

THE NORTHERN FOREST
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THE NORTHERN FOREST FORUM

Working for Sustainable Natural & Human Communities

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THE NORTHERN FOREST FORUM

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NARP is a non-profit organization and network of grassroots activists dedicated to restoring sustainable natural and human communities across the Northern Forest Region of northern New England, New York, and adjoining regions.

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Editorial Policy

Views expressed herein are those of the writer and not necessarily those of other contributors or other NARP projects. We welcome diverse submissions on the Northern forest and related topics.

Please send all material to the address above.

Please address letters for publication specifically to the editor.

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Wilderness: The Act of Necessary Restraint

BILL MCKIBBEN DELIVERED THE KEYNOTE ADDRESS at a Wilderness conference at Middlebury College on October 6. His speech, entitled *Notes on Restraint: The Northern Forest as Embarrassing Example*, placed Northeast Wilderness efforts in the global context, the context of global warming and its unfolding impacts. Against the backdrop of dramatic effects, such as the thinning of the Arctic icepack and the possible inundation of countries like Bangladesh, and the overall, metaphysical import of human-induced changes in climate, McKibben said that the drive to establish Wilderness in northern New England seems "a little puny by comparison" or even "dramatically insignificant."

However, McKibben's major theme, developed over the past year in the streets of Seattle during the WTO protests, and in Bangladesh, where he has also visited, was that these Wilderness initiatives close to home are necessary acts of hope and humility. To combat global warming, he says, we must control our material drives, and, further, in learning restraint, seek the goal of decent lives grounded in shared values, accessible to all across the planet. What is clear, he said, is that the American standard of living, as presently constituted, cannot be sustained, let alone extended to all.

What Bill McKibben had to offer his audience for hope was the message of Seattle: that there are other bottom lines than that of profit and the economy. While we bid farewell to eight years of prosperity under President Clinton, McKibben suggests that, contrary to the other Bill's 1992 campaign slogan, it's NOT the economy stupid. The social bottom lines matter.

The cautionary message that McKibben offered was this: we will choose a path of restraint, or have one chosen for us. Having brought to the public one of its first warnings on global warming in 1989, McKibben has watched the scientific community coalesce in agreement over the past decade that the phenomenon is upon us. Disagreements are now over degrees—degrees of temperature rise and degrees of impact. None of the scenarios encourage complacency.

WHAT TO DO?

Resisting the evidence in the way that early evidence on acid rain was ignored — and the messengers treated rudely — is a recipe for disaster. We haven't dealt effectively with the acid rain challenge, despite success with reducing sulfur emissions. The death of lakes, the accumulating evidence of forest stress, the signals of unforeseen connections such as the acidification of Atlantic salmon rivers in the Maritimes and elsewhere — if acid rain is any indication, we have miles to go in basic political acknowledgement of the scope of our atmospheric pollution problems.

When we do acknowledge the problem, we need to get to basic political agreement on a number of broad measures that reduce greenhouse emissions by attacking the basic policy lapses of the past thirty years. We need an energy policy that emphasizes efficiency and independence and the renewable, cleaner and cheaper. We need a transportation policy that liberates us from the polluting, sprawl-inducing dominance of the automobile. We do need to encourage the shift away from internal combustion (for which Al Gore has been mocked by those who have yet to agree we have a problem). We also need a farm policy that secures markets for the small farmers who can best implement the conservation practices that will reduce dependence on petroleum and build soil organic matter, a short-term yet significant means of sequestering carbon. We need to encourage the shift away from dinosaur methods of production in industry toward means that reduce reliance on energy and material.

It is too bad that political media in our country confines such a program to a fictional "left" when in fact many of these ideas are as much of the "right" — the true conservatives as opposed to the laissez-aller apologists for the forces that have stripped rural communities of their civic nature by reducing their economies to suppliers of commodity. If pursued in a thematic rather than programmatic way, that devolved economic power to the countryside, and institutions other than federal agencies based in Washington, we could indeed have a "new federalism" that combined the effectiveness of a national strategy with national resources behind it with the inherent strengths of locally-informed and locally-adapted solutions. Global warming requires such an approach.

Meanwhile, here in our own landscape of northern New England and the Adirondacks, the prospect of Wilderness should be greeted more readily, and viewed less in economic terms, positive or negative, altogether. Work and livelihood in rural areas depends less on every acre being devoted to production and more upon the extent to which we invest in education, the quality of public infrastructure and the building of local markets. The national and global desirability of these goals argues for the commitment of federal resources, in a locally-informed manner, to the effort. With an eye on rising sea levels, the pace of extinctions and other climatological threats, let's wish ourselves enormous good luck in seeing our political system respond to the challenge.

Kitties on the Function Keys

SOME OF YOU received two issues of the *NFF* in August, and several of you who did kindly wrote in. The reason wasn't a mal-function, however. We distributed copies to people on the mailing list of **Restore: The North Woods** and we lacked the labor to weed out duplicates.

WE DO TRY TO proof-read the paper but some articles unaccountably escape the attention of our chief proof-reader, Gammon Spludge, who also informs us by way of warning, that two new kittens in his household have been stepping on his keyboard, favoring the function keys, leading to errors that, he says, he can only hope to have caught. We consider this fitting in an issue dedicated to our wild feline friend, the Canada lynx.

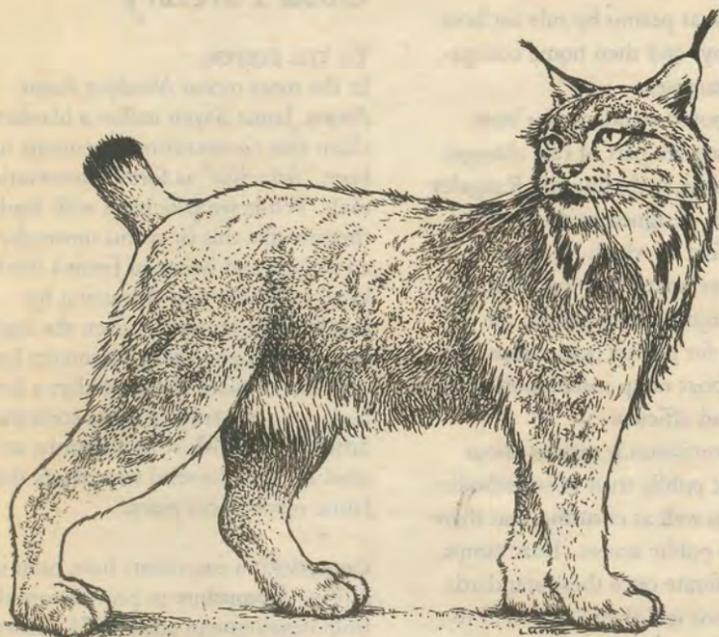
CANADA LYNX IN THE NORTHERN FOREST

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Referendum Loses Big

VOTERS IN MAINE rejected Question 2, the ballot proposition to limit clearcutting, by a wide margin of about 72% opposed to 28% in favor.

The wording of Question 2 asked voters, Do you favor requiring landowners to obtain permits for all clearcuts and defining cutting levels for lands subject to the tree growth tax law?

Supporters of the measure spent about \$270,000 in their campaign, with Maine's Sierra Club the largest funder. The Maine Forest Heritage Coalition, which opposed Question 2, spent \$2.2 million, according to press reports.

Jonathan Carter and the Forest Ecology Network, promoters of Question 2, spent election day gathering signatures for another question they hope to place on the ballot: a measure to place a ten year moratorium on synthetic chemical pesticide applications for forestry purposes, with an exemption for insecticide for spruce budworm. The measure would also seek to add elected members of the public from each county to Maine's Board of Pesticide Control.

The referendum was supported many groups and individuals frustrated by the repeated failure of the legislature to pass effective forest practices legislation. The Natural Resources Council of Maine cited the many failed proposals of the past in stating its support of Question 2.

By contrast, Maine Audubon Society argued that certification of 3 million acres of forest in Maine has obviated the need for measures like Question 2. Had Question 2 passed, Audubon argued that cutting levels already certified as sustainable according to the standards of the Forest Stewardship Council would have to be severely reduced. Governor Angus King took an active role in promoting certification as an alternative to regulation over the course of the past year as Maine debated Question 2. Support for the measure was registering above 50% before the advertising campaigns began.

JD Backs Out of New Brunswick Certification

JD IRVING, the New Brunswick timber and oil conglomerate has backed out of its Black Brook certification in the province, the *Atlantic Forestry Review* reports. Irving has been protesting the standards developed by a regional stakeholders committee of the international Forest Stewardship Council. Sierra Club of Canada had protested the certification while activists in the Maritimes had expressed chagrin at the certification of Maine Irving operations and the absence of indignation among environmentalists this side of the border. Standards for the Northeastern United States are apparently now entering a public comment phase. The Maine certification was completed in advance of the standards' final development.

Buchanan Vote Swings Election to Bush!?

OTHER THAN THE PROSPECT of a weakened presidency, the result of the presidential election isn't all that clear as we head to press (November 10). It does look as though we will have an opportunity to test the Nader Hypothesis, that a Bush presidency will swell the ranks of the Sierra Club. The most lethal charge against a Gore presidency from an environmental perspective was that, in co-opting the language of environmentalism, Gore was a far more dangerous agent for the corporate agenda, especially given his aggressive stance on global free trade and blind eye to bio-engineered pollution.

Summarised below is a short list of areas where a Bush presidency will depart from initiatives favored by Gore (source: *Sierra* magazine):

- Will reverse the roadless initiative on the National Forests

- Defers to localities on controlling sprawl; no resources committed to local efforts
- Opposed to the new national monuments
- Opposed to federal regulation of factory farms
- Opposed to stricter air quality standards

Maine Environmental News on the Web

LOCATED AT <http://www.meeepi.org>, *Maine Environmental News* is a free service that has pointers to all the latest news reports from Maine's daily and weekly newspapers, magazines, and Web sites. In addition, press releases, reports, and action alerts from organizations and government agencies working on a wide range of issues are included on the site. *Maine Environmental News* is updated daily, and often several times per day.

In addition to links to all the latest news stories on Maine issues, the sites that summarize national and global environmental news, like *EnviroLink*, *CNN Nature*, and *The Earth Times*, are just a click away. Also included on the page are links to useful resources ranging from Maine weather by town and the New England weather radar loop to the *Wall Street Journal* and *New York Times*. Also listed are all the best in Internet search engines, plus the most extensive environmental resources link page for Maine on the Web.

The Maine Environmental Policy Institute, a newly formed 501c3 nonprofit organization based in Hallowell, Maine, is dedicated to researching environmental challenges facing the state and reporting this research to policy makers and the public.

HELP DECIDE WHAT "ORGANIC" MEANS!

The federal Organic Foods Production Act of 1990 (OFPA), (7 U.S.C. Section 6501) required establishment of a National Organic Standards Board (NOSB) which, among other things, makes critical recommendations about which agri-chemical "substances" ought to be allowed or prohibited in "organic" livestock operations, including marine feedlot agribiz, including Maine's salmon farms.

