

The Northern Forest Forum, POB 6, Lancaster, NH 03584

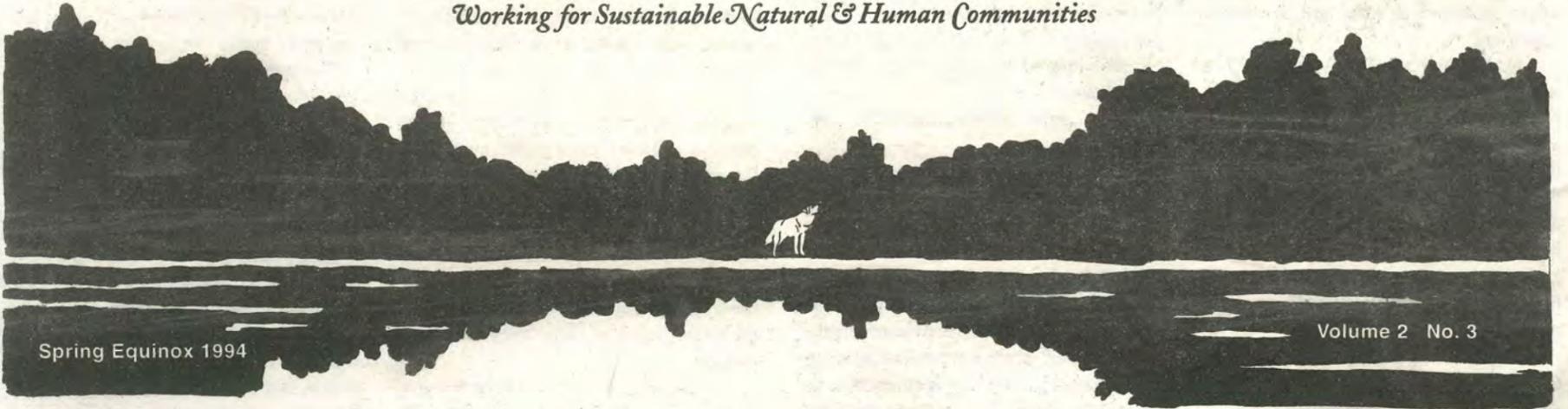
Address Correction Requested

17

Nonprofit Organization
U.S. Postage
PAID
Lancaster, NH
Permit No. 6

The Northern Forest Forum

Working for Sustainable Natural & Human Communities



Spring Equinox 1994

Volume 2 No. 3

NFL Council Recommends Establishment of Ecological Reserves



Inside

- † 5 Million Acre Thoreau Wilderness Reserve Proposed for Northern Maine (page 4)
- † Dioxin Found in Maine Lobsters (page 6) † Clearcut Bill Hearing Stuns Maine Legislature (page 7)
- † Also, Property Rights & Wrongs; Life After the Council; Cougars, Wolves & Salmon & Much More

Printed on Chlorine-Free Paper

Are the Northern Forest Media Missing the Story of the Century?

With the release today of the Northern Forest Lands Council's "Draft Recommendations," to be followed by 20 public "Listening Sessions" from March 23 through May 5, the NFLC rightfully will take center stage in this region for the next few months. There will be television coverage and news stories galore. But what will the media report on?

I'm sorry to say so, but, with a small number of exceptions, the region's media has failed to keep abreast of the NFLC process. No doubt, there are all sorts of reasons to justify the press's lack of interest: the process has been long and often undramatic; the reports generated by the Council are too complex and dry; the issue has been played out over such a sprawling region.

As an ex-news reporter, I suspect that the real reason for the media's lack of interest in the fascinating NFLC process, thus far, is that reporters like to have a "hook"—a zippy story line that hooks the reader. A distracted reporter trying to cover 30 other ongoing issues is unlikely to locate such an angle in the complex and subtle Northern Forest story.

But, now, with the publicity from the Council, from the environmental community, from the timber industry, from local officials, and from anti-environmental "property rights" groups, these reporters will be scrambling for a NFLC story. Unfortunately, most of them will get the wrong story, and thereby serve to further muddle the debate and polarize the NFL communities just when these communities had begun to transcend divisiveness and begun the healing of natural and human communities.

I have sympathy for the plight of a

reporter assigned to cover the NFLC at this late hour. This issue is enormously complex. It is so important that I founded the *Forum* so that the many diverse issues might receive in-depth coverage. After a year and a half of publishing the *Forum*, I am still making very, very important new discoveries every day. If someone who has bird-dogged the process for five years often finds himself bewildered by this issue, imagine how difficult the job will be for someone who begins tracking the NFLC just today.

I predict—and I hope I am terribly mistaken—that the press will focus attention on the spectacular, the polarizing, the negativity. The public will be told that the NFLC issue is about Council vs. property rights, or property rights advocates against environmentalists, or about environmentalists against the Council, or environmentalists against the timber industry and the jobs of local citizens. The public will be told about fears—fears of greenlines, of land confiscation, of Big Brother, of regulations that cost jobs. . .

I'm sorry to say, that while these stories may all appear "sexy" and newsworthy to a media trained on "five second sound bytes," this is not the real story of the Northern Forests, or the NFLC process. Reporters who fall into the trap of focusing their reports on tire-slashers and listening session disrupters, or who unthinkingly repeat false accu-

sations against the Council or against environmental groups may titillate their readers, sell newspapers, and the like, but they'll miss the story of the century in the Northern Appalachians and the Adirondack-Tug Hill region. They'll miss the forest for the tires.

Given the legacy of local disenfranchisement, domination of the region by absentee corporations, an abundance of unscrupulous local politicians who like the failing status quo just the way it is, and the sad fact that very few people in the region have a clear understanding of the profound changes occurring in the Northern Forest region, why should we expect an inattentive media to discover the hidden drama, the real human- (and non-human)-interest story of this deeply moving Northern Forest adventure into the re-invention of democracy and community.

The story of the century for the Northern Forests is a marvelously positive, life-affirming story, a story of rebirth, not this story of fear, anger, and polarization.

It is the story of a region discovering that it has a regional identity. It is a story of rediscovery of the communities that bond us and sustain us. It is a story of an emerging ethic that our actions affect the destinies of others—other species with whom we share this rugged region, as well as future generations of all species. Past generations failed to protect the options of our generation—

can we summon forth the courage, humility and generosity of spirit to break this vicious cycle? I and countless others are betting we can. This is why we are so excited by the work of the NFLC and numerous citizen groups throughout the region.

The threats of violence and intimidation (mostly coming from a few "property rights" extremists) are a part of this story, but not the story. The bullies want to disrupt the dialogue that has grown out of the NFLC process, and ultimately has transcended the NFLC. They understand that free and open discussion of issues—whether economic, ecological, social or cultural—will lead to a strengthening of community resolve to develop a regional economy that meets the needs of citizens of the region without forcing them to engage in ecologically unsustainable activities. They realize that the common sense and basic decency of the vast majority of Northern Forest residents will lead to stronger community ties that ask each of us to surrender some of our selfish individual desires for the welfare of the community.

Therefore, they will try to prevent these free and open discussions from happening. We, who have been inspired by the evolving public dialogue over the fate of this region, must be careful how we respond to these subverters of a new regional democracy. We must not be intimidated by the bullies. But we must not be side-tracked by them either. Our job is not to oppose the bullies, it is to work together to realize the promise of this NFLC process to strengthen natural and human communities. In simple terms, we have a two-step job: (1) resist the anti-democratic bullies so that (2) we can conduct this long overdue, ongoing public dialogue over the region's future. I am supremely confident that if this dialogue flourishes and takes on a life of its own after the NFLC goes out of business on September 30, 1994, we will all be better off, and we of the Northern Forests will leave a worthy legacy to future generations and to other regions of this continent.

This is why I think the exciting work of the NFLC and the creative work that has been inspired by the NFLC process is the story of the century in this region. The media of the region have a marvelous opportunity to contribute to this discussion—if they discover the real Northern Forest story. But, if they insist on regaling us with endless tales of polarization, of character assassination, and of falsification of the views of others, the anti-democratic forces will benefit.

For democracy to thrive, the public must be well-informed. This requires that the public pay careful attention to what is happening. It also requires that the media report fairly and accurately on the real story, not just the side issues.

Something wonderful is happening up here. That's the story of the century.

—Jamie Sayen

Editorial Staff This Issue

Jamie Sayen—Editor
Andrew Whittaker—Assistant Editor
Mitch Lansky—Assistant Editor
Fife Hubbard—Intern
Kit Kuntze—Cover Design
Dawn Styles—Photographs
Mary Stinehour—Circulation

Contributing Writers

Pope Barrow, David Carle,
William Gregg, Jr., Ron Huber,
Jason Kahn, Michael Kellett,
Gary Lawless, Robert Perschel,
Steve Saltonstal, Karin Tilberg,
Ted Williams

Photographers

David Carle, Steve Gorman,
Orin Langelle, Dan Plumley,
Bill Silliker, Jr., Joni Soffron,
Wayne Thompson, Ted Williams

Artists

Amy Delventhal, Jon Luoma,
Rachel O'Meara, Jym St. Pierre,
Sue Szwed

The Northern Forest Forum is
published by
The Northern Appalachian
Restoration Project
of Earth Island Institute



Illustration Credits

Masthead, p. 2, 31-Rachel
O'Meara; Cover Map-Jon Luoma;
pages 6, 7, 9-Susan Szwed; page
23-Jym St. Pierre; pages 3, 29, 30-
Amy Delventhal

Council Recommends Ecological Reserves, Abandons Regional Approach

by Jamie Sayen

[Ed. Note: This is a very hasty review of "Finding Common Ground: The Draft Recommendations of the Northern Forest Lands Council." Before the end of March, the Forum will produce a "Special Issue" that more fully analyses this document.]

Recommendation 13: States should develop a process to conserve and enhance biodiversity across the landscape. . . (d) where necessary, create ecological reserves as a limited component of their public land acquisition and management programs."
(page 46-47)

On March 3 the NFLC released its long-awaited "Draft Recommendations." There are 33 recommendations. Recommendation 13(d) endorses the establishment of ecological reserves to conserve and enhance biodiversity across; the landscape. This is a profoundly important recommendation, a true milestone in the history of the Northern Forest region. The Council members should be congratulated for heeding the advice of conservation biologists and listening to the outpouring of public support for the establishment of a system of ecological reserves throughout the region.

In addition, the Council has some important recommendations for public land acquisition; it finally acknowledged the need to assess forest practices; and some of its tax recommendations have been much improved over earlier ideas.

With the good news, alas, there is much about this report that is distressing and threatens to undermine the good work of the Council, its Citizen Advisory Committees and countless other groups concerned with protecting the region.

The most unconscionable—and inexplicable—weakness is the Council's cowardly abandonment of its greatest virtue: the notion that this four-state area comprises a distinctive region that can only effectively address environmental and global economic problems with a comprehensive regional strategy. Other weaknesses of the report: reliance on poor studies on taxation; the council's capitulation to unfounded landowner fears and the bullying tactics of some "property rights" zealots and some elements of the timber industry who remain stuck in a 1950s mode of thought; vague economic recommendations; weak, often biased, work on government regulations, and, inexplicably, failure to list any of the three options most likely to halt undesired development in the region: existing use zoning, the Vermont Land Gains Tax, and an end to the deduction of interest on second home mortgages (the timber industry opposed this one).

The public must persuade the Council that there is strong public support for addressing all the above issues responsibly, and that Council fears of the property rights zealots and other reactionary voices are undermining our emerging Northern Forest democracy.

This document will spur a long-overdue regional debate during the 20 "Listening Sessions" scheduled for



March 23-May 5 (see back cover for locations, dates and times). This evolving regional debate is probably the single most important contribution the Council will make to the Northern Forest region. If we fail to keep the evolving regional dialogue moving productively forward, the status quo—ecological degradation, economic decline, social inequities, cultural despair, and political disenfranchisement of the region's communities—will continue.

Ecological Reserves

Good News: On page 12 the Council states: "Environmental and economic considerations must not be mutually exclusive." I would add that we can adjust human behavior, but we cannot alter the laws and limits of physical reality. Accordingly, if the Council and the public are to abide by this ethic, business as usual must change dramatically.

The Council is to be applauded for recommending that protection of biological resources must be done from a "landscape perspective," and for recommending ecological reserves, public land acquisition and for addressing forest practices in the region.

Bad News: Although the Council is a regional body that has recommended protecting biodiversity on a landscape scale, it has undercut its good work by recommending that the states are the best level of government to address these issues. States' rights for biodiversity is as inappropriate a strategy in the 1990s as states' rights for desegregation was in the 1950s and 1960s. Without an ongoing regional approach, we will lose the battle to protect biodiversity. **The public must demand an ongoing regional approach.** There must be a role for the federal government. (See pages 4-5 of this issue for a proposal to establish a "Regional Wilderness Reserve.")

The Council has unfairly and unwisely prejudged the size and scope of reserves, by calling ecological reserves a "limited component" of state public acquisition programs. Reserves cannot, by themselves, assure biotic integrity. But large reserves in a matrix of sustainably managed private forest lands can. For the Council to state prematurely that reserves will be "limited" is equivalent to saying "we will protect biodiversity so long as it doesn't inconvenience those whose actions are com-

promising biotic integrity." If the Council is sincere that we must protect the region's biodiversity, it will find the courage to recommend whatever it takes to assure this goal. It will not arbitrarily foreclose options in deference to bullying tactics of those who profit from ecologically degrading activities.

Regionalism

"On page 17 the Council states: "It will take governments at all levels—local, regional, state and federal—to put aside long-standing views and understand a greater good."

It is incomprehensible that this regional council could have abandoned the regional approach. If it is sincere about fostering healthy natural and human communities, the Council will endorse the regional approach for "life after the council." It's almost as if the Constitutional Convention of 1787 had labored mightily to address the failures and evils of the "Articles of Confederation" by recommending that the individual states *not* form a federal government.

Even with an ongoing regional approach, local and state governments will often be the appropriate level of government to address problems. And if all elements of the Northern Forest community responsibly participate in this process, we can assure that we control the evolution of the regional self-governance. The failure to honestly assess possible regional and federal options betrays the Council's capitulation to the reactionary forces that have benefited from the status quo.

Taxes

The Council has toned down its proposals on taxes, but still misses fundamental points:

- *Landowner income can be increased by lowering taxes (and shifting the tax burden to other sectors of society) or by increasing revenues, in this case, stumpage prices. The Council intensively studied tax subsidies; it ignored mill price-fixing
- *The Council still has not shown that the large land sales were driven by taxes (rather than by unfairly low stumpage values, for instance).
- *The Council has not shown that lower taxes lead to responsible forest practices. Maine, with the lowest property taxes, has the biggest clearcuts and largest use of herbicides. Clearcuts

before the 1986 federal tax reform were as big or bigger than after 1986.

- *On property taxes, the Council has failed to distinguish between the tax problems of small woodlot owners (whose property taxes can be excessive) and the billion-dollar corporations that pay less than 25 cents per acre in New Hampshire's Unorganized Townships. Without such a distinction, the billionaires are going to get even greater tax breaks.
- *The Council has failed to tie strict restrictions on forest practices to its tax reforms. The public should not be asked to further subsidize clearcutters and herbicide users.

Public Access to Private Land

To assure public access to private land, the Council proposes incentives and education programs. This may help somewhat, but it can never guarantee public access to private land. A fundamental property right will always be the right to post land. Only public acquisition of large tracts of land (42% of the Adirondack Park is in public ownership) can assure public access.

What We Need to Do

*Study the Draft Recommendations, attend Listening Sessions and submit written comments to the Council before May 16.

*Insist on Ecological Reserves that are large enough, adequately buffered, and connected to each other so that biodiversity is protected in perpetuity.

*Support an ongoing regional initiative after the Council goes out of business on September 30. This should be a mix of grassroots citizen watershed councils and a regional body with representatives from the region and the federal government.

*Promote sustainable forest practices in exchange for any tax breaks.

*Insist the media get the story right.

*Get a copy of Finding Common Ground from the NFLC, 54 Portsmouth St., Concord, NH 03301. Tel: 603 224-6590.

Attend Listening Sessions

See back cover of this issue for times, locations and dates of NFLC Listening Sessions. Attend & Defend Biodiversity.

Thoreau Regional Wilderness Reserve—A Proposal for the Maine Woods

by Jamie Sayen & Rudy Engholm

[Ed. Note: We offer this idea because we believe in it, and we hope it stimulates the kind of respectful, constructive discussion that will result in actions that protect native biological diversity, restore ecosystem integrity, promote ecologically sustainable local and regional economies, and guarantee pleasure to present and future generations. We don't pretend to have all the answers; we hope you'll join us in the search. This article does necessarily reflect the views of any other conservation group working in the Northern Forests.]

It is all mossy and moosey. In some of those dense fir and spruce woods there is hardly room for the smoke to go up. The trees are a standing night, and every fir and spruce which you fell is a plume plucked from night's raven wing. Then at night the general stillness is more impressive than any sound, but occasionally you hear the note of an owl farther or nearer in the woods, and if near a lake, the semi-human cry of the loons at their unearthly revels.

Thoreau, *The Maine Woods*

We propose the establishment of a Thoreau Regional Wilderness Reserve (TRWR) in the northern Maine woods. This wilderness reserve should include the greater Baxter ecoregion, including the East Branch and West Branch Penobscot, the St. John and Allagash River watersheds and extending toward the Flagstaff and Rangely Lakes region.

The Northern Forest Lands Council has recommended that the Northern Forest region needs a system of ecological reserves. The Biological Resources Subcommittee of the Northern Forest Lands Council performed an important service in explaining why biodiversity is important: "Biological diversity is an important issue for the Northern Forest Lands Council because the diversity of life is a basic property of life that: sustains ecosystems; [and] sustains human populations. . ."¹

To achieve the goals of long-term protection of biodiversity, we must work on a landscape scale. Conservation biologist, Dr. Stephen Trombulak of Middlebury College has written: "A focus on the landscape scale offers superior protection through its ability to protect unidentified or poorly understood species, genetic diversity, and ecosystem connections, as well as offer buffers to change in environmental conditions (such as climate) and our incomplete understanding of nature."

He points out that in the December 1992 NFLC Biological Resources Diversity Forum, all four invited speakers—Malcolm Hunter of the University of Maine, Rainer Brocke of SUNY Syracuse, Sharon Haines, a biologist employed by International Paper, and Trombulak—"clearly stated that a system of ecological reserves would be critical for achieving the goals of conservation and protection, which the [Biological Resources] subcommittee, in Findings 1 and 8, states needs to be the goal of everyone."

According to Dr. Trombulak, the only reserve system that will successful-

ly protect the biotic integrity of this region "is one that involves large reserves that protect the full spectrum of the native biota and its genetic diversity, that are well connected with each other, and that are buffered from disturbances that alter natural processes."²

Conservation biologist, Dr. Reed Noss has outlined four fundamental objectives of such a system:

- 1) Represent, in a system of protected areas, all native ecosystem types and seral stages across their natural range of variation.
- 2) Maintain viable populations of all native species in natural patterns of abundance and distribution.
- 3) Maintain ecological and evolutionary processes, such as disturbance regimes, hydrological processes, nutrient cycles, and biotic interactions, including predation.
- 4) Design and manage the system to be responsive to short-term and long-term environmental change and to maintain the evolutionary potential of lineages.³



"It is all mossy and moosey. . ." Photo by Bill Silliker, Jr.

Today, national parks, national forests and national wildlife refuges fail to adequately meet any of these objectives. National parks are geared towards recreation and tourism; national forests to multiple use and resource extraction, and national wildlife refuges also permit such activities as oil drilling, clearcutting and grazing. Even the largest national parks are not big enough to assure the survival of large, wide-ranging mammals such as grizzly bears and wolves.

In northern New England, the crisis is even more acute because there is virtually no public land to provide refugia for native biota that require large, unmanaged, wild areas. The meager public land base—the White Mountain National Forest, Nash Stream State Forest in New Hampshire and Baxter State Park in Maine—is literally being loved to death by excessive recreation demands.

In the Northern Forest region:

- *Wide-ranging native predators like wolves, cougars, lynx and wolverines have been extirpated.
- *Populations of many songbirds and ducks are in precipitous decline.
- *Wild Atlantic Salmon are under study for endangered species protection.
- *More than 99 percent of the native forests of the of the Northern Forest

region have been cleared. As a result, species and communities associated with old-growth forests have declined.

*Because we cut down the region's old-growth forests before extensive scientific inventories were conducted, we have no idea what species, associations, and natural processes we have lost or irreversibly disrupted.

*Fungi, amphibians and vascular plants which have shown alarming declines worldwide are of concern in the Northern Forest region.

Much of this region's public land base was selected for its scenic beauty and lack of value to resource extraction industries (rocks and ice). Less spectacular, but biologically richer low and mid-elevation forests, and fertile river valleys (not to mention free-flowing, wild rivers) are largely absent from the public land base.

We believe that a Thoreau Regional Wilderness Reserve must be at least 5 million acres in size (perhaps much larger) if it is to support viable populations of native predators such as wolf, wolverine, cougar and lynx, as well as

Wilderness Reserve must be buffered from industrial forestry and development. It must be connected to other reserves in Maine and Northern New England as well as to coastal reserves in the Gulf of Maine and reserves in eastern Canada.

We believe that a network of ecological reserves is necessary for every region in North America. Rather than tinker with existing public land management philosophies, we need to establish a new public lands agency, the Regional Wilderness Reserve System (RWRS) in the US Department of the Interior. The goal of the RWRS is to protect, preserve, and restore the native biotic communities and all their natural processes in perpetuity. This federal agency must operate as an equal partner with regional wilderness reserve agencies to achieve the appropriate mix of local, regional, and national representation and expertise.

A Regional Wilderness Reserve System will be a new form of federal/regional partnership. Funding for land acquisition and associated regional economic revitalization must necessarily come largely from the Federal treasury. The Federal RWRS will also coordinate RWRs throughout the United States, and, hopefully—in cooperation with Canada and Mexico—the entire continent. Each RWR will be governed by a regional agency that consists of representatives from federal, regional, state and local constituencies. Absentee bureaucracies will not manage the RWRs.

Wilderness Reserves will be managed under a "Forever Wild" philosophy designed to protect biodiversity. Non-motorized recreation will be permitted—and encouraged—provided it does not compromise the RWRS mandate to protect biodiversity.

We believe it fitting that the Thoreau Regional Wilderness Reserve become the first designated RWR. Thoreau was one of this country's earliest poets of wilderness. Already in his lifetime, because the native forests of Concord, Massachusetts had been cleared, he had to travel to northern Maine to experience what the pilgrims called the "howling wilderness." This fearful response to the great North American Wilderness by the early Europeans amused Thoreau. "Generally speaking," he wrote, "a howling wilderness does not howl: it is the imagination of the traveler that does the howling."

Northern Maine offers an ideal opportunity to begin to reverse centuries of alienation and destruction of North America's Native Forest ecosystems:

*Northern Maine contains 8 million acres of undeveloped forest land that is owned by a small handful of absentee corporations and families.

*A sizable portion of that land has recently been sold, is for sale, or is likely to be offered for sale in the next couple of decades.

*The future of the paper industry in Maine is uncertain. What is certain is that it will no longer be the dominant force it has been in the past. Recently, Bowater and S.D Warren have significantly reduced the capacity of their paper mills, eliminating hundreds of jobs. Given the advanced age of many Maine mills, some paper mills will

patterns of natural disturbance. We believe that it should build upon existing public lands such as Baxter State Park and the Allagash Wilderness Waterway and portions of the West Branch Penobscot. The TRWR should also include Maine's wildest river—the St. John.

A little over a century ago, Thoreau described the region: "What is most striking in the Maine wilderness is the continuousness of the forest, with fewer open intervals or glades than you had imagined. Except the few burnt-lands, the narrow intervals on the rivers, the bare tops of the high mountains, and the lakes and streams, the forest is uninterrupted." Today, much of this region has been subjected to massive industrial clearcuts, often followed by herbicide spraying.

It will take time, probably decades, to acquire the land and make a smooth economic transition from the current regime of industrial forestry to wilderness reserve. Because so much of the industrial forest has been degraded, ecological restoration will be necessary to break up the vast, even-aged stands that are susceptible to insect infestation and fire. Ecological restoration will create many jobs.

Our proposed Thoreau Regional

probably shut down permanently in the next decade or so and more paper industry land will be offered for sale.

*The overcut forests of Maine face shortfalls of spruce and fir—the most valuable tree species for paper-making.

*Some of the current land owners—Bowater and Boise-Cascade, for instance—are vulnerable to hostile takeover because their assets are worth significantly more than the value of their outstanding stock. The traditional corporate response to the threat of takeover is to overcut its lands (as Champion did in the Northern Rockies in the 1980s) or sell off “non-strategic” holdings (tracts far from mills or tracts containing tree species that are not desired by the land owner’s mill). Timely public acquisition may be our only hope of rescuing these lands from yet another round of unsustainable logging.

*After long absence, moose have returned to the Maine woods; wolves and cougars appear to be returning.

*The public increasingly supports initiatives to restore river and forest ecosystem integrity as well as the restoration of native Atlantic Salmon, wolves and cougars.

*Growing numbers of Americans within and outside the Northern Forest region are disaffected with our consumer culture that sacrifices the future’s options for short term economic profit. These people want to protect the options and interests of future generations of all species.

*The Northern Forest Lands Study and Northern Forest Lands Council have highlighted the regional, national and global importance of the Northern Forest region.

As part of the enabling legislation to establish the Thoreau Regional Wilderness Reserve, we propose that a study commission composed of conservation biologists, landowners, public lands managers, and concerned citizens identify the most ecologically significant tracts of land, lands currently or likely to be for sale, and regional social and economic issues that must be addressed.

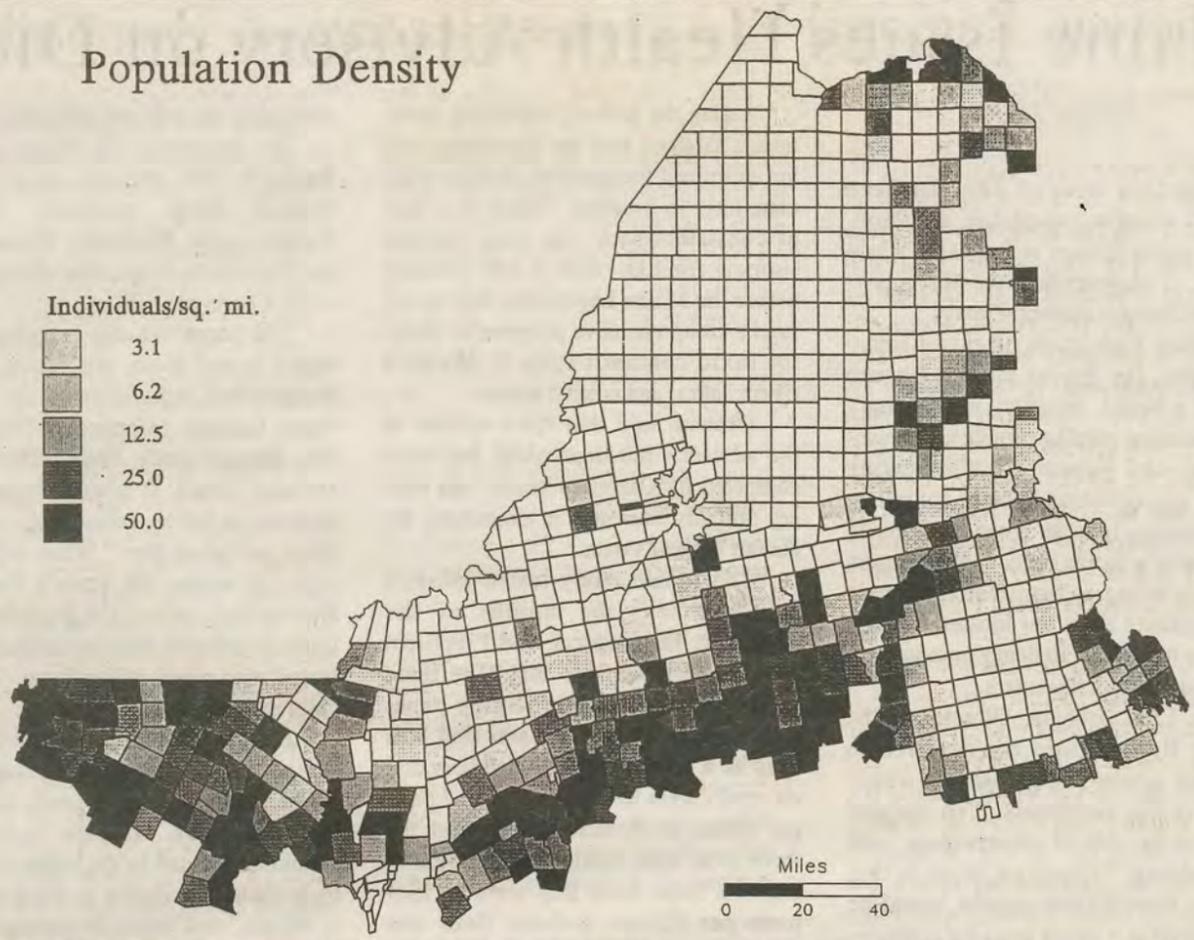
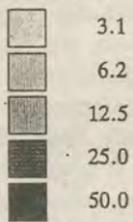
Ecological health is the basis of economic health. This proposal is a viable alternative to the status quo. Current economic trends on these lands—raw log exports, job loss in the woods and mills, projected spruce-fir shortfalls, profits going to corporations and stockholders from outside the region—do not benefit northern Maine communities.

We must begin to transform our current ecologically unsustainable economic practices. It will not be easy; making hard choices never is. But the alternative is to gamble that our culture can finally figure out how to exempt itself from the limits of physical and ecological reality.

Establishing a 5 million acre wilderness reserve in Northern Maine will not—as critics will argue—destroy all economic options. In fact, we believe a regional economy designed to complement large, connected reserves of unmanaged lands will actually lead to a healthier, more diverse, more stable, more gratifying regional economy that far better meets genuine regional needs while promoting the finest quality of life imaginable.

Population Density

Individuals/sq. mi.



The proposed Thoreau Regional Wilderness Reserve would be located in the white (unpopulated) spaces of northern Maine, not in the more populated townships to the south. No one would be displaced.

Pressures on Baxter State Park from recreation and tourism are so great that there is discussion of banning motor vehicles in Baxter. Clearly there is enormous demand for ecologically benign recreation and tourism opportunities in this region. A recent study of the greater Yellowstone region by a professor at the University of Montana found that the restoration of wolves could bring \$43 million in tourist revenues into the area each year. Additionally, a TRWR will provide quality jobs in guiding, natural history studies, and ecological research and restoration.

