation among and between private landowners, researchers, natural resource managers, representatives from industry, conservation and environmental groups, government staff at local, state and federal levels, and people with an interest in forest issues.

No one said it would be easy, and not everyone will get



JIM MCEVOY

everything they want, but without consideration for our actions at all levels, sustainable forestry cannot succeed.

Why sustainable forestry is a local and a global issue

Forest industries are Wisconsin's second largest employers, behind manufacturing and ahead of both agriculture and tourism. Demand for timber is expected to increase 40 percent by the year 2040. Growth currently exceeds harvest in Wisconsin's forests. The picture is rosy, but it's incomplete. What's missing is the global view.

Some nations exploit their forests and other natural resources for quick gain, just as a young United States did in the 1800s. Back then, markets were regional; today, markets reach around the world, and a supply of cheap lumber from another country can easily undercut Wisconsin products. In some developing countries, lumber is harvested with little, if any, regard for the environment or the people living and working in that far-away forest.

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Sustainable forestry aims to help people all over the world improve their livelihoods without destroying the natural environment. It recognizes the rights of people in both developing and developed countries to make a living from the forest — provided that the forest is healthy enough to support an economy over time. Cut and run, slash and burn practices have no place in a sustainable forest economy.

Sharing forest management information and technology, and agreeing to research and monitor resources across national and political borders will give developing countries the tools and the confidence to embark on sustainable forestry programs.

To promote and encourage sustainability, several consumer and conservation groups have plans to certify forests according to rigorous scientific and social measures. A certification seal on furniture, paper and other wood products will let consumers know that the trees were harvested from a sustainably-managed forest. In the short term, wood from sustainably managed forests may

cost more and the supply may be limited. Are you as a consumer willing to pay more for lumber, paper and other wood products now to ensure that your grandchildren will have healthy, productive forests in the future?

Stewards of the forest

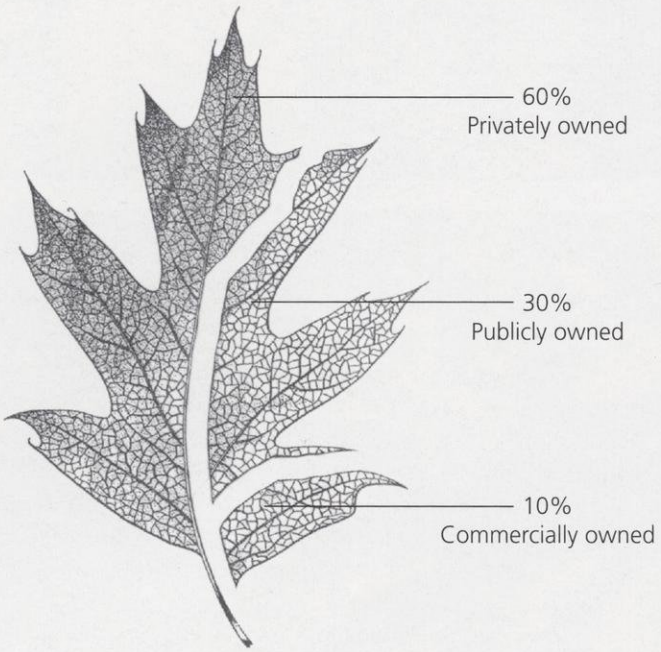
Today's forests are the result of thousands of decisions made by forest property owners and users, each seeking different benefits from the land. Some want timber and a financial return; others want game habitat for hunting. Some want to establish sanctuaries for birds and wildlife; others simply want to enjoy the beauty trees lend to the landscape. It's a formidable task to meld this wide array of objectives into a collective direction.

Consumers of wood products also dictate how forests are managed. As the global human population increases, consumer demand for paper, lumber and furniture rises — and the pressure is on to raise and harvest trees to satisfy short-term consumer desires.

Forest stewardship begins by tending individual stands, but it doesn't — it can't — stop there. Sustainable forestry acknowledges the right of owners to manage property according to their desires, but asks that those goals be pursued with consideration for a larger forest ecosystem. This means all forest landowners must be informed how the forest resource under their care relates to the forest landscape in which it is located. They must be willing to cooperate with other landowners to achieve goals that transcend their individual interests.

porate an ethic of stewardship among all forest owners and across all forested lands. Sustainable forestry's long-term, wide-ranging scope can help us get a grip on the problems facing the forest ecosystem and address them. This will let future generations choose among the values a healthy, thriving forest can offer.

Who manages Wisconsin's forests?