Those recommendations will "assist in the development of standards for substances to be used in organic production and to advise the Secretary on any other aspects of the implementation of OFPA" according to the Federal Register notice.

Whether those standards will be safe ones will depend on what information this Board gets at its NOVEMBER 15, 2000 meeting in Washington DC. EVEN MORE on what written comments and letters are mailed them by people that care about maintaining extremely highest of standards regarding what constitutes an "organic" food product.

The NOSB Board first met in 1992, setting out its initial recommendations for a "National Organic Program" in 1994. Since then the Board's five working committees: Accreditation, Crops, Livestock, Materials, and Processing "submitted 30 addenda to its recommendations and reviewed more than 170 substances for inclusion on the National List of Allowed and Prohibited Substances".

Prominent on the agenda at the next upcoming, open-to-the-public meeting of the NOSB is an update from the Board's Aquatic Task Force Working Group, considering what aquacultural chemicals should go on the "National List of Approved and Prohibited Substances".

A bit outrageously, only two and one half hours out of the entire two and a half day meeting is allocated for the public to speak - and then only at very start of the event - before any of the Board's panels speak or discuss the Board's 33 proposed amendments to the "National List of Allowed and Prohibited Substances" and its related regulations. Industry representatives, on the other hand, will be speaking to the Board throughout the three days

YOU, TOO can submit by mail suggestions to the National Organic Standards Board on how best to develop and implement Organic standards. Write

Mrs. Toni Strother
USDA Economic Research Service
1800 M Street, NW, South Tower,
Wauh Auditorium, 3rd Floor,
Washington, D.C. 20036.

No deadline is set for written comments in the Federal Register notice; sooner is surely better than later)

LURC PLAN IS NOT SPRAWL IN DISGUISE

TO THE EDITOR,

Pam Prodan's recent article in the Mid-Summer, 2000 edition on the Rangeley Regional Prospective Plan was unfortunately inaccurate on several fundamental points.

The impression one receives from reading the article is that the Land Use Regulation Commission has thrown in the towel and initiated a development free-for-all in Maine's western mountains. The details don't bear this out.

What are we trying to do with this Plan? For starters, we're trying to take our regional mandate, with its larger vision, down to the local level. We've spent two years meeting with hundreds of landowners (big, small, and in between) in order to create a plan that is responsive to local needs and conditions. This plan isn't "experimental," it's just common sense. We've heard time and again from involved groups and individuals across the political spectrum that this process has done a great deal to make LURC more effective in fulfilling its mandate to promote sound planning and zoning.

We can't plan and zone at this level of detail for all 10.5 million acres in LURC's jurisdiction, so we focused on the area where growth pressures are the strongest. We chose the 10 townships we did because they represent a workable area given our resources and make a sensible region from a planning standpoint. This area contains the most highly developed plantations in the region and it also contains outlying townships. Ms. Prodan would have had us concentrate solely on the existing developed areas. But the inclusion of outlying townships has gained us the advantage of relationship - the Commission is sending the message that development should be focused in areas where it already exists. The plan restricts development in remote areas, except in selected locations such as existing rural settlements and lake shores suitable for seasonal recreational development.

But on to some of the finer points in Pam Prodan's letter:

"The Rangeley Plan will create sprawl . . ."

We have actually proposed six new development districts for this planning area. And aside from being more locally specific in their design, these subdistricts are built with more specific criteria that prescribe where they can be located. That's new for our development subdistricts. One can't just put these development districts out there willy-nilly; they must be located to avoid sprawl.

This plan will be in effect for twenty years, and the proposal is to raise the bar on rezoning petitions. This means that we have proposed areas large enough to accommodate growth for twenty years and it will be harder for applicants to petition for additional zoning changes that are not consistent with the plan or

the result of unforeseen circumstances.

This plan also has development standards that encourage compact and in-fill development in growth areas with flexible standards on lot coverage, frontage, and setbacks. It also sets standards for pedestrian uses, proper access and vehicle circulation, and parking lot layout to the side and behind buildings.

This plan is not sprawl-in-disguise. It recognizes rural patterns of growth and responds to and encourages the way people make a living in rural Maine. It allows people to make a living in outlying rural settlements such as Wilson's Mills without stimulating growth.

"Subdivisions will be allowed with no review or public hearing . . ."

We are handling subdivision differently on two lakes - Lower Richardson and Azicohos Lake within Lincoln Plantation. But it's not at all as described.

We've done two things differently.

First, for these two lakes we've removed the requirement to rezone before an applicant can request a subdivision permit. We did that because we looked at those lakes and determined that at a general level they were appropriate for limited seasonal recreational development. We made this determination in a regional context, which is preferable to our existing approach that considers rezoning petitions project-by-project. Based on this analysis we made subdivision a permitted use in this district, which means that all will continue to require a permit and review by the Commission.

The other difference is we have better specified the type and amount of development that is appropriate for these lakes - no more than 13 low-intensity, seasonal camps within any mile of shoreline (with a prohibition on electric line extensions beyond a half-mile of existing lines). Then 50% of shoreline to a depth of 500 feet within any ownership, including sensitive resource areas, must be permanently protected. Under current rules, a landowner could over time, through subdivision law exemptions, line the shore with cottages or even year-round dwellings without any Commission review other than for building permits. Any development could be as close as one dwelling for every 200 feet of shore without any land mandated for conservation.

This gives the Commission greater control over development on these lakes. With the new standards, a landowner knows what is expected, and the public is given a clear standard on how their resources are to be maintained.

"This project is lowering protection by eliminating permits . . ."

The Commission has recently proposed rules that make certain types of development allowed by standard, and the Rangeley project included a minor home occupation as allowed by standard. So what's going on with this? Another

wholesale giveaway?

Let's look at permit by rule for boat ramps and ways and then home occupations as an examples.

The proposed standards for boat ramps and ways are part of rule changes jurisdiction-wide, including the Rangeley area. They are designed to do two things—the first of which has been ignored or overlooked by most all commentators—significantly tighten the requirements for private boat ramps, and make public boat ramp installation more predictable and efficient.

The Commission is serious about protecting the public trust of waterbodies in the State as well as ensuring that there is responsible public access. Boat ramps will not proliferate once these standards are in place, nor will they be allowed to be sited anywhere in the jurisdiction. The Commission has retained its ability to limit access on three types of high-value lakes in the jurisdiction.

Home occupations next. We've proposed two categories of home occupations - major and minor. Both categories have criteria that make the uses compatible with residential areas but allow people to make a living in rural communities. The minor home occupations are ones where there are no employees, no regular clients, and no parking areas. We allow minor home occupations without a permit in most all zones under the proposal because of their limited impact on neighbors and the environment. We think eliminating the permit requirement for such low impact uses makes sense.

But we have tightened up our regulations on the intensity of home occupations that can be located in the woods. Under current regulations, any home occupation, no matter how intensive, is allowed in most zones as long as it conforms to standards. The new distinction between minor and major ensures that only minor home occupations will be located within management and protection zones in outlying townships. Commercial development - at home or as a stand-alone business - is being directed only to development zones defined by existing settlement areas in outlying townships. This means that there will be less sprawl not more.

"LURC has failed to provide additional resource protection"

We've proposed a plan that we think makes it easier to make a living in rural Maine while maintaining the state's high quality of life and landscape. Yes, this plan does not make any other major changes to our existing protection subdistricts - they stay in place without addition. But by carefully choosing appropriate locations for development districts and providing enough room for development for the next 20 years, we are addressing both sides of the equation - development and protection.

Holly Dominie
Andrew Fisk
Land Use Regulation Commission
Department of Conservation
Augusta, Maine

Easements Ensure Good Forestry

TO THE EDITOR,

In the most recent *Northern Forest Forum*, Jamie Sayen makes a blanket claim that conservation easements have been "defective" as forest conservation tools. While we take issue with loaded rhetoric like this (it seems unworthy of an activist and writer of Jamie's intellect), we'll save that discussion for another day. However, given the high level of dialogue about easements lately, we'd like to offer *Forum* readers a little history on the subject and a somewhat different view. Most importantly, we need to clarify several statements that Jamie made in his piece.

Conservation easements have been used in New Hampshire to protect forestland from development since 1971. Since then, the Society for the Protection of New Hampshire Forests (SPNHF) has protected more than 500 tracts of land in from development with conservation easements (or very similar deed restrictions), totaling nearly 78,000 acres. Thousands more have been placed under easement by various state and local agencies and other private land trusts. It has been estimated that more than 120,000 acres of privately owned land in New Hampshire are protected by conservation easements.

To date, there have been no violations of a conservation easement in New Hampshire that have resulted in court action, although some easement violations have been resolved through less formal processes. It is the responsibility of every easement holder, however, to take whatever action is required to ensure the integrity of its conservation easements, and in the case of the Forest Society, an endowment fund exists to ensure that there are adequate financial resources available should legal action be required. The Society and other easement holders recognize that the best way to prevent violations is through careful easement drafting and good easement stewardship, including landowner contact and regular monitoring.

Prior to 1995, almost all conservation easements were "open space protection" documents that addressed forestry in a very limited way. Despite this lack of detail, a 1995 SPNHF study entitled "Forests Forever" of conservation easements on managed forest land in New Hampshire, VT, ME and NY revealed that easement landowners were more likely than other landowners to use the services of a professional forester and more likely to practice what is considered "responsible" forestry.

Never the less, SPNHF and the other statewide land trusts in New England felt the need to improve the forestry language of their easements. Beginning in 1996, after extensive consultation with other land trusts, landowners, public agencies, biologists and foresters, SPNHF began using new forestry language in its conservation easements. That language requires the landowner to have a written management plan, prepared by a licensed forester, which meets certain specified goals.

These include:

- *maintenance of soil productivity
- *protection of water quality, wetlands, and riparian zones
- *maintenance or improvement of the overall quality of forest products
- *conservation of scenic quality
- *protection of unique or fragile natural areas
- *protection of unique historic and cultural features and
- *conservation of native plant and animal species

The new SPNHF easement requires that timber harvesting on the land be in compliance with the prescriptions and recommendations of the written management plan and be supervised by a licensed forester. It also references Good Forestry in the Granite State, (which Jamie Sayen was involved in preparing) as one of the documents upon which acceptable management plans should be based.

In the Mid-summer issue of the *Northern Forest Forum*, the issue of violations on a 1300-acre conservation easement in Stratford, New Hampshire was raised. It was stated that "...the easement imposes no meaningful restrictions on logging....and SPNHF has failed to monitor the logging." Neither assertion is correct, although it is true that this older easement does not contain the new, preferred forestry provisions.

This easement had its origins in the divestiture of the Diamond International Corp. lands in 1988. As part of an effort to protect a large area known as the Stratford Bog tract, SPNHF and the Nature Conservancy acquired option rights to buy nearly approximately 7,000 acres. When intensive efforts to persuade the town of Stratford to approve adding the land to the White Mountain National Forest failed, (an approval required by the Congressional delegation before they would proceed) SPNHF and TNC then took ownership of 1300 acres of the tract rather than reclaim their option money. The 1300 acres was then sold, subject to a conservation easement, to a local resident and logger in 1991.