Once citizens of this region enter into such an ecologically sustainable economy they’ll wonder why they tolerated for so long the current “global” economy that has degraded our forests, rivers, lakes and air; that has extirpated many native species; that has produced poverty, powerlessness, and cultural despair, which benefits distant stockholders, not residents of the region; and which is now failing even to provide jobs.

The Regional Wilderness Reserve system must develop a new method of managing land that gives citizens of the region meaningful representation in the development and implementation of management plans, economic redevelopment and other critical regional issues. This proposal is not designed to further erode local control, but to help restore control of the region’s destiny to the region’s citizens. Since 18 corporations and families own over 75 percent of the Maine woods today, the status quo already represents lost local control to the maximum possible degree.

Some critics will object that establishment of large Regional Wilderness Reserves will displace local residents and become a land confiscation scam. Nothing could be further from the truth. Currently the area for the proposed TRWR is uninhabited by year-round human communities. There are no local land owners. Also, there is so much land currently for sale from willing sell-

ers that there is no need even to contemplate eminent domain.

Hunting and fishing camps can remain part of the tradition of public access in northern Maine so long as their use is consistent with the objectives of the ecological restoration of the Regional Wilderness Reserve System. Hunting could continue in the region so long as it is consistent with the objectives of the RWR System.

Some will dismiss this proposal as impractical because of the cost of purchasing land and the size of the federal deficit. We note that money is always available for war, disaster relief, and unneeded military hardware. Public acquisition of these lands will benefit failing local economies, protect the ecological integrity of the region, protect air and water resources, provide incalculable pleasures to current and future generations.

As paper mills close over the next couple of decades, lots of land will be on the market at very affordable prices (between \$100-\$200 per acre for much of Maine’s industrial forest). We could purchase the land necessary to establish a 5 million acre TRWR for about one-half the price of a Sea Wolf submarine which the Navy admits it doesn’t need, but is currently in the Pentagon’s budget to preserve jobs and the infrastructure of the submarine building industry. Is it not time we acknowledged that healthy intact ecosystems are the infrastructure of our life support system?

A proposal of this nature, which represents such a dramatic departure from a failed status quo, is bound to stimulate support, opposition, concerns, fears and questions. We welcome your ideas and proposals. It is beyond the scope of this initial proposal to attempt to address all such valid concerns. But, if we pledge to work together—guided by the understanding that biodiversity sustains ecosystems and human populations—to establish TRWR and ecologically sustainable and economically viable human communities, then we’ll find we can have both jobs and a

healthy environment.

We have an obligation to ourselves. But we have an equal obligation to many others—to the non-human species with whom we share this majestic region, to extirpated species that once roamed over, soared above, or swam in this region; and to the unborn generations of all species. Our generation has been called upon to change an unsustainable lifestyle and value system. Perhaps we must make some sacrifices. Our parents’ generation, the generation that fought World War II, made enormous sacrifices for future generations. We believe that this generation possesses the humility and generosity of spirit to meet the challenges of safeguarding the rights and simple pleasures of future generations.

This idea is not new. Thoreau proposed the establishment of a wilderness reserve before the Civil War:

The Kings of England formerly had their forests ‘to hold the king’s game,’ for sport or food, sometimes destroying villages to create or extend them; and I think that they were impelled by a true instinct. Why should not we, who have renounced the king’s authority, have our national preserves, where no villages need be destroyed, in which the bear and panther, and some even of the hunter race, may still exist, and not be ‘civilized off the face of the earth,’—our forests, not to hold the king’s game merely, but to hold and preserve the king himself also, the lord of creation,—not for idle sport or food, but for inspiration and our own true recreation? or shall we, like villains, grub them all up poaching on our own national domains?

¹ Northern Forest Lands Council, *Findings and Options*, (September 1993) Biological Resources Subcommittee, Finding #2, page 19.

² Stephen Trombulak, “We Must Establish a System of Ecological Reserves,” *The Northern Forest Forum*, Autumn Equinox 1993, p. 6-7. See also Noss *op. cit.*, and David Publicover, “Unmanaged Land is Necessary to Maintain Biodiversity,” *The Northern Forest Forum*, Autumn Equinox 1993, p. 8-9 for what this entails.

³ Reed Noss, “The Wildlands Project: Land Conservation Strategy,” *Wild Earth: The Wildlands Special Issue*, p. 11.

Maine Issues Health Advisory on Dioxin in Lobsters

by Ron Huber

The first issue of *The Northern Forest Forum* posed the question, "How much Dioxin is in Maine's lobsters?" Two years later the Maine government has the answer: Plenty!

Citing high levels of dioxin contamination, the Maine Health Bureau issued a health advisory on February 2nd, warning nursing mothers, pregnant women, and women of child bearing age to avoid eating lobster tomalley. The tomalley (a large green mass inside the lobster's thorax) acts as the lobsters liver, removing and concentrating toxic contaminants from the lobster's blood, and is a traditional delicacy among New England lobster consumers.

Dr. Lani Graham, Director of the Health Bureau, said her decision to issue the advisory was based on a conservative risk assessment. "We decided to err on the side of conservatism," she said, adding, "The expectation is that adverse reproductive impacts would be anticipated at a lower level (of contamination)."

Citing the lack of routinized monitoring, Graham said her department has not examined the question of other toxic chemicals in lobsters. "There is a lack of consistent data" she said, voicing support for LD 1446, a bill pending before the Maine Legislature that would fund a comprehensive program to monitor toxic contamination in Maine's rivers, lakes, and coastal waters.

Graham said that since release of the advisory, her department has been contacted by Canadian health and fishery officials interested in examining the Health Bureau's data.

The Maine study tested lobsters captured near the mouths of the Kennebec, Presumpscot, and Penobscot rivers, and from Saco Bay. The three rivers have dioxin-discharging paper mills upstream, while Saco Bay was used as a control site. Researchers discovered dioxin levels of up to 30.7 parts per trillion in lobsters tomalley from the three river sites, while dioxin levels in lobsters from Saco Bay were at 13.4 parts per trillion. Lobster flesh was found to possess much lower levels,

averaging one part per trillion of dioxin.

By contrast, the Maine Health Bureau's 1990 advisory against eating finfish from portions of the Androscoggin, Kennebec, Presumpscot, and Penobscot rivers cited dioxin levels of 15.4 parts per trillion.

The paper industry is trying to distance itself from the issue. Floyd Rutherford, president of the Maine Paper Industry Information Office told *The Bangor Daily News*, "Dioxin is a societal thing. It comes from many sources, including incinerators, automobiles, and house fires." When asked by a reporter about the state's findings, Rutherford called the higher levels found in lobsters from estuaries contaminated with paper mill effluent, "statistically insignificant".

Natural Resources Council of Maine scientist Peter Washburn called Rutherford's statement predictable. He told reporters, "Dioxin in lobsters should be the nail in the coffin of industry's claim that dioxin is not a problem in Maine," and urged the passage of LD 1446.

The potential effect of the advisory on Maine's tourism industry is unclear. Unlike the fish consumption advisories, where warning notices were posted at boat ramps and docks, Graham sees no practical way of warning tourists about lobster tomalley. In any event, she believes that Maine citizens are likely to be at higher risk, as they consume more lobster per capita than tourists.

Pat White, vice president of the Maine Lobsterman's Association, called the findings "unfortunate", telling reporters, "I think it's a damn shame that we're throwing everything into the water and air."

Efforts to get comments from the Lobster promotion Council were unsuccessful by deadline of this issue. The council's tourist literature states, "Many people consider the tomalley the most delicious part of the lobster".

Ron Huber is director of Coastal Waters Project, POB 1811, Rockland, ME 04841. Tel. (207) 596-7693.

Exporting Maine's Forest Communities

by Karin Tilberg

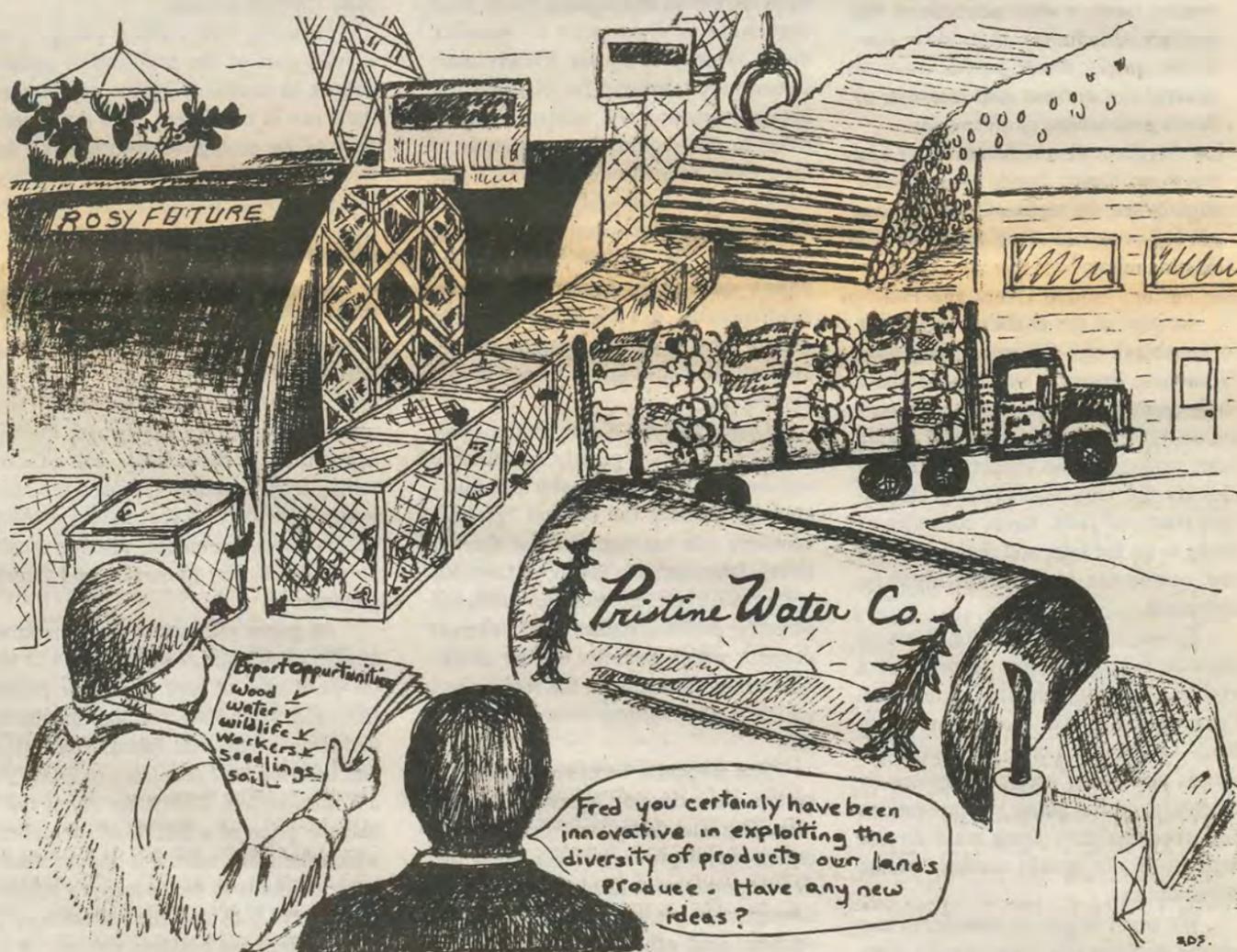
People stop, look, and move on with an unsettled feeling when they see the stockpiles of whole logs lined up for export to China and other countries from Portland Harbor. The pile looks enormous; what are the implications of this drain on our forests and our economies, they wonder.

I am glad the pile of logs is catching people's attention and directing concern to Maine's woods. But the whole log exports are not a new phenomenon and some would argue that the increase in log exports is positive for Maine. Why the alarm now? I think it is the tangible, visible nature of the log piles that is unnerving to us. Most of the time, the Maine woods are out of sight and out of mind.

Nowadays, it seems we can only respond to the pressures facing Maine's forests when they are right at our doorstep or when we have a crisis. For example, we are able to have great empathy for the rainforests of the Southern hemisphere, but forget the great contribution of Maine's forests to clean air, water, wildlife and economic health.

Perhaps there are ways to make more visible our inter-dependence with Maine's North Woods and the communities nearby. What if we were to amass on Portland's docks all the wildlife that dwells in the woods: the songbirds that summer here, as well as those animals that must survive the harsh winters. We could add to this all the camping, hunting, fishing and other related jobs, that depend in some way on the existence of wildlife in the forests.

We could also add the clean water that is generated by the brooks, streams, and rivers that originate in the North Woods and the health of our estuaries and bays that are nourished by these waters. We could try to quantify the value of this water by how



many communities and businesses draw upon and benefit from it.

We could line up all of the uses to which the trees of the North Woods are used for, and the jobs created by those uses. This would be almost equaled, if not exceeded by the "uses" of the beauty of the North Woods and the contribution made to recreation and tourism jobs from the mountains, lakes and rugged appeal of this area.

We must not forget to add to our imaginary stockpile the communities that depend upon the North Woods for jobs and sense of identity. We all benefit when people and communities in the North Woods thrive. We all suffer indirectly, if not directly, the economic

pains when jobs are cut in Millinocket. When there is economic dislocation anywhere in the state, we all pay through higher taxes, services and concern for those towns.

When we add up all that the North Woods provides us, the fate of Maine's North Woods should be a direct concern. We benefit from it daily in important, although hidden ways. Must we wait until too many remote ponds are developed, until the forest is overcut, until too many jobs are lost, too many species of plants and animals vanish, before we take steps to hold onto the North Woods? Yet we are losing the North Woods. Recent research developed by the Land Use Regulation

Commission reveal that two thirds of new seasonal dwellings since 1971 have located on the shores of lakes and ponds. Of these, 53 percent have located on class 1A lakes—lakes of statewide significance and which represent only 8 percent of all lakes. In other words, there are only a handful of the "best" wilderness lakes and they are the first to be developed.

The forest land base is shrinking. Although most of the North Woods remains in parcels of more than 500 acres, there has been accelerating fragmentation. The number of landowners holding parcels of less than 500 acres has increased substantially over the

Continued on Page 7

Timber Industry Circles the Wagons in Face of Clearcut Regs in Maine

by Mitch Lansky

This Valentine's day, a diverse group of Maine citizens testified before the legislature's Energy and Natural Resources Committee in favor of LD 1764, an Act to Preserve Productive Forests, sponsored by Representative Maria Holt of Bath. The bill would ban clearcutting and heavy cutting in the unorganized territories, the heart of the industrial forest. Ninety percent of the unorganized territories (which cover half the state) are owned by only 20 landowners.

Arguments for LD 1764

Bill proponents testified that:

*Much of the heavy cutting and clearcutting that dominate the region constitutes a visual blight, ecological travesty, social disaster, and silvicultural embarrassment.

*The lack of realistic regulations allows speculators to purchase woodlands and quickly liquidate them for quick profit.

*The few remaining large continuous areas of mature forest are being fragmented by clearcutting.

*In some townships the only mature forests are in buffer strips that are only 250 feet wide.

*Property rights are violated when abutting landowners can clearcut right up to property lines.

Proponents of LD 1764 want clearcuts to be the exception, rather than the rule. They want to make sure that logging operations leave behind a forest, not just isolated trees or thin strips of trees. LD 1764 tries to accomplish this on all the forest by using existing regulations that now apply only to buffers around rivers and lakes or between one clearcut and another. These regulations limit cutting to no more than 40 percent of the volume of trees per acre.

Arguments Against LD 1764

As expected, large landowners, large contractors, and state officials, circled their wagons, denying the problems identified by proponents. Opponents made arguments that were more damning to themselves than to LD 1764. The points they raised indicated that the foresters and large contractors cutting on the large landownerships lack both competence and a sense of responsibility. Their major arguments were:

*The regulations are too strict. Landowners can't follow them.

This argument had three parts: (1) the regulations are too difficult; (2) contractors can't make money cutting under these regulations; and (3) the regulations are not flexible enough.

Landowners have lived with these regulations for two decades in the buffer zones. The Bureau of Public



Lands and some large non-industrial landowners have cut this way on tens of thousands of acres. If other landowners continue clearcutting and heavy cutting, it is because they want to, not because they have to. Contractors bid to cut on public lands—they wouldn't bid to cut this way if they were losing money. In situations which would pose a hardship due to the condition of the woods, the bill allows heavy cutting and clearcutting through a variance.

*The forest is so degraded, landowners need to clearcut to start a new forest. Who degraded the forest? Why should we believe that the same people who did this deed will suddenly turn a new leaf and save the forest by removing it?

*Selection cutting doesn't work. Residual trees will just blow over. Foresters learn how to ensure that stands are windfirm in their first few years of schooling. That some opponents are challenged by this basic silvicultural task is a sad commentary on their forestry skills.

*Landowners forced to cut under the new rules will end up highgrading the forest. If these rules really do force landowners to highgrade (cut the best, leave the rest), then we should make current buffer zone regulations (which are the same as LD 1764) more strict.

All the cutting on large landownerships is, presumably, supervised by certified professional foresters who must, under the Tree Growth Tax Law, have management plans. Opponents are thus arguing that these foresters are incompetent. Nobody is forcing them to highgrade. That is their choice. If they are irresponsible enough to highgrade when they are restricted to cut no more than 40 percent of a stand in ten years, what kind of damage are they currently doing when they cut 80 percent or more of a

stand in the same time period? Highgrading is far more serious when done with heavy cutting than light cutting, because it encourages dominance by shorter-lived species.

*The tight restrictions mean that only half as much wood will be cut. Jobs will be lost. Mills will shut down. Since, theoretically, LD 1764 would allow landowners to cut 40 percent of the volume of the forest in a ten year period, those offering this argument are asserting that landowners are, or would like to, cut 80 percent of the volume of the forest in a ten year period.

Overcutting the forest in such a manner is an odd way to try to sustain jobs. Indeed, Since 1980, jobs have already declined by 50 percent due, mostly, to mechanization. Mill jobs declined by nearly one fifth. For some reason, industrial advocates were quiet about their concern over jobs in the woods and mills during this period. They only seem to cry about job losses when threatened with restrictions to their most devastating practices.

*If landowners are forced to selectively cut, forest diversity will crash, and certain tree and bird species will disappear. This argument fails the straight face test. In the presettlement forest, large openings were the exception, not the rule. How did birds exist before the age of industrial forestry?

Some opponents raised the concern that white pine and white birch will disappear without clearcuts. The birch and pine that are mature today were seedlings before the age of mechanized whole-tree clearcuts. Mechanized clearcuts are not necessary to perpetuate these species. We also do not need higher percentages of red maple and poplar.

Those who promote chopping up the landscape with clearcuts to increase diversity have a poor understanding of

biological diversity. A mosaic of fragmented, unstable, simplified, even-aged stands is not the equivalent of large, uneven-aged stands with old-growth characteristics. Foresters are not clearcutting to protect birds or to grow birch for the future. They are clearcutting to make money and supply the mills now.

*Rather than impose new regulations, we should do a study of current regulations to see if they are working. What does "working" mean? Is a rule working if landowners cut to the maximum allowed, or if they don't? The current Forest Practices Act allows landowners, if they wish, to cut the majority of timber in a township within a decade. If they are not doing so, it is in spite of the rules, not because of them. Clearcutting may have decreased since 1989 (the rules, incidentally, were not in place until 1991), but the average cut per acre is still high.

We have already had a number of studies of clearcutting and herbicides from Forests for the Future and from the Legislature. These studies have had almost no consequences on forest policy.

Conclusion

LD 1764 does not solve all policy issues. It does not protect old growth or create reserves. It does not deal with labor problems or market domination. To address these problems we need a broad, integrated forestry policy. LD 1764, however, is a start. If we wait to act until we have complete consensus from "balanced" committees dominated by those employed or influenced by the forest industry, we will wind up where we are currently headed. It is time for industry and its allies to uncircle the wagons and admit that something needs to be done. Now.

Exporting Communities

Continued from Page 6

past 20 years, from approximately 5,500 to more than 9,300. Most of the acreage in these lots (about 320,000 acres) is, practically speaking, in the process of ripening for eventual conversion or development.

Forest-related employment is decreasing. There is a downward trend in forest products manufacturing jobs, ongoing for more than a decade. One estimate is that from 1984-1992, full time woods jobs declined 40 percent. Increasing mechanization, global competition, recession, and the lack of capital are contributing to this trend. Maintaining the status quo cannot assure the

economics of the future of the North Woods communities.

There are ominous signs for the health of the forest itself. A recent study of Maine's forest estimates that the total volume of trees has declined by 15 percent over the last decade. Most of this decline was in softwoods which were reduced by 22 percent in ten years (felt most heavily in spruce fir, which went down 31 percent). Despite the passage of the Forest Practices Act in 1989, forest harvesting is still intense and there is no countervailing pressures to slow down the cutting overall, should harvesting pressures increase.

I end on a personal note. Even now, after countless camping and hiking trips to Maine's North Woods, I

am inspired by its large and rugged expanse. Like many, I am drawn to the scraggly, boggy and moose ridden woods, especially its vastness. In my view, it would be a tragedy of mindless neglect and a failure of our collective imagination if we lose the greatness of this area.

This spring there will be public "Listening Sessions" sponsored by the Northern Forest Lands Council to hear our views. This is the public's chance to talk about the future of the Maine woods and to design long-lasting solutions. Please participate in this historic opportunity.

Karin Tilberg, a resident of Bowdoinham, is a policy advisor for the Maine Audubon Society.

Industrial Forestry: Is it for the Birds?

by Mitch Lansky

For those who have been demanding new regulations to restrict clearcutting and heavy cutting in the industrial forest, the Maine Forest Service has some advice—read John Hagan's bird study. Hagan, of the Manomet Bird Observatory in Massachusetts, is involved in a multi-year study of the impacts of industrial forestry on bird populations in Maine. His 1993 report, *Ecological Sustainability in an Extensive Industrial Forest Landscape*, seems to promote the benefits of large clearcuts, which, apparently, pleases the Maine Forest Service and the paper industry. The paper industry, incidentally, helped fund and write the study.

Those who read Hagan's study, however, will find that it is not a hearty endorsement of the status quo. He believes that current regulations, that promote many small, instead of few large clearcuts, encourage forest fragmentation that harms some bird species. He promotes large clearcuts as an alternative based on two very questionable assumptions: that clearcutting is the only silvicultural option, and that large clearcuts will turn into large blocks of mature forest.

Clearcut Logic

It borders on the tautological to point out that since clearcuts create early-successional habitat, bird species preferring such habitat can be found there. Since some of these bird species are neotropical migrants, it becomes easy to claim that clearcutting benefits neotropical migrant songbirds (and one can be forgiven for carelessly forgetting the word "some"). It only takes one more step of industrial logic to insist that neotropical migrant songbirds need clearcuts, and that any attempt to regu-

late clearcuts creates a threat to the existence of these birds.

One is left wondering, after reaching this conclusion, how migrating songbirds survived before the era of industrial forestry. A reconstruction of the presettlement forest of Northeastern Maine by Craig Lorimer¹ suggested that large-scale, stand-replacing disturbances were the exception rather than the rule. Most of the region, according to Lorimer, consisted in all-aged or uneven-aged climax stands of mostly shade-tolerant species. Even-aged stands of shade-intolerant species, such as poplar or white birch (which are indicators of severe disturbance), made up a small percentage of the landscape.

The pre-settlement forest had a healthy distribution of large-old trees, dead-standing trees, dead-down trees, and gaps (where individual trees or groups of trees fell down). Such a forest is rich with vertical diversity (multi-storied canopies), and structural diversity (e.g., cavities in dead-standing trees). Such a forest is rare in the industrial forest where the emphasis is on short rotations of mostly even-aged stands.

Hagan had no control to the industrial forest. He did not compare bird diversity, density, and breeding success in the industrial forest to a more natural forest, such as at Big Reed Preserve. We do not know if the birds occupying clearcuts in the industrial forest could just as well thrive in uneven-aged stands or in smaller gaps than the township-sized clearcuts in his study area.

Maturity: Industrial vs. Biological

A reader of Hagan's study might come away with the mistaken notion that the "mature" label that Hagan used to classify stands is the equivalent of old growth, and that all habitat types

were therefore studied. This is not the case. Hagan modified industrial classification systems to determine which stands were "mature." This industrial terminology is not equivalent to biological terminology.

Hagan's classification of "mature" includes all stands that are 50 or more years old. To paper companies, 50-year-old trees are big enough to cut—thus they are economically "mature." Fifty-year-old red spruce trees, however are still dominated by juvenile wood—mature wood starts to really increase at age 60. Red spruce can live to be over 400 years old. Rotations of 65 to 110 years produce only marginal amounts of large-diameter cavity-dwelling/foraging habitat in northern hardwoods. Rotations of fewer than 60 years produce none.²

With Hagan's industrial "mature" classification, 50 year-old even-aged stands of poplar or balsam fir would be lumped into the same categories as uneven-aged old-growth stands of northern hardwoods or red spruce. Even-aged stands of balsam fir represent one of the poorest bird habitats in the region.³

Diversity Vs. Stability

Hagan's research implies that clearcutting improves bird diversity by offering a variety of forest blocks of different ages. By this reasoning, we might improve bird diversity in tropical rain forests through large-block clearcuts over time. Surely the large blocks of even-aged forests would be occupied by many different species of birds. But who would argue that such a regime would improve the diversity of tropical songbirds?

Cutting forest blocks on short rotations reduces the diversity of habitats that require time (i.e., large old trees,

lichens, mushrooms, dead-standing trees, dead-downed trees, etc.) to develop. Such a regime, that reduces a forest's complexity (including habitats for more varied predator/parasite complexes) could very well reduce a forest's stability (i.e., its ability to resist disturbance or, if disturbed, its ability to recover).

Stability was not a research topic in Hagan's study, but with less than ten years since the end of a major spruce budworm outbreak, perhaps it should have been. Hagan's work is not free of values. He clearly is concerned about the impacts of forest fragmentation on bird population viability. He should have been just as concerned that landowners were setting up the potential for another catastrophic budworm outbreak. According to some research,⁴ birds play a significant role in keeping budworms at endemic levels. The stands created by industrial foresters may not be offering adequate habitat to support the most important predator bird species.

Bigger is Better

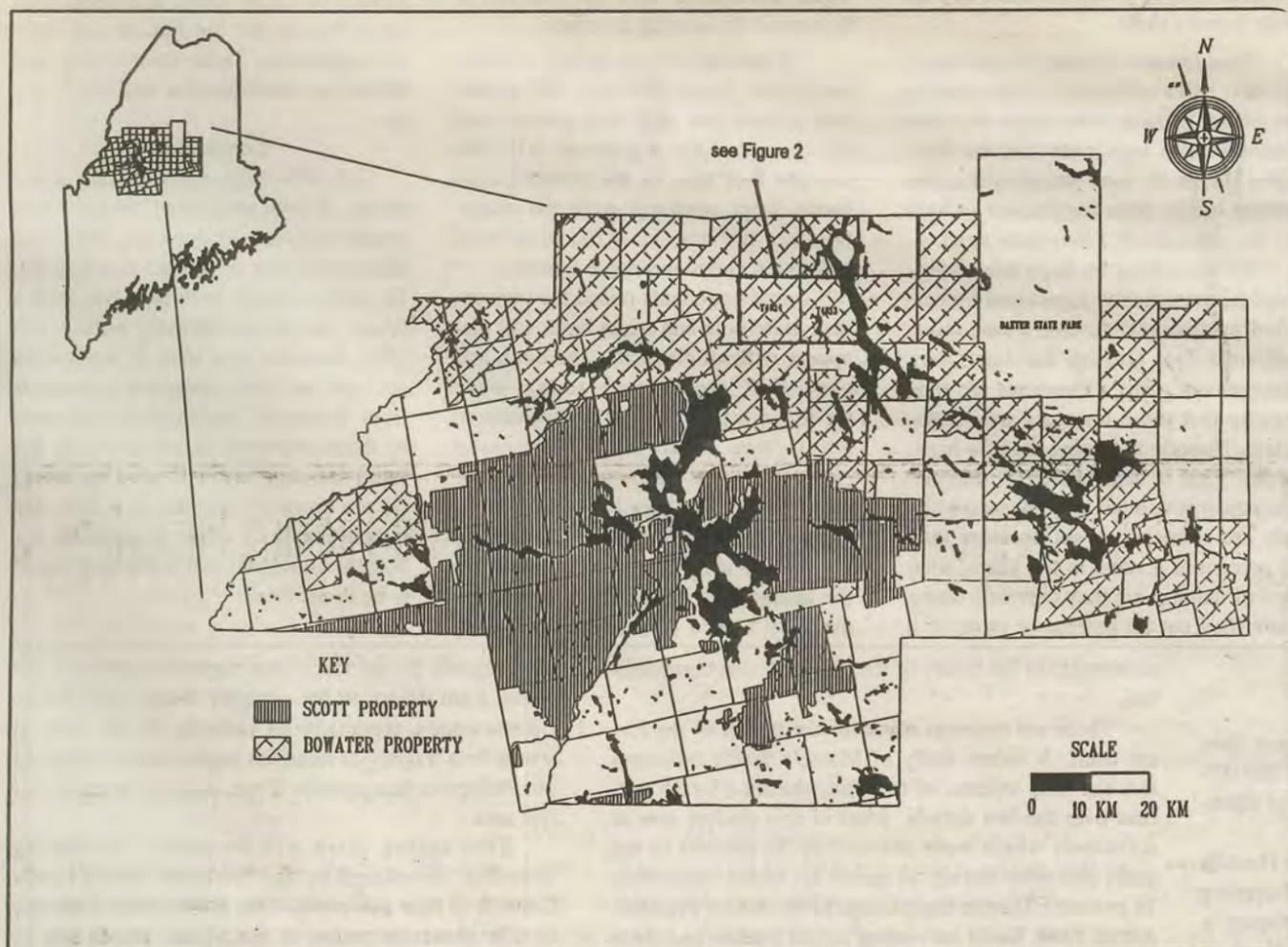
While Hagan's data seem to imply that clearcutting benefits bird diversity by creating early-successional habitat, he concedes that, "The intensity of industrial forest operations could also reduce diversity through forest fragmentation or a serious reduction of mature age classes."⁵ And this is where he argues that if fragmentation is a problem, then bigger clearcuts are better.