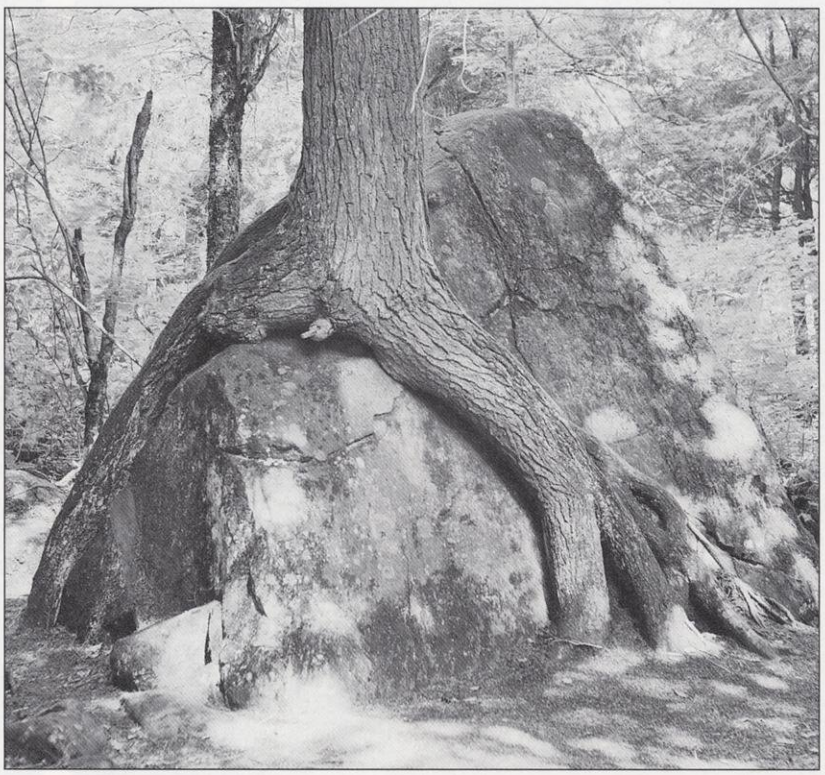


Why should I care about how forests are managed now and in the future?

In the study of the Earth and all its inhabitants, humans are still in preschool. We've barely begun to grasp the complexities of the vast ecosystems of which we are a part. We don't know how many species there are on earth or how important those species are to one another and to us. We do know that our actions, especially rapid population growth and increased consumption of natural resources, are causing many species to disappear.

Because humans are part of life on earth, it's possible that diminishing biodiversity will someday harm humanity itself in ways we can't predict or fathom today. The most prudent course of action is to protect the biological communities and ecosystems we've got now and do our best to stem any further loss.

Simply setting aside forested lands to protect biodiversity is not the answer. We need to incor-



DALE LANG

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When change is the only constant

Forests are flexible, dynamic natural systems in which change is the norm. Change can take place slowly, as forest species evolve over geologic time, or it can occur with stunning rapidity, when wind, fire or insects disturb established growth patterns and cause new patterns to begin.

Change is the reason we can't re-create the forests of the past, even though most of the forest species of the past are still growing in our forests today. Which past would we choose? Pre-European settlement? Or just after the last glacier melted away 10,000 years ago? It would be impossible to hold forests in those older configurations, given climatic differences and the spread of human civilization today.

We can use what we know of forests past to evaluate the state of our forests today. Sustainable forestry involves constant review of nature's blueprints to see how we're progressing. These are some key elements of sustainable forestry:

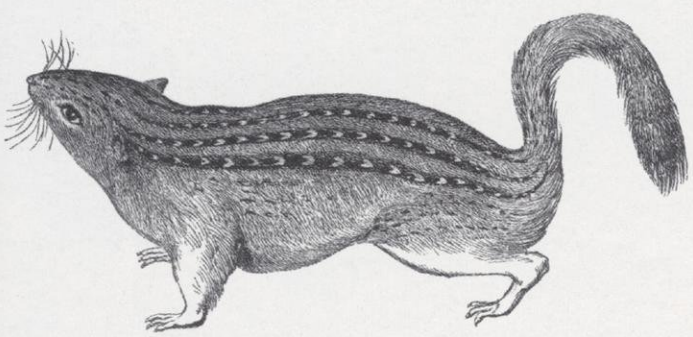
- intensive research and regular measuring of the forest ecosystem
- evaluating data and sharing information at all levels
- adjusting forest management methods in light of new information

Sustainable forestry is a process that will guide us in our attempt to keep forests ecologically healthy and economically productive now and in the future. It is not an end product, not something we can point to and say, "It's done."

The responsibility of the ages

It's understandable that our vision of the world is biased by our brief life spans and limited history, but it's not inevitable. Humans have the capacity to imagine great things beyond their own experience. What we need now is to address issues of ecosystem management together, as one species among many. Sustainable forestry is the start of this collective effort.

To live, we must take from life. What we take, and how we take it, will in part determine the future of our species.



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