At the time there was no model easement language available to ensure good forestry on the tract. Both SPNHF and TNC were concerned that the new owner would be tempted to clear-cut most of the land (as Diamond and its predecessors had done in the past) so they sought some language that could be used to set limits on timber harvesting. Lacking the time to conduct more thorough research, they used language from a proposed legislative bill that sought to place limits on the size and location of clear-cuts. (That bill never passed the legislature).

Contrary to the assertion of the *Northern Forest Forum* article, the easement and the timber harvesting on it was regularly monitored by SPNHF every year following the creation of the easement. (All SPNHF easements are monitored by air every year, and on the ground approximately every five years, unless more frequent ground monitoring is warranted). While there is room to debate whether that harvesting was "overcutting" or "good forestry", it complied with the technical terms of the easement. Then, in 1998, all that changed with the January ice storm.

Following the storm, the owner reacted quickly to begin salvage of timber on the portions of the property that were severely affected by the storm. Unfortunately, he did not seek the advice of a professional forester in harvest planning. The result was a violation of the easement. SPNHF was aware of this and took action to prevent additional violations. The landowner followed the SPNHF requirement that no further action be taken until a forester reviewed the site and prepared a written management plan for subsequent harvests.

At the present time the owner is taking action to correct erosion problems under the guidance of the Natural Resources Conservation Service and a professional forester. Timber harvesting has stopped and no further harvesting will take place by the current owner without the guidance of a forester. The landowner has the property on the market and a potential buyer has been insistent that all violations of the easement be corrected before the sale takes place.

There are a few key observations that can be made from this case:

First, although this unique easement tried to address the forestry concerns of 1991, it did not adequately address sustainable forestry. Because there are no other easements that contain this particular forestry language, it is difficult to draw any conclusions from this case about other forestry related conservation easements. Today, SPNHF conservation easements on working forestland must include provisions designed to ensure good forestry. Similarly, the land trust community, working through the national Land Trust Alliance, is seeking to develop guidelines for how sustainable forestry easements can be applied across the nation.

Second, conservation easement restrictions alone do not prevent violations from occurring. Rather, diligent stewardship and regular communication with landowners is the key to heading off inadvertent and intentional violations. Even then, there will be violations that occur because a landowner takes inappropriate actions. In those situations, like in Stratford, the easement holder must be prepared to spend a lot of time and money making sure the violations are halted, and whenever possible, cured.

Finally, even without the newest forestry restrictions, the hundreds of older conservation easements in place across New Hampshire have fostered and encouraged responsible forestry. Many of the private landowners that had the foresight and stewardship commitment to place easements on their land have been recognized as the most careful and responsible forest managers in the state. Considering this, and the ongoing efforts to improve the forestry aspects of easements, it seems reasonable to judge conservation easements as an effective tool to ensure open space protection and encourage good forestry on private land.

Sincerely,
Paul A. Doscher
Senior Director for Land Conservation
Richard Ober
Senior Director for Outreach Programs

AN OPEN LETTER TO THE CLINTON/GORE ADMINISTRATION MAKE OR BREAK THE KYOTO PROTOCOL

WE, THE UNDERSIGNED LEADERS in conservation, science, and as members of our communities, call on the Clinton/Gore Administration to cease from all lobbying activities that threaten to disrupt and break the Kyoto Protocol Negotiations this November in The Hague.

Instead, President Clinton should attend The Hague negotiations and ensure that The Kyoto Protocol actually cuts domestic global warming pollution without causing other environmental problems. Specifically, the Clinton/Gore Administration must:

TAKE THE CLINTON/GORE FOREST LEGACY OFF OF THE CHOPPING BLOCK
The Clinton/Gore forest legacy has emphasized an ecosystem approach to species and forest protection and protecting the nation's few remaining wild places. The Administration's global warming policies could overwhelm any gains made by Clinton and Gore by failing to cut the global warming pollution that will cause mass die-off of species and ecosystems, by creating a race to clearcut old growth forests and by creating incentives to replace native forests with genetically modified mono-crop tree plantations. In addition, credit for temporarily absorbing carbon with U.S. forests would allow the U.S. to put more carbon into the atmosphere. The Kyoto Protocol must require that the U.S. focus solely on cutting pollution in the near term, that the U.S. get no credit for forest projects in developing countries and that forest activities must be limited to forest restoration and reforestation projects.

STOP TRADING AWAY OUR FUTURE
Rather than cutting pollution at home by shifting the yearly \$20 billion federal subsidy to coal and oil to renewable energy and energy efficiency and cleaning up cars and power plants, the U.S. plans to meet 75 percent of our pollution reduction commitments in Kyoto using an international trading scheme in which the U.S. could buy permits to pollute from countries such as Russia that are not acting to cut pollution, meaning that U.S. actions would make no real pollution reductions world-wide. Continued resistance to cutting pollution at home on the part of the U.S., the world's largest global warming polluter, is eroding the U.S.' credibility and is jeopardizing the Kyoto negotiations. The U.S. must lead the world by making the vast majority of our pollution reductions at home.

STOP PUSHING NUCLEAR ENERGY AND COAL POWER ON DEVELOPING COUNTRIES
A provision in the Kyoto Protocol requires the transfer of renewable energy to developing countries. In spite of the fact that the European Union has said that they will not endorse a treaty that supports nuclear energy, the U.S. is pushing provisions that subsidizes sending nuclear, gas and coal power plants abroad, often in place of renewables. A strong Kyoto Protocol will exclude nuclear power, new coal power plants and other polluting power sources.

The world is beginning to move ahead without the U.S. and is growing tired of the unconstructive role the U.S. has taken in the Kyoto negotiations. Holland has already pledged to cut emissions 80 percent in the next 40 years. Germany is planning 50 percent cuts. Britain pledged reductions of 60 percent in the next 50 years. Further U.S. obstruction could undermine the support among the European Union and the U.S. environmental community for the Kyoto Protocol.

If the Clinton/Gore Administration does not lead the world by working against the loopholes in the Kyoto Protocol and work to advance truly effective strategies to reduce atmospheric global warming pollution and expand the wealth, equity and stability of the global economy, the Kyoto Protocol process and the Clinton/Gore environmental legacy could be lost.

You can express your support for a strong Kyoto Treaty by writing your Congressional Representatives, or by contacting David Gardiner, Chairman, White House Climate Change Task Force, 734 Jackson Place NW, Washington, DC 20503, Fax: 202/ 395-2311.

FOR MORE INFORMATION, PLEASE CONTACT:

- Darcy Davis, American Lands NW Climate and Forests Organizer, at mail to:darcydavis@americanlands.org or call 503/978-0132
- Aaron Rappaport, American Lands Climate and Forests Program Coordinator, at mail to:arappaport@mindspring.com or call 202/547-9098
- Philip D. Radford at Greenpeace (202) 319-2412 (fax), Phil.Radford@wdc.greenpeace.org, or 702 H St. NW, Washington DC, 20001

EDITOR'S NOTE: The letter above, drafted by Greenpeace, was circulated and signed by numerous environmental organizations earlier this fall. A meeting of potential signatories to the Kyoto Treaty will take place at The Hague November 13 - 24 at a global climate summit. Concern has been raised that the Clinton/Gore administration is going into this meeting with the faulty positions criticized above.

As we head to press, the presidential election is in suspended animation. One might easily infer from remarks made by Bush adviser Christopher DeMuth that a presumptive Bush administration would retreat from the Kyoto protocol. DeMuth said in a debate with Gore adviser Kathleen McGinty that global warming is a long-term problem that would be better addressed when developing nations had expanded their economies more. He also attacked loopholes in the protocol. The debate took place in E. Lansing, MI in late October. before the Society of Environmental Journalists.

ADIRONDACK PARK REPORT

by Peter Bauer

THE ADIRONDACK PARK is a model for people living amidst wild areas in a way that's usually mutually beneficial to both. At six-million acres in size—bigger than the State of Vermont—the Adirondack Park contains a checkerboard of publicly owned Forest Preserve lands (2.5 million acres), which is managed as wilderness, and 3.5 million acres of private lands, 2.5 million of which is commercially managed forests. The Forest Preserve is protected as lands “to be forever kept as wild forest” in the state constitution.

This is the tightest wilderness protection in the U.S.; no timber harvesting, strictly limited use of motor vehicles. Created in 1885, lands in the Forest Preserve represent 85 percent of the total wilderness lands in the eleven Northeast states. 130,000 people make their homes and livelihoods in the Adirondacks spread throughout better than 100 communities.

All land uses in the Adirondack Park are managed jointly by the State of New York through various agencies and departments and local governments. While there are many complaints all around, the Adirondack Park works extremely well and is not only a place where people and wilderness systems coexist, but represents a successful model for large-scale landscape protection. Each issue the “Adirondack Park Report” details the most pressing recent issues facing the Adirondack Park.



BRAVE FSC-CERTIFIED PAPER EXPERIMENT IS GROWING

A few miles from the western boundary of the Adirondack Park, at the confluence of the Moose and Black Rivers, stands the Lyons Falls Pulp and Paper Company. This mill, built in the 1890s, has made critical environmental investments over the last ten years. In the early 1990s the mill began to make both elemental and totally chlorine free papers. In 1998, the mill became the first in the world to produce Forest Stewardship Council (FSC) certified paper (which is also chlorine free). Since 1998, Lyons Falls has seen a steady increase in demand for the FSC/chlorine free paper, growing from 1,100 tons sold in 1999 to a projected 2000 tons in 2001. The use of FSC paper is something that individuals, businesses, and organizations (especially environmental and conservation organizations) should use as a matter of principle in their publications and office supplies.

For the past two years, Lyons Falls procured its resource supply to manufacture the FSC paper from the Haliburton forests, a 22,000-acre tract outside of Toronto that is privately owned and was certified in the mid-1990s. Late in 1999, the State of New York received FSC certification for its State forests (over 700,000 acres of non-Forest Preserve lands outside the Adirondack and Catskill Parks). In the future, Lyons Falls plans to procure wood from the certified State forestlands. The Pathfinder PC FSC Line of paper that Lyons Falls produces is 30 percent recycled stock (Lyons Falls purchases recycled fibers/pulp) and 70 percent virgin certified materials supplied by Haliburton. The other important aspect of the Lyons Falls paper, as mentioned previously, is that it is totally chlorine free.

This is a brave experiment and a considerable investment to see if “green” industrial processes will be supported in the marketplace or will fall victim to the overarching consumer demands for cheap goods by the public, businesses and organizations. Cornell University Press has committed to

publishing its books on FSC/chlorine free paper and the National Wildlife Federation prints its publications on this paper as well. Some well-known writers with the publishing muscle can dictate that their books are printed on FSC paper. Mega-retailer, Home Depot, which has committed to selling only FSC certified wood products in the future when a supply is greater, prints its office products, such as its annual report, stationary and employee business cards on the Lyons Falls paper.