Maine's 1989 Forest Practices Act and 1990 Clearcut and Regeneration Rules do not mandate less clearcutting, they only mandate a different configuration of cuts. "Instead of a few larger clearcuts, there are now hundreds of small clearcuts," writes Hagan. "The Maine Forest Practices Act could not have been better designed to fragment what remains of Maine's continuous tracts of industrial forest."⁶

Questionable Assumptions

Hagan's argument that bigger clearcuts are preferable to multiple small clearcuts is based on the assumption that clearcutting is the only management method. He did not even consider whether *no* clearcutting (i.e., selection) would be even better. Scientists are now arguing for ecosystem-based forest management. Ecoforestry would tend to retain functioning forests, rather than just a few trees or narrow strips of trees. The public is demanding reduced reliance on clearcuts. Some companies have even begun shifting from reliance on clearcuts. It is bizarre that Hagan would hold onto the unwarranted assumption that a trend that is already happening is unlikely to happen.

Hagan's argument for the benefits of large clearcuts rests on the assumption that, "large clearcuts eventually revert to large blocks of continuous forest."⁷ In the industrial forest, large clearcuts might very well never get to become large blocks of continuous forest because they might get cut at age 40 or 50, long before biological maturity. Thus, any species that prefer large tracts of biologically old forests will have to fly elsewhere.



The study area encompasses over 2000 sq km of industrial forest land in north central Maine. The large silhouette in the center of the map is Moosehead Lake. Point count samples were taken in forest stands within a 60 km radius of Greenville located at the southern tip of the lake.

Age-Class Shift

Hagan is aware that all is not well in the industrial forest due to recent heavy cutting. "The age distribution of the forest in northern Maine is shifting to a younger state, some areas are being converted from hardwood to softwood through plantations and herbicide spraying, and forest fragmentation is increasing."⁸

To show his concern for these trends, Hagan repeated Aldo Leopold's observation that the key to intelligent tinkering is to save all the parts. "Industrial forestry," writes Hagan, "represents tinkering with the Northern Forest ecosystem. [...] The critical question is whether all the 'parts' are being saved, or can be saved in the process."⁹

Consequences of Choices

A forest is not a simple machine with parts that can be disassembled now, and then reassembled later. It is a living community that is held together by complicated relationships and processes. We are not so wise that we can easily put back together a biological Humpty Dumpty that has been shattered to pieces.

It is too easy to misinterpret Hagan's work as an endorsement for continued clearcutting to create early-successional habitat. One must look at the consequences of errors. If those who advocate the maintenance of large blocks of biologically mature forests are incorrect, it only takes a matter of days or weeks to create forest openings for early-successional species. If those extolling the benefit of large blocks of clearcuts are wrong, it will take more than a century to grow back a mature forest. Given such a choice, would it not be more prudent to preserve large blocks of biologically mature forest? If so, we should shift away from clearcutting, not accelerate it.

¹ Lorimer, Craig, "The presettlement forest and natural disturbance cycle of northeastern Maine," *Ecology*, December, 1977.

² Tubbs, Carl and Yamasaki, Mariko, "Wildlife Management in New England Northern Hardwoods," in John A Bissonette, ed. *Is Good Forestry Good Wildlife Management?* (Orono, Me.: Maine Agricultural Experiment Station, University of Maine, April 1986), p. 120

³ Crawford, H.S., Titterton, R.W., and Jennings, D.T., "Bird Predation and Spruce Budworm Populations," *Journal of Forestry*, Vol. 81, No. 7 (July 1983)

⁴ Ibid.

⁵ Hagan, John M., and Wigley, T. Bently, *Ecological Sustainability in an Extensive Industrial Forest Landscape (Migratory Birds and Timber Harvest, III)*, a project renewal proposal submitted to the National Fish and Wildlife Foundation, August 15, 1993, Appendix II, pg. 4. Hagan works for the Manomet Bird Observatory, P.O. Box 1770, Manomet, MA. Wigley works for the National Council of the Paper Industry for Air and Stream Improvement, Inc., Department of Aquaculture, Fisheries, and Wildlife, Clemson University, Clemson, S.C.

⁶ Hagan, pg. 3

⁷ Hagan, pg. 3

⁸ Hagan, pg. 8

⁹ Hagan, pg. 8



We Need a Council of Stewards, Not More Backward-Looking Politicians

As we enter the 21st century, I believe that our political will should be focused on creating a sustainable society. We will need leaders who are chosen from their local communities to represent the health and vitality of all who belong within that community; the plants, the animals, the humans, as well as the health of the air, the water, the soil. These leaders must also represent the health and vitality of local cultures and local economies. It is too late to cling to the old tradition of moneyed special interests running the show. It is too late for old-style leaders like Jurassic Joe Brennan, Pam Cahill, Jasper Wyman, or Angus who would be King. We need instead to create a council of stewards for the larger bioregion, the whole Gulf of Maine region, from the headwaters to the ocean, reaching over imposed political boundaries to include parts of northern New England, New Brunswick, Nova Scotia and even a tiny bit of Quebec.

Rather than governors and premiers, we need this council of stewards, who will celebrate the diversity of the region while speaking for it. We no longer need governors, especially when they are chosen by political parties whose visions have more to do with the past than with the future. It is time for us to speak from the hearts of our communities, with the diverse voices of the Gulf of Maine bioregion. Let's begin to think beyond the concept of "the next governor of the state of Maine."

—Gary Lawless

Gary Lawless is poet laureate of the Gulf of Maine.

Cougar Kitten Shot Near Adirondack Park

by Jason Kahn

After years of speculation and denial it appears an age-old argument has been settled. There is hard evidence that the mountain lion is once again roaming the backcountry of the Northeast. On December 31, a few miles southeast of the Adirondack Park, near Sacandaga Reservoir a young female cougar was shot by a hunter near Providence, NY. According to the New York State Department of Environmental Conservation (DEC) autopsy report, the hunter watched the cat sitting on a snow bank for ten to fifteen minutes before approaching the animal. To the hunter's surprise the cat didn't run away as he approached, raised his shotgun, and fired.

Upon performing the autopsy, DEC wildlife pathologist Ward Stone, said, "If the cougar had not been shot, it would have probably been dead within a few hours due to starvation or hypothermia." The young cat's statistics looked grim. The six month old cat weighed in at a meager 7.5 pounds and had no milk or meat in its stomach. At that age a healthy cougar cub should have weighed at least 15 or 20 pounds. Its claws were in good shape but some pieces of its footpads were missing possibly due to frostbite or the results of captivity.

US Fish and Wildlife Service Endangered Species agent, Paul Nickerson said he didn't believe cougars were present in the Northeast in a breeding capacity. He acknowledges there are individual lions in the Northeast, but thinks they are exclusively escapees from zoos or domestic captivity. Peter Nye of the New York DEC Endangered Species Unit said rumors are filtering in that a couple in the region recently released a young cougar cub when they learned that the DEC might search their home. It is illegal in most states to own a cougar.

An obvious question is, "Do only native, wild-born cougars require a response from the DEC or F&W Service under the state or federal Endangered Species Act?" Not according to Peter Nye: "Any cougar is protected under the Endangered Species Act." Nickerson hopes to see bonafide evidence of at least one breeding pair in the wild.

Just what would constitute bonafide evidence? Agency officials would likely say, capturing one or both of the animals and studying them for characteristics of domestication and doing a D.N.A. analysis of tissue samples to determine what their origin may be.

Wildlife proponents would respond that although the wheres and hows are important scientifically (D.N.A. tests of a cougar shot a few years back in Quebec suggests the cat was a Chilean strain of cougar), they should not be used as qualifiers for federal and state protection. Breeding populations consist of individual cats; and whether the cats are native or transplanted, the state and federal agencies must acknowledge the importance of these individuals if they truly wish to see a viable breeding population here in the Northeast.

When asked if any mountain lion population may have survived the sys-



Six month old female cougar shot near Sacandaga Reservoir, New York, December 31, 1993.

tematic eradication in which, supposedly, the last cougar was shot in New York 100 years ago, both the D.E.C. and F&W Service replied no. If any individuals had escaped the deliberate killing and bred, their descendants would have had to survive widespread deforestation in the region. "If any had survived, if cougars continued to breed even in small numbers we would have seen them by now. There would have been automobile fatalities. Look at the Florida Panther," said Peter Nye. "With 50 or so surviving animals the panther's main cause of death is still automobiles."

Both Nye and Nickerson speculate that the habitat in the Northeast is unsuitable for a stable cougar population given the high road density and wide-ranging nature of the cougar. This speculation comes from a report frequently cited by the DEC and F&W Service. Dr. Rainer Brocke, wildlife biologist from the State University of New York College of Environmental Science and Forestry, claims the cougar is not elusive enough to go undocu-

mented, at least not in the western states where most of the work in his report is based. If the cougar is present, why have these agencies not even found a track?

Despite the slow but steady flow of cougar sightings and reports the D.E.C. receives, they have only one trained cougar specialist in the entire state. It's not surprising they have found no evidence of the cougar's presence.

Susan Morse, a habitat specialist who has researched cougars extensively, believes that the cougar is "quite elusive", and that it is difficult for untrained persons to identify and track the cougar in the thick ground cover of the Northeast. She questioned the validity of Brocke's report suggesting it was an extrapolation of western habitat types toward eastern types. She is troubled, though, by the lack of cougar sign in the lower elevation winter deer yards in New York State. Populations must be very, very low if present at all, she says.

Could the cougar be present in the forests of the Northeast in appreciable numbers that may simply have eluded

us? I will offer a thought here that may be scientifically indefensible but deserves consideration. In his book *Grizzly Years*, Doug Peacock describes a new and different grizzly bear, less aggressive than their predecessors and more likely to avoid confrontations with human beings. The "new" grizzlies, the ones who survived extensive eradication efforts, and their offspring seem to avoid human contact of any sort, likely due not to fear so much as having learned humans mean death.

Could a "new" cougar, here in the heavily populated East, quietly be reestablishing a small population? When one considers the massive efforts to annihilate the cougar from our region a century ago, it seems reasonable to assume that any surviving cougar be skilled at avoiding human confrontation. The many sightings, and conversely, the complete lack of hard evidence, until now, would seem to support such a postulation.

Reports of cougar sightings come into the D.E.C. office from the Catskills to the Adirondacks. Few of these are ever investigated.

One noteworthy sighting, involving a New York State Trooper, took place on October 24 of last year, and was investigated by the DEC. While deer hunting in the Oak Hill area in the town of Keene Valley, State Trooper Thomas Hickey spotted the cat through his rifle scope. Although he did not get a good look at the hind quarters to see if it had the characteristic long tail, Trooper Hickey did describe the other classic features of a cougar. Trooper Hickey's hunting partner, who was pushing the deer toward Hickey, came across a partially covered body of a recently killed deer. The carcass had been partially eaten.

The next day Trooper Hickey returned to the deer kill with D.E.C. wildlife biologist Ed Reed and a local guide. The deer had been fed upon and reburied since the previous day. The deer had a broken neck and quarter inch puncture wounds behind each ear approximately nine inches apart. There were no marks on the throat and no marks on the back or shoulders. The deer's entire right side was devoid of skin and most of the muscle. Several of the ribs had been chewed off, but none of the organs had been eaten. The condition of the carcass and recent warm weather indicated that the deer had only been dead two or three days. No tracks or scat could be found in the vicinity.

Given this evidence Mr. Reed believes the animal responsible for the deerkill to be a cougar. Bobcats almost always bite deer on the throat rather than the back of the neck, and an individual bobcat would not have been capable of eating half a carcass in two days. Mr. Reed further believes the lack of claw marks on the back and shoulders may indicate a de-clawed cougar. A de-clawed cougar was reported having escaped near Lafargeville, NY in mid-October over a hundred miles away through the heart of the Adirondacks. This, however, would not explain an earlier sighting in the Keene Valley area this past summer or other local sightings over the past few years.

Continued on Next Page



*And I think in this empty world there was room for me
and a mountain lion.*

*And I think in the world beyond, how easily we might
spare a million or two of humans*

And never miss them.

*Yet what a gap in the world, the missing white frost-face
of that slim yellow mountain lion!*

- D.H. Lawrence

Support is Growing for Wolf Restoration in Northern Forests

by Michael Kellett

In late 1992 RESTORE: The North Woods first proposed a study of the feasibility of restoring the eastern timber wolf to the Northern Forest of Maine, New Hampshire, Vermont, and New York. The Wolf Restoration Project was formally launched in June 1993 with a special joint issue of the *Northern Forest Forum*.

Since then, public interest has continued to grow. Dozens of stories have appeared in newspapers and on radio and television. A variety of groups have invited RESTORE staff to speak on wolf restoration. Several hundred people have contacted RESTORE asking how they can get involved.

While the general public response has been positive, there remains significant resistance. "Private property rights" groups vocally oppose wolf restoration. Anti-wolf letters and columns have been published in some newspapers. Maine and New Hampshire fish and wildlife agencies continue to assume that there is no public support for wolf restoration. Many conservation organizations remain dubious about the chances for success.

Anti-Wolf Bill Fails to Pass

The most overtly anti-wolf action was the introduction of HB 1100, "An Act Prohibiting the Release of Wolves," into the New Hampshire Legislature. The bill is sponsored by Representatives Gene Chandler, Herbert Drake, and Howard Dickinson.

In January, I attended a hearing of the Committee on Wildlife and Marine Resources on HB 1100. It was apparent from the beginning of the hearing, however, that support for the bill was thin. Aside from the sponsors, only four people spoke for the bill. Two of them indicated that they are not anti-wolf, just anti-wolf-reintroduction. None of the proponents were able to show a threat of unauthorized reintroductions or explain why there was a pressing need to take pre-emptive action now.

I and seven other speakers spoke against HB 1100. Among these speakers were representatives of several conservation organizations—RESTORE: The North Woods, New Hampshire Wildlife Federation, Audubon Society of New Hampshire, Appalachian Mountain Club, and Sierra Club. The representative of the New Hampshire Timberland



Briar—an Alpha Male. Photo by Joni Soffron/Wolf Hollow.

Owners Association did not state his formal opposition, but did "discourage the Committee" from passing the bill.

The most common arguments against the bill were that: (1) there is no evidence of any threat of unauthorized introductions; (2) the bill would tie the hands of state agencies; (3) it would preclude possible benefits of wolf reintroduction, and (4) it would stifle public debate on the issue.

Dr. Donald Normandeau, Executive Director of the New Hampshire Department of Fish and Game, took "no position" on the bill. He noted, however, that the bill was not necessary since the state already has the authority to prevent unauthorized release of wolves.

After more than a week of deliberation, the committee determined that HB 1100 was "not necessary" and voted 20 to 1 to find the bill "inexpedient to legislate." The full Legislature adopted this recommendation and "recommitted" the bill to the Committee on February 3. Although HB 1100 appears to be inactive at present, the sponsors could revive the bill at some later date.

A particularly interesting part of the hearing was the testimony and answers to questions by Dr. Normandeau of the Fish and Game Department. In his comments he agreed with most of the arguments made by RESTORE: The North Woods in favor

of a wolf restoration study:

- *to the best of his knowledge, the wolf is native to New Hampshire;

- *there would be plenty of prey for wolves since the state has a "substantial" deer population; and

- *wolf reintroduction would not be a significant threat to deer and other wildlife species since the wolf population would probably be small, and since predator and prey populations remain in relative balance.

He went on to say that his department does not favor wolf reintroduction at this time because he has seen no indication of public support. However, he stated that:

- *there is some merit to studying whether extirpated species like the wolf could be successfully restored;

- *his department would consider such studies if there was public support;

- *he would insist on a process that included statewide public hearings before proceeding with any introduction;

- *such a study process would be expensive for the state to undertake, since it would be greater than anything the agency has ever done before; and

- *the study should be part of a region-wide effort that includes adjacent states like Maine and Vermont.

It is notable that although he reiterated that there is no evidence of public

cougar sighting. The cougar is perhaps the most mysterious and beautiful predator on our continent.

I would like to finish with a cougar story a renowned western poet, Gary Snyder tells. One evening, Mr. Snyder was walking among the hills surrounding his northern California home. It was just past dusk, and as he approached his home he could hear his daughter playing her piano. A beautiful piece of classical music softly filled the air. As he drew nearer his home, he could see light emanating from the window near the piano and in that light he saw a cougar sitting on a rock, listening to his daughter's piano playing. Its head tilted to better hear the soft music. Mr. Snyder did not fear for his or his daughter's life. He understood the cougar's curiosity and for a brief moment he felt what

support, neither did he show evidence of significant public opposition. Until studies along the lines of those he described are undertaken, we will not know what the public really thinks.

Downeast Maine Audience Votes for Study

Many people would consider it impossible to convince the people of Washington County, Maine, to support wolf restoration. After all, this is a conservative, rural area with long tradition of hunting, a decreasing deer population, and concern that the existing canid predator—the coyote—is already eating too many deer.

On January 19, I gave a slide presentation in Machias at the invitation of the Machias Valley Sportsmen's Club. Interest was high; about 140 people braved sub-zero temperatures to attend. Many in the audience were deer hunters, a group the conventional wisdom says are very anti-wolf.

A *Bangor Daily News* reporter was present at the meeting, and the paper followed with an editorial on January 29 summarizing the outcome:

"About a week ago, RESTORE pitched the Machias Valley Sportsman's Club on the wolf proposal. A straw vote of members, who live in an area where the whitetail deer population is shrinking, favored a study. It is significant that the proposal wasn't rejected outright. RESTORE struck a chord."

The Machias audience was the most skeptical I have encountered thus far, with many people remaining unconvinced. Yet if over half the group voted for a wolf feasibility study, many other Mainers would probably be willing to give it their support. RESTORE plans to find out by giving presentations across Maine and the rest of the Northern Forest in the coming months.

RESTORE Launches Petition Drive

RESTORE has begun distributing a citizens' petition to show support for a wolf restoration study. The petition calls for the U.S. Fish and Wildlife Service to prepare an Environmental Impact Statement that includes a broad range of alternatives and ensures full public participation. A copy of the petition and a fact sheet on wolf restoration are included as an insert in the latest issue of *North Woods Vision*. For a copy, contact RESTORE: The North Woods, P.O. Box 440, Concord, MA 01742 or call (508) 287-0320.

Cougar Kitten Shot

Continued from Preceding Page

What can we expect the state and federal agencies to do to protect and encourage mountain lion populations? Not much information was volunteered. "This is not the West. We can't approach this through a land lock-up," Nickerson said. "If the mountain lion is to make a comeback in the Northeast it's going to have to co-exist with existing land use."

Private land owners and residents of the North Country should be shown the benefit of having a large fur bearer on their property at least part of the year. This would require the agencies and cougar activists to behave as cougar ambassadors in the region. More DEC and F&W Service employees need to be

trained for the task of tracking and confirming cougar sightings.

Cougar habitat specialist Susan Morse claims, "What we need in the Northeast is for state and federal wildlife experts to establish a protocol on cougar sightings. Otherwise we will continue to stumble in the dark." As a partial solution to this dilemma Morse suggests activists receive training in cougar tracking. This seems more promising considering tight state and federal purse strings in these matters. Most wilderness activists complain of not getting out enough anyway.

Why should we concern ourselves with the cougar? Because it is here and is as much a part of the Northeast as the robin and the white-tailed deer. Most wilderness advocates would treasure the opportunity to experience a

the cat felt. The cougar's life is as complex, sad, joyous, and noble as yours or mine. It protects what is important to its survival and cares deeply for its family. How sad that it takes a poet's eyes to see something so simple.

Eastern Cougar Conference June 3-5

If you are interested in cougar recovery, you may wish to attend the upcoming Cougar Conference June 3-5, in Erie PA. For details contact: Jay Tischendorf, American Ecological Research Institute, POB 380, Fort Collins, CO 80522. Tel. (303) 224-5307.

Local Economies in the Age of the Symbolic Analyst

by Andrew Whittaker

The permaculturist David Holmgren recently observed that people for whom sustainability is the goal should not count on collapse of the "industrial system" to spur alternatives and "bring society around." They are as unlikely to find their expectation confirmed as those others whose faith is an extension of present, ever onward growth. Instead, says Holmgren, the future will unfold in a series of "rapid and painful shifts."

Whether we grant them their faith in "sustainable growth" or not, globalists have lost sight of the fact that the best way to prepare for a more cosmopolitan future is by actively investing in our roots. The creation of strong regional and local economies depends on the health of the home environment but in the long run will also safeguard it. (Do we count the requirements of human spirit among our needs?)

Our guiding philosophy that environmental protection is contingent on growth and can be enacted only when we have "grown enough," reverses the reality of our dependence on nature. As currently constituted and controlled, freer world trade amounts to a raid on natural resources, and the flow of capital seeking forests, minerals and oil in areas "opening up" is impressive enough to make one think there are resources ample to sustain destructive economic paradigms for another 50 years. Rather than counting on its collapse, environmentalists working for community-based economies will have to attune to the changes that are restructuring the economy and, through them, attempt its transformation.

The Work of Nations

I doubt that the current secretary of labor, Robert Reich, is pounding the table at Cabinet meetings in defense of local economies. I expect that much of what local producers, as well as ecologists, take for common knowledge is beyond Reich's ken. Nor do I know how he might regard President Clinton's indifference to the log export question or what ideas he has in mind for workers who run out of resources to which they can add value. I can however place a measure of faith in his critical assess-

ment of what exactly our new world economy really is, based on a reading of his book *The Work of Nations*. His observations are worth the time of anyone pondering the role of local economies in an age that seems to have left them behind.

Reich's critique has three components. First is the growing irrelevance of the national corporation as the key to the creation of wealth under the pressure of global competition and the decentralization of production. Second is the rise of the "symbolic analyst" or that class of worker whose work is increasingly rewarded by the emergent global economy, and the decline of production and service industry wages. Third is the moral dilemma of our nation in particular, as it casts about for unifying purpose in the post Cold War era, and faces the prospect of social breakdown, particularly in the context of the new globalism.

Reich's thesis is that the traditional vehicle of our economic nationalism, the corporation, is, "increasingly, a facade, behind which teems an array of decentralized groups and sub-groups continuously contracting with similarly diffuse working units all over the world." Corporations survive, but they tend to be at the hub of these new global webs, reliant on them and decreasingly loyal to any one nation. Fundamental to this transformation has been the shift from high volume, mass production to specialized, high value service. A good example of this process in our country has been the re-creation of the steel industry (made possible at least in part by Japanese capital).

Reich, like any free trader, dismisses protectionism, and he observes that our corporations only engage in protectionist rhetoric for the cameras; behind the scenes they are fully engaged in the world market. Reich also views past efforts to batter down foreign trade barriers on the behalf of large American producers of, say, cellular telephones, as largely misplaced. What is key to the wealth of nations is no longer the hegemony of "national" corporations so much as it is the kind of work that gets done within their borders. Whether that work is brought to the US by Germans, Japanese or, as is more likely, Brits, is

irrelevant. What matters is that the work be of high value and rewarding compensation. (In the case of Motorola, Reich points out that many of its cellular telephone components are manufactured in Malaysia. Media coverage of the recent trade tiff with Japan did little to challenge the old formula of "what's good for General Motors . . ." however.)

From the vantage point of Harvard, Reich saw our problem as the persistence of vestigial policy. "The problem is not that American-owned corporations are insufficiently profitable; it is that many Americans are not adding sufficient value to the world economy to maintain or enhance their standard of living." Yet the thrust of policy remains more geared to the perceived needs of corporations than the education, health care and strong communities required by a society capable of adding-value.

Wages and Wealth

Reich sees the increasing wealth gap within the developed world, as well as between nations of the north and south, as a function of the increasing economic rewards that flow to certain forms of labor. Routine production and service industry workers face declining wages; problem analysts, brokers and solvers skim the cream. Such is the social ordering of the information age.

Beneficiaries of the shift to high value production have, wittingly or not, segregated themselves from the wider community politically and geographically. In developed countries with aging economies, wealth flows increasingly to an upper fifth of earners and decreasingly to the lower four-fifths. This has been accentuated in such countries as the US where the wealthy are politically forceful enough to avoid progressive taxation.

It is not just withdrawal from the tax rolls that concerns Reich, however, it is the broader retreat from a wide definition of community that he finds particularly threatening to our economic future. Reich expresses concern for the consequences of a strictly economic ordering of society. He notes the loss of civic sensibility in the age of suburban sprawl: "There is only one thing Americans increasingly have in common with their neighbors . . . It is their income levels." The wealthy withdraw

into "homogenous enclaves within which their earnings need not be redistributed to people less fortunate than themselves;" the poor and working class are left with miserable schools and decayed social services. Reich notes that the political rhetoric expended on the theme of community, from Reagan to Cuomo, is misplaced in the age of suburban subdivisions, condominiums or "ramshackle apartment buildings and housing projects." "There is only one problem with [their] campaigns for community. In real life, most Americans no longer live in traditional communities."

Strategies: Wealth or Survival?

Reich gives the nod to the "predictive failure of all prediction," but in noting current trends he is still pessimistic about the welfare of the nation should we fail to devote resources to the broad population. Although his sense of the environment is limited to the observation that whereas poorer peoples are often willing to trade environmental quality for wealth, the already-wealthy prefer to have it both ways, Reich's prescription for national economic policy, if applied at the local level, could strengthen communities whose welfare and long-term prospects depend on forests, fields or fisheries.

Reich's call for action amounts: to 1) investing in our communal infrastructure 2) training and educating our people, and 3) concentrating economic activity on the adding of value.

Components of a wise strategy would include investing in the wealth-creating capacities of citizens rather than "merely creat[ing] income-producing assets around the globe;" investing moreover in those "factors of production which are unique to the nation" [region? community?]; recognizing that return on investment in people is rising relative to investment in capital; curbing present consumption so as to have the resources to invest in "unique resources."

Readers of the *Northern Forest Forum* may recognize the themes. Where Reich, the urban thinker, sees a fracturing and disconnected society in need of a unifying sense of purpose without falling prey to the usual need

Maine Paper Industry Changes by Year 1985-1993

Year	Employees	Paper Machines	Capacity	Locations	Acreage Owned
1985	19,048	77	11,240	26	6,121,026
1986	18,814	76	11,264	26	6,054,026
1987	18,292	70	11,518	26	6,165,000
1988	18,182	69	11,553	26	6,151,000
1989	18,256	69	11,553	26	5,967,745
1990	17,934	65	11,347	25	6,134,000
1991	18,007	65	10,807	25	6,117,891
1992	16,483	65	12,177	23	6,115,358
1993	15,936	63	12,050	23	6,115,358
Total Change	-3,112	-14	810	-3	-5,668
Percent Change	-16.3%	-18%	7%	-12%	-0.1%

Note: "Year" refers to status as of January. Thus it should really be taken as a representing status of company up to end of previous year.

"Employees" refers to workers in pulp, paper, and other mills, as well as forestry staff.

"Capacity" is measured in tons/day.

"Location" refers to pulp, paper, and other mills (i.e., stud/lumbermills, chip plants, container facilities, and oriented strand board facilities).

(Compiled by Mitch Lansky)

for an enemy, the environmentalist, whether looking at small towns, forests or agriculture, already knows from the heart what can alone supply that need. What Reich senses, the communitarian has identified: the need for "social ecology," a re-building of community.

Readers of the *Forum* will be familiar with the idea of wilderness, forest and community as "infrastructure," particularly their role in what Claire L. Barnett terms the "moral economy" of community service ("*Hamlet Stewardship in the Adirondack Park*", *Winter Solstice 1993*, p.24). The environmental argument with development and the growth philosophy has an economic perspective: soil loss, clearcuts and mall-sprawl are all a taking from the common wealth. This trade is not necessary and in the long term it endangers our security; in the short term it has directed our cultural attention inward, to the strictly material and man-made; the mall has replaced nature, inspiring us to consume rather than communicate. In environmentalism, then, economics and the spirit forge some identity. . .

Investing in our natural systems rather than trading them away requires a sense of what is unique in our cultural circumstances. Newcomers to Vermont are often surprised by the Main Street phenomenon: the cultural focus in many towns is no longer on the farm or forest. While the importance of these resources to the tourist trade are a matter of cliché, the logger, woodworker or farmer is not viewed as a linchpin to the future, and land is viewed as fuel to stoke the fires of prosperity.

People from areas where this exchange has already been made are often painfully aware of the values that inhere in the landscape and community. That they may be lost is evident in the communities of the Northern Forest. A vocational instructor in Vermont's Northeast Kingdom once observed to me that he feels he is in a third world country, the resource base run down and the kids out of touch with what was best from their past, more attuned to MTV than what is in their backyards.

Our approach to developing tourism runs at cross-purposes with what makes New England attractive to the tourist. We now serve lobster on

degraded strips of highway. We build malls to sell items in a cow motif. Our arts and crafts are becoming hollow icons of a diminished natural heritage.

The problem in our approach is partly geographic. Portland in Maine, Burlington and Plattsburgh in the Champlain Valley are areas of concentrated growth; benefits and detriment percolate to the rest of the region. We need to focus on ways that small towns can, with their own resources, develop independent and unique approaches to participating in the wider economy.

Our small towns—whether Berlin, St. Johnsbury or Elizabethtown—could be equally dynamic and attractive if we sought to: 1) protect the forests surrounding such towns for the entire range of forest values; 2) direct investment dollars to the enhancement of existing and unique businesses, architecture and cultural facilities that are at the heart of rural character, and 3) create the trail networks that would foster region-wide, non-vehicular tourism.

Two annual events in the Northern Forest are illustrative of the current appetite for non-generic experience but also indicate the inadequacy of infrastructure. The Common Ground fair in Maine and the Bread and Puppet Theatre in Vermont attract hordes that come close to overwhelming surrounding facilities, including lakes and camp grounds.

What brings people to the events must have a great deal to do with the pleasure of an entertainment grounded in something democratic, earth-centric and cheap. What is unfortunate is that this is so rare that they must be spectacle, and that merely getting to them becomes an act of consumption in itself. Given the demand however, the Northern Forest region should facilitate supply. More public land would help, as would more widespread education throughout the region in both the vocational and useless arts.

Log Exports

Respondents to the Northern Forest Lands Council have been more divergent in their attitudes toward log exports than toward reserves. Companies finding the export market a ready source of cash are not in favor of seeing their access to it curtailed, what-

ever form exports may take. Adherents of domestic value-added industry and curbed demand on forests overall unite in seeing exports as an unjustified drain. Free traders argue that curbing exports invites other nations to block imports of our finished goods.

To apply Reich's strategy of Investment, Training and Adding of Value to the question of exports, as they impact domestic industry and forest health alike, it would seem wise to start by banning outright those exports which detract from the future value of both.

Certain farmers used to say that "nothing leaves the farm except it flies or walks;" that is, has had value added. Sawlogs are an advance over chips; sawlogs that have reached their potential diameter are a further advance. But the greatest shift required is from volume to value.