While purchasing paper for publications helps Lyons Falls set a new industry standard, they have also been searching for ways to make FSC-certified goods more available to consumers. Toward this end, Lyons Falls recently started a partnership with Tatex, a firm out of Waco, Texas, to provide office stationary, business cards, and other goods printed on FSC-certified paper. Search the World Wide Web for Tatex.com.

This brave experiment continues, but will only succeed if the public rallies behind making certified, chlorine-free paper by demanding that publications they print or receive or buy use it. Organizations can show a similar commitment.

NEW REPORTS ON ACID RAIN

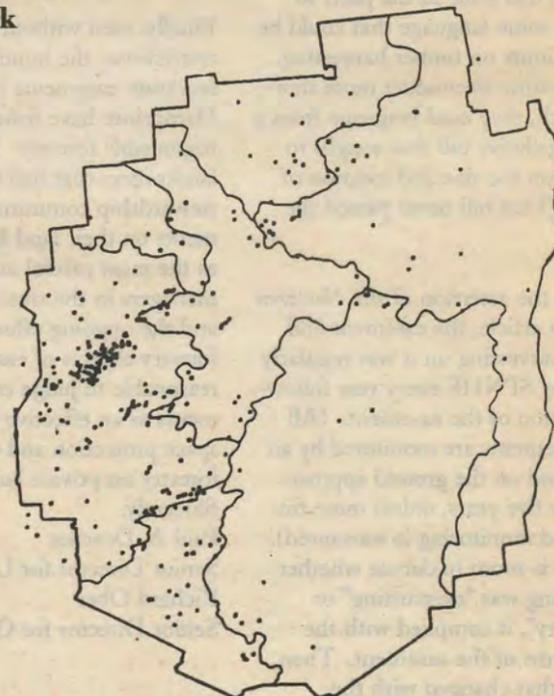
The General Accounting Office (GAO) produced a report last spring, “Acid Rain Emissions and Effects,” which became the third report to Congress in the last five years that showed continuing negative impacts from acid rain pollution in the Adirondacks and the Northeast, USA. Congressman John Sweeney of New York and Vermont Senator Patrick Leahy requested this report last year. The GAO report analyzed the success of the 1990 Clean Air Act amendments, which created the “cap and trade” program (cap the amount of pollution emitted from smokestacks, start a pollution credit trading program to provide a financial incentive to reduce pollution emissions to even greater levels) that has been successful nationwide is reducing the amount of sulfur dioxide nationwide. The critical loophole for sulfur

pollution remains the Adirondack Park and the Northeast in general, though many other pockets across the U.S., from the Colorado Front Range, to the mountaintops in North Carolina, to estuaries from Chesapeake Bay to Narragansett Bay, to southern California urban forests, among other areas, continue to degrade from sulfur pollution.

The GOA report primarily looked at how the 1990 Amendments had been implemented, specifically the new pollution credits trading program. The report looked at sulfur dioxide and nitrogen oxide deposition in the Adirondacks and eastern U.S.; prospects for recovery of Adirondack lakes; the extent to which utilities in 11 Midwestern states imported pollution credits.

The report found a mixed bag of results in the Adirondacks. Between 1990 – 1998, sulfates declined in 98 percent of lakes surveyed, though nitrates increased in 48 percent of lakes. The report theorized that Adirondack forests may have met their saturation point for nitrogen and are now

Fishless Lakes in the Adirondack Park



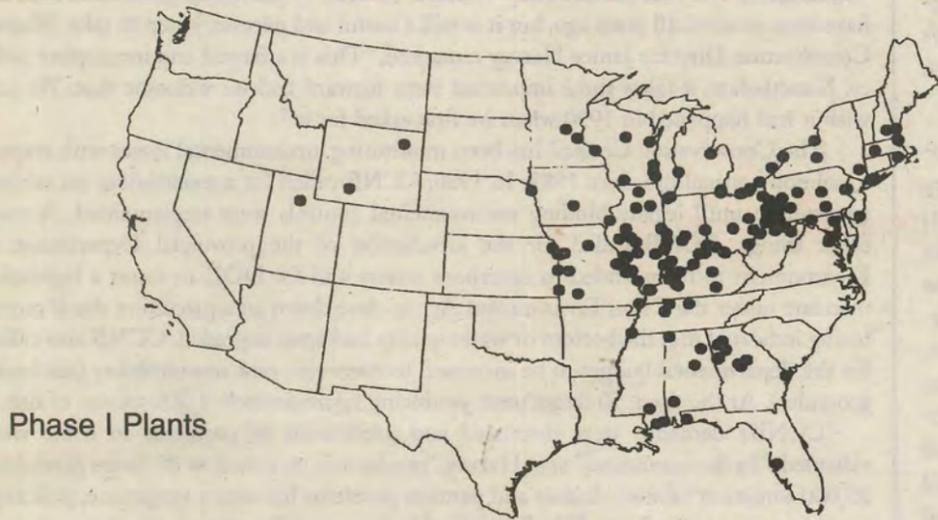
exporting it in larger quantities, which will imperil recovery efforts for Adirondack lakes if the pollution can ever be reigned in. The report also found that utilities in the Midwestern states imported a net of 2.7 million tons of sulfur pollution credits; 11.2 million credits were obtained from utilities within these states, while a total of 13.9 million tons of credits were actually used. The EPA estimates that 538,000 tons of credits were obtained from six northeastern and Mid-Atlantic States. Interestingly, the State of New Hampshire is a net importer of sulfur pollution credits, the only importer of pollution credits in the northeast. See figure for details of the states that import and export pollution credits.

There are over 400 dead, fishless lakes in the Adirondack Park. The Clean Air Act in 1990 was phased in two stages to capture compliance by electrical utilities, first in 1995, the second in 2000. Starting this year all utilities in the U.S. will be covered under the Clean Air Act and forced to cut emissions. See chart for locations of utilities covered under Phases 1 and 2 under Title IV.

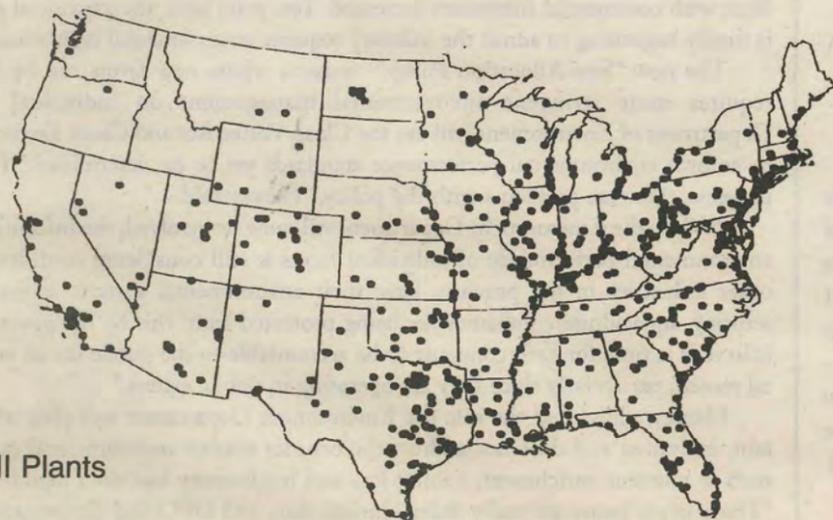
The Moynihan-Boehlert legislation, “The Acid Rain and Ozone Deposition Control Act,” currently pending in Congress (and going nowhere fast) received a cost-benefit analysis by the Environmental Protection Agency (EPA) that was just released. This report looked primarily the human health impacts of acid rain pollution and measured these against the costs to industry to clean up. This report looked solely at Title IV, the acid rain section of the 1990 Clean Air Act, which would be amended by the Moynihan-Boehlert bill. The Act states that prescriptions in this section will reduce air pollution and produce certain benefits: 1) benefits for human health, including lower incidence of cardiopulmonary illness and death associated with air concentrations particulate matter; 2) make perceptible improvements in visibility, especially in scenic areas in the northeast; 3) substantially reduce sulfur and nitrogen deposition.

The Moynihan-Boehlert bill seeks to cut nitrogen oxide in annual utility emissions by 60-percent below current levels and cut

Electric Utility Units Affected by Phases I & II of the 1990 Clean Air Act



Phase I Plants



Phase II Plants

The 1990 Clean Air Act is being implemented in two different phases to achieve acid rain pollution reductions. Phase I began in 1995 and affects 445 electric utility plants located primarily in the eastern U.S. Reductions in both sulfur dioxide and nitrogen oxide are mandated. Phase II, which began in 2000, requires reduction in both pollutants and affects more than 2000 electric utility units across the U.S.

sulfur dioxide emissions by 50 percent. These reductions will be accomplished by reductions to emission levels for sulfur and creation of a new cap-and-trade program for nitrogen. Additionally, there are provisions for the monitoring of mercury levels, which could be affected by this program.

This cost-benefit analysis found that between \$37.2 billion and \$59.5 billion in monetized human health bene-

(primarily savings from illnesses avoided) could be produced by this legislation in 2010. The annualized compliance cost of the Moynihan-Boehlert bill is estimated at \$5 billion. The report also found unquantifiable benefits of improvements in coastal and surface waters and forest ecosystems, reduced damage to buildings and monuments, and the health and welfare benefits associated with ozone reductions.

JET SKI REGULATIONS LAWS PASSED

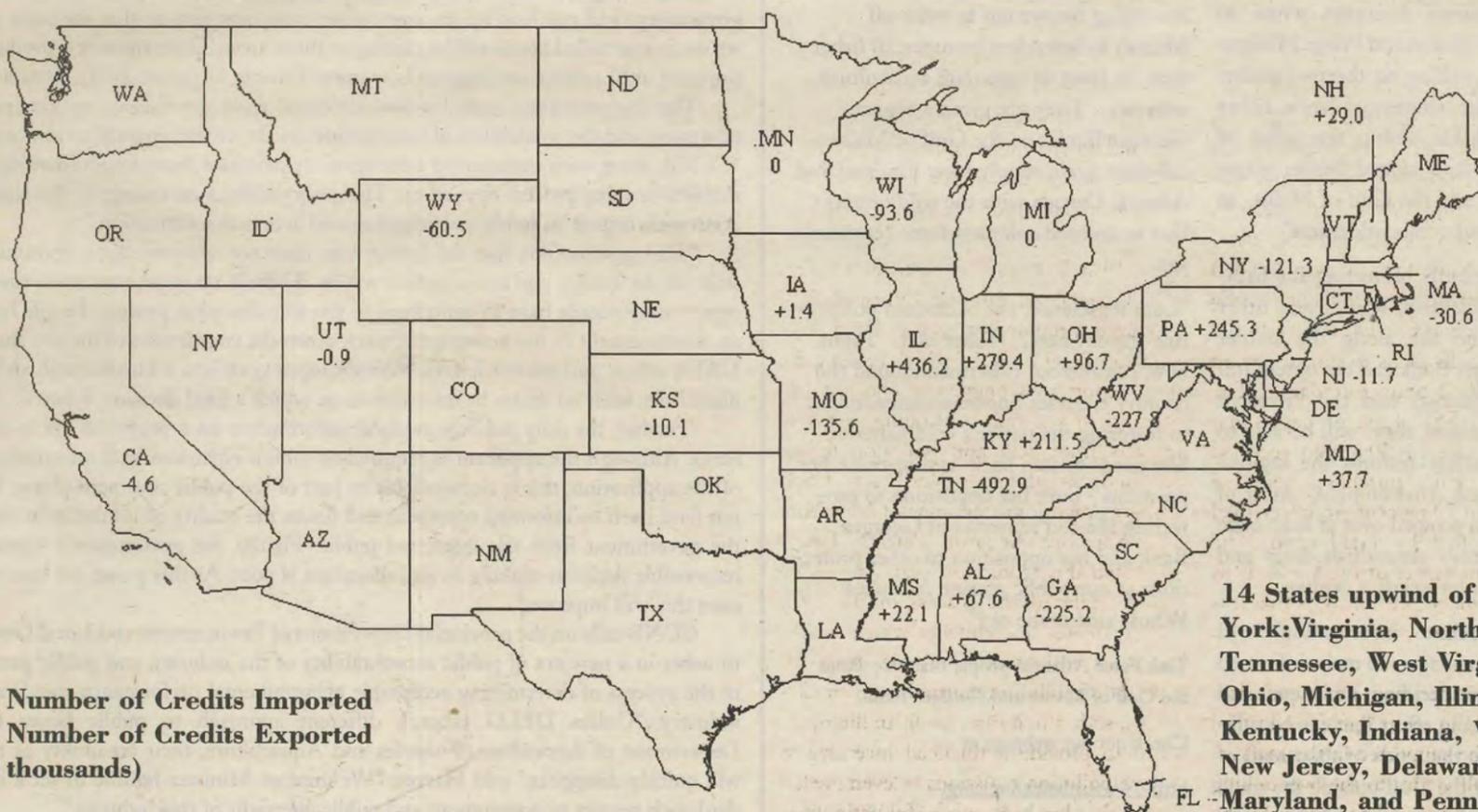
Two jet ski regulation bills passed the New York State Legislature last June. Governor Pataki has signed both bills into law. The first bill was the Jet Ski Home Rule bill which amended State Navigation Law to accord new authority to towns, villages, and cities to regulate, including banning, the operation of personal watercraft (PWCs), often referred to as jet skis. Prior to this bill, localities did not have the authority to prohibit jet skis.

Throughout the Adirondacks, jet skis have become a major problem. As Vermont has limited jet ski opportunities, there's been more and more jet ski use in the Adirondacks. Despite the hundreds of small lakes and ponds on the great tracts of Wilderness Forest Preserve, there are relatively few true wilderness canoe and kayak opportunities in the Adirondacks. With the notable exceptions of Little Tupper Lake and Lake Lila, the Oswegatchie River, St. Regis Canoe Area, and very few other places, wilderness canoeing opportunities in the Adirondacks are a myth. Though there are over 2,800 lakes and ponds dotting the Adirondacks the overwhelming majority of big lakes, and rivers, in the Park are over-run with motorboats and jet skis.

The Home Rule bill took effect starting on Halloween. What it yields as far as new laws and regulations in the months upcoming will be interesting. Activists across the Adirondacks are organizing to make pushes for new local laws.

The second bill that was signed into law by Governor Pataki in September is a bill that authorizes the Department of Environmental Conservation (DEC) to adopt strict air emission regulations consistent with the California Air Resources Board (CARB) standards that phase out the sale of 2-stroke marine engines by 2008. Beginning in 2008, only 4-stroke jet skis and outboard motors will be allowed for sale in New York. 4-stroke engines pollute at a significantly lesser rate than 2-stroke marine motor engines. 2-stroke engines discharge nearly 40 percent of all gas and oil used unburned directly into the water.

New York's adoption of the CARB standards is important because the combined power of the New York and California marketplaces can drive national change. Adoption by New York of this CARB standard also sharply limits actions to rollback this program in California. Last, the CARB standards also includes a rating system wherein each jet ski is rated for its pollution impacts prior to its sale.



GULF OF MAINE NEWS

Snowe, scientists spar over fate of USA's best cod & shrimp nurseries

by Ron Huber

ROCKLAND — Maine Senator Olympia Snowe is pressuring the US Environmental Protection Agency on behalf of multinational corporate interests, seeking to open up the nation's top offshore cod and shrimp spawning and nursery areas to permanent takeover by petroleum and aquaculture industrial interests.

Snowe's controversial behind-the-scenes gambit comes as marine scientists across the United States and Canada are pressing the Clinton Administration to protect the offshore public land area occupied by the nurseries, as part of a bold plan to 'naturalize' the offshore marine borders of the two nations.

A rugged, current-swept area where barely submerged seamounts edge vast undersea plains, the proposed protected area straddles the US-Canada offshore border across the Gulf of Maine and the Georges Bank plateau, an 8,000 square mile underwater peninsula that is shared by the two nations.

Roamed by swordfish, right whales, codfish, shrimp, sea rays, albatrosses and hundreds of other marine species, and cut by steep canyons riddled with thousands of tilefish caverns and dotted with stands of northern tree coral, the border zone of the Gulf of Maine and the Georges Bank plateau includes important portions of this unique ecosystem, which is markedly different from the rest of the Atlantic Ocean.

Earlier this year, American & Canadian marine scientists wrote to President Bill Clinton and Prime Minister Jean Chretien, calling on the two leaders to designate the submerged lands, fishes and other wildlife within ten miles of their two countries' shared border across Georges Bank and the Gulf of Maine as an "international ocean wilderness".

By permanently protecting the habitats of fish, shellfish, whales and other offshore marine life along the border crossing Georges Bank and the outer Gulf of Maine, scientists told the President and Prime Minister, they will be able to study how nature restores the region's heavily damaged environment, most of which has been scraped over at least once per year by heavy groundfish drags and scallop dredges for nearly a century.

This 'baseline information' will enable fishery managers to make informed decisions when deciding the types and amounts of fishing effort that can be safely permitted on the tens of thousands of square miles of the Gulf outside the small but strategically located marine protected area.

The US Environmental Protection Agency has considered protecting the cod nursery area along the Georges Bank border area under the federal government's new Marine Protected Areas Program since last April.

But Snowe, however, opposes protecting the Gulf of Maine's cod nursery and other habitats. Instead she supports efforts by multi-national interests to gain control over portions of the Gulf of Maine to set up vast offshore aquaculture operations and carry out oil and gas exploration. Under EPA guidelines, however, neither 'marine feedlots', with their known pollution discharges and tendency to spread diseases among fish and shellfish, nor oil and gas exploration would be permitted in the protected area.

Snowe is therefore pressuring EPA officials not to include the Gulf of Maine border zone in its list of areas to be protected.

"This is completely irresponsible behavior by Snowe," said Ron Huber of Task Force Atlantis, one of many groups supporting the scientists' plan to protect the nurseries. "A century ago, politicians just like Snowe gave away our public forest lands to big corporations. Now Snowe's helping big business try to seize control of our offshore public lands, too. She ought to be keel-hauled."

Huber noted that Snowe has always publicly claimed to support the use of sound science when making fishery management decisions.

"Here we have the nation's top marine scientists pointing the way to finally stabilizing the fisheries situation on Georges Bank," Huber said. "What does 'Sound Science' Snowe do? Brush them off in favor of oil companies and absentee 'marine hogfarm' operators who are bent on utterly destroying New England's commercial fishing industry. Go figure."

Supporters of the protected border area are urging Snowe not to write off Maine's independent commercial fishermen in favor of corporate aquaculture interests. They say, given a chance, Georges Bank and the Gulf of Maine can once again supply New England and Atlantic Canada with the wild bounty that so amazed colonists three centuries ago.

"Let's let science, not backroom politics, rule the day here," Huber said. "Right now, commercial fishermen around the country consider Snowe an impediment to restoring the nation's wild fisheries. She needs to step back and re-think her positions - both her opposition to protecting the cod nurseries of Georges Bank and her opposition to other protections of our public marine resources. Whose side is she on?"

Task Force Atlantis: people that care about the Gulf of Maine and Georges Bank.

Check out our webpage at <http://www.atlantisforce.org>.

NEW BRUNSWICK'S NEW AQUACULTURE POLICY: STILL SERIOUSLY FLAWED, BUT BETTER LATE THAN NEVER

ST JOHN. According to the Conservation Council of New Brunswick, the "Aquaculture Site Allocation Policy" released Tuesday by provincial government should have been enacted 10 years ago, but it is still a useful and necessary step to take. Marine Conservation Director Janice Harvey remarked, "This is a flawed and incomplete policy. Nonetheless, it takes some important steps forward and we welcome that. We just wish it had happened in 1990 when we first asked for it."

The Conservation Council has been monitoring environmental issues with respect to salmon aquaculture since 1988. In 1990, CCNB called for a moratorium on salmon aquaculture until legally binding environmental controls were implemented. Among other things, CCNB called for the jurisdiction of the provincial Department of Environment to be extended to nearshore waters and for DOE to assert a legislative mandate under the Clean Environment Act to close down an aquaculture site if monitoring indicated that the bottom or water quality had been degraded. CCNB also called for the departmental budget to be increased to cover this new responsibility (see back-grounder). At the time, 50 farms were producing approximately 8,000 tonnes of fish.

CCNB's demands were dismissed and predictions of problems to come were ridiculed. "In the meantime," says Harvey, "production increased to 85 farms producing 25,000 tonnes of salmon, disease and parasite problems hit with a vengeance, pollution problems emerged in Lime Kiln Bay, Bliss Harbour and Passamaquoddy Bay, and conflicts with commercial fishermen increased. Ten years later, the provincial government is finally beginning to admit the industry requires environmental regulation."

The new "Site Allocation Policy" restricts where new farms can be located and requires more stringent environmental management on individual sites. The Department of Environment will use the Clean Water Act and Clean Environment Act to enforce environmental performance standards yet to be determined. "Despite this progress, there are problems with the policy," Harvey said.

"While the Environment Department will now be involved, the information on the environmental performance of individual farms is still considered confidential. While other industries in the province have their environmental records subject to public scrutiny, aquaculture companies are being protected from this by the government. We believe it is time for each company to be accountable to the public for its environmental record, particularly since they are operating in public waters."

Harvey added that the role the Environment Department will play, while important, is limited and does not address the broader marine environmental quality issues such as nutrient enrichment, habitat loss and biodiversity loss on a region-wide basis. "These larger issues are really federal jurisdiction, and DFO and Environment Canada must now step in to fill the regulatory gaps that still remain," said Harvey.