Educational efforts are too often focused on producing a better drill press operator. They might be directed to training whole individuals, multi-lingual, alive to their environs, awake to their talents. The collective efforts of such people could be put to use in the northern forest in fashioning a native response to the global market without putting our environment at risk. We need 1000 producers of 10,000 quality goods rather than a few large scale producers paying low wages for mass production.

While progressive taxation is one way to level wages, implicit in Reich's analysis is the strategy of enabling producing, natural resource regions to capture more wealth by adding value rather than selling commodities. Subdividing wilderness accomplishes wealth by selling capital; we would be better off preserving the environment for all of society, rich or poor, but fostering a high-value production mentality.

Do we lack money for broad-based investment efforts? If so, we might look to duties on *all* exported natural resources as a means of directing investment capital back to the communities which lack the capacity to add value.

Some would compare this to funding health care off the taxing of cigarettes; taxes that seek to generate revenue rather than dampen demand do not alleviate the underlying problem. With

exports, the problem is threefold: weakness of domestic industry; vitiating of society; overharvesting. To the extent exports will be a fact of life, we might as well ban the worst of them outright, introduce initiatives to add value, whether through manufacturing or long-rotation forestry, and use duty revenues to build the educational and social structure that our communities require.

But let's not get hung up on how a crying need gets funded. Whether through progressive taxation or other means, more resources must be invested in our future. As Reich points out, making corporations or other holders of capital the object of our efforts is yesterday's strategy. Our chief asset being people, we must make a comprehensive assessment of what people require. Key to our health is connection with the environment.

Conclusion

One problem with any attempt to meld a mainstream economic analysis with ecologic and communitarian perspectives is that at the profoundest level the two are at variance. Does GNP measure wealth or cost? Is civilization more than consumption? What kind of lives do we wish to lead? In dismissing the mainstream thinkers, the environmental educator David Orr has noted that ". . . they will be engaged by events on the ramparts of crumbling paradigms" while remaining inattentive to the fundamentals, ethical and physical, that marginalize their concerns.

The environmental conclusion is that fundamental, cultural realignments must take place. The Main Street philosophy must be turned about, society re-rooting itself, becoming native to the places it squats. Sustainability and all that it implies is more than an option; it is a necessity that must be taken up sooner or later.

A mainstream analysis such as Reich's is of value, however, when it makes an honest assessment of the economy and in so doing finds at the heart of our situation an ethical demand. That Reich acknowledges his perplexity at what it is that might supply the moral energy society requires is a good opening. In so doing he indicates the broad area that environmentalism can inform the mainstream of economic thought.

Employment Changes by Paper Companies in Maine 1985-1993

Company	1985	1993	Change	% Change
Boise-Cascade	1,750	1,600	-150	-8.5%
Champion International	1,125	1,366	241	21.4%
Eastern Fine Paper	500	450	-50	-10%
Fraser Paper Ltd.	1,100	1,100	0	0%
Georgia-Pacific	1,065	694	-371	-34.8%
GNP (now Bowater)	4,000	2,067	-1933	-48.3%
International Paper	1,700	1,878	178	10.4%
James River	918	918	0	0%
James River-Otis	250	301	51	20.4%
Keyes Fibre	950	652	-298	-31.4%
Lincoln Pulp & Paper	600	530	-70	-11.7%
Madison Paper	375	307	-68	-18.1%
Pejepscot Paper	330	0	-330	-100%
Scott Paper	750	498	-252	-33.6%
S.D. Warren (Scott)	2,550	2,900	350	13.7%
Satler Tissue	600	600	0	0%
USG-Wood Fiber (IP)	170	170	0	0%
Yorktowne Paper	75	75	0	0%

Note: Several of these companies changed hands during the period in question.

(Compiled by Mitch Lansky)

Vermont Study Debunks Myths About Land Conservation & Property Taxes

[Ed. Note: Vermont Land Trust has just released a study entitled, "The Effect of Land Conservation on Property Tax Bills in Six Vermont Towns." Critical findings include:

*"The perception that conservation raises tax bills in both the long term and short term is exaggerated;"

*"It is generally true in Vermont that residences in towns with the most development have higher, rather than lower, tax bills;"

VLT notes: "The conclusion of the report is not that towns should discourage growth and development. Rather, towns should make decisions about where development and conservation take place based on their goals and vision for the future of their communities, rather than on perceptions of property tax impact."

The Forum is pleased to present the "Executive Summary" of this important study. For a copy of the full report, contact VLT, 8 Bailey Avenue, Montpelier, VT 05602 (tel. 802 223-5234).]

Purpose and Scope

The purpose of this report is to look at what happens to the property tax bills of residents in six Vermont towns when land is permanently protected through various conservation options. The six towns were chosen to represent different mixes of agricultural property, vaca-

tion property, and residential property. They are: East Montpelier, Londonderry, Orwell, Rupert, Tinmouth, and Weston.

In each of the six towns, the town plan sets out goals for conservation; residents want to keep some land in agriculture or forest to protect the rural character, the quality of life, the economy, recreation opportunities, and critical natural resources. However, citizens are often concerned that taking action to achieve these goals by permanently protecting land may result in unsupportably high property tax bills for other taxpayers in town for two reasons:

*In the **short term**, most land protection measures result in land value being removed from the tax rolls and the taxes must be shifted to other taxpayers; and

*In the **long term**, permanently protected land cannot be developed into something which would pay more taxes than open land—such as a commercial enterprise—which would help reduce tax bills.

Summary of Findings

The **short-term** tax shift caused by each conservation option studied (federal ownership, state ownership, municipal ownership, ownership by a conservation organization, and conservation easement) varies from town to town depending on the grand list, the budget approved by the voters, and the value of

protected land.

The most expensive option is municipal ownership, because the town does not receive any offsetting payments. However, the amount that other tax bills would rise due to municipal ownership is less than most people would guess. The increase in property taxes on the house of average value due to municipal ownership of 200 acres would range from \$6.19 in Rupert to \$0.44 in Orwell.

There was little if any reduction in value due to the easements in the six study towns. However, several listers indicated they did not have experience or guidance valuing land subject to conservation easements. To show what may be a "worse case scenario" from the point of view of other property taxpayers in town, this analysis assumes there would be some reduction due to an easement. As a result, the calculations in this report show a greater tax shift than is presently occurring.

Protection through a conservation easement results in less tax shift than fee simple acquisition by the town, state, or federal government. The increase in property taxes on the house of average value due to a conservation easement on 200 acres would range from \$0.77 in Rupert to \$0.04 in Orwell. While there may be instances in which fee simple acquisition may be the best way to meet the town's goals—

such as providing a public beach or protecting an area from any type of human use or management—for many sites, easements can be the most cost effective way to meet the town's conservation goals.

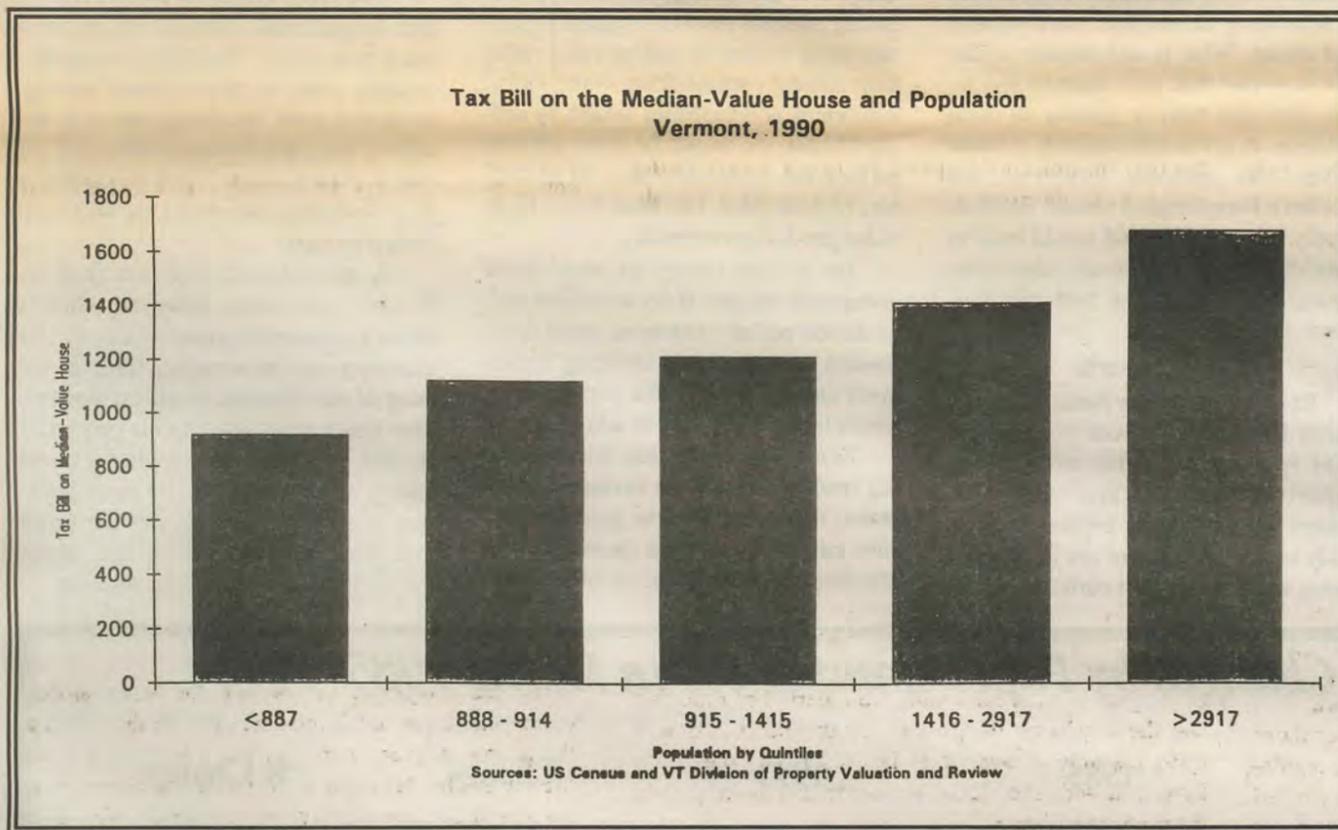
On average, 100 acres per town per year had been protected through private conservation in the last 16 years in the six study towns. In the future, the rate of private conservation is likely to decrease in some towns, such as Orwell, in which there has been substantial activity in the past; the rate of private conservation is likely to increase in other towns, such as Weston, in which conservation activity is just beginning. To give some idea of the cumulative effect of possible future conservation efforts undertaken by the year 2000, the tax consequence of protecting 700 new acres was calculated for each town.¹ The increase in the tax bill on the average-value house due to this additional conservation would range from \$0.16 in Orwell to \$2.70 in Rupert.

In the **long term**, permanent conservation projects limit the potential for swelling the town's tax base through development. However, limiting the development potential of a parcel also limits its potential to increase the budget. It is generally true in Vermont that the towns with the most development have higher rather than lower tax bills. There are several explanations for this:

open land pays more in taxes than it costs the town in services while the opposite is true for residences; commercial and industrial developments, although they also pay more in taxes than they directly cost the town to service, create jobs and people move in to fill the jobs; and, larger towns have more services and larger budgets.

The conclusion of the report is not that towns should discourage growth and development. Rather, townspeople should make decisions about where development and conservation take place based on their goals and vision for the future of their communities—not on perceptions of property tax impacts.

¹The calculation is based on an estimate of 100 new acres per year protected through conservation easements in each town. The acreage is not based on any knowledge of possible conservation projects; it is a reasonable estimate of the rate of conservation which might occur, on average, in a town in which there was interest in conservation.



Atlantic Salmon Petition Nets Study Under Endangered Species Act

On January 21, 1994, the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) announced that the petition to list the anadromous Atlantic salmon under the Endangered Species Act had merit. This action will initiate a joint study by the FWS and NMFS to determine if the salmon should be listed as threatened or endangered.

The petition was filed on October 1, 1993 by RESTORE: The North Woods, the Biodiversity Legal Foundation, and Jeffrey Elliott and calls for the protection of the Atlantic salmon throughout its U.S. range—from the Connecticut River to the St. Croix River on the Canadian border. There were

once over 500,000 Atlantic salmon in the United States. Today, less than 3,500 are returning.

According to the agencies, "The petition introduces information on current and historical Atlantic salmon populations, identifies possible threats, and cites numerous scientific articles. Based on review of the petition and other available data, the agencies believe listing may be warranted and will now begin a thorough review of all pertinent information. A decision on whether to initiate listing procedures will be made by October 1994."

"This is a major step in obtaining protection for the Atlantic salmon here in New England" said David Carle,

Associate Executive Director of RESTORE. "This should now initiate the first ever comprehensive study of the status of Atlantic salmon here in the United States. And, hopefully, protection will be gained before the species goes extinct here in New England."

Anadromous Atlantic salmon spend the early portions of their lives in fresh water before migrating to salt water. As adults, they return to freshwater rivers to spawn. The species was once considered abundant in many New England rivers, but due to dams, pollution, and overfishing the species is now on the verge of extinction in the U.S.

"Atlantic salmon are one of the wonders of our northeast rivers," said

Mollie Beattie, director of the FWS. "We will seek information from all those who care about the salmon before we decide whether this species should be proposed for protection under the Endangered Species Act."

To ensure that the review of the species' status is complete and based on the best available data, we need you to send comments and concerns about the anadromous Atlantic salmon to the FWS. Please send comments to:

Ron Lambertson, Regional Director, U.S.FWS
300 Westgate Center Drive
Hadley, MA 01035-9589.

Grassroots Citizen Participation: The Connecticut River Experience

An Interview With Sharon Francis

As we begin to think about "life after the NFL Council," we must address a basic question: how can stakeholders of the Northern Forest work together to establish sustainable natural and human communities? A model for grassroots citizen participation and responsible action exists in this region: the Joint River Commissions (JRC) of Vermont and New Hampshire.

Sharon Francis, Executive Director of the JRC, has had a long and fascinating career in conservation at many levels of government and the grassroots, from the White House to Connecticut River living rooms. The Forum is pleased to present this interview with Ms. Francis, and we hope it helps to stimulate productive discussion about establishing Northern Forest watershed-based citizen councils designed to shape the future of a region that has been powerless to shape its own destiny for too long.

—Jamie Sayen

Jamie Sayen (JS): Tell me a little about your background. How did you get here and why?

Sharon Francis (SF): I've been working in conservation all my life. It started a long time ago out in Seattle where I was a mountain climber and got interested in the forestry and wilderness issues and the establishment of North Cascades National Park.

I went east to college and majored in political science because I felt the conservation movement needed political science; it needed to know how to get its objectives to happen in the political system. I worked in Washington, and enjoyed it very much. I did some very interesting things there but never got into the syndrome that so many people in that city do get into, which is thinking that you have all the answers to everything and all the solutions for everything. The more people around me behaved that way, the more I longed to get out in the real world, to the grassroots where I'm a lot more comfortable.

When we were still in Washington, my husband and I had the extraordinary opportunity to buy this place—Sky Farm in Charlestown in 1969. 300 acres with this old house which we put a lot of sweat equity into over the years.

This land and the forests and the fact that the property is a watershed and is the headwaters of the town water supply and the wonderful views really caught us in the way lovers can get caught, and lovers of land got caught here. So we bought it, and then we figured out how it might fit into our lives afterwards. We began to get shaped by our place and began to try to move toward it. Our first stop was Boston. We were there for a few years. I did some work for EPA, and then we moved up here.

I initially commuted back to Washington to the EPA where I was head of "Public Participation." That is a consistent thread in my life because what I was doing was teaching the agencies how to work with civilians, how to work with the beneficiaries or those who were being affected by their decisions and regulations. While the commuting was not my preferred lifestyle, nevertheless it was just a moment where it was an outstanding opportunity to get some good things done in the federal government on behalf of those who are on the outside who need better chances to communicate with the federal government.

And then I began to settle in here more and look for things to do. I've been a mountain person all my life. I haven't been a river person, and so when I go to nature I go to the mountains. I've sat here and looked for thousands of hours at Mt. Ascutney and been nearly oblivious to the Connecticut River. It took a while for the Connecticut River to sink in to me. But the more I got to know this area, the more I got interested in that great feature which shapes our environment. It's the reason for the communities that are here, the lifestyles, the agricultural heritage and the rationale of this whole area is because of that river.

So when I heard that the New Hampshire Connecticut River Commission was looking for somebody to do some work for them, I jumped for it. This commission had been set up by the state legislature in



1987—15 people, some designated, some appointed by the governor, to preserve and protect the resources of the Connecticut River Valley and work with the State of Vermont. In 1988 a sister commission in Vermont was set up to do the same. I began working for the New Hampshire Commission in 1988, and in 1989 we decided to invite the Vermont Commission to a meeting and talk about what we might do jointly. And everybody said, "Let's have a conference. Let's start off by finding out what the public would like as our agenda."

We had a conference in November 1989—"Agenda for the Year 2000." A good occasion. Lots of ideas, lots of recommendations. It's no surprise, but clearly there's a constituency behind this cooperative effort. These bills wouldn't have even gotten to the state legislatures, let alone passed, if there hadn't been a constituency. Out of the conference has flowed a significant agenda. We're doing a lot of very interesting things. Sometimes I spend so many hours being involved in the river I don't even see the mountain anymore.

JS: Tell me about the charge you got from the conference and how you followed that up. I'm especially interested in the public participation aspect. When is it appropriate for the government to do something? When is it appropriate for private citizens? When is it appropriate for the two to collaborate? How can we have more independent activity without simply passively waiting for the government to come along and fix what may or may not be broken?

SF: This is an interesting evolution for me because I've certainly spent a number of years working for "the government" to care for the natural resources on behalf of the people. And for a significant period of time that was the way to get things done. At this point in time, I think it's only an avenue of last resort and one to be looked at with skepticism as to whether its impact is the preferred avenue.

I guess we should see it as an extremely healthy development of the time we live in that there is so much more recognition of individual responsibility and not this automatic turning to: "There's a problem. Talk to your congressman. He writes a law, his buddies pass it, and whiz, now you don't have a problem any more." Well, it never did solve the problems, and now we're bypassing that foolishness and just going to our neighbors and saying, "We'd better work out this problem because we share it."

Here in the river valley, as people told us what they wanted to have done, they certainly had a very high degree of interest in water quality and in the river itself.

We sent out a survey early on to riverfront landowners because, while we felt everybody in the valley is important, the people who live right on the Connecticut River have a unique importance. They are impacted by that river, and they impact that river. They're at the edge. We wanted to know how they felt,

and we wanted to early establish communication and a two-way working relationship with them. We were surprised when they told us that bank erosion was the problem they were most cognizant of in relation to the Connecticut River. There was also a lot of concern about boat speeds and about raising and lowering water levels. This river is a managed river. It's part of the New England power system. It is really more a series of interconnected lakes than it is a river in the sense it once was.

Another element felt strongly at that conference and expressed strongly was not only the recognition of the potential importance of this river for recreation, but also for tourism. We have here the kind of landscape, the kind of place, that people buy \$800 airplane tickets to go abroad to find. We have here what might, from a tourist's point of view, be called unspoiled. We haven't begun to capitalize on what tourism might mean to our area.

It's one of those things that needs to be done thoughtfully, needs to be done carefully, because tourism can bite you too. We don't want honky-tonk billboards and cheap tourist claptrap. We've got some of that in the Mt. Washington Valley. I think tourism, while it has some wonderful potential for us, is something that this area needs to go into with its eyes open and with a lot of mutual approaches to it. We really need to have a valley-wide rationale and a valley-wide approach.

Think about maple syrup—Vermont maple syrup. You just stick that word "Vermont" in there and everyone knows what you mean. It's just this essence of quality that is uncompromised. The reason for that is the producers have gotten together, and they've set standards; they've argued, fought, debated, agreed, and now they have an industry-wide standard. I think to do something like tourism, which is risky, but to do it well, and to do it in a way that keeps that essential Connecticut Valley quality, is going to take that kind of cooperative approach.

In a lot of parts of the country, people who are working on behalf of rivers, are in various stages of planning for creating greenways, green, recreation trail corridors along rivers, particularly rivers that are fairly near metropolitan and urban areas. As we have been working with people in this valley, that idea, by and large, hasn't been appealing for several reasons. One is it presupposes that you're going to have a narrow corridor and then what happens in the rest of the valley? I think there is much more of a preference here for having our whole valley green, not just a narrow corridor.

Early on, we put greenway on our agenda. We've taken that off our agenda, because it's just unpopular with some folks who see it as a potential land-taking, which certainly doesn't need to happen, and it's a battle that we have no thirst for whatsoever. We decided that rather than master planning this valley and developing a grand design and having all the answers, it was pretty clear to these 30 commissioners, and no problem to me, that the people who were in the best position to define and shape and develop a future for the valley are the people in every community, the landowners along the river. Our best role is to be catalysts, to set the stage and the opportunity for that local wisdom and expertise to come forth.

In 1991 a number of people were interested in nominating the Connecticut River into the NH Rivers Management and Protection Program. There was sentiment for nominating a segment around Hanover-Norwich; there was talk of some other segments. We said, no, we will sponsor nomination of the whole river, and we will organize it in a way that every town can be represented in designing the nomination, and we'll support what the groups come up with, and we'll carry it forward to the legislature, which is what we did.

I think it was just perfect proof of the wisdom of the people in this valley for how they wanted the river characterized and the uses they saw occurring in the future of the river. There were some debates, some arguments, and there was a proposed landfill along the river in North Stratford that got zapped by the nomination. There was a question whether Pittsburg would participate at all in the nomination. But in the process

those issues got resolved with a lot of discussion. And the legislature acted. The Connecticut River is in the state rivers program.

What does that mean? In one sense it means very little. But it means more empowerment for people along the river. We were designated the local river management advisory committee under the law, to do two things: review permits that affect the river and develop a corridor management plan. We said we don't want to do this alone; we want local people involved too. So we asked the legislature to authorize us to establish five subcommittees, which we have done.

We've gone up to the selectmen of every community, asked them to nominate people. These five subcommittees have been meeting now for a year. They are bi-state committees. Not only has the NH legislature authorized Vermonters to serve in an advisory capacity to this New Hampshire body, but the Vermont legislature authorized its people to serve in an advisory capacity. It's just extraordinary to see the wheels of government fine-tuned so we can all get together and do what we want to do anyway. There are about 125 people represented.

There are a few communities that haven't yet quite figured out that they want to nominate, and they are a little bit skeptical. Last week I heard from one of them—Dummerstown, Vermont, one of the selectmen himself is going to be on the committee. As the press picks up stories of things the groups are doing, the word's getting around that this is OK and that it's potentially pretty good.

JS: Could you describe the evolution of this process? It seems to me that whenever you approach Northern Forest communities with something new, especially something that pertains to the environment, the initial reaction of some is: "We don't want it; we don't need it, and we're going to fight it." On the assumption that you get a fair amount of that sort of response, how do you avoid capitulating to them or having the thing break down to a polarized shouting match that we never get beyond?

SF: Earlier I mentioned we did a questionnaire of riverfront landowners. On the basis of that we were able to see community by community where public opinion lay about the river and stewardship for the river, including the town of Pittsburg where there are riverfront landowners who feel it's important to safeguard the river. Also, because of the very sensitivity you mention, both commissions went up to Pittsburg in 1989 before the nominating process. Betty Falton, a member of the Planning Board, said she'd do an evening. Of the 30 commissioners, maybe 10-15 were there, and an equal number of people from the community.

We went to talk about the river, to learn about local feelings, to learn how people felt about the future of the area. It was important to open dialogue, so it would be clear to people there that we were taking them seriously. We also wanted to work with them. We weren't trying to impose an agenda. We were trying to find a process whereby we could work together. I think we have a basis of communication and good will, and it's pretty clear we're not going to tell anybody in the North Country what to do or how to do it.

The JRC will be working for the river and for stewardship of the river, and setting up the process to help that stewardship develop and flourish. We will raise money to support it and whatever else we have to do. I think basically it's been a matter of trust and good will and the fact that we haven't had a divergent agenda. Our agenda has been stewardship, and that's the agenda of everybody. We're not trying to say who should do the stewardship. The more it is done by property owners, the better, absolutely the better.

Since the Agenda for the Year 2000 conference we have kept the congressional delegation informed of what we were doing, really all the major steps along the way. Early on we got a signal from Senators Leahy and Rudman, both serving on the appropriations committee, that they would support our agenda.

To reinforce grassroots involvement, and to maintain our position of facilitating, rather than directing, things that happen in the valley, we asked the Senators to support an appropriation, now in its third year, which we call "Partnership Program." It is federal

funding that comes through the National Park Service, no strings attached. It enables us to make awards for local projects. This year we will put particular emphasis on projects that support tourism, protect shorelines and establish trails. We give these awards in amounts of \$500 to \$5000 for local projects.

There have been some extremely nice things that have been done through the "Partnership Program." In the agricultural area, last year, we supported a feasibility study for a cut flower cooperative. I think they are now going to be able to set up a cooperative. They know the parameters; they know how to define it, and how to make it operate.

We did another one on how to improve milk production from goats. Vermont Better Cheese Company and other cheese companies use goat's milk for chevre and other cheeses. They cannot get enough local milk and are buying goat's milk from Ohio and Pennsylvania. Some of the goat farmers in this area have figured out through feed management how to keep milk production all year round rather than having periods where they aren't producing. They are trying to adapt those techniques more widely to the goat population.

These projects are small gems that add up.

JS: And also build trust and hopefully inspire imaginative ideas from other folks in the community.

SF: I'm very, very pleased with this program and hope it can continue.

JS: What is the future of agriculture in the Connecticut River Valley?

SF: The Connecticut River Valley has had a couple of generations of very successful dairy farming now, and due to national trends and technological development, the economy is in a transition where fewer farms and fewer cows are going to produce the milk. For those farmers who aren't going to be part of that sustained economically viable milk production, the big question hanging out there is: What's going to happen to them? What's going to happen to their land? Is it going to go into subdivisions? Are they going to drift away? Or are there agricultural alternatives for them?

It's partly because of that question that we got into doing this agricultural marketing conference in January. We will be spending time for the foreseeable future on issues of agricultural marketing, to try to assist the agricultural community make that transition out of those sectors that are no longer profitable and into sectors that can and ought to be profitable, given how relatively close we are to major markets.

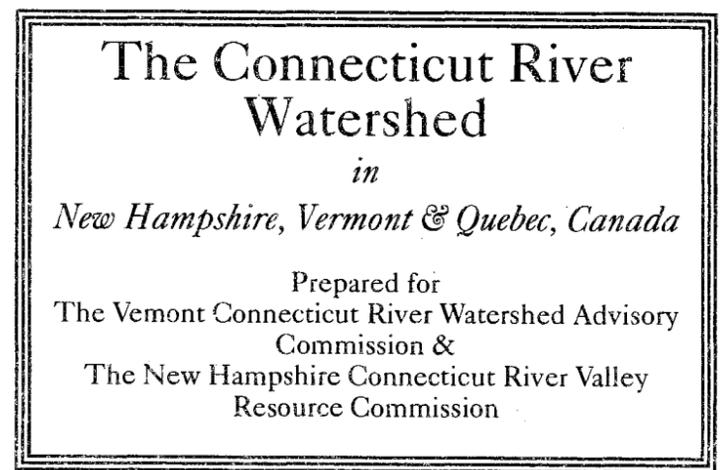
JS: What kinds of products would be profitable?

SF: Fruits, vegetables, flowers, greenhouse flowers, perennials. But it's going to take a lot of shifting of skills. It's going to take investments in packaging facilities, cooling facilities that aren't in existence right now. The conference addressed processing and distribution, financing, marketing skills and strategy. If we are successful in setting up a better marketing infrastructure for the valley as a whole, it's going to benefit the valley as a whole. If we can set up an infrastructure that then supports the individual farmers, it may make it easier for individual farmers to take the risk of that investment.

JS: The problem of most of our Coos County farmers who have made the shift is markets. They could produce a lot more—maple sugar, fruit and vegetables, wool, etc.—but they can't sell the stuff. They don't have the markets, the skills to market, the time. They were limited by what they could sell.

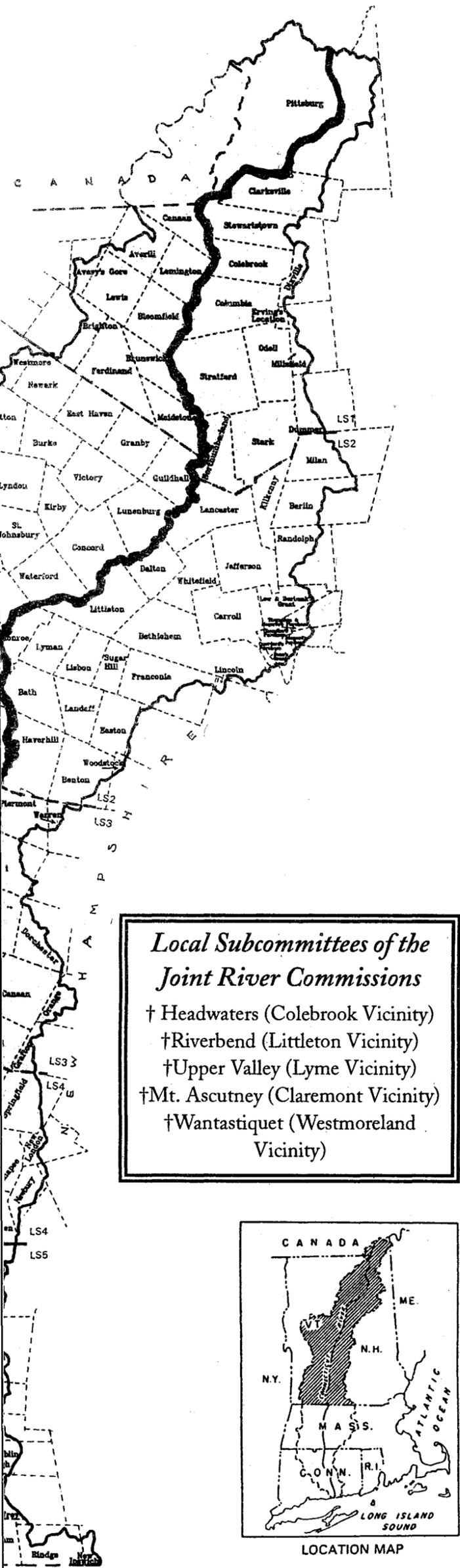
SF: George Moulton, Chairman of the NH Connecticut River Valley Resource Commission, said at the agricultural marketing conference, our society markets to sell deodorant, medicine, clothes, running shoes; we might as well recognize we have got to market to sell food.

JS: Is there any thought of integrating recreation and tourism? One of the marketing ploys that might work would be to appeal to tourists who come for a quality



experience, rather than just a McDonalds in another state. Sell tourists homemade jams, maple syrup. How much marketing can we direct at folks who are coming here for other reasons—to climb Ascutney, to paddle the Connecticut River?

SF: Lots. One of the sessions at the conference was on agri-tourism. A couple of people who have a bed and breakfast on a working farm participated. There are just all kinds of really, really nice things that can be



JS: How did you deal with the real negative response to the Commission in the early days. Could we expand this to consider the upcoming Northern Forest Lands Council "Listening Sessions" in April and the fact that some will say that any of these cooperatives you are talking about are "central planning" and communism and un-American and a taking and a violation of independence and property rights and all the rest. How have you dealt with this?

SF: We've been able to sidestep this issue and work on things that aren't so much a matter of up-or-down, yes-or-no choice. So our jury is out a good bit more. But we joined the issue on nominating the river into the New Hampshire Rivers Management and Protection Program. When you tell members of the legislature that you've had over 300 people involved in 39 public meetings and this is the overwhelming consensus that's come out of that process, then when they hear from one senator or representative who's opposed, that person's objections are in the context of a lot of support. I think it wasn't so much that we engaged in mortal combat with people who felt differently, but we worked long, hard, and very fairly with people who were of a mind that this was not threatening and would be good for the river and would be really beneficial for communities.

A little politics came into play, there's no question, because when opponents were contacting members of the legislature in opposition to the nomination, Crow Dickenson, who chairs the House Recreation, Resources and Development Committee told them they really could have their choice, either the Connecticut River went into this rivers program that establishes a planning process on the part of local people for the river corridor, or don't put it in the rivers program. But then the State Shoreline Protection law would apply, and it sets strict standards—150 foot setbacks and that's it. So what do you want? You call the shots. Do you want some flexibility? Do you want your communities to have a say? Then you want the rivers program.

JS: I've found, at least in part, because of the NFLC, that individuals and constituencies that three or four years ago were incapable of communicating, specifically the timber industry and the no-compromise environmentalists, have found ways of communicating. We still have sharp differences on many very critical issues, but we have found some common ground, and we've found the process has helped to de-mystify the other side. It's very easy to hate you as long as I don't know you, but after we got to know each other we really couldn't demonize each other and we really didn't have much interest in doing it. I'd rather fight them hard on areas of substance.

SF: And that's why these local subcommittees are so important. Like any group of people they have all their start-up problems, jockeying for leadership, finding their way, one step forward and two steps back. I have a wonderful helper, Adair Mulligan, who works with the subcommittees. She facilitates them and helps them become more self-sufficient. The dialogue is wonderful. It's very, very important. People are coming back for it and when I see the Vermont selectman deciding now a year later that he wants his community to get on board, it's because he's heard that this outfit is straight and it's for real, and he wants to be part of it.

JS: You say you're not trying to impose an agenda on the Connecticut River communities, but you must have a vision of what kind of a river watershed community you'd like to live in and bequeath to future generations.

SF: I think it would be not unlike it is now. I'd like it to be economically stronger than it is now. I'd like a better job of environmental protection. We're pretty darn good, but some of that is by accident, rather than by design, and I think we need a little more conscious decision about some of our environmental protection. I'd certainly like the economy to be stronger. This is not a very secure place economically, particularly for young people who grow up and feel they cannot come back into the community. It ought to be possible for all the kids to see an economic ladder, or lots of ladders they can get onto in this area.

I certainly don't want to see this area urbanized. I don't want to see it suburbanized. I don't want to see it taken over, whether by large corporate takeovers or federal government takeover. I think it would be alien and destructive to be peons in some larger scheme of things. One of the things that concerns me about our forest resources is local companies that were fairly self-sufficient, have been bought out and are now subject to the problems of the international timber economy which are, I think, frightening for an area such as this one.

The NFLC is absolutely crucial for helping the people of this area, the region and the states get on top of that issue before it is pulled out from under them.

What do people want from life? They want good opportunities for their kids, a nice place to live, a wholesome environment around them, enough cash in the pocket to have a good time every now and then. We've got beauty, we've got what people take vacations to go find because where they live has been messed up. We've got a great asset that hasn't been messed up. If we can build on that a bit more and safeguard it a bit better and don't take it for granted, but become a little more aware of what it means to be in an unspoiled place, profit from it a little bit more, then the next generation could really feel good about it.

I don't know enough about what the thinking is on how the Council's recommendations will be followed up and pursued, but I think these next six months are going to be the most important time of all. People may have thought the most important element was influencing the recommendations. That wasn't the job. That was the first opening discussion. The Council is going to go away. It isn't going to live long enough to see those recommendations come into being. And so, it's how people organize to back up important recommendations and move them forward, that's the challenge. A big, big challenge.

JS: To the degree that you're going to be part of this process, what sort of things would you recommend and what sort of things would you like to participate in, in terms of organizing the follow-up.

SF: We want to see how the recommendations come out. What kind of a picture gets painted by the Council to know then where we would want to move. There is no question but what the interface between the Northern Forest and the waters that arise in those Northern Forests is going to be a lot of interest to us. We're going to want to follow through on the kinds of recommendations and the aspects of the agenda that are going to be sensitive to that forest-river-lake relationship. And we are going to want to see commitments for a healthy forest in the interests of healthy waters, because if we don't have healthy forests adjacent to our waters, it's sort of pulling the zipper on all the rivers as they go downstream. That's not in anybody's interest, so that part of the agenda will be of interest to the JRC.

JS: Specifically, forest practices?

SF: Yes. And how the land is treated adjacent to rivers and waterways. There are some nice opportunities. Maybe the Conte Refuge can dovetail with shoreline protection that relates to the Northern Forests as well as the other shore areas in the watershed.

JS: So you see the Conte as a kind of test case that could have very useful applications on other rivers in the Northern Forest area?

SF: Yes, as a mechanism for other rivers in the Northern Forest area, but also for the Connecticut River watershed, for safeguarding those habitat areas, shore areas. I've been interested in watching the debate in the Pacific Northwest over the forests and the salmon. There is a case there where logging practices have really decimated soils and therefore silted rivers and therefore destroyed salmon spawning habitat, and the ability of salmon to get upstream far enough to be able to spawn.

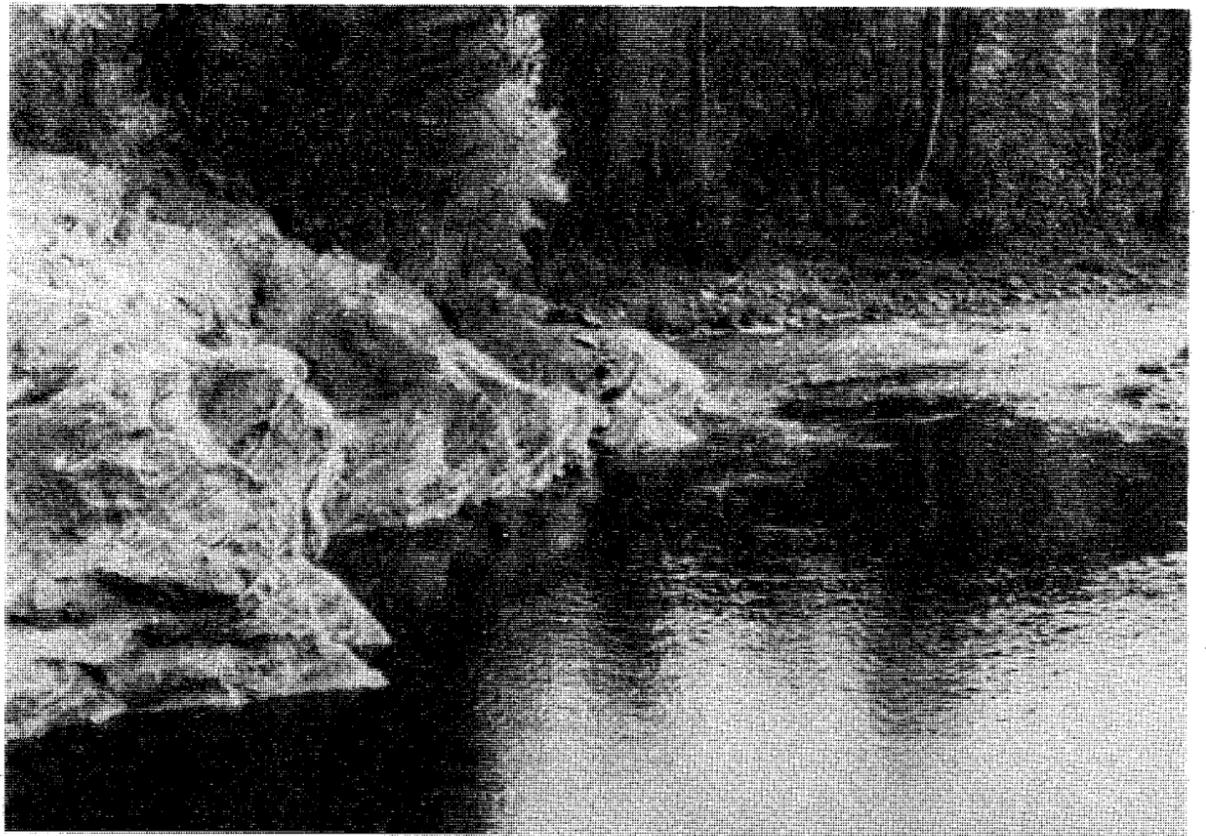
There's been such widespread damage that, in river system after river system, its indigenous species of salmon is now threatened or endangered. Its other

done with it, from adopting an animal, B&B, kids petting zoos. The farm can also have river trips or a picnic area. It takes a farm family that has someone who can pay attention to that part of the operation. To do tourism requires a certain kind of personality. If you only like to talk to cabbages and cows, and not people, you don't want to be in farm tourism. But maybe there is someone in the family who just loves talking with people, and that 10-15% on top of your annual income may be the profit of the year. It's not to be sneezed at.

things too; it's certainly impoundments and dams and expansion of livestock grazing areas and forest practices. But in the Northwest they're really at the point of choice. Are we going to have traditional forest practices, or are we going to have salmon? That's the choice that's being hammered out there right now.

Here in the Northeast, we're in a slightly different position. We're not as far into forest degradation. But ten years from now or 25 years from now, if current practices continue, the stakes could be a lot higher in terms of other elements of the natural ecosystem. And thus I think the NFLC report at this point in time is not a moment too soon to begin to get some recommendations to look at those other questions as well as the always very critical forest economy questions.

There are a lot of dilemmas involved, a lot of hard choices involved and interestingly, even though the NFLC members are very important and have done a Herculean job in dealing with many, many difficult issues, and even though the landowners are obviously central players to what happens, I don't underestimate the significance of we, the people—people in Northern Forest communities; people who are users of the Northern Forest area in a whole variety of ways as having a very important role in deciding what happens and when and how.



The White River, a tributary of the Connecticut River. Photo by Wayne Thompson for River Watch Network.

The Silvio Conte National Fish & Wildlife Refuge Act

The Silvio Conte National Fish & Wildlife Refuge Act authorizes the US Fish & Wildlife Service to study the entire Connecticut River basin and determine the possibility of establishing a new national fish and wildlife refuge. The Act is named in memory of the late Silvio Conte, a western Massachusetts Congressman, who worked for many years on behalf of conservation efforts throughout the country.

The Act calls for the establishment of a refuge for the following purposes: (1) to conserve, protect and enhance the valley's populations of Atlantic salmon, American shad, river herring, shortnose sturgeon, bald eagles, peregrine falcons, osprey, black ducks, and other native species of plants, fish and wildlife; (2) to conserve, protect, and enhance the natural diversity and abundance of plant, fish and wildlife species and the ecosystems upon which they depend; (3) to protect species listed as endangered or threatened, or identified as candidates for listing; (4) to restore and maintain the integrity of wetlands and other waters; (5) to fulfill the international treaty obligations relating to fish and wildlife and wetlands; and, (6) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation and access.

In the past year the USFWS has held over 60 meetings with a variety of groups in the four state river basin, answering questions, addressing concerns and informing citizens and groups how they can become involved.

During my interview with Sharon Francis, I asked her about the Conte Refuge. —JS

SF: When I heard about the Conte Wildlife Refuge, my heart sank. I thought, this is the last thing in the world we need. I wished it would go away, and, of course, it didn't. Congress had a momentum about memorializing the late Silvio Conte. Typically, there was one field hearing, and that was at Hartford, Connecticut. Tom Lauritsen went down to Hartford and testified on

behalf of the JRC and local involvement. He said don't have the federal government coming in and telling us what to do around here because it's just not going to work.

We spent a lot of time in some real gutsy discussions with the Fish and Wildlife Service about how they are approaching the refuge. Those days are over. They were coming from other assignments and other areas of activity and had to learn how to work in this valley. Our message was: meet with local people, listen and don't use that eminent domain power. Make it clear to people that the refuge is going to be and that you're looking for cooperative relationships and easements and willing-sellers and information and education. They really have gotten that message.

They are virtually done now with their first set of public meetings. In April they'll be holding weekend retreats, one in the upper New Hampshire-Vermont Valley, one in the lower NH-VT valley, and one each in Massachusetts and Connecticut. These weekend retreats will be intensive working through the various scenarios.

The Conte Refuge can be a great asset for us because it's a way of helping us do a better job of something we already care a lot about, our fish, wildlife, and birds. Hopefully, with a little bit of federal money that will come our way, it's going to be a way to protect habitat, and what could be better than that?

Our Fish and Game departments are strapped. Their revenue is being derived from hunting. The scarce money they have to spend, understandably, goes into hunting habitat protection. Things like migratory birds don't begin to get the attention they so badly need, and if Conte does nothing else but preserve some shore areas to protect fish spawning habitat and gets easements on habitat areas for migratory birds, I think we will be much blessed by having had it.

They also have a mandate in the

Conte legislation for four education centers—one in each state. It'll be interesting in Vermont and New Hampshire to see how that works. I guess what would make sense would be to have a New Hampshire one in the lower part of the Connecticut River Valley and the Vermont one in the upper, or vice versa.

JS: Could I lobby for the other way around because Coos County is so culturally starved that we really need something like that. Essex County in Vermont is also in need of help, but it has Lyndon State College. Coos County has no college or university.

SF: All right, think of a wildlife education center in Colebrook or Groveton.

JS: I wrote an essay about a year ago called "Cultural Restoration" talking about the need to establish an ecological restoration academy as our county's higher education facility. Courses would be focused around natural history rather than accounting. Teach skills such as restoration, and work with satellite museums in the local communities. Stratford could have a log driving museum. Island Pond could have a railroad museum. Another town could have a river valley agricultural museum.

SF: That's very good.

JS: Coos County really is cursed. When you see the kind of leadership we've had over the years, it's really not much of a surprise. Something like this, particularly if it's geared to some kind of natural history education and focused on the locality could benefit the region enormously. Come to study about the Connecticut River and the Nash Stream and the Pilot Range and Magalloway. Because this is our laboratory; it's our backyard and our lab.

SF: When you talk about restoration, I think the next generation of environmental jobs are the restoration jobs. This is a news clip from Dubois, Wyoming. Rocky Mountain News

reports that a National Bighorn Sheep Interpretive Center opened in July. This is quoting the economic development director of Fremont County: "I think we may be one of the few places in the country basing our economic revitalization on wildlife and wildland rehabilitation. The Louisiana-Pacific mill closed down in Dubois in 1986, prompting fears the town would not survive, but town members rallied to find alternatives, and the interpretive center was one. They expect to draw 120,000 visitors each year which could bring more than 200 new jobs to the community."

JS: There's a study in Yellowstone that wolf reintroduction could bring \$42 million annually to the area. Cutting down trees with a diameter of four inches is not our future.

SF: No it isn't. And yet these kinds of things that you're seeing and speaking of and I responded so positively are possible, not because you and I can see them, but because a large number of people out there may be encouraged or motivated or helped or enabled by the likes of us to see them and want them in their community.

Regarding Conte, I don't worry so much about the people who are in vehement disagreement. It's more important to find that body of people who want to move positively forward, and take on an agenda and be responsible and be good listeners and good doers. The others will either see the popular momentum, and decide they'd better join it, or they'll fall by the wayside and go fishing. Their message is negative, based on fear. When the community begins to speak, they're exposed to the daylight.

JS: I've always felt that the trick for the forces of darkness is keeping the discussion from occurring. Once it begins, they're lost, because as soon as we start talking to each other, we discover things that bring us together, rather than keep us apart.

SF: That's definitely true.

Protecting Property Rights to Conserve the Northern Forest

by Mitch Lansky

Listening to some of the rhetoric on Northern Forest issues, one can get the impression that the environmental and property-rights/wise-use movements are mutually exclusive. They are fundamentally opposed. One set is defined by what the other is not.

I find all of this quite odd, because I got involved in what are called "environmental" issues precisely because I was advocating property rights and wise use. I was also concerned with jobs, government interference with the market, and local control—three other issues sometimes raised in opposition to environmental groups.

Property Rights

In 1976, three converted World War II bombers sprayed my entire property with chemical insecticides during a spruce budworm search and destroy mission. I argued that property owners have the right to not be sprayed with chemical toxins against their wills. The spraying, which contaminated my spring, organic vegetable garden, orchard, fields, and woodlot, took away my right of full enjoyment of my land. It changed the ecosystem by systematically disrupting whole segments of the food chain. Indeed, because so many insect pollinators were killed at a crucial time, I had severely reduced fruiting in my apple orchard.

Five years later, my industrial-landowner neighbor (Diamond), clearcut right up to my property line. This changed the nature of my woodlot. Trees blew down along our boundary line. The soil, which had been shaded and moist, was blasted with direct sunlight at the edge, and became covered with regeneration of species invading from the clearcut. That corner of my woodlot had once been a favorite place for peaceful walks; now it caused me pain to see it. Deer, which lost much of their shelter (except in my woodlot), became a serious problem for my gardens and orchard. This clearcut, which is an eyesore, did not improve my property values.

The spraying and cutting impacted more than just my personal property—it violated the commons. One cannot blithely damage the air, water, or wildlife that may temporarily pass through one's land without harming values belonging to the larger community. Landowners therefore have the responsibility to ensure that they do not degrade these community values for this generation, or the next.

Wise Use

My woodlot is certainly no wilderness preserve. I have cut pulpwood, logs, and firewood from it for years. My wife Susan and I have gathered maple sap, mushrooms, herbs, fir tips, and basket and wreath material as well. We try not to harm the value of our woodlot to the community or for our children. We think this is good judgment, or "wise use." Wise use implies forest practices that are ecologically sound, socially responsible, economically viable, and sustainable.

Wisdom implies humility. We, with our short lifespans, simply do not



A common sight in the Northern Forest. Clearcuts violate property rights of abutters and future generations. Photo by Stephen Gorman.

understand the full complexity of forests, which change and grow over centuries. It is therefore wise use to allow some areas of the forest to manage themselves without excessive human intervention. Wilderness can thus be part of a policy of wise use.

Large landowners in our area, in contrast, have mined the forest with little regard for social or ecological values except as they interfere with their primary goal of profit taking. The many decades of unwise use have taken their toll in this area. High grading of the best-quality softwoods and hardwoods has encouraged the domination of fir, red maple, and poplar. Past increases in fir have already led to an intensification of spruce budworm cycles—hence, the massive spray program of which I became a victim.

Jobs

The heavy cutting by a handful of industrial landowners so reduced the volume and quality of mature forests in the area that local workers must drive long distances just to cut wood, even though they live surrounded by "forests." Mechanization of cutting and export of raw logs has meant a tremendous loss of jobs. Indeed, over the last 20 years, the majority of full-time logging jobs has been lost. Because there is no regional economic diversity, substitute jobs have not emerged.

This sort of forest policy, that degrades forests, destroys jobs, and weakens communities, is not very wise.

Government Intervention

Many of the above problems hap-

pened because of government intervention in the marketplace. The state and federal governments subsidized budworm spraying for decades. This encouraged more spraying because it made spraying artificially cheaper for industry. Furthermore, the state ran the spray program. The state, therefore, took public flack and offered a liability shelter to the landowners.

Cheap land taxes have allowed landowners to cut heavily, leaving a forest holding low volumes of wood with low stumpage values. The penalty to the landowner for holding non-productive forests is only around a dollar per acre—until a buyer is found. Other property holders and tax payers have to make up for this loss in local revenues with no guarantee of public benefits in better management.

In some regions, such as the Crown Lands of New Brunswick, the follow-ups to clearcutting (i.e., planting, herbicide spraying, and thinning) are subsidized, encouraging almost complete reliance on clearcutting. The companies holding leases get the revenues from cutting, the public pays the cost of management. In today's global marketplace, Maine woodlot owners have to compete with these subsidized practices, NAFTA notwithstanding.

Government regulations have encouraged unwise uses that abuse property rights by legitimizing degradation and pollution. Regulations for budworm spraying, for example, were based on performance standards that legitimized the direct spraying of millions of acres of forests with broad-spectrum chemical poisons, the direct

spraying of small streams, and the contamination of larger bodies of water by runoff and drift.

Current drift regulations of the state's Board of Pesticide Control allow residue levels up to 20% of a direct hit to contaminate "sensitive" (i.e., within 100 feet of your house) areas of your property, and an unspecified amount beyond that figure for "non-sensitive" proportions of your property. Landowners can thus be legally sprayed without their informed consent.

Maine's 1989 Forest Practices Act legitimizes clearcutting on tens of thousands of acres a year, as long as the clearcuts are of legal sized and are dispersed. Indeed, it allows abutting landowners to clearcut right up to your property line with no requirement for buffers despite the ill effects it may have on your land.

Government regulations have allowed the commons of air around pulp mills to be "acceptably" toxic and to smell worse than a fart. The water of some of our rivers act as industrial sewer systems. Legitimization of pollution to "acceptable" (to industry) levels has meant that private and common property owners have been forced to live with unacceptable (to them) levels. Bad regulations mean that inconsiderate behavior and bad manners that violate people's rights are condoned by the government.

Local Control

One of the major problems with my region is that there is little local control. Most of the land base (and industry) is owned by wealthy corporations or families from out of state or even from other countries. Most of the regulations are likewise dictated from Augusta or from Washington, D.C.

To protect their private and common property rights, citizens of some towns have tried to pass local ordinances regulating cutting, spraying, and even pollution. These towns, some of which have succeeded, have gotten great resistance from the landowners and governments from away.

Indeed, there have been numerous attempts by lobbyists representing large corporations to pass laws that pre-empt local cutting and spraying ordinances. The companies claim that it is a hardship to have to comply with many different regulations. Following this logic, large real-estate developers could argue that local zoning is likewise a hardship and should be abandoned for a single state (or federal or global) standard. The goal, of course, is to regulate by the lowest allowable standards.

Through the Looking Glass

One would think that there would be ample common ground between those concerned with environmental issues and those concerned with problems of property rights, wise use, jobs, government interference, and local control. Yet, even though there are numerous opportunities for mutual action, I have seen few, if any, examples of the new groups organizing under the banner of "property rights" or "wise use" joining in with environmental groups to fight the types of abuses discussed above.

Continued on Page 22

The Humbug Hatch: Wise Use Movement Spreads East

by Ted Williams

"It didn't take me long to make up my mind that these liars warn't no kings nor dukes, at all, but just low-down humbugs and frauds."

—Huck Finn

For awhile Huck had been a believer. After all, he had never engaged a king in conversation, only a duke. "Yes, my friend," the king had said shortly before he and the duke settled into Huck's quarters on the raft, "it is too true—your eyes is lookin' at this very moment on the pore disappeared Dauphin, Looy the Seventeen, son of Looy the Sixteen and Marry Antonette. . . Trouble has brung these gray hairs and this premature balditude. Yes, gentlemen, you see before you, in blue jeans and misery, the wanderin', exiled, trampled-on and sufferin' rightful King of France."

There is nothing remarkable or even newsworthy about humbugs and frauds. Always, they have crawled upon society's unexposed flesh. Always, they have been plucked and cracked between the teeth of sundry groomers. Always a few persist and even prosper P.T. Barnum-style, though usually at the pleasure of that element of the public which enjoys being fooled and frightened. It takes at least one flea, goes the aphorism, to keep a dog happy.

But how is it that so many humbugs and frauds are proliferating and prospering in America? Hundreds of industry fronts are suddenly coalescing under the Orwellian moniker "Wise Use Movement," and they are doing more than just entertaining and titillating; they are swaying public policy on important environmental issues.

William Burke, writing for the Cambridge, Massachusetts-based Political Research Associates, defines the Wise Use Movement as "a coalition of self-proclaimed grassroots groups allied to developers and resource-extracting industries [which] seeks to overturn modern society's assumption that there are common public interests, such as health, education, and planning for the future, that bind communities together." That's as good a definition as I've heard.

The principle organizers/promoters of Wise Use are Alan M. Gottlieb and Ron Arnold. Gottlieb, who runs the not-for-profit Center for Defense of Free Enterprise, has done time in the slammer for filing false income tax returns and failing to pay taxes. Arnold has ties to Reverend Sun Myung Moon's Unification Church.

The movement's official platform—known as the "Wise Use Agenda"—advocates opening all wilderness and national parks to logging, oil drilling and mining, and lifting Endangered Species Act protection from "non-adaptive species," i.e., everything that can't stand hack-and-gouge development. The one planetary crisis the agenda doesn't kiss off is global warming, for which it prescribes razing all old growth, this on the timber-industry-generated superstition that planted monocultures suck more carbon from the atmosphere.

"Right now the environmental movement is a perfect bogeyman for



"Facts don't matter. In politics, perception is reality," says Ron Arnold, a founder of the anti-environmental "wise use" movement. Arnold has ties to the Reverend Sun Myung Moon's Unification Church. Photo by Orin Langelle, Native Forest Network.

us," Gottlieb told me. "In order to get people to join and donate money we need opposition."

"Facts don't matter," declares Arnold, "in politics, perception is reality."

One has to admire their brass. I do. I met them once in print. On a raft.

There is a river near my home too small for rafts. It is cold and intimate, hurrying down from the village of Becket in Massachusetts' Berkshire Hills, slicing through granite ridges and hardwood groves, pausing here and there in little pools that scarce could bathe a star, gathering other mountain runoff until the flow is fit for unstunted brook trout, planted rainbows and Atlantic salmon parr.

The West Branch of the Farmington wanders off toward every compass point, having been snarled ten millennia ago by the rubble of retreating ice. Where it briefly straightens in Sandisfield, Massachusetts the New York/New Jersey Chapter of the Appalachian Mountain Club holds an annual white-water canoe-and-kayak race in October. A few miles from the finish line, after the river enters Connecticut, it slows and deepens. Here, under the sweeping shadows of bald eagles and ospreys, the native squaretails and hatchery rainbows give way to wild and holdover brown trout. It joins the East Branch in New Hartford. And in Windsor the main Farmington is collected by the 400-mile-long Connecticut River, once the continent's greatest producer of Atlantic salmon. If self-sustaining runs ever are to be restored—the objective of a cooperative, \$725,000-a-year effort by Connecticut, Massachusetts, Vermont, New Hampshire and the federal government—the Farmington watershed will provide vital spawning habitat. Unless, of course, the West Branch is dammed, diverted and polluted.

There have been some close calls. In 1981 the State of Connecticut made an unsuccessful bid to pirate part of the flow; the better to "accommodate"—or, more accurately, encourage—watershed growth, thereby inciting an interstate, eight-town study to determine suitability for protection under the Wild and Scenic Rivers Act of 1968. Wild and

Scenic status, and even studies for such, block federal permits for projects hurtful to riverbanks and the fish and wildlife they sustain.

Then, in 1988, Burlington Energy Development Associates of Melrose, Massachusetts hatched a scheme to construct a powerhouse and a 3,500-foot steel penstock at an existing dam on a major tributary. Completion date was to have been 1990. But the National Park Service prevailed on the Federal Energy Regulatory Commission to deny the license on grounds that the flow-altering project would fall within a quarter-mile of the potentially Wild and Scenic West Branch of the Farmington.

Wild and Scenic status does more to protect than limit private property rights and values. It gives a river national significance, ensures water quality and protects the people who live near it from government acquisition of their land. Under the customized plan for the West Branch, certain types of riverside vegetation would have been protected, and new septic tanks would have been required to be set back 100 feet unless the landowner obtained a variance from the town. But houses could have been built anywhere. Moreover, Congress—in the persons of Representatives Nancy Johnson and John Olver—provided written assurance that Wild and Scenic status would be granted "only if there is a strong indication of local support." The two legislators further promised that "there will be no land acquisition by the federal government [and] no federal land management," that "the river area will not become a component of the National Park system or be subject to the federal regulations governing lands in the system," and that "control over the use of lands along the Farmington River will remain the responsibility of local government."

No sane person with the slightest affection for earth as man did not make it could object to such a contract. In landslide votes all four watershed towns along the 11-mile study area in Massachusetts and all four towns along the 14-mile study area in Connecticut committed themselves to Wild and Scenic designation.

For the past 12 years consulting forester Bob Tarasuk, 38, has lived in

the old farmhouse high on a wooded slope in Sandisfield, Massachusetts. He has blue-gray eyes, brown hair, a thick mustache and a manner that projects professionalism and patience. In addition to his forestry credentials he has experience as a wildlife technician. Therefore, when an environmental issue arises the town turns instinctively to him.

So it was that Tarasuk was named to the unpaid study team charged by Congress with determining the potential of the West Branch for Wild and Scenic status. "I quickly found that this was not your typical Wild and Scenic project," he told me. "This was private land up and down the river. The Park Service knew right from the beginning that federal control wasn't going to work here. They were tracking a brand new program that would actually modify the Wild and Scenic Act. All seventeen members of the committee understood this from day one. We worked incredible hours to make the package palatable to private land owners. What we needed to show Congress was that all eight towns would vote in favor of Wild and Scenic designation, and that each town would adopt an overlay district to further protect land along the river bank, showing Congress that we could take care of the river ourselves. All existing development would be grandfathered. If a septic system was only fifty feet from the water, that was the way it was going to stay." When all the towns in Massachusetts and Connecticut voted to support Wild and Scenic, Tarasuk felt that the committee's four years of labor had been worthwhile.