Harvey also believes the fundamental environmental issue facing the industry - how many fish can be grown in southwestern New Brunswick without degrading the marine ecosystem - is not addressed by this policy. "Even in the controlled growth areas where the government says they will not consider new sites, they will still consider increased production on existing sites. It is the fish production level, and not the number of sites, that is the real problem in those areas. For instance, since 1997 when the policy review began, total tonnage of fish grown increased from 18,000 to 25,000 tonnes. That's nearly a 40% increase during a time when environmental and disease problems hit their peak, a moratorium was in place on new farms, and new sites for existing companies were only granted to control disease problems."

CCNB contends that too many fish are being grown overall, and the ecosystem cannot absorb the wastes and nutrient loading the existing production is creating. "To allow higher production on existing sites would defeat the purpose of the controlled zones. This suggests that the government still hasn't really grappled with the fact that there are ecological limits to growth in this industry. Further, there is no indication the government will not load up the open zones with new sites so that the same problems we see in controlled zones will be created in those areas. There must be a production cap imposed until science can suggest how many fish can be grown safely in each area."

The Conservation Council is also concerned about the decision-making process for new sites, and the availability of information on the environmental conditions of sites. "CCNB, along with commercial fishermen's associations, have fought hard to have the decision-making process opened up. This policy reflects no change in the current situation with respect to public participation and access to information."

"This government, like the former one, does not acknowledge a legitimate public stake in the quality and use of public waters. There is no improvement in the minimal opportunity people have to contribute to the site allocation process. People have to see an advertisement in the newspapers, track down the coordinates of the site through the DAFA office, and submit letters. Written input goes into a bureaucratic and political black hole, with no access to information on which a final decision is based."32

"Further, the only publicly available information on a proposed site is its coordinates. Although the applicant is required to submit environmental information as part of the application, this is not available as part of the public comment phase. This does not lend itself to informed comment and limits the quality of information received by the government from the interested public. Finally, the government's reputation for responsible decision-making in site allocation is poor. At this point, we have no assurance this will improve."

CCNB calls on the provincial Department of Environment and Local Government to usher in a new era of public accountability of the industry, and public participation in the process of determining acceptable environmental performance standards for the industry. "Unless DELG takes a different approach to public issues from the Department of Agriculture, Fisheries and Aquaculture, their credibility as regulators will quickly disappear," said Harvey. "We implore Minister Jardine to set a new standard with respect to government and public oversight of this industry."

Source: Conservation Council of New Brunswick

FEDS PROPOSE KNOCKING DOWN ANOTHER DAM IN MAINE

SEVEN MILES of Maine's Presumpscot River will soon flow unobstructed to Casco Bay if the US Army Corps of Engineers has its way. The Corps proposes the removal of Smelt Hill Dam, the most downstream dam of 9 on the Presumpscot River which drains a 640 square mile area between its source at Sebago lake and its mouth as Casco Bay.

First created in 1732, the dam flooded the shallow riffle & pool coldwater environment behind it, transforming it to a slowmoving warmwater fish habitat. In the 1980's a hydraulic fish lift was installed, lifting blueback herring and alewives and "other anadromous & catadromous fish" over the dam. The lift was wrecked by a 1996 flood; with costs to repair it prohibitively high, dam owner Central Maine Power has agreed to sell the dam to the state of Maine for removal.

If the Corps' preferred 'complete removal' alternative is followed, the Corps believes that roughly 30,000 herring and smelt will be able to freely migrate past Presumpscot Falls; seven miles of prime riffle & pool gravel-bottomed river habitat ('suitable for anadromous fisheries spawning') will reappear from beneath what is presently an 80 acre impoundment.

"According to the Corps "Alewife, shad, striped bass, salmon and catadromous eels are expected to flourish in the river."

Four Maine state agencies: the Departments of Marine Resources and Environmental Protection, the Division of Inland Fish and Wildlife, and the State Historic Preservation Office are teaming with the Town of Falmouth and three federal agencies: US Fish & Wildlife Service, National Marine Fisheries Service and US EPA. The removal and disposal of dam debris is budgeted at \$1,027,000.

As we go to press, no decision has been made on whether a public hearing will be held prior to decision making. A request for a hearing, or the submission of other comments about the desirability or not of the dam removal must be made to the Corps of Engineers by November 29th. Write to

Colonel Brian Osterndorf, District Engineer
US Army Corps of Engineers
696 Virginia Road
Concord Mass 01742-2751

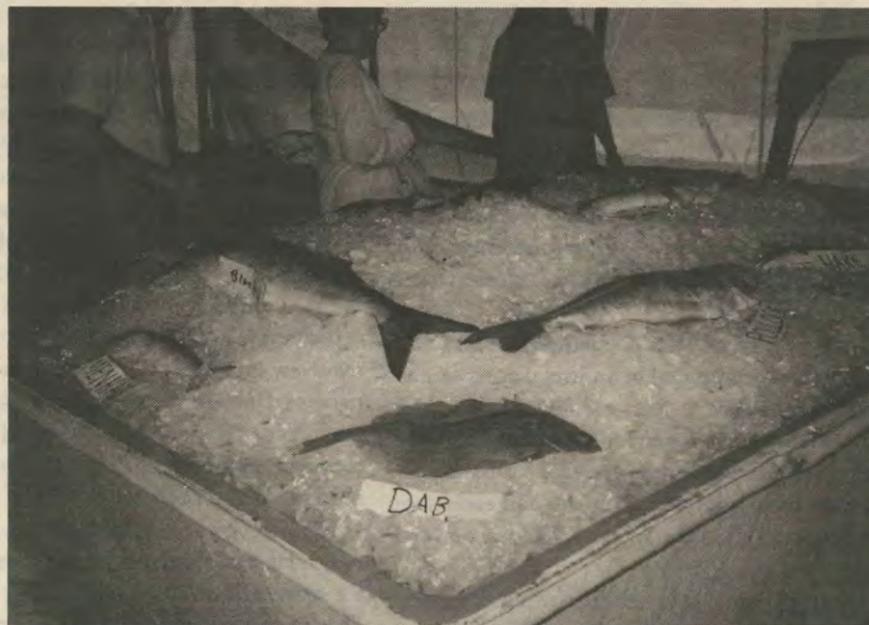
Penobscot Bay citizens battle plan to insert giant yacht marina in historic harbor area

WHILE Dumb Growth practitioner MBNA Corp brings telemarketing into Maine's list of water-dependent industries, one of the Marriot Corporation's appendages is meeting fierce resistance to its effort to transform the picturesque quiet waters of the other end of Rockland's harbor. Marriot's subsidiary, Ocean Properties, proposes a forty-slip yacht club adjacent to the natural shoreline from which extends Rockland's famous breakwater and lighthouse. Opponents of this marine sprawl, organized as the "Save the Rockland Breakwater Citizens Alliance" describe the project as "a pier longer than a football field, and "floating docks equal to two football fields in size".

In addition to fouling the bay's view-cape with a large and noisy, trash-generating, ill-placed floating private marina in one of the state's most beloved coastal landmarks - the waters around the Rockland Lighthouse and Breakwater - area residents say it will reduce lobster and fish productivity in these waters, both from likely frequent sewage discharges from large motor yachts and from the combined toxicity of thousands of square feet of antifouling paint-coated yacht hulls leaching into the bay's waters in a single location.

The Alliance has retained the law firm of Dyer, Goodall and Federle to help them pursue legal challenges to the company's plan. They are also seeking support and assistance from all who care about protecting Penobscot Bay and its coasts from ongoing sprawl. Contact the Save the Rockland Breakwater for information via the aforementioned law firm:

61 Winthrop Street, Augusta ME 04330. (207) 622-3693. Or contact the Coastal Waters Project at 418 Main Street, Rockland ME 04841 Tel: (207) 594-5717. Email: coastwatch@acadia.net



Live humans viewing a display of dead fish on ice

"DUMB GROWTH" STRIKES PENOBSCOT BAY COAST AS STATE OKAYS WATERFRONT TELEMARKETING COMPLEX

(ROCKLAND) — RESIDENTS OF THIS sleepy fishing and arts-powered port town on the southern edge of Penobscot Bay are bracing for more Route 1 traffic jams and rising property taxes, following a decision in September by Maine state officials to give the nod to Delaware-based telemarketer behemoth MBNA Corp to build an enormous phonebank complex on the city's rapidly vanishing waterfront.

Many area residents had hoped that rather than build a telemarketing center on the harborfront that the company would instead donate it to Rockland, effectively doubling the size of the city's cramped harbor park, which annually hosts a variety of important festivals and fairs.

"Company officials could have done something memorable for the Bay area," he said. "Instead, another sprawl-inducing, traffic-choking, high-turnover telemarketing complex gets injected onto our shoreline." He noted that Maine has far more ex-MBNA employees than it has MBNA employees. "MBNA's waterfront complex will rely on a continuous in-migration of new residents into Rockland and the surrounding rural towns. It is a sprawl-generator of the worst sort."

"This is going to destroy the neighborhood" said Rockland resident Bethany Berry, who lives several blocks from the development site. "Traffic is going to go up. Property taxes are going to go up. It's a shame, but I guess you can't expect out of state corporations to care about their neighbors."



Waterfront development activity in Rockland

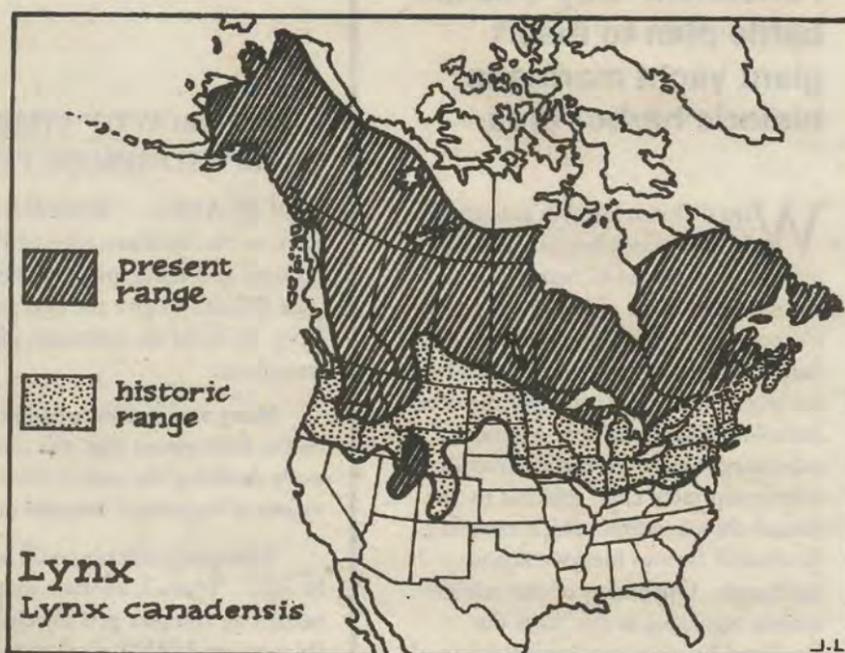
Visit www.rep.org

Want to touch base with Republican environmentalists? (Dave Foreman says you should!) And now you can, by going to www.rep.org. At the main site you can read a scolding response to the presumptive president-elect's environmental policies.

At the New Hampshire chapter site, you can read a letter sent to the *Nashua Telegraph* in support of ending commercial logging on our National Forests.

The Status & Conservation of Lynx

The following assessment of the status of the lynx in northeastern North America is reprinted with permission from: Justina C. Ray, *Mesocarnivores of Northeastern North America: Status and Conservation Issues*, pages 20-23. This excellent report is published by the Wildlife Conservation Society (WCS Working Paper No. 15, June 2000), available for download from <http://www.wcs.org/science/>. The report has two sections: Part I deals with conservation issues regarding mesocarnivores in the region. Part II provides species profiles for lynx, bobcat, American marten, Fisher, River otter, American mink, coyote, red fox, gray fox, raccoon, striped skunk, and short-tailed, least, and long-tailed weasels. For reasons of space, we have deleted the many references in the report. We urge readers to send for a copy of the report from WCS, International conservation, 2300 Southern Blvd, Bronx, NY 10460-1099. Tel. (718) 220-5155. <http://www.wcs.org/science>



Distribution/History

LYNX ARE PRIMARILY restricted to boreal forests, which are widespread in Canada and extend southward only into cool and mesic high elevation areas. They are particularly limited by the availability of snowshoe hare, the range of which is coincident. The historical range of the lynx in Canada remains largely intact, with the exception of Prince Edward Island and mainland Nova Scotia, from where it was extirpated in the 20th century. Northern boreal forests of central Canada are considered by scientists to be the core areas from which North American lynx populations emanate. They occur in southern transitional boreal forests at naturally low densities, due to the patchy nature of the habitat and lower snowshoe hare populations. There have been instances of recovery in Canadian populations after major population declines during the early 1900s.

The lynx's range in the northeastern United States has shrunk during historic times. Although this felid once occurred as far south as Indiana and Pennsylvania, it may never have been common in the region and these extreme occurrences most likely did not represent breeding populations. Instead, population persistence in the southern periphery of its range—where habitat conditions are highly variable in distribution and quality, and hares do not experience the same population dynamics as in the northern taiga and occur at lower densities—likely has been, and continues to be aided by immigration of lynx from the North. Today breeding populations of lynx probably do not occur anywhere in the eastern U.S., with the exception of Maine, although sightings continue to be reported. Due to the contiguous nature of suitable habitat just south of the St. Lawrence Seaway, lynx populations from southeastern Québec, New Brunswick, Maine and New Hampshire probably comprise one metapopulation. Little connectivity remains, however, with Canadian lynx populations north of the river, due to tremendous development activity along the river and icebreaking to allow year-round shipping. This species is unlikely to re-establish viable populations in areas such as southern New England due to irrevocable environmental and social changes that have taken place this century. Indeed, given the species' reliance on snowshoe hare and associated early successional habitat, it is unlikely that viable populations of lynx could have persisted in these peripheral areas during recent historic times.

Habitat Associations

Lynx are habitat specialists that are at home in boreal forests and not well adapted to other habitats. As such, they are most likely to be found in dense coniferous forests interspersed with bogs, swamps, and thickets. Their northerly distribution is reflected by their large spreading feet, an adaptation that allows them to support their weight in deep snow. An analysis of lynx records from the northeastern United States found that most were located within "mixed-forest-coniferous forest-tundra" cover type at elevations ranging from 250-750m.

Although deforestation can have negative impacts on lynx populations, these felids are not old growth specialists. Their prime habitat is composed of an irregular mosaic of mature and young forests. Early successional forests (20-30 years old, but not less than 5) as well as gaps in old-growth stands provide food and cover for their principal prey, snowshoe hares, while mature cone-producing coniferous forests are vital for red squirrel (*Tamiasciurus hudsonicus*), a chief alternative prey. Likewise, both late and early successional forests can exhibit the structural characteristics (i.e., an abundance of downed woody debris) required for denning.

Throughout their range, lynx only reach high population densities when snowshoe hares are at peak levels. Reproduction and recruitment rates decrease in the face of hare declines. At southern limits of their distribution, where hares apparently do not cycle or reach high population levels, research has shown the demographics of lynx populations

to be similar to those in northern boreal forests during the low point of hare cycles.

Responses to Human-Induced Disturbances

Habitat changes have been shown to have more negative impacts on lynx than bobcat. Neither lynx nor snowshoe hare respond positively to large-scale forest clearing—whether due to clearcut logging or agricultural development—and the attendant elimination of cover critical for both species. Researchers point out, however, that the negative effects of forest clearing may be offset by the benefits incurred by increasing hare populations as succession progresses. In the northern

core of its range, natural disturbances, such as fire and forest disease/pest epidemics characteristic of boreal forests, may stand the best chance of providing the mosaic of closely juxtapositioned successional habitats required by lynx. In the sub-boreal southern periphery, however, where disturbance dynamics are mainly driven by humans, persistence of lynx populations will depend on prudent land use management practices.

Agricultural clearing also has been implicated in the loss of lynx habitat in Europe through the 1940s. Lynx have been known to inhabit farming country only if it is interrupted by extensive woodlands. They tend to avoid large open areas and typically do not cross openings wider than 300 ft. Citing evidence of movement across landscapes fragmented by industrial forestry and road crossings, some researchers argue that roads do not constitute a major mortality factor for lynx. Radio-collared lynx in Wyoming and Montana successfully crossed a variety of paved and unpaved roads. Highways with high traffic volumes and associated housing developments, however, are far more likely to negatively influence lynx movements. Most deaths following a reintroduction effort in the Adirondacks, New York in 1989-1990 were due to automobiles. It should be noted, however, that upon release these animals moved unusually great distances which was likely an artifact of their non-resident status. At the same time, the island-like nature of the park probably limited severely the ranging ability of lynx that occurs in the face of low hare densities characteristic of the region. Recreational snowmobile use, which has expanded dramatically in the United States during the past 25 years further fragments the habitat, and provides access to humans and generalist predators. This factor has been attributed to lynx decline in the western United States, but has not been demonstrated in the east, where crusting of snow is common and snowmobile trails may not enhance access for generalist predators to the same degree.

An indirect effect of habitat change has been increased opportunities for invasion of bobcat in areas that were formerly strongholds of lynx. More generalized and opportunistic than lynx, the bobcat has penetrated into many sections of the range that have recently been vacated by lynx. Mixed populations are confined to the southern fringe of lynx range in Ontario and Québec. One possible example is provided by Cape Breton Island. When bobcats were able to colonize the island for the first time after completion of a causeway in 1955 that connected the island to Nova Scotia, lynx populations declined everywhere except in highland areas, the one area where bobcats have not yet established (perhaps because of deep winter snow cover). It is important to note, however, that the authors of this study did not establish clear cause and effect between the two events. Likewise, some researchers speculate as to the superior competitive capabilities of coyotes over lynx populations in southern latitudes where low population levels of snowshoe hare necessitate prey switching. Newly emerging diseases may constitute a new threat to lynx populations: Since 1996, six lynx from Cape Breton Island, Nova Scotia have tested positive for Morbillivirus (canine distemper) infection.

Lynx are also vulnerable to over-trapping, particularly during lows of snowshoe hare population fluctuations. During such periods, lynx tend to concentrate in pockets where snowshoe hares are locally abundant. Therefore, hunting pressure applied at these times could wipe out local populations, which act as sources for recovery once conditions improve. British Columbia, for example, proposed a "tracking strategy" for managing harvests of cyclic lynx, whereby harvest pressure would cease during the period of low hare populations, and hare/lynx "refugia" would then be protected.

Additive trapping mortality at or near the cyclic low in the 1970s may have taken the lynx population lower than it would have gone otherwise. Recovery from over-exploitation in Canada earlier this century took at least 15-20 years, and was aided by relatively intensive management and extremely low pelt prices. Although lynx had been harvested for fur for two centuries, the value of the pelt increased only in the past 30 years. When importation of spotted cat furs was banned in the 1970s, both lynx and bobcat were suddenly in demand. By the mid 1980s, lynx had "superceded beaver and muskrat as the economic staple of for Canadian trappers." (A.W. Todd, "The Canada Lynx: Ecology and Management," *Canadian Trapper* 13: 15-20, 1985.) Today they are worth far less. In general, the future of the lynx looks a great deal more promising than for most of the world's felids. Lynx can demonstrate some degree of tolerance of human disturbance, particularly when not subjected to trapping.

FWS v. Lynx v. FWS

By David Carle

THE BATTLE between supporters and opponents of giving Canada lynx protection under the Endangered Species Act (ESA) was not limited to the public through hearings, comment letters, and lawsuits. Internally, the U.S. Fish and Wildlife Service (FWS) was also split, with some regions supporting listing, others not. The Montana Field Office (MFO) in Helena, was one of the most vocal in opposition to listing while the Colorado Field Office (CFO) in Denver, argued quite forcefully for protection. The New England office also supported listing.

Documents in the administrative record show that during the month of October 1999 there was much debate over the proposal to list Canada lynx under the ESA. On October 4, the MFO circulated a lengthy memo outlining reasons why the lynx should not be given ESA protection. The memo concluded by calling for the withdrawal of the proposed rule to list the lynx as threatened.

According to the MFO memo:

- Lynx has always been "extremely rare" in the contiguous United States;
- The contiguous U.S. population "has not experienced a significant decline from historic levels;
- The persistence of lynx populations in Maine, Wyoming, Washington, and Montana support the contention that the contiguous U.S. population has not substantially declined and is not likely to become endangered in the near future;
- The high proportion of land in the western U.S. under federal management and "non-development" designation assures long-term stability of lynx habitat;
- Threats to lynx populations are localized in nature, do not rise to the level of threatening the contiguous U.S. population and, therefore, do not justify listing under the ESA; and
- That "primary habitat in the contiguous U.S. is naturally more fragmented... and unable to support the extremely high densities of snowshoe hare as in... Canada and Alaska."

While making these conclusions, the MFO also identified a number of specific threats to lynx and lynx habitat including the logging practice known as pre-commercial thinning (PCT). According to the FWS, PCT is "considered the most detrimental forest practice because it reduces the quality of snowshoe hare habitat." Other threats raised by the MFO included high-traffic highways and habitat conversion which "may impede connectivity between the naturally fragmented habitat patches." The memo, though, claimed that "this is not well understood."