Enter the Wise Use Movement

Descending on the watershed like a blowfly on a dead sucker was one John Connor, Massachusetts rep for the Alliance for America, a group sired by Alan Gottlieb and funded by industries involved in mining, timbering, oil extraction, power generation, and Off Road Vehicle (ORV) manufacture. According to promo material from an ORV-industry front called the Blue Ribbon Coalition, the alliance's first convention two years ago in St. Louis provided victims of environmental extremism an opportunity to get together for a good cry: "It was an emotional scene as speakers recalled personal tragedies inflicted by government edicts forbidding use of private property because it was judged to be wetlands, 'possible' habitat of an endangered species or a 'dangerous' coastal area. Throughout the meeting hall, cheeks were damp as delegates one by one pledged unanimous support for the basic aims of the new alliance."

Also descending on the Farmington was Don Rupp, president of the Upper Delaware Citizen's Alliance, an organization dedicated to repealing the Wild and Scenic status of New York State's upper Delaware River. Rupp has ties to both the Alliance for America and the National Inholders Association, whose video "Big Park"—in which kicking, punching, dancing park rangers sweep through private inholdings like Nazis through Poland—has twice been reviewed in this column. Political Research Associates reports that he claims to be involved in a guerrilla war

with the U.S. government and that he once informed members of the Upper Delaware River Management Plan Revision Committee that they would 'probably get shot.'" Rupp is described by his neighbor Glenn Pontier—editor of the Narrowsburg, New York newspaper *The River Reporter*—as follows: "He is a local individual who made something of a career out of scaring people here along the river corridor. While none of his dire predictions ever proved to be true, he caused quite a stink and raised a lot of fear. I've never figured out what his motives were, except perhaps the attention it got him. He didn't manage to convert his notoriety into elected office (although he ran often enough), but he has linked up with a real estate firm. Now he sells the same land he claimed would be condemned by the National Park Service."

Within hours Connor and Rupp had stampeded riverside residents into forming a local group which, in proper Wise-Use doublespeak, called itself "Friends of the Rivers" (FOR). It erected posters reminiscent of the king and duke's billings for their Royal Nonesuch: "YOUR LAND HAS BEEN *STOLEN!!*" Learn how our government has come like a thief in the night."

FOR cranked out disinformational chaff in the form of "newsletters." It accused The Massachusetts Audubon Society of calling in "armed environmental police" after the society had hosted an informational meeting attended by several fully uniformed game wardens. FOR ran a rendering of a wolf, in park ranger attire, huffing and puffing at a young couple's door over a caption advising readers to contact Chuck Cushman of the National Inholders Association. "Becoming designated Wild and Scenic automatically makes us a National Wildlife Refuge," lied FOR. Other typical "news" items included the following:

*"Most coercive preservationists are quite sincere in their beliefs. So were Hitler, Mussolini, and Lenin."

*"Unless we are sure we want Congress and the National Parks System [sic] to control our every move, and unless we want national conservation groups to tell us what is best for our country way of living, we best reconsider [Wild and Scenic designation]."

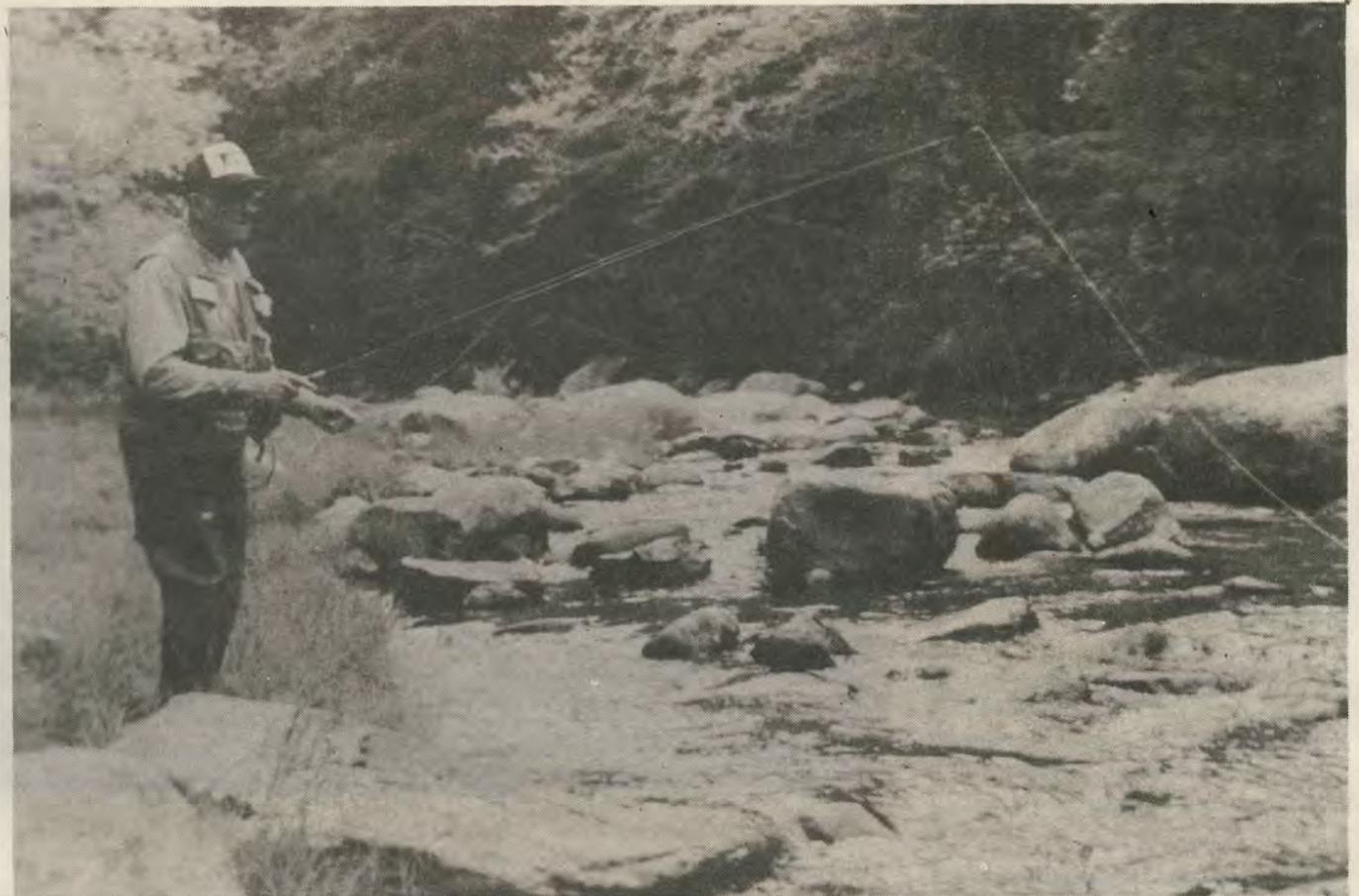
*"The grey wolf is used to close off lands to hikers in other NPS Parks. What are they trying to do now?? Use wild animals to take our land rights away. These Environmentalists are really anti-people!"

*"The enticement by the National Park Service to become Wild and Scenic is very similar to the drug dealer who says, 'just try the harmless white powder, it won't hurt you, and it sure will make you feel good.'"

*"More ominous, perhaps, is the little bird from New Hartford, who tells us about rumblings of legal action against Massachusetts towns who rejected Wild and Scenic."

*"I can't plant daffodils on my property."

Writing in *The Litchfield County Times*, Donald Lundberg of Washington, Connecticut dismissed protection for the Farmington as "just another scheme by the left-wing animal rights and environmental groups to take away your land... If an Indiana bat, five-lined-skink or any poisonous snake shows up in my yard, they're dead



85-year old Winston Bates of Springfield, Massachusetts, fishes the Farmington River. Photo by Ted Williams

meat; to hell with the Department of Environmental Protection and the state. They should be more worried about jobs and the welfare of the people of the state than a bunch of wildlife vermin."

Wise Users excavated Tarasuk's resume from the Sandisfield town offices, thereby discerning that after college he had worked briefly for the BLM and Park Service. The resume was posted at the center of town with "Federal Agent" scrawled over it. This of a public servant donating his time to a town he had lived in a dozen years. "I was almost lynched," Tarasuk recalls. "They were frothing at the mouth. People who didn't even know me were calling me a liar."

Early in 1992, in some of the biggest voter turnouts they'd ever experienced, the Massachusetts towns of Otis, Sandisfield and Tolland rescinded their endorsement of Wild and Scenic designation, thereby convincing the headwater town of Becket that its continued support was pointless. The larger, more sophisticated Connecticut towns, on the other hand, did not allow themselves to be gulled; so their 14-mile stretch remains protected by the Wild and Scenic Rivers Act.

I departed Tarasuk's farm, clutching to my breast a topo map with a brook-trout pond circled in pencil. But I couldn't dash off to it just yet. First, there was the business of interviewing FOR's grand pooh-bah, Ben Campetti, then lunch with folk singer Bill Crofut. Both Tarasuk and Crofut are scolded by FOR for living high on hills away from the river. Campetti, on the other hand, lives on, and even in, the river. At his New Boston Fuel and Supply company, wetlands have been filled with waste from road repairs (legally, he claims). Beer cans, tires, fuel tanks, oil barrels and demo debris litter the banks. There is a wooden building plastered with no-trespassing signs, an overflowing dumpster. But Ben Campetti has not completely preserved his freedom to defile, having been called upon last summer by officials of the state Fire Marshall's office who found numerous compliance-

standard violations.

Campetti, a slender man of 40 with long black hair, perused the Massachusetts Audubon sticker on my truck. "That's a bad sign to be putting on your vehicle when you're coming into my yard," he declared.

"Have we offended?" I inquired innocently.

Yes; and the offense was rank. In addition to calling in armed environmental police, the society had bought a parcel slated for development, then posted it to hunters. Of the newly formed river-support group called the Sandisfield Citizens Association, Campetti said: "They're all really outsiders. They're all people who have moved here in the last twenty years. They're city people who don't want to see growth. I've lived here my whole life." Because Bill Crofut, like Tarasuk, holds sagem-like sway in the Sandisfield Citizens Association, I asked Campetti what to expect. "He moved here twenty years ago," he revealed. "He's got a house way up on top of the mountain, away from the river. He's a folk singer."

Only Crofut's house, not his heart, is away from the river. Sometimes he sings with Chris Brubeck to call attention to the Farmington and to raise money for such items as elementary-school play equipment. His talent is monumental, appreciated internationally. When the posters advertising the concerts go up, the Wise Users tear them down. "We sponsored a planning lecture which was absolutely non-partisan," he told me as we sipped beer and watched bluebirds flit about his litterless, beautifully manicured backyard—the sort diagnostic of river-hugging folk singers from away. "A woman came in from an architectural firm in Boston to present a slide show, basically saying you have this beautiful, open town, quite undeveloped, and here are the planning options for what you can do. It was a fabulous talk, no political overtones. It wasn't for or against anything—just pure information. Campetti and Connor were there disrupting. They reduced the meeting to an argument." So it goes with Wise Use.

Emboldened by its success on the West Branch of the Farmington, Wise Users have blocked Wild and Scenic designation for New Hampshire's Pemigewasset River which, in addition to trophy brown trout, contains most of the Atlantic salmon spawning habitat in the Merrimack River system. In August 1992 members of the New Hampshire Landowners Alliance—shed by the Alliance for America like a medusoid jellyfish—canvassed local stores, buying up all copies of *The Bristol Enterprise* which had dared to run a one-page questionnaire designed by the Wild and Scenic study committee. The questionnaires, explained alliance president Cheryl Johnson, would more accurately reflect local sentiment if alliance members took charge of getting it to the proper people.

Will the Wise Use Movement continue to flourish in Yankeeland? Probably. Yankees are different now than when they were wrestling stumps and building stone walls. We have been infiltrated and hybridized. These days we are softer, more easily led and, well, dumber.

But I like to fantasize. Sometimes when white moths are on the wing and I wander with Wilton through the milkweed field or with fly rod down granite riverbeds, I see a scene that Huck described after the final performance of the Royal Nonesuch:

"Here comes a raging rush of people, with torches, and an awful whooping and yelling, and banging tin pans and blowing horns; and we jumped to one side to let them go by; and as they went by, I see they had the king and the duke astraddle of a rail—that is, I knowed it was the king and the duke, though they was all over tar and feathers, and didn't look like nothing in the world that was human."

Ted Williams does investigative environmental reporting for national publications. He shares a love of fishing, but not baseball with the "real" or, as he prefers, "elder" Ted Williams. "The Humbug Hatch" first appeared in Fly Rod & Reel, November, 1993.

CLEARCUT

CLEARCUT: The Tragedy of Industrial Forestry is a 300 page exhibit-format style book that comprehensively documents the destruction wrought by industrial forestry through over 100 stunning, full-page, color-images of some of the most horrific clearcuts in North America, from Maine to British Columbia and Alaska.

To purchase a copy of Clearcut, call Sierra Club Books (415 291-1600) or Patagonia (1-800-638-6464). Price: \$50 (hardcover) & \$30 (paperback).

If you wish to receive a free copy in return for distributing at least five other copies of Clearcut to policy makers and opinion molders, call the Clearcut Campaign at 415 398-4404.



Carmanah Valley, Vancouver Island, 1990. The sign reads, "The Working Forest Welcomes You." Photo by Vicky Husband. From: *CLEARCUT: The Tragedy of Industrial Forestry*.

Property Rights

Continued from Page 19

Some of these groups seem less interested in promoting the full meaning of property rights and wise use as attacking environmental groups. The phrases "property rights" and "wise use," which have positive images in the public's mind, have sometimes been used in narrow, twisted ways.

"Property rights," for example, has been used to mean the "right" to do anything you want on your property—even if it means abusing the rights of other property owners or the commons.

"Wise use" has been used to mean *any* uses—including those that pollute, degrade, and destroy.

"Jobs," has been used in opposition to "environment" as in "owls versus jobs," or "payrolls versus pickerel." There is little acknowledgment that hurting the environment can hurt jobs—as the collapse of the ground fisheries in Eastern Canada have demonstrated.

"Government interference" has been used to mean interference with a landowner's supposed "right" to pollute, degrade, or transform through "development." Indeed, some groups

have argued that restricting abusive practices should be considered a "taking" that should be compensated. These same groups do not acknowledge that abusive practices are a taking of other people's rights and should, by their own logic, be compensated.

"Local control" has meant the "right" of an absentee landowner to continue to abuse the rights of local people without government interference. If George Orwell were alive today, he'd be rolling over in his grave.

Anti-Anti-Environmentalism

Environmental groups have compounded the problem when they have launched counter-attacks on the property-rights/wise-use movement in a way that reinforces the association, in the public mind, of these phrases with anti-environmentalism rather than with common sense. Often the result is that any discussions about property rights gets dismissed.

Dismissing all property-rights issues is a mistake. Clearly, there are many legitimate problems in this area that need to be addressed. There are many environmental laws and policies

that ought to be reworked or even junked because they are not in the best public interest and they needlessly burden property owners. There are agencies that have been insensitive in dealing with small landholders for permitting or regulatory processes. And there are times that environmental groups deserve to be criticized for their positions or their actions.

As with the environmental movement, not all members of these "anti-environmental" groups march in lock-step. While some are clearly on the corporate payroll and are trying to destroy environmentalism as part of a corporate agenda, others have very different motivations. Some members, for example, are local people who have been frustrated by both increased governmental and corporate control over their lives. Often environmentalists are not addressing the concerns of these individuals—instead they are feeding into fears of more government control. Past government performance in "solving" environmental

problems has not elicited much confidence in large segments of the population.

Conclusion

Key words in the Northern Forest debate, such as "property rights," "wise use," "conservation," or "protection," mean different things to different people. Often the debaters talk past each other rather than to each other. The words are emotionally charged, and people tend to promote or dismiss them without defining them. Often the result is that the debaters are not hearing the fundamental concerns of their opponents.

There are times, of course, where advocates of certain positions deliberately use emotive words to draw lines, instead of find common ground. Rather than reject the words, because someone uses them in ways that contradict their most obvious meanings, we would be better off to reclaim them and clearly define what we mean when we use them.

Maine Supreme Court on 'Takings'

In 1908, when the Maine legislature attempted to pass a law that would prevent the cutting of pine or spruce under 12 inches in diameter, the Maine Supreme Court ruled that this would not constitute a "taking."

"We think it a settled principle, growing out of the nature of a well-ordered society, that every holder of property, however absolute and unqualified may be his title, holds it under the implied liability that his use of it shall be so regulated that it shall not be injurious to equal enjoyment of others having an equal right to the enjoyment of their property, nor injurious to the rights of the Community."

"While it might restrict the owner of wild and uncultivated lands in the use of them, might delay his anticipated profits, and even thereby cause him some loss of profit, it would nevertheless leave his lands, their product and increase untouched and without diminution of title, estate or quantity. He would still have large measure of control and large opportunity to realize values. He might suffer delay but not deprivation."

Preventing destructive practices should hardly be considered "taking" land from a landowner, but rather preventing the landowner from "taking" the values of the land from the community or from future generations.

—Mitch Lansky



Maine 'property rights' press conference in Bangor, October 1991. Environmentalism has replaced the 'international communist conspiracy' as the enemy of the American Way of Life. Photo by Dan Plumley

NYC Sierra Club Co-Sponsors Global Forest Summit

*Scientists, Environmentalists and
activists to Define Action Plan*

NEW YORK, February 15, 1994—
In the largest U.S. conference of its
kind, the Global Forest Summit will
assemble to address the plight of the
world's endangered forests on April 16-
17, 1994. The Summit, jointly spon-
sored by the Harriman Institute and the
Sierra Club's New York Forest
Committee, brings together environ-
mental authorities from the United
States, Canada, Russia, and South
America in this multi-disciplined arena
to share expertise and to develop sound
solutions.

The conference will focus on the
highly threatened forests in the U.S.
Pacific Northwest, U.S. Northeast,
including the Northern Forest, the
Amazon Rainforest, and the Russian
Taiga. "Though spread across the globe,
these forests share common problems—
pollution, development, recreation,
clearcutting, poaching, extinction," said
Alexander Motyl, executive director of
the Harriman Institute. "We lose 50
acres of forest per minute—an appalling
statistic considering this is an ecosystem
that is essential to human existence. Our
goal is to develop a new plan, a para-
digm for action that can be applied to
the world's forests—the old plan is not
working."

The timely importance of the con-
ference has drawn speakers such as Tom
Brokaw, NBC news; Jim Jontz, Western
Ancient Forest Campaign and former
Indiana Congressman; and Lisa Tracey,
Siberian Forest Protection Project.
Issues that the panel will address
include geographic forest regions,
preservation of forest ecosystems, creat-
ing a forest ethic, impacts of deforestation,
and land use decision making. In
addition, practical knowledge and lob-
bying techniques will be shared at many
activist workshops.

"The broad scope of the conference
will allow seasoned environmentalists,
politicians, theologians, academics, stu-
dents and activists to share their ideas
and their energy—a very exciting
event," said Holmes, chair of the Sierra
Club's New York City Group. "Due to
the alarming rate of deforestation, we
have to turn our research into action.
This is a forum for that to occur."

The conference will be the starting
point for the Coalition on Forests, a
New York City-based group that will
apply the outcomes of the conference to
promote the collaboration among indi-
viduals and local, regional and national
organizations around one common
agenda: forest preservation.

The global Forest Summit will take
place on the campus of Columbia
University, School of International and
Public Affairs, April 16-17—one week
before the 24th Annual Earth Day.
Anyone interested in attending, making
a contribution, or requesting further
information should contact Susan
Holmes at the Harriman Institute, (212)
854-8487.



RESTORE THE NORTHERN FOREST

Migratory Birds of the Northern Forest Threatened

The following is drawn from "Migratory Birds & the Great Northern Forest" published by National Audubon Society.

Among the creatures dependent upon large expanses of unspoiled forest are more than 150 species of migratory birds. Every one of these species is uniquely adapted to breed in the transitional forest that separates the formerly extensive Eastern deciduous forest from the boreal forest land to the North. Predictably, as the habitat for long ranging neotropical birds is fragmented, their numbers decline.

While it is true that a mosaic of natural habitats within a forest increases the diversity of birds, many of the avian species of the Northern Forest are "area sensitive," meaning that their breeding success is directly related to the size of the forest. The Red shouldered Hawk and the Scarlet Tanager are examples of species whose greatest breeding success occurs in forest tracts greater than 7,400 acres. These and other area sensitive species are greatly threatened by the new edges created throughout their forest habitat by roads, powerlines, residential development, and the clearcuts of industrial forestry.

These new edges invite different species, not endemic to the inner forest, that prey on the nesting birds. Blue Jays, American Crows, skunks, and raccoons are threats to any active nest, and the Brown headed Cowbird, given access to forest species, lays eggs in the nests of the smaller birds such as Northern Orioles and American Goldfinches. House cats that accompany humans into forest fringe development also pose a serious problem for nesting songbirds.

Suburban and agricultural pressures have shrunk the forested areas of Southern New England to the point where these small woodlands no longer support successful breeding populations of area sensitive birds. In fact, because birds will continue to nest in these areas unsuccessfully they represent a drain on these species. This makes the preservation of unobstructed expanses of the Northern Forest even more vital. Clearly, the long-term future of neotropical songbirds depends on decisions we make in the immediate future regarding the establishment of large biological reserves in the Northern Forest.

What You Can Do:

*Join the National Audubon Society's Northern Forest Advocate Network promoting the creation of wildland reserves, sustainable forestry, and strong local economies.

*Attend the Northern Forest Lands Council Listening Sessions and voice your support. For a schedule contact Audubon or write NFLC, 54 Portsmouth St., Concord, NH 03301 (603) 224-6590.

*Support federal and state funding to purchase forest land or conservation easements on forest land currently at risk in the Northern Forest region.

*Advocate at the state level management practices and policies that sustain both the ecology and economy of the Northern Forest.

*Promote state legislative and administrative programs to protect open space, ensure proper management practices.

*Document the status of bird populations by working with Audubon's local chapters and lending your expertise as a birdwatcher to monitoring and survey programs.

Salmon River Accord Reached

Rome, NY- New York Rivers United (NYRU), a state-wide river conservation organization, recently announced a major accord on the operations of hydro facilities and the enhancement and conservation of the Salmon River, its reservoirs, and related riverine areas. The accord was the culmination of months of negotiations concerning the operations of the Salmon River hydroelectric facilities, the commercial effects of recreational activities, and long term planning.

Other principals to the agreement were Niagara Mohawk Power Corp., New York State Dept. of Environmental Conservation, Federal Fish and Wildlife Service, American Whitewater Affiliation, Trout Unlimited, and the Adirondack Mountain Club.

Components of the accord include:

- *minimum flows that will protect riverine ecosystems and establish a "world class" year-round fishery;
- *whitewater releases that are compatible with the river ecosystem but still provide for the enjoyment of the river;
- *major land deals that protect valuable wetlands and reservoir habitat;
- *minimum flows that will provide scenic vistas at the Salmon River Falls;
- *management of the entire system for common goals and visions.

As part of the accord, a Flow Management Advisory Team (FMAT) will be created. The FMAT shall be the focus and sounding-board for Salmon River flow and water-related issues. Its responsibilities shall include environmental needs as well as the continuation of power generation, while continually fostering the enhancement and maintenance of diverse, high quality recreational activities.

"These types of river advisory teams and settlements are a new and positive approach to the Federal Energy Regulatory Commission (FERC) controlled projects," said Carpenter. "This would be a locally controlled attempt for long-term monitoring of a FERC project." The FMAT is an attempt to anticipate and prepare for changes that may occur on the river in the future, as well as to identify the priorities for addressing those changes. "This management will conserve the biodiversity associated with the riverine ecosystem," Carpenter said. "The ability of all parties to view the river in its entirety and for long term planning was an essential component."

"With so much relicensing of hydro facilities going on throughout the state, it is our hope that this agreement can set the standard for which we should strive," Carpenter said. "All of New York States rivers should be considered "world class" as far as NYRU is concerned. We should seek to enhance and conserve the resources while working with the power companies to protect the hydro rivers for their commercial benefits," he continued.

NYRU is part of the Hydropower Reform Coalition which is promoting these types of settlements nationwide.

For further information contact:
Bruce R. Carpenter
New York Rivers United
1-315-339-2097

The Champlain-Adirondack Biosphere Reserve

by William P. Gregg, Jr.

[Ed. Note: The Adirondack Park has long served as a model of integrated land use and conservation, in which the needs of human communities are balanced with the need for wildland protection. Recognition of this fact, and of the desire to promote the Adirondack-Lake Champlain region as a "landscape for learning," led to the designation of this 10 million-acre area as a United Nations biosphere reserve. Designation of the reserve is honorary. It will do nothing to change the landscape; no land will be purchased nor rules imposed on private landowners. Rather, the designation stimulates education, research, and problem-solving in a coordinated way across the region. It is an approach that may have applicability within the entire Northern Forest region.]

Biosphere Reserves: International Recognition, Local Challenge

The Adirondack Mountains and Lake Champlain Basin are interlinked biogeographical regions of remarkable natural diversity, scenic beauty, and unique cultural history. Healthy ecosystems are vital to an economy in which forest products, recreation and tourism, hunting, and sport fishing are mainstays. The contemporary landscape mosaic of natural communities and human uses reflects the intimate, ever-changing relationships of people with the land and the Lake over the centuries. These relationships have influenced the character of human communities in which tradition, self-reliance, and regional pride are important values.

In the Adirondacks, the 2.5 million-hectare Adirondack Park is widely recognized as a model for integrating conservation and development of public and private lands through coordinated state and local planning and regulation. The Champlain Basin exemplifies bistrate cooperation in conserving the smallest of the Great Lakes through sustainable uses of the surrounding watershed and the lake itself under a bistrate Cooperative Agreement on the Management of Lake Champlain. The State of Vermont, which is responsible for the eastern half of the watershed, is recognized for its comprehensive statewide regulations on land use planning, environmental protection, and development of natural resources. Both regions have a long history of citizen participation in decision making processes. Both face significant environmental, land use, and socioeconomic problems due to competing demands for land and water resources. Conservation of the region's rich biological heritage is increasingly problematic as a result of loss of natural habitats, especially from conversion to residential uses, the stresses of regional air pollution and acidic deposition, and the potential effects of climate change.

These regional characteristics and conditions make the Adirondacks and the Champlain Basin among the best places in the world to demonstrate ecosystem management. Ecosystem management is a process for using the

ecosystems of a region to meet human needs for energy, materials, social interaction, and aesthetic environments in ways that sustain natural ecosystem functions and biological diversity in a changing environment. The process requires the best possible scientific information on interacting natural and human systems, and use of the latest information technologies to develop models of these systems at different spatial and temporal scales. It requires the participation and cooperation of all levels of government, non-governmental organizations, land managers, scientists, economic interests, and local citizens. In large regions like the Adirondacks and the Greater Yellowstone Area, consensus among competing interests on goals and strategies for ecosystem management can be difficult to achieve. Biosphere reserves serve as "landscapes for learning" in which many stakeholders help build an improved understanding of the relationships between people and ecosystems. Biosphere reserves improve the basis for reaching consensus by expanding the constituency for the information

acknowledge their responsibility to participate in the international biosphere reserve network. This participation may involve sharing of information and management experience with other biosphere reserves; and involvement in international research on major environmental issues, such as global climate change.

A Brief History

Biosphere reserves are an integral part of UNESCO's Man and the Biosphere Program (MAB). UNESCO launched MAB in 1971 to provide an intergovernmental framework for demonstrating harmonious relationships between human societies and Nature (UNESCO 1971). One of MAB's 14 original projects focused on the conservation of natural areas and the genetic resources they contain. An important component of the project called for the establishment of a network of biosphere reserves for conserving the characteristic ecosystems of each of the world's biogeographic provinces, with the goal of establishing one or more biosphere reserves in each of the world's biogeo-

and water resources (the development role).

Nations have complete flexibility to implement these roles in ways appropriate to their particular situations. In most countries, including the United States, biosphere reserves have no independent legal status and rely on the authorities of their administrators and cooperating entities to plan and implement biosphere reserve programs. These voluntary programs emphasize collection, sharing, and application of information, and development and testing of appropriate technologies, to solve practical management problems. They do not infringe on the management prerogatives of the participants.

From 1976, when the first biosphere reserves were designated, through the mid-1980s, UNESCO selected biosphere reserves primarily on the basis of their capability to implement the conservation and logistic roles. Many national parks and experimental research areas were designated as biosphere reserves during this period. In recent years, international concern over the sustainability of resource management and economic development practices has increased the need for areas that can serve as models for developing the theory, and demonstrating the practice, of ecosystem sustainability. Recent designations, like the Champlain-Adirondack Biosphere Reserve, therefore have placed greater emphasis on this role in response to this need.

Because few administrative areas are able by themselves to implement all biosphere reserve roles, many administrative areas often participate as cooperators in biosphere reserve programs. For example, the Central California Coast Biosphere Reserve in the greater San Francisco area includes 13 designated areas under Federal, state, local, or private administration, including four new areas added in 1992.

Expansion of an established biosphere reserve is easy to accomplish. Any administrative area can petition for international designation as a unit of an existing biosphere reserve to recognize its role in the biosphere reserve program. Such designations not only expand the geographic area of the biosphere reserve, they also help solidify support for biosphere reserve programs.

In 1980, the U.S. MAB Program began a systematic effort to fill the gaps in the U.S. biosphere reserve network. Expert panels were assembled to review the terrestrial biogeographical provinces represented in the United States in order to identify administrative areas that could serve as hubs for developing biosphere reserve programs. A separate initiative was begun for coastal and marine areas. In 1986, a U.S.-Canadian panel reviewed the Lake Forest Biogeographical Province (U.S. Canadian Panel on Biosphere Reserve Selection 1986). The province includes a vast region of mixed coniferous and hardwood forests along the international boundary from western Minnesota to the Maritime Provinces. Within the province, the panel identified six regions, including the Champlain Basin-St. Lawrence Valley; and, within each region, administrative areas for consid-



Adirondack Park development near shore of Lake George, late 1980s. Photo by Dan Plumley

upon which ecosystem management goals and strategies are based.

In designating the Champlain-Adirondack Biosphere Reserve (CABR), UNESCO recognized the accomplishments of the people and institutions of the Adirondack Mountains and the Lake Champlain watershed in biological conservation, integrating conservation and development, and developing the knowledge, skills, and public attitudes to make ecosystem management possible. In applying for the designation, the administrative authorities responsible for planning and management of the biosphere reserve acknowledge their responsibility to pursue the broad objectives of biosphere reserves, contained in UNESCO's Action Plan for Biosphere Reserves (UNESCO 1984). These objectives emphasize development, sharing and application of information and management technology, and local participation, to help solve conservation and development problems. They encourage cooperative research, educational, and demonstration activities that support the process of regional ecosystem management. In accepting the designation, responsible authorities also

graphic provinces, as identified by Udvardy (1974). Each biosphere reserve includes one or more strictly protected core areas—such as the "forever wild" areas of the Adirondacks—for ecosystem conservation and as benchmarks against which to assess the ecological effects of human activities in the surrounding area. UNESCO recognized from the start that the integrity of the core areas depends upon the types, intensities, and patterns of human uses in the surrounding areas. Biosphere reserves provide for inclusion of areas where these uses can be managed to achieve ecosystem management goals.

UNESCO encourages national MAB organizations to pursue three roles in developing biosphere reserves (UNESCO 1984, 1987):

- *To help strengthen the conservation of ecosystems, biological diversity, and genetic resources (the conservation role);
- *To provide an operational base and facilities for monitoring and research, and to communicate information through the international network (the logistic role);
- *To help integrate environmental concerns and the development of land

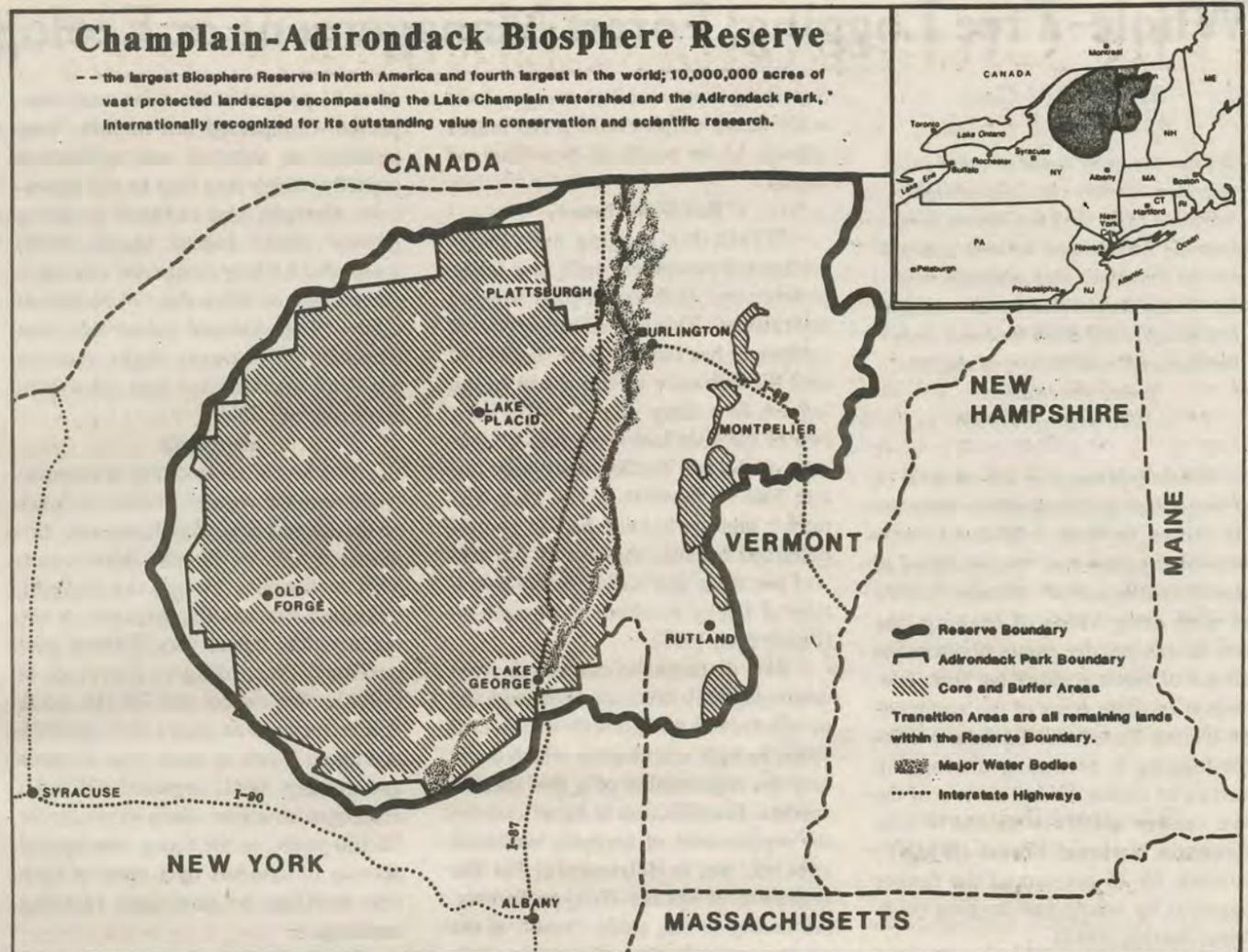
eration in developing a biosphere reserve nomination. The Governors of New York and Vermont subsequently convened a bistate task force to review the recommendations for the Champlain Basin. The task force recommended nomination of a 4-million hectare biosphere reserve including the Adirondack Park in New York, and, in Vermont, the summits of Mt. Mansfield and Camel's Hump and four wilderness areas in the Green Mountains. The remainder of the U.S. portion of the Champlain Basin and some lower watershed areas adjoining the west side of the Adirondack Park were included in a large zone of cooperation.

Following UNESCO's approval of the Champlain-Adirondack Biosphere Reserve in 1988, an interim steering committee of government agencies, academic institutions, and non-governmental organizations from the two states and the Canadian Province of Quebec began planning the biosphere reserve program. A feasibility study, commissioned by the steering committee and completed in 1991, identified various options for organizing a regional program (Northrup and Muyskens 1991). The Committee subsequently recommended establishing a separate coordinating organization for the Adirondacks and the Champlain Basin. Each organization would facilitate the participation of agencies, organizations, universities, citizens groups, and other stakeholders in the program. The proposed organization for the Adirondacks is under state government review. The State of Vermont is coordinating a regional workshop in mid-1993 to recommend program goals and organization for the Champlain Basin program.

International Linkages

A major benefit of biosphere reserve designation is the opportunity to share knowledge and experience with ecologically similar areas in other parts of the world. The temperate forest ecosystems that characterize the Champlain-Adirondack Biosphere Reserve are particularly well represented in the international biosphere reserve network. EuroMAB, an association of MAB organizations from Europe and temperate North America, recently launched the Biosphere Reserves Integrated Monitoring Program (BRIM) to strengthen cooperation among the biosphere reserves in Canada, the United States, and 30 European countries. BRIM's first project is a directory of EuroMAB biosphere reserves, scheduled for publication in mid-1993. The directory provides a contact for each national biosphere reserve program and for each biosphere reserve. It also identifies research priorities and summarizes the results of a survey of scientific activities, infrastructure and facilities for each biosphere reserve. Of the 176 EuroMAB biosphere reserves, 119 or 68% are located in three biomes: the temperate broad-leaf forest (64), temperate needle-leaf forest (8), and mixed mountain systems with complex zonation (47). Many of these biosphere reserves have robust scientific capabilities.

In view of its complex topography and its location at the ecological interface between the North American broad-leaf and needle-leaf forests, the Champlain-Adirondack Biosphere Reserve has a potential stake in cooper-



ation with many of these biosphere reserves. Linkages with biosphere reserves in eastern Europe and Russia could be especially useful in comparative studies of the effects of atmospheric pollutants, acidic deposition, and global climatic change, as well as comparative research to support integrated management of forest and lake ecosystems. Other ongoing EuroMAB projects of potential value to the Champlain-Adirondack Biosphere Reserve include the testing of database structures for biological inventories based on adaptations of protocols now in use in the National Park System (Gregg, Serabian, and Ruggiero 1993), and development of a metadata base on permanent vegetation plots.

The Future

The challenge of organizing and implementing a biosphere reserve program is formidable and long-term. Yet, the potential benefits are enormous. Biosphere reserves offer the opportunity to participate in a unique intergovernmental network that facilitates cooperation at appropriate scales for addressing the interrelated issues of biological diversity, ecosystem sustainability, and global change. These are the issues likely to pose the greatest management challenges in the next century. They are priorities in contemporary ecosystem science (Lubchenco et al 1992), the major themes of MAB (UNESCO, MAB International Coordinating Council 1993), and primary challenges of integrated ecosystem management (Risser and Lubchenco 1992). Effective action to address these issues requires cooperation at the regional landscape scale—i.e., in biogeographic regions delineated on the basis of their suitability for understanding interacting biological, physical, and human systems, and for involving local people, agencies, and institutions, and many different management units, as partners in ecosystem management. The same issues require unprecedented international cooperation in sharing scientific

data and practical management experience. Because many of the world's outstanding centers for ecological research are already designated as biosphere reserves, biosphere reserves are logical areas for international scientific cooperation on regional and global issues. Such cooperation will eventually link individual biosphere reserves to form international terrestrial and coastal-marine networks for detecting, understanding, predicting and ultimately determining how to manage for ecosystem change.

Worldwide interest in biosphere reserves is increasing. Biosphere reserves figure prominently in international discussions on developing a global terrestrial observation system for obtaining ecological data on regional and global change. A biome-based network of circumpolar biosphere reserves is being established (UNESCO MAB Northern Sciences Network 1992). Several countries, including Australia, Canada, and the United Kingdom have prepared national biosphere reserve plans. U.S. MAB is also developing an action plan for the U.S. biosphere reserves. Cooperative biosphere reserve programs are helping their participants address local and regional issues in many countries, including the United States. Individual biosphere reserves, designated years ago, are exploring ways to implement biosphere reserve concepts in cooperation with their neighbors.

The Champlain-Adirondack Biosphere Reserve is the largest biosphere reserve in the United States, and the sixth largest in the world. The scale is assuredly adequate to implement biosphere reserve roles and address major regional and global issues. The CABR program now being organized has the potential to expand coordination of scientific and educational activities to address these issues, and improve the access of participants to scientific information. The program is coming on line at a time when the need for the CABR, the opportunities for cooperation, and

the practical benefits of cooperation for the people of the region have never been greater.

William P. Gregg is Coordinator of Man and the Biosphere Program, National Park Service, Washington, D.C. This article appeared in a somewhat longer version in Adirondack Journal of Environmental Studies, Volume 1, Number 1, Winter, 1994. For information on this fine new publication, contact: AJES, SSHE Division, Paul Smith's College, Paul Smiths, NY 12913. AJES is published twice a year, and subscription rates are \$5 per issue (\$6 for institutions).

Literature Cited

- Gregg, W.P., Jr., E. Serabian, and M. A. Ruggiero. 1993. Building resource inventories on a global scale. George Wright Forum.
- Lubchenco et al. 1991. The sustainable biosphere initiative: an ecological research agenda. *Ecology* 72(2):371-412.
- Northrup, J. and S. Muyskens. 1991. Champlain-Adirondack Biosphere Reserve: organizational choices and challenges. Available from the Vermont Agency of Natural Resources, Planning Division, 103 South Main Street, Waterbury, VT 05671-0301.
- Risser, P.G. and J. Lubchenco. 1992. Report of a workshop for a National Park Service ecological research program. University of New Mexico, Albuquerque, NM 32pp plus appendices.
- Udvardy, M. D. F. 1974. A biogeographic classification of the world. IUCN Occasional Paper No. 18.
- UNESCO 1971. International Co-ordinating Council of the Programme on Man and the Biosphere. First session. UNESCO, Paris.
- UNESCO 1974. Programme on Man and the Biosphere (MAB), Task Force on: Criteria and guidelines for the choice and establishment of biosphere reserves. May 20-24, 1974, Paris, France.
- UNESCO 1984. Action Plan for Biosphere Reserves. MAB/UNESCO, Paris, France.
- UNESCO 1987. A Practical Guide to MAB. MAB/UNESCO, Paris, France.
- UNESCO 1993. MAB International Co-ordinating Council, 12th Session, 25 - 29 January 1993. Draft report. 19p.
- U.S.- Canadian Panel on Biosphere Reserve Selection. 1986. Biosphere Reserve nomination: Lake Forest Biogeographical Province. A report to the United States MAB Directorate on Biosphere Reserves. 107 pp. U.S. Man and the Biosphere Program, Department of State, Washington, D.C.

Whole-Tree Logging: Forest Management or Ecological Destruction?

By David N. Carle

Forests may grow wood or other products at relatively constant or highly variable rates. To keep forests from becoming imbalanced we must appreciate the processes that maintain these systems and assure that human manipulations affecting them husband these resources for the benefit of this and future generations.

—R.H. Waring, (1980)

Whole tree logging, the removal of the entire tree including all the branches and crown, is both a relatively new form of logging and "the extreme in (forest) management" (Coates, 1982). As with other kinds of logging, the basis of this practice comes not from the science of forest ecology but from economics. In some areas of the northeastern United States and Canada, whole-tree logging is becoming the logging practice of choice. Today, on two of the five ranger districts on the White Mountain National Forest (WMNF) between 60-75 percent of the timber logged is by whole-tree logging (U.S. Forest Service, 1993).

Despite the increased practice of whole-tree logging, little is known of its impacts. What is known shows that the practice could cause severe, long term impacts to forest health. The question for society is one of sustaining long-term forest health or pursuing short term economic gains at the expense of the forest.

Whole tree logging, or biomassing, is the practice of removing the entire above-ground portion of trees by logging machines. The machines cut the trees at the stump, transport the whole tree to a specific site, called a landing, and then grind the trees, including tops, branches, stem, bark, and leaves, into chips. The chips can be used for pulp, wood products, or to burn. Only selected trees many be cut or entire areas can be clearcut, known as a whole-tree clearcut (WTC). WTC "represents a more severe disturbance to forest ecosystems than does a stem-only harvest, or a whole-tree selection or small block cut" (Pierce et al, 1993). This makes WTC one of the most severe logging practices in our forests. WTC is a common practice on industrial lands in Maine and New Hampshire (Ibid.), and takes place on public lands including the White and Green Mountain National Forests.

There has been limited research on whole-tree logging. Most of the research available has looked at WTC. Little research has been conducted on the impacts of whole-tree thinning. Despite the lack of research, there are some 1,050 biomass plants in operation in the United States today (Johnson, 1993). Wood to energy plants in New Hampshire alone burn approximately 1.2 million tons of wood chips (equal to approximately 480,000 cords of wood) a year.

To supply these wood to energy plants with wood chips some areas in the United States have begun planting agricultural fields with genetically selected "super trees." But, in New England, most of the wood chips come from logging the natural forests.

Supplying these wood to energy plants with wood chips could have major impacts to the health of New England forests.

Soil Disturbance

Whole-tree logging uses large, mechanical equipment such as a feller-buncher and skidders in their logging operations. The use of this type of equipment has increased the amount of soil disturbance in the areas being logged. In a study of four WTC sites, two of the sites had more than 92 percent of the soil surface disturbed; one site had 98 percent of the area disturbed; and the last site had 71 percent disturbed because the rest of the area was too steep and rocky for the operation of heavy mechanical equipment (Pierce et al, 1993).

Soil disturbance can range from destroying soil structure, thus reducing or eliminating regrowth of several years, to light scarification which could help the regeneration of a few specific species. Scarification is beneficial for the regeneration of northern hardwood species, but is detrimental for the regrowth of spruce-fir type forests. According to one study, "much of the advance reproduction of spruce and fir seedlings was destroyed during the harvesting operation" (Ibid.).

Coupled with scarification is the exposure of mineral soil that is low in fertility and not advantageous for regeneration. "Exposed mineral soil can become crusted and compacted solely by rainfall impact, to the point where seedling roots may have trouble penetrating the soil" (Ibid.). Soil that is compacted does not allow for new growth.

Another component of soil disturbance is the compaction of the soil by the logging equipment. Pierce et al (1993) found that at three WTC sites,

48 to 81 percent of the areas were compacted. Compacted soil inhibits "root penetration, aeration, and infiltration capacity, which may lead to soil saturation, erosion, and reduced seedling growth" (Ibid.). Indeed, Martin (1988) found that logging equipment can cause compaction on more than 90 percent of a site. "The evidence seems clear that compaction, however slight, reduces seedling germination and growth to some degree" (Ibid.).

Regrowth

Whole-tree clearcutting dramatically changes the vegetative characteristics of the logged area. Basal area and biomass are reduced to zero. Species present at the site before the logging occurred are usually present in the regeneration, but in very different proportions. According to Pierce et al (1993): "We expect that 75-100 years will be required on each site to establish precutting levels of basal area, biomass and density. WTC imposed a distinct even-aged structure, likely to persist for 75-100 years, on the forest. Mechanical activity of skidders over most of each site crushed or damaged existing seedlings."

In many cases, economic pressure will cause logging to occur long before the 75-100 years required to restore the site. Indeed, this means that the forest has lost 75-100 years that it may never be able to regain in the evolutionary succession of the forest.

Whole-tree thinning can change the entire structure of an existing forest. Eastern forests are complex in structure, having multiple layers of canopy. This is known as vertical complexity of forest vegetation. With the many different kinds of trees and vegetation, there are multiple layers of leaves. The more foliage layers, the more breeding birds

generally found in the forest (Willson, 1974). Whole-tree thinning removes the economically unwanted trees, thereby eliminating the multi-layer canopy. The canopy becomes simplified because the diversity of tree species is reduced, and wildlife suffers.

Nutrient Loss

Whole-tree clearcutting removes over 90 percent of the above-ground biomass. WTC removes approximately 20 to 25 percent more of the original biomass than a stem-only clearcut (Pierce et al, 1993). Furthermore, nutrients such as Nitrogen, Calcium and Potassium are removed. Indeed, Pierce et al (1993) found that "WTC removes from 1.2 to over 3 times the nutrients removed with conventional stem-only clearcutting."

In New Hampshire, much of the biomass operations are for thinning "junk" or economically low quality wood. Yet, this young low quality wood has a high amount of nutrients in the branches and crown. According to Pierce et al (1993): "The difference in nutrient removals between whole-tree and stem-only clearcutting is greater in young stands than in older stands, because a greater proportion of stand biomass is contained in the nutrient-rich crowns of young stands."

Organic matter in the forests conserves forest nutrients, natural fertilizers, soil conditions, water stabilizing elements, and other life supporting requirements (Coates et al, 1982). Humus, organic debris, including dead plants, leaves, twigs, tree trunks, and roots that is in various stages of decomposition, is an important source of nutrients. Hans Jenny of the College of Natural Resources at the University of California, Berkeley, stated: "For soil to function effectively in plant production it must possess substantial water-holding and ion-exchange capacities, good physical structure, and thriving populations of bacteria, fungi, and invertebrates. These attributes are highly correlated with humus substances, which are dark-brown organic macro-molecules rich in phenolic compounds and are derived from plant remains and microbial synthesis. Humus has high sorptive capacity for toxic metals, and its buffering power mitigates the impact of acid rain. Humus maintenance requires a steady influx of plant biomass from root decay and aboveground organic residues." (1980, emphasis added)

Biomass operations remove almost all of the above-ground organic residues.

According to Pierce et al (1993), clearcutting of northern hardwoods leads to a decrease in thickness, organic content, and nutrient content of humus. "Within 3 to 15 years after cutting, the O horizon (Humus) is reduced by about one-half." Indeed, the study states that the effects of WTC on humus have not been sufficiently studied (Ibid.).

Whole-tree clearcutting removes the nutrients Nitrogen, Calcium, and Potassium from the logging site. There may be additional loss through streamflow or groundwater. According to R.H. Waring of the Department of Forest Ecology at Oregon State University (1980): "The annual growth of a forest peaks when the forest canopy first closes. A policy to thin or harvest at this

Biomass Facts

The Whitefield (NH) Power & Light biomass plant, owned by Thermoelectron, produces 16 MW, or 13,800 KW per hour, or enough to electrify a city of about 15,000 homes. According to Thermoelectron, the average they receive from Public Service of New Hampshire is \$0.10 per KWH.

Revenues

*\$1,380/hour

*\$33,120/day

*\$993,600/month

*\$11,923,200/year

**After five years of operation, it has produced approximately \$60 million in revenues on an approximately \$30 million investment. The plant has a 30 year life expectancy.*

Wood Consumption

The Whitefield plant relies on green hardwood chips. It burns:

*10 cords/hour—the equivalent of one trailer truck load;

*240 cords/day;

*88,000 cords/year.

Impact on Forests

If we assume that a whole-tree clearcut produces 30 cords per acre, the Whitefield plant requires the equivalent of approximately 3,000 acres clearcut a year. Some observers feel that 20 cords per acre is a more accurate figure. If true, then the Whitefield plant would consume the equivalent of approximately 4,400 acres clearcut a year.

Other Important Facts

*The price of chipwood, according to sources in Coos County, is \$24/cord. At this price, Whitefield P&L spends about \$2.09 million/year on chips.

*Ash Deposits are approximately 25% of the volume of the chips burned.

*Efficiency is poor. Biomass plants that are not designed for cogeneration produce only about 30% of the available energy out of the wood burnt.

time is not uncommon. Unfortunately, the forest's use of nutrients is also highest at this time, so complete tree harvesting results in a major loss of the available nutrients, exceeding 50% of the pool for some minerals such as potassium."

Pierce et al (1993) found that "a single WTC removed 4-6 percent of the total N, 5-13 percent of the Ca, and 2-3 percent of the K."

Over a 100-year rotation, nitrate is usually fully replaced due to the amount of nitrate in air pollution. Potassium input and output is basically balanced in an undisturbed forest so any logging causes a depletion. Magnesium depletion is similar to Potassium.

Presently, acidic precipitation is depleting calcium from the soil in New England. According to one study, "calcium is being depleted by leaching from eastern forest soils at a rate that will 'remove all <2-mm ecosystem Ca in less than 1000 years' (Federer et al, 1989). Logging can double the rate of Ca loss.

"With WTC, the loss of Ca is 13-33 percent in 100 years for one harvest and 21-58 percent for three harvests at the four sites examined. Acid precipitation and WTC harvest removal contribute about equally to CA depletion. . . . Calcium depletion already may contribute to red spruce mortality at high elevations." (Pierce et al, 1993)

One of the summary conclusions from the Canadian Forest Service's National Forestry Institute on whole tree removal states: "Harvesting whole trees means the removal of twig and leaf tissues which contain high nutrient concentrations, and account for 28 to 92 percent of the nitrogen, 20 to 83 percent of the phosphorus, 6 to 85 percent of the potassium, and 5 to 87 percent of the calcium in the above ground components. Although leaf and twig biomass might be low, these tissues play an important role in the forest nutrient cycle. Engineers and economists tend to regard leaves and branches as wastes. They may be a waste to man but not to the forest." (In Coates, 1982, Emphasis added)

Whole-tree clearcutting is a severe disturbance of forest ecosystems. According to Pierce et al (1993): "WTC alters both the forest stand and the site. Prudent forest management must be concerned not only with the most efficient and economical method of carrying out a WTC operation for a one time gain, but also with the short- and long-term consequences of such practices."

Little research has been conducted to determine the optimum amount of residue needed to maintain or improve soil conditions for the best regeneration and growth (Cramer, 1974). Despite this lack of knowledge and understanding of the impacts of whole-tree logging, foresters continue to promote it.

Economics versus Ecology

Presently, fuel used in the wood to energy plants in New England is supplied from natural forests and not from agricultural tree plantations. This includes wood chips from industrial and non-industrial land owners. There is concern that the non-industrial land owners will be required to cut timber on their land to maintain special property tax rates or see an opportunity for a short-term economic gain at the expense of maintaining a healthy forest ecosystem.



A whole-tree clearcut in Atkinson, Maine. Photo by David Carle.

This fear of over-exploitation is rooted in the unsubstantiated trust put into a forester's knowledge and concern of forest ecology over economic gain. In a report by Coates et al (1982): "Forest management should be seen as a branch of applied forest ecology and that the gap between the strongly empirical, trial and error, experience base for forest management and what would be implied by a functioning applied science of terrestrial ecology is enormous. Until the size of the gap is recognized and understood by all stakeholders, we can at best hope to bumble through and at worst run the risk of substantial deterioration"

There is little research available on the impacts of whole-tree logging. Indeed, there is little research available on the concept of a forest from the landscape level.

"The bulk of research is site and material specific and relatively narrow in its framework. The research in forests is overwhelmingly reductionist, rather than holistic."(Coates et al, 1982).

An example of this is the planning of a timber sale by the U.S. Forest Service. The planning consists of evaluating the impacts of logging only within the specific area to be logged. There is little concern about the entire National Forest or surrounding forest land as a whole. Interactions are often subtle, circuitous, and complex. Unless whole-tree logging is viewed in the context of applied forest ecology, we cannot understand our choices or the implications of those choices.

In many cases the choice of removing material from the forest is based on economics and not ecology. The Director of Forestry Research, Weyerhaeuser Company, George R. Staebler (1979) has stated: "I have attempted to show the off-site values of forest biomass as a raw material for a myriad of products. Those products rank in value from high to low to negative at any point in time, and all products of positive value are removed according to economic laws. As accounting procedures are rationalized, as values increase with changing markets, as new higher value products are developed, and as costs of removal are reduced through technological advances, the amount of biomass removed will increase, often dramatically."

Presently, there is an ongoing dis-

pute between the New Hampshire forest products industry and the utility company, Public Service of New Hampshire (PSNH) over the possible buy-out and closing of a number of wood to energy (biomass) plants in New Hampshire. The issue arises over the fact that PSNH must, by law, purchase electricity from the biomass plants which is 2-3 times more expensive than other sources of energy. The one issue not included in the discussion is the impact of whole-tree logging on the forests.

According to a letter jointly written by David Harrigan, Vice President of the Society for the Protection of New Hampshire Forests (SPNHF) and Charles Niebling, Executive Director of New Hampshire Timberland Owners Association, which represents the forest products industry, the biomass plants offer a market for "low quality timber which gluts New Hampshire vast second-growth forests" (Niebling and Harrigan, 1993). Yet, it is these same organizations that are blaming the "glut of low quality timber" on past logging practices. According to Richard Ober of the SPNHF, "we faced many years of high grading where only the best wood was taken out" (Nichols, 1993). From the economic perspective of a forester, the statement is true. But, from a forest ecologist point of view, that low-quality timber is attempting to rejuvenate a highly degraded and damaged ecosystem brought about by logging. This is an excellent example of short-term economic gains impacting the long term ecological health of a forest. Past logging practices have greatly impacted the concept of forests being a renewable resource. We have been told by foresters that forests are renewable. Despite this claim, the forests are not producing the quality timber that they once did before the invention of forestry. How can we trust the foresters now when they are telling us that removing whole trees will benefit the forest?

Research, as outlined above, is beginning to show that whole-tree logging can cause severe long-term impacts to forest ecosystems. Unfortunately, there is a lack of research on the impact of whole-tree thinning. Disturbances to the soil including severe compaction, limited regrowth, and nutrient loss are just some of the far reaching impacts of

whole-tree logging. Whole-tree thinning removes economically inferior trees, but reduces the diversity of what was a natural forest, thereby impacting the wildlife and changing the area into a fiber farm. The groups supporting biomass plants state that closing the plants is "poor economic policy, and even poorer energy policy" (Niebling and Harrigan, 10/26/93). What these groups fail to address is the severe impacts these wood-to-energy plants have on the overall health of the forests.

Whole-tree logging is a relatively new form of logging. Nothing mimics it in nature. Common sense should tell us that removing whole trees will negatively impact the forest. We must admit that this type of logging will impact the long-term health of the forest, and work to stop it.

Bibliography

- Coates, J.F., H.H. Hitchcock, L. Heinz. (1982). *Environmental Consequences of Wood and Other Biomass Sources of Energy*. Office of Strategic Assessments and Special Studies, U.S. EPA. Washington, D.C.
- Cramer, Owen P., ed. (1974). *Environmental Effects of Forest Residues Management in the Pacific Northwest*. USDA Forest Service General Technical Report PNW-24. Portland Oregon
- Federer, C.A., J.W. Hornbeck, L.M. Tritton, C.W. Martin, R.S. Pierce, C. Tattersall Smith. (1989) "Long-Term Depletion of Calcium and Other Nutrients in Eastern US Forests." *Environmental Management*. Vol. 13, #5:593-601.
- Jenny, H. (1980) "Letters." *Science*. Vol. 209, June 20, 1980.
- Johnson, Robert. (1993). "Electric Utilities Study An old, New Source of Fuel: Firewood." *The Wall Street Journal*. December 2, 1993.
- Martin, C. Wayne. (1988). "Soil Disturbance by Logging in New England—Review and Management Recommendations." *Northern Journal of Applied Forestry*. Vol. 5, #1
- Niebling, Charles and David Harrigan. (1993). "Readers Forum." *The Laconia Citizen*. November 8, 1993.
- Nichols, Hank. (1993). "Utility's plan loses sight of forest and the trees." *The Boston Sunday Globe*. November 28, 1993
- Pierce, R.S., J.W. Hornbeck, C.W. Martin, L.M. Tritton, C.T. Smith, C.A. Federer, H.W. Yawney. (1993). *Whole-tree Clearcutting in New England: Manager's Guide to Impacts on Soils, Streams, and Regeneration*. USDA Forest Service General Technical Report NE-172.
- Staebler, G.R. (1979) "Rationalization of Biomass Harvest and Use." *Proceedings: Impact of Intensive Harvesting on Forest Nutrient Cycling*. Broomall, PA: Northeast Forest Experimental Station, U.S. Department of Agriculture Forest Service.
- U.S. Forest Service. (1993) White Mountain National Forest Monitoring Report. Laconia, NH.
- Waring, R.H. (1980) "Opportunities and Constraints on Forests Imposed by Their Nature as Ecological Systems." *Forest Land Use Symposium #1: Discussion Papers*. The Conservation Foundation, Washington, D.C.
- Willson, M.F. (1974) "Avian Community Organization and Habitat Structure." *Ecology*. 55:1017-1029.

David N. Carle is the Associate Executive Director of RESTORE: The North Woods.

New Watershed Bill May Protect Forest Ecology

River & Watershed Protection & Restoration Act

by Pope Barrow

River conservation advocates have recently been promoting the idea that river conservation must be more closely tied to protection and restoration of the forests and other landscapes through which rivers flow.

There are sound scientific underpinnings for this thinking. The ecological health of rivers is inextricably linked with terrestrial conditions in each river's riparian zone, flood plain, and in fact, the entire watershed. Likewise the ecological balance within these terrestrial areas is often dependent on the condition of the rivers and streams which flow through them.

Awareness of the diverse, complex and intricate ecological connections between rivers and their surrounding landscapes has grown in recent years. Likewise, awareness of the degraded condition of America's freshwater ecosystems has spread from the scientific to the eco-political community. It has become increasingly clear to many in this community that existing river conservation techniques are not adequate to preserve and restore America's threatened riverine ecosystems and that this task will require new tools and techniques.

Task Force Assembled

Beginning more than a year ago, an informal task force established by the Pacific Rivers Council began to study ways in which river conservation strategies could be redesigned to recognize and address recent scientific findings regarding the status of the nation's freshwater aquatic ecosystems.

The task force included River Network, Pacific River Council, Trout Unlimited, American Whitewater, the National Wildlife Federation, representatives of State river organizations, and various other regional and local groups, as well as individual scientists and political experts.

The exercise began with an analysis of the existing ecological condition of river systems and existing river protection and restoration tools.

Existing Conditions

The biological health of riverine ecosystems is in decline in almost every watershed in the nation. Evidence is growing that the ecological balance within many river systems throughout the nation (as well as some other freshwater aquatic ecosystems) is nearing a state of total collapse. These trends were highlighted in testimony before Congress in 1993 and in a 1993 study by the National Academy of Sciences which focused scientific attention on the need to begin restoring freshwater aquatic ecosystems.

The task force concluded that America's river systems need protection from a variety of abuses, and that most river systems are desperately in need of restoration to redress the effects of past abuse.

Existing Laws

The key laws now on the books which address river protection and restoration are the Clean Water Act and the National Wild and Scenic Rivers Act.



River protection depends on local river-lovers. Here, Geoff Dates of River Watch Network and Marie Levesque-Caduto of the Connecticut River Watch program collect benthic macro-invertebrates using a kick-net. Photo by Wayne Thompson for River Watch Network.

The Clean Water Act is largely concerned with water chemistry and has been effective in controlling industrial discharges of toxic chemicals. However, the Act has been ineffective in controlling diffuse pollution from "nonpoint" sources. It has also not checked the continued precipitous decline in the biological health of our nation's waterways.

The wild and scenic rivers legislation has been used for 25 years as an all-purpose river conservation tool. However, it was never designed to serve this purpose. It was primarily drafted as a means to stop dam building on a few select and exceptionally qualified rivers, specifically those flowing through Federally owned lands.

The wild and scenic rivers act places a river segment, together with a narrow corridor of contiguous land, under Federal park or forest service management and prohibits harmful water projects.

Task Force Findings

Scientific experts on the task force contended that river ecosystems would continue to decline in vitality even if the Clean Water Act were successful in removing almost all industrial point source pollution. Recent studies of the conditions now present in freshwater aquatic ecosystems indicate that while chemical pollution is damaging to rivers, rivers need protection from other threats to their ecological integrity.

It seemed to the task force that the current Clean Water Act, with its "top-down" regulatory approach was unlikely to succeed in dealing with the continued deterioration of ecological health in river systems.

The task force also concluded that the Wild and Scenic Rivers Act, with its segment-by-segment concept and its focus on water projects, is far too limited. The task force agreed that protecting an isolated river segment here and there from water projects could never begin to address the multitude of ecological abuses now being suffered by entire river systems. Rivers are so dependent on their riparian zones, flood plains and watersheds, and headwaters and downstream areas are so ecologically linked, that neither can be protected or restored without close attention to the other.

The task force also decided that requiring Congressional approval of a

commitment to protect or restore riverine resources was a heavy burden for those seeking to achieve this objective. (The wild and scenic law requires usually two Acts of Congress before a river can be protected.) The task force felt that those seeking to abuse a river's ecosystem, not those seeking to protect and restore that ecosystem, should bear the burden of proof. Local communities should not have to seek federal legislative approval in order to protect and preserve each and every river.

It was also clear to the task force that almost nothing in the Federal Wild and Scenic Act addressed the restoration of riverine ecosystems.

The task force found that, ironically, even the limited protection afforded by the Federal Wild and Scenic Rivers Act is almost unattainable in political terms for the vast majority of rivers, especially those far removed from Federal enclaves such as national forests. Only a select few outstanding river segments which already flow through Federal lands can ever be anticipated to be protected under this system.

The task force knew that many local communities want to protect and restore their waterways. Yet they also knew that these same communities see full employment and Federal money coming into the locality as desirable objectives. Under current programs, jobs and Federal funds flow from development projects, many of which are synonymous with the alteration and degradation of river systems.

The task force believed that financial incentives, local empowerment and local responsibility, guided by nonpolitical scientific principles, could be a productive strategy to work towards river protection and restoration with maximum political support.

The task force felt that a flexible program, allowing for a lot of river conservation and restoration where a strong political constituency existed, and less where that constituency was less powerful, could lead to protection and restoration for a large number of rivers.

These findings led to the task force's conclusion that a completely new vision of river conservation and restoration is needed, and that a new kind of legislation is needed to further this vision.

New Proposal Developed

After more than a year of workshops and drafting sessions the task force assembled a proposal entitled the "River and Watershed Protection and Restoration Act."

The draft bill is based largely on a study conducted by the Pacific Rivers Council, entitled "Entering the Watershed," on the recent study by National Academy of Sciences ("Restoration of Aquatic Ecosystems") and on the combined experience of the groups and individuals in the task force who had been involved for many years with efforts to protect and restore rivers under the National Wild and Scenic Rivers Act and other State and Federal laws.

Under the proposed River and Watershed Protection and Restoration Act, any local government or local group with the ability to carry out a river conservation or restoration strategy can ask the Secretary of the Interior to register a specified river and watershed area. The request must come through a State agency designated by the Governor.

The local restoration or protection strategy must be consistent with general national river and watershed protection and restoration standards set by the National Academy of Sciences.

The strategy can be almost anything contributing to the protection or restoration so long as it is consistent with those standards. In other words, the strategy could be as simple as cleaning up trash or as complex as restoring the entire aquatic ecosystem, using the NAS standards as guideposts.

Unless the Secretary of the Interior deems the strategy inconsistent with the national standards, the Secretary must register the river and watershed covered by the application.

Once registered, the river and associated watershed is protected from all Federal and State actions which are inconsistent with the restoration and protection strategy unless there is no prudent or feasible alternative to the Federal or State action concerned.

In addition, Federal funding from a wide variety of existing Federal programs, and from a new fund, will be available to local authorities carry out the strategy.

One key portion of the bill provides that, for registered rivers and watersheds, existing Soil and Water Conservation Service and Agricultural Conservation and Stabilization Service funding can be redirected to projects which further the river restoration and protection strategy, instead of being used for destructive projects as is now the case in so many areas.

This funding could be substantial, large enough to create local jobs in river restoration and reduce unemployment in targeted areas.

What You Can Do: Copies the River and Watershed Protection and Restoration Act (RWPR) can be obtained from Pacific Rivers Council, River Network, American Whitewater, or Trout Unlimited.

The bill will be introduced in February. If you can help support the legislation, call the Pacific Rivers Council at their office in Alexandria, Virginia: 703-836-3420.

Q & A About the River & Watershed Protection & Restoration Act



What is the purpose of this bill?

To provide a new, unique mechanism to empower local river and watershed conservation advocates, communities, businesses and landowners to protect and restore aquatic resource values in rivers and watersheds of importance to them. The bill provides a means for these local conservationists to tailor and integrate local, state and federal incentive and regulatory tools for the benefit of rivers and watersheds of both high and low quality.

What is in the bill that will help local river and watershed conservationists?

The bill provides local, grassroots conservationists a mechanism that gives state and federal authority to their own protection and restoration strategies. This works through placement of watershed or river on a National River and Watershed Registry. Placement on the registry will allow local conservationists to obtain federal funding, technical assistance from federal and state aquatic resource agencies, and protection from activities that are inconsistent with the river or watershed conservation strategy.

How does this mechanism work?

To get a watershed or river placed on the registry, a state, local government, watershed council, or local citizens may nominate a watershed, river, or river segment of interest for registry inclusion to the Secretary of the Interior. The nomination must include a map of the watershed, a description of the protection or restoration strategy for the watershed, description of the aquatic values that are to be protected or restored by the strategy, a description of the types of assistance needed to implement the strategy, and proof that the nominating entity has the authority to carry-out the strategy. Following full public review and comment on the

nomination and careful review by the appropriate state agency, the Secretary must place the watershed on the registry unless the agency determines the nomination to be inadequate.

What distinguishes the Registry bill from the Wild and Scenic Rivers Act and the Clean Water Act?

The Wild and Scenic Rivers Act gives protection for high quality rivers. The Clean Water Act is a federal and state regulatory program controlling discharge of pollution into all waters of the United States for the purpose of protecting and restoring all waters. Generally, both of these programs are "top-down", federal mandates. In contrast, the Registry bill provides a "bottom-up", local conservationist-driven river and watershed conservation program. Unlike the Wild and Scenic Rivers Act, the Registry bill allows for restoration of rivers. Further, the Registry bill emphasizes protection of rivers and watersheds, not just rivers and adjacent riparian areas. Unlike the Clean Water Act, the Registry bill is not a regulatory approach to conserving rivers and watersheds. It is largely a planning, local cooperation, and financial incentive-driven approach to river protection. It is also entirely voluntary. Finally, the Registry bill emphasizes watershed protection and restoration, rather than direct control of pollution entering waterways and wetlands as does the current Clean Water Act.

Aren't state river protection programs already doing what the bill proposes to do?

A few states do have small but relatively effective river conservation programs, such as South Carolina, Oregon, and Massachusetts; most states do not. No state has a truly vigorous, comprehensive river conservation program. Although the Registry bill does not provide for such a comprehensive program either, it will invigorate and improve

existing programs, and it will foster state programs where there are now none. Why? Because of the bill's Registry conservation mechanism and the funding it offers.

How much will implementation of the bill cost?

The bill authorizes \$13 million to be invested in this program. This figure is based on anticipated need of several hundred thousand dollars for the federal agencies to begin program implementation and several million dollars in initial grants to local watershed councils and other eligible entities to commence conservation activities on approved registry rivers and watersheds. It is anticipated that additional funding will be required to fuel the Registry programs in each state once the program hits full stride.

What are prudent and feasible alternative determinations?

This provision of the bill provides federal protection to a strategy developed by local communities and conservationists that has been approved and placed on the Registry. It provides a mechanism to help ensure that federally and state permitted or funded activities do not adversely affect implementation of the protection and restoration strategies. For example, developers of a proposed new, federally-permitted dam that would adversely affect implementation of a watershed strategy would have to prove that there was no prudent and feasible alternative to dam construction. Upon public notice and comment and review of the developer's application, the Department of the Interior may determine that a prudent and feasible alternative does exist and deny the federal permits, disallowing the dam.

What do the terms "feasible" and "prudent" really mean?

These terms have been developed and used for many years in other federal

programs, such as the Federal Highway Act, the National Environmental Policy Act, and the Clean Water Act. Agencies implementing these terms weigh carefully several factors, including relative costs associated with various alternatives and environmental values to be adversely affected by the alternative approaches, before making these determinations. We envision similar application of these terms in this bill.

What is the purpose of watershed protection and restoration standards?

The bill directs EPA to contract with the National Academy of Sciences to develop watershed protection and restoration standards. The proposed standards would be subject to full peer and public review. The purpose of these standards is to ensure that protection and restoration strategies are scientifically sound, ensure quality control on implementation of the strategies, and to help guide "feasible and prudent alternative" decisions for activities potentially posing an adverse impact on the strategy.

How will the Registry program be financed?

The bill proposes three methods of funding the registry program:

- 1) establishment of a new State Revolving Fund for the program;
- 2) establishment of a river and watershed stamp program, modeled after the federal Duck Stamp program, with revenues transferred back through to the states from which the stamps were sold; and
- 3) re-allocation of some funds from several existing programs.

Does this bill authorize federal land acquisition, condemnation, or land use control?

No, the bill does not authorize any of these, nor does it modify, in any way, existing regulatory authorities of local, state, and federal agencies.

Wilderness & the Illusion of Separateness

by Stephen Saltonstall

One of the great paradoxes we now face is that, as human population expands, our horizons contract to the edges of our cereal bowls. Like autistic children mesmerized by our own fingers, we look further and further inward, disconnected, blinded, and ignorant, lulled by the perceived beauty of a karaoke chorus of empty psychobabble, dullards at the mercy of cadres of ointment vendors posing as leaders.

This is an age when we like our "wild" animals best when they are confined in prisons and trained by keepers to jump through hoops for large audiences, thereby making fortunes for their corporate "owners;" this is an age when available frog habitat fast shrinks to the boundaries of high school science labs. Government land stewards and so-called "tree-farmers" carelessly raze New England's forests, primarily to manufacture pallets for industry that are burned or landfilled after their first use, giving no thought or care to the fact that, as a result, 90 percent of all the Indigo Buntings, among other species of neotropical migratory songbirds, have been extirpated during the last 10 years.

We prefer the controlled environments of shopping malls, domed stadiums, jetways, and office buildings with windows that will not open to the mild inconvenience of being rained on. We would rather visit theme park jungles with mechanical elephants and alligators and Raging River carnival rides than preserve, much less experience, what little Wilderness remains on the planet.

This is all part and parcel of the Illusion of Separateness: the unexamined belief in a Master Race—the human race—equipped with a license from God to terminate with extreme prejudice any mute and humble creature that dares stumble or just be in the way of its "betters," *i.e.* us.

The Illusion of Separateness is a cult far more dangerous than Jonestown or Waco, for it divides nations, religions, cultures, races, sexes, and, most significantly, species. It confuses meaning with dogma, emotion with sentimentality, eros with power, the divine with the patriotic, moral authority with the trappings of office, and life's mystery with "the magic of the marketplace."

Above all, the Illusion of Separateness insists that one can define humanness just by looking in the mirror, without reference to Nature and its panoply of plants, animals, rivers, forests, rocks, glaciers, and mountains—the Illusion of Separateness treats these as mere resources, objects designed specifically by Providence for our consumption and dominion.

We need a final divorce from this bad marriage with our own bloated egos. We must recognize that human overpopulation and Wilderness destruction are synergistic phenomena, that each is at once a child and parent of the other. As our country's population grows exponentially (a near doubling during my short lifetime alone), so also does our capacity for stupidity and delusion. As Wilderness is lost, so also is our judgment, and clarity of mind.

We must preserve Wilderness for itself, and because it is ethically right, but if we do so we will also make human population growth more difficult by denying us further habitat to occupy and pollute, and we will also slow our culture's steady descent into techno-ignorance. For Wilderness is an antidote to our autism, a gentle subversive in our conformist midst, a live grenade ready to explode the dominant paradigm.

I know from personal experience that we exist not in the fragmented, atomized, ever-reducible universe that the purveyors of crackpot realism have taught us to accept as fact, but in a world of synchronicity, where every creature and thing in Nature, including human consciousness, is interdependent. This isn't a touchy-feely mantra, best recited gravely to a background of New Age Mantovani music, but something that is verifiable experientially to anyone who seeks out Wilderness.

Every year around Thanksgiving time, I don my red and black checkerboard Filson jacket, shoulder my trusty .270 rifle, and wander up the mountain behind



my house to take part in a peculiar Vermont rite known as deer season. I'm no Natty Bumppo, but I do see a lot of wildlife, and once in a while I manage to bring wild venison to our otherwise vegetarian family table.

I'm what's known in the pages of *Outdoor Life* as a stand hunter. This is a misnomer, because a stand hunter sits quietly, watching, dreaming, and meditating, often in bone-chilling cold, waiting for a rutting buck on the track of a doe in heat to pass within range.

(Alas, the state game biologists always set hunting season during the mating season, when the buck's sex drive overcomes his innate caution—another fine example of how we humans take unfair advantage of members of the animal kingdom!)

Thankfully, Mr. Buck rarely arrives on schedule, but there is usually some small miracle to be savored and reported.

For example, I've observed that forest creatures appear to be all on the same biorhythmical cycle. It's as if there is a sea of common energy in the woods that ebbs and flows almost with the regularity of a sine wave. Periods of quiet alternate with bursts of activity, where the indomitable chickadees and their companions the nuthatches and downy woodpeckers call and fly about with abandon, while at the same time, squirrels and chipmunks dash along the forest floor. Then all is quiet again, until the cycle repeats. It's quite possible, if one is at all receptive, to tap into this energy flow, to adjust one's rhythms to those of the critters, and feel when the next crescendo of activity is about to swell.

A goal of the stand hunter is to blend into the background, to become part of the woods, so as not to be noticed by deer. I've learned that on a good day, this can really happen. You experience yourself fitting into a kind of enormous natural clockwork. The discomfort of being cold fades, the self dissolves, and conscious thought is supplanted by the experience of merger into some great woodland Being that extends far beyond one's field of vision.

If, on one of these occasions, a deer should appear, you know it is there before hearing or seeing it. The woods seem somehow different, the lights and colors change perceptibly, and you can feel the deer squeezing into a huge, amoebae-like woodland Body of which you have also become a part.

On a sunny autumn day last hunting season, while waiting hunched in a stand of saplings, I felt something about to happen. Within a few seconds, I heard it. The fallen leaves had been freeze-dried and crunchy under my clumsy booted feet when I'd moved about, but the sound I heard was almost imperceptible, a cool breeze of paws running toward me along the mountainside, barely touching the ground. Too ethereal to be a deer, I thought. What could it be?

And then I saw him, just 25 yards upslope, an Eastern Coyote, a rare sight in Vermont so close. He was young and healthy, maybe two or three years old, bushy-tailed, brilliant-coated, silvery and sleek, with an acute yellow-eyed, brave intelligence. He couldn't see me—I'd become part of the landscape remember—but my human smell had been carried upward by the morning thermal, and he skidded to a stop directly over me. He sniffed the air, recoiled at my odor, then wheeled and ran, gliding even more quietly than before, back along a deer runway in the same direction he'd come.

During that brief encounter I learned more about what it is to be a human being than I might have in just about any other context. I knew on a deep, intuitive level that I am no more or less than Coyote's brother, a fellow predator in search of the same quarry, wild animals all, thrust into the same eggshell state of Nature, hunting together on a common journey, through a common realm, and sharing a common fate.

This, I believe, is a lesson that we must surely take to heart. I don't mean that we should ignore the burnished logic of thinkers like Garret Hardin and William Catton, or their message that humans have already exceeded earth's carrying capacity and are in the process of a fatal drawdown of their resource capital. Heed their message we must. But we must do more than grasp intellectually the problem of human overpopulation and formulate well-meaning, rational and logical solutions to it.

We must also find the wisdom to acquire and internalize perspective and humility, and come to know through intuition and experience our true place, which is alongside brother Coyote, Mr. Buck, the indomitable Chickadee, the great amoebae-like forest Being, and our other Wilderness friends, realizing, that in their raw and tender company, that Earth is a many chambered mansion meant from the beginning of time to be theirs as well as ours, a sprawling yet unified estate where we humans must learn to sleep in only one of its many wings.

This, I believe, is the great moral issue of our time: will we choose to continue to ride roughshod over Nature, grinding into oblivion hundreds upon thousands of whole species of fellow sentient beings who have just as much right to exist as we do? Or will we choose the way of the Wild?

One path leads inward to a barren, soulless struggle for existence, more humanoid than human; the other beckons us outside to a rich, mythic, and mystical Wilderness, where, in the process of getting lost, we can truly find our way.

Stephen L. Saltonstall is a lawyer in southern Vermont.

Forgotten Language: Giving Voice to the Northern Forest

by Robert Perschel

The shining lakes, soaring peaks and moist woods of the Northern Forest stir our deepest passions. Yet, when we debate the future of the Northern Forest region, we hear, read and produce countless pros and cons for how to use the land, to cut or not to cut, which to preserve, who to preserve it, which to use, what can be saved, and what can be spent, endless arguments about saving and spending and needing and having and not having. How is it that our arguments for the quality of human life seem always to be joined with economy, with supply and demand, with that which is so completely utilitarian? How is it that we allow the Northern Forest debate to continue without summoning ourselves and others to that which is most meaningful to us? It seems we are constructing and participating in a framework for analysis that belies the essence of who we are.

How does this debate account for those times in our lives, those brief, fleeting moments when we, the forest and the land seem to have been one and the same thing? Each of us has our catalogue of recollections of these moments. For me they begin with a quiet morning on a salt marsh when I was a seven year old boy. I remember vividly a night in the Grand Canyon as a teenager. Several years ago while supervising a logging job on a rather nondescript woodlot, I surprisingly experienced the same connection to land that I had last year when, for the first time, I watched the flight of Canada Geese with my three year old son.

These times are the ones we long for and remember, brief moments in our lives, experiences that are simply impossible to express. These are the times when we and the forest have much in common. In these moments the land has no value, we and the forest simply are, and we are beyond the measures of economy and our endless debate. These are the moments that have captured us for all time; the ones we chase throughout our lives.

Are these experiences not reality? Where and when was it written that the experience of the joy of being has a less legitimate place in the debate over the Northern Forest than the economic and scientific facts we are so preoccupied with?

For someone to hold this experience longer than a brief vacation moment is not possible, is it? That person would have to be a Thoreau. They would have to go off in the woods and abandon all ties to the real world. After all there are jobs to fill, careers to build, bread to earn, budgets to balance, political realities, social proprieties, families to have, legacies to guard, land to own and protect and defend and buy and sell, and cold hard economic facts to face up to. All this endless doing trying to accomplish what in a brief compelling moment—just is.

When was it written that our deepest passions are somehow not as real and should not have equal standing in this debate? When did we accept this way of thinking and silence that other part of ourselves? When did we decide that the critical decisions about the future of the Northern Forest could be



made without bringing all our experiences to bear in every conversation, in every decision, in every listening session.

We are asking the public to see the Northern Forest in a new way, to make decisions about its future from a new perspective. If we wish this to happen we must first allow the change to occur within us. It is not enough for us to engage in the set rhythms, patterns and parameters of the current debate. We must lead by going beyond them to introduce a more expansive way of dealing with our relationship to this forest—we must begin to speak in a forgotten language, one that has the power to convey our science and economics as well as our emotions, intuitions and intimate connections to the land.

This forgotten language fosters major change. It allows everyone to move into new frontiers of collaboration because it speaks from a place that is most meaningful to us all. It accounts for what happened at the 1991 Society of American Foresters National Convention. When we asked the SAF governing body to describe their most intimate moments in the forest they filled the afternoon with the most sincere heartfelt poetic descriptions imaginable. From there they were moved to guide the Society to write and adopt a land ethic for their 90 year old code of ethics. Certainly this wasn't a "rational" or "economic" decision. Quite clearly their behavior was informed by something within them more essential, more fundamental, than what we have allowed to dictate the Northern Forest debate and our participation in it.

What is our responsibility to future generations, to people in other regions and countries of this planet, and to non-human life which shares the planet with us? Our existing social, economic and political systems do not help us in accepting these responsibilities. These systems constrain us, and we must move beyond them in order to expand them. These systems that dictate the debate must be informed and then expanded through our own personal experiences of the land. The questions regarding our responsibilities will become real only to the extent that each of us sustains them in all our communications and interactions regarding the Northern Forest.

It is surprising how long we can talk without ever referencing our love and commitment and sense of responsibility to the land. I have found it is quite possible to talk with our congressional delegation or the NFLC for considerable periods of time without ever speaking of our passion for these lands. I sup-

pose it will be possible to provide endless testimony at the upcoming listening sessions without addressing this important aspect of ourselves. But think of the effect if every speaker began by speaking from their most intimate connection to the land.

The Wilderness Society is in the midst of a two year economic study of the Northern Forest. We are gathering revealing data regarding the state of the forest products industry and the potential to diversify the industrial mix for a better future. We intend to present this information at the NFLC's listening session. It is information essential to an informed decision about the future. But, we also intend to speak to other issues. We will speak to what is most meaningful to us, to what brought us to speak for the Northern Forest in the first place.

When I first became aware of the rates of biodiversity loss on the planet I found it hard to conceive of what it was that was disappearing. No conventional means of analysis seemed to hold it. This loss simply can't be measured in economic or cultural terms, but that does not mean there should be no response.

There is a poem by Archibald MacLeish called "An Epistle to Be Left in the Earth". In it he describes the earth traveling through the prodigious distances of space heading for the Great

Bear Constellation. He explains all that we have learned of the earth and asks those who would, millennia from now, find this wandering earth and open these writings to "make in your mouths the words that were our names."

This poem makes me consider the legacy we are leaving. Harvard biologist E.O. Wilson indicates we could lose 20 percent of the planet's biodiversity in the next 30 years. This is for all time. It is not something we will recreate. So hundreds and thousands and millions of years from now those who will come after us will look upon this narrow band of years spanning our careers and our lives and see that this catastrophic event occurred then, during our brief, but monumental, time on this planet. This will likely be your legacy and mine. When our names are spoken, it will be with a bitter taste.

This then leads me to wonder how in thirty years when the great extinction is history and my son is thirty four years old if he will look at what happened and ask me "Dad, what were you doing while this was happening? What could you possibly have been thinking about?" My decision is that I will not wind up telling him I was busy logging woodlots or waiting for more scientific information before I spoke for the earth. This inconceivable event is occurring during my watch, during my shift on this planet, and I will not accept it.

There is something beautiful, and it is disappearing. I know this because I know it directly from the forest and the land. No one told me, and no one convinced me. It is experience gained through brief compelling moments of a different nature. It is time to listen and respond to that which speaks through the land and must now speak through each one of us.

Robert Perschel is a professional forester and Northeast Regional Representative of The Wilderness Society.

SUBSCRIBE TO THE FORUM

*A one-year subscription to the Forum costs \$12 (US) or \$20 (Canadian) for six issues.

*We will send you a freebie if you can't afford to pay on the condition that you become actively involved in the search for sustainable natural and human communities.

*We urge our more affluent subscribers to send us \$24 or more to sponsor a freebie.

*Please consider becoming a lifetime subscriber with a donation of \$1000 or more.

**Enclosed is \$_____ to cover _____ subscription(s).

**_____ I can't afford a subscription right now, please send me a freebie. I promise to roll up my sleeves and get to work on behalf of the Northern Forest Communities.

**_____ Here's some extra cash to cover the cost of freebies.

**_____ Enclosed is \$1000 (or more). Please sign me up as a lifetime subscriber.

Name _____

Address _____

Town _____

State _____ ZIP _____

Contributions to the Forum are tax-deductible. Please make checks payable to Earth Island Institute and send to:

The Northern Forest Forum, POB 6, Lancaster, NH 03584

Schedule and Locations for the NFLC Listening Sessions

MAINE Listening Sessions

NFLC Contact: Donald Mansius at (207) 287-4906

Bethel

Bethel Inn

March 23 1:00 - 5:00 p.m. Open House
Wednesday 7:00 - 10:00 p.m. Listening Session

Abbot

Abbot Town Hall

March 30 1:00 - 5:00 p.m. Open House
Wednesday 7:00 - 10:00 p.m. Listening Session

Portland

Portland Holiday Inn West

April 8 1:00 - 5:00 p.m. Open House
Friday 7:00 - 10:00 p.m. Listening Session

Ellsworth

Holiday Inn

April 13 1:00 - 5:00 p.m. Open House
Wednesday 7:00 - 10:00 p.m. Listening Session

Presque Isle

Keddy's Motor Inn

April 26 1:00 - 5:00 p.m. Open House
Tuesday 7:00 - 10:00 p.m. Listening Session

NEWYORK Listening Sessions

NFLC Contact: Karyn Richards at (518) 457-7431

Camden

Katie and Karl's Restaurant

March 24 3:00 - 6:00 p.m. Open House
Thursday 6:00 - 10:00 p.m. Listening Session

New York City (Manhattan)

Hilton, 1335 Avenue of the Americas,

March 28 6:00 - 10:00 p.m. Listening Session
Monday

Colonie

William K. Sanford Library

April 25 3:00 - 6:00 p.m. Open House
Monday 6:00 - 9:00 p.m. Listening Session

Long Lake

Long Lake Town Hall

April 27 3:00 - 6:00 p.m. Open House
Wednesday 6:00 - 10:00 p.m. Listening Session

Glens Falls

Queensbury Community Center

May 5 3:00 - 6:00 p.m. Open House
Thursday 6:00 - 9:00 p.m. Listening Session

NEW HAMPSHIRE Listening Sessions

NFLC Contact: Susan Francher at (603) 271-2214

Berlin

Berlin Town Hall

April 4 3:00 - 5:00 p.m. Open House
Monday 6:00 - 9:00 p.m. Listening Session

Lancaster

Colonel Town Community Center

April 11 3:00 - 5:00 p.m. Open House
Monday 6:00 - 9:00 p.m. Listening Session

Concord

NH Health & Human Services Auditorium

April 18 3:00-5:00 p.m. Open House
Monday 6:00 - 9:00 p.m. Listening Session

VERMONT Listening Sessions

NFLC Contact: Jim Horton at (802) 748-8787

Island Pond

Brighton Elementary School

April 7 (Thursday) 7:00 - 9:00 p.m. Listening Session

Montpelier

Noble Hall at Vermont College

April 12 (Tuesday) 7:00 - 9:00 p.m. Listening Session

Morrisville

Charlmont Restaurant

April 19 (Tuesday) 7:00 - 9:00 p.m. Listening Session

Orleans

Lakes Region Union High School

April 26 (Tuesday) 7:00 - 9:00 p.m. Listening Session

VT Interactive Television at locations in:

**Bennington, Brattleboro, Newport, Randolph Center,
Rutland, South Burlington, Springfield, St. Johnsbury,
& Waterbury**

April 29 (Friday) 6:00 - 9:00 p.m. Listening Session

Conservation Activists Can Contact:

For the Listening Sessions in New York:

Camden, NY - Bruce Carpenter - (315) 339-2097
Manhattan, NY - David Miller - (518) 869-9731
Colonie, NY - David Gibson - (518) 377-1452
Long Lake, NY - Mike DiNunzio - (518) 873-2240
Queensbury, NY - Mark Bettinger - (518) 587-9166

For the Listening Sessions In Vermont:

Morrisville, Southern Vermont Sites &
Interactive TV: Tom Gilbert - (802) 223-2328
Orleans: Karen Coffey - (802) 754-2254
Island Pond: Farley Brown - (802) 586-9973

For the Listening Sessions In New Hampshire:

Sandra Jones - (603) 968-7467 or Tom Steinbach - (617) 523-0655

For the Listening Sessions in Maine:

Jym St. Pierre - (207) 626-5635

For the Boston Listening Session:

Tom Steinbach - (617) 523-0655

For the New Haven Listening Session:

Kelly Zajechowski - (617) 350-8866

For Other New England Areas:

NFLC Contact: Esther Cowles at (603) 224-6590

Boston, Massachusetts

World Trade Center

April 22 (Friday) 7:00 - 9:00 p.m. Listening Session

New Haven, Connecticut

Connecticut Agriculture Experiment Station

May 3 (Tuesday) 7:00 - 9:00 p.m. Listening Session