Apparently, the contents of this memo did not sit well with the some FWS officials. Just two weeks later, the CFO responded with a detailed memo that refuted the arguments listed in the MFO of 10/4 memo. According to the 10/21/99 CFO response, they believe that the cumulative body of evidence

Maine Opposes Lynx ESA Protection

Facts & Reason Secondary

By David Carle

THE BATTLE to gain Endangered Species Protection for Canada lynx has gone on for many years, and continues today. The formal process started more than nine years ago when the first petition to gain protection under the federal Endangered Species Act (ESA) was filed by the National Audubon Society and 11 other organizations. During the next eight years the US Fish and Wildlife Service (FWS) continued to deny that the species was threatened with extinction. The conservation community and the courts felt otherwise. Finally, after additional lawsuits, in March of this year the FWS listed the lynx as a "threatened" species under the ESA. But, the listing failed to give lynx true protection in the Northeast. The conservation community, led by Defenders of Wildlife, is again gearing up to challenge the decision by the FWS not to protect Canada lynx from becoming extinct in the US.

OPPOSITION BY IGNORANCE

Throughout the process, the State of Maine, under the leadership of Lee Perry, commissioner of the Department of Inland Fisheries and Wildlife, and, of course, Governor Angus King, have opposed the proposed protect of the lynx under the ESA. The state based its position that the species does not need additional protection on sweeping statements, innuendos, and historical amnesia.

In comments to the FWS, the State of Maine attempted to justify its position that there was not a reproducing population in Maine and therefore, what lynx were in Maine were probably just strays and did not qualify for protection. To back up this position, the state made sweeping statements but did not provide supporting materials.

In an 8/24/98 letter from Lee Perry, commissioner of the Maine Inland Fisheries and Wildlife Department, to the FWS, Commissioner Perry stated "lynx have received careful consideration and management attention in Maine." According to Perry, this careful consideration includes closing the lynx hunting and trapping season in 1968, working with the FWS to "ensure that all reasonable and practical management is being applied to lynx," and continue to assess the status and habitat requirements of lynx in the northeast. "The result is that Maine is already doing all that can be done to ensure that lynx continue to exist in the state.

Other comments from Maine concluded that "lynx have always been rare in Maine...," that there is no credible data that Maine has a resident population or that logging or the associated road networks are detrimental to lynx and their habitat. In addition, Maine stated that "neither forest practices, nor the systems of extremely low-traffic forest roads, fragment lynx habitat in Maine." The comments also state that Maine does not have any "data on lynx population viability and no documentation of threats to lynx or their habitat within the state." The fact that nobody looked for the documentation apparently allowed Commissioner Perry to be able to make the

established that:

- Lynx is a resident species that was historically comparatively common in each major geographic area;
- A substantial, and in some cases precipitous decline in lynx populations and numbers has taken place;
- Lynx populations in 4 of 5 geographic areas appear to be very small and subject to extinction and while they "may represent persistence, they likely do not represent sustainability;"
- While there is a significant amount of land under federal management and non-developmental designation, this protection has existed for a significant amount of time and still failed to result in the recovery or even maintain populations of lynx; and
- The possible extirpation of small residual populations will have very serious impacts on the long-term viability of a contiguous U.S. population of lynx.

The CFO concluded that Canada lynx should be listed under the ESA. In addition, it believed that the withdrawal of the proposed rule to list lynx as "threatened" under the ESA "is, by and large, not supported." The CFO then stated:

"We believe that it would be prudent to list these distinct geographic areas separately and place them in the status justified by their current biological condition and the level of threats they face. Therefore, we also recommend that further consideration be given to separating the contiguous U.S. population segment into additional natural population segments, listed according to their respective biological circumstances."

On April 24, 2000 the lynx was listed as "threatened" under the ESA.

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comment.

Despite the statement that the State of Maine has "no documentation of threats to lynx or their habitat within the state," it still claimed that "management and conservation of lynx habitat is accomplished through Maine's comprehensive environmental laws that address forestry practices, site development, and soil and water quality protection."

EVIDENCE? WHAT EVIDENCE?

State of Maine officials also made a number of unsubstantiated claims. One example was the claim by the State that there were no reported accidental lynx deaths from snarers and trappers in Maine.

This gained the attention of a number of people including Mickey Noble, a retired State of Maine game warden and highly respected "woodsman" who serves on the Commissioner's Wildlife Advisory Board.

According to one document obtained from the FWS, Mr. Noble was "shocked after reading Commissioner Perry's September, 1998 testimony downplaying the presence of resident lynx in Maine." According to Noble and retired warden Charlie Atkins, lynx have been present in the Magalloway region of Maine for at least 100 years—and the animals breed there because both Mr. Atkins and Noble "have seen adult and kitten tracks." Mr. Atkins also took exception to the MEDIFW's statements that there are no documented reports of lynx breeding in Maine:

"To claim that Maine lynx are transients from Canada is wrong and an insult to lots of highly credible outdoorsmen in Maine. . . The argument questioning the "residency" of Maine lynx makes as much sense to me as saying that a falling tree in the woods makes no noise because no one is there to record it."

To gain a better understanding of the historical status of lynx in Maine, a FWS official, Ron Joseph, conducted a very thorough review of historic documents and interviews with trappers and game wardens. With this information, the FWS was able to inform State of Maine officials that there have been a number of reported accidental deaths. Some examples include:

In the early 1990s a Passamaquoddy game warden and Maine Guide submitted a dead lynx to a Lt. Warden Chandler. "Lt. Chandler gave the dead lynx to the Bucksport Fish and Game Club where it no resides as a mount."

In 1992 a lynx was accidentally snared in Masardis and "ended up in the IFW freezer, disappeared from the freezer, and re-appeared in the freezer after a few questions were asked about its whereabouts."

In 1995 a resident of Allagash Village accidentally trapped a lynx. The body was turned over to the Maine Warden Service.

The State of Maine has apparently maintained that there is an absence of data to support the position of the FWS that Canada lynx are threatened and therefore the State cannot support listing. "We (State of Maine) urge you to carefully evaluate the factual basis for the conclusions presented in your proposal. We think that you (FWS) will agree that your proposal to list cannot be substantiated."



Ghost Cat

An Interview with Sue Morse about the Canada Lynx

Sue Morse is a nationally recognized naturalist and habitat specialist with thirty years of experience tracking and interpreting wildlife uses of habitat. She has published extensively in her field and participates annually in carnivore research conferences and field monitoring projects in Arizona, Montana, and throughout the Northern Forest. She is an active member of the Western Forest Carnivores Committee and has focused her research activities on cougar, bobcat, black bear, and Canada lynx. She is sole proprietor of Morse and Morse Forestry and Wildlife Consultants — a four generation family business which specializes in assisting private landowners, land trusts and conservation organizations with assessing wildlife habitat qualities and managing forests to enhance and perpetuate those values. She founded Keeping Track™ in 1994 (see page 15 for information on Keeping Track™). A hike in the woods with Sue reminds us that humans were born to be literate ecologically as well as linguistically. The interview was conducted in late summer 2000.

Jamie Sayen (JS): What is your response to the recent listing of the lynx as threatened under the Endangered Species Act?

Sue Morse (SM): I'm real proud of the fact that we've listed the Canada Lynx as threatened in the lower 48 states. I see the successful listing as a monumental achievement on the part of a lot of people. I frankly wasn't optimistic that we would pull it off, given all the political pressure to have things stay the same. Our various testimonies, including those of biologists and conservationists nationwide, is proof that the system sometimes really works. But it wasn't easy.

Right now, however, the U.S. Fish and Wildlife Service is being sued because the Agency didn't go far enough in some people's view—didn't list Lynx as Endangered instead. I think there's some merit to the dissatisfaction these folks feel. Throughout the history of our struggle to protect Canada lynx and importantly protect the species' fragmented habitat within America's borders, there's been a puzzling and at times disturbing schizophrenia exhibited by various officials and scientists at the

center of the debate. On the one hand, virtually all biologists agree that we don't know much about the past or current status of the species within its various historic habitats—in the northeast, upper Midwest, Northern Rocky/Cascades region or within the lynx's southern most range in the Southern Rockies. We know even less about what constitutes lynx "habitat" in the different ecoregions, much less understand the role of dispersing lynx in maintaining metapopulations' sustainability and genetic diversity throughout the species' current range. Data are so inadequate we are unable to infer anything useful concerning lynx abundance or population trends within any of the four ecoregions in which lynx are believed to still cling to existence. You can count on two hands the number of field studies that have researched these matters. Yet, here's where the delusions and disorganized thinking comes in—one of the findings of this spring's Federal Register listing of lynx as threatened in the contiguous United States pronounces the following: Let me read it exactly as it was written:

"Within the contiguous United States, the relative importance of each region to the persistence of the DPS [district population segment] varies. The Northern Rockies/Cascades Region supports the largest amount of lynx habitat and has the strongest evidence of persistent occurrence of resident lynx populations, both historically and currently. In the Northeast, Great Lakes, and Southern Rockies regions, the amount of lynx habitat is relatively limited and does not contribute substantially to the persistence of the contiguous United States DPS. We conclude the Northern Rockies/Cascades Region is the primary region necessary to support the continued long-term existence of the contiguous United States DPS." (FEDERAL REGISTER/VOL. 65, NO 58/, FRIDAY, MARCH 24, 2000/RULES AND REGULATIONS)

JS: How would the Northern Rockies/Cascades Region lynx populations support the continued long-term existence of a contiguous United States DPS? And how will the northeastern DPS benefit? Sounds like they've written northern forest lynx off.

SM: Some excellent questions! This language is obviously biased by the Agency's dependence on the recent findings of the "Science Team"—a collaboration of some fine biologists, all of whom hail from the west. Quite impressively, these gentlemen have assembled a wealth of critical information about lynx, and their snowshoe hare prey base, as well as much information about habitat and basic lynx ecology. To their credit the "Science Report" (entitled, *Ecology and Conservation of Lynx in the United States*)¹ bravely acknowledges the dilemma inherent in developing suitable protection and management strategies, given the paucity of existing information we have on lynx in the U.S. Nevertheless, these authors clearmindedly saw the need for an interim conservation strategy which would draw from overarching conservation biology and planning principles while benefiting from various "qualified insights" which could guide lynx research and management in years to come. Make no mistake about it, I am very impressed with the Science Report. However, where northeastern lynx are concerned I'm discouraged by the degree to which the perception about lynx status, past and present, as well as the species' conservation potential will be understated, simply because of the Science

"What remains of the northeast's wildlife and habitat will not exist as we know it in just a few decades unless we aggressively seek to preserve even larger blocks of core habitat..."



Creeping Lynx. Photo © Susan C. Morse

Report's so-called authoritative summary of the situation here. The Report's conclusions (drawn from woefully inadequate data) have now influenced the USFWS listing findings, as we have discussed. What are the on-the-ground implications of this listing language? Does "relatively limited" mean that, as always, the east's wildlands and wildlife potential will be underestimated, and dismissed as not important to lynx sustainability? What would the breeding adult lynx with kittens (which we didn't know existed in Northern Maine until we started looking) have to say—so to speak? What does it mean when one region is designated as "primary"? Will the east receive less research and management attention? Will the east's largely private lands base receive even less Federal oversight and guidance, or fewer resources with which to fund and execute necessary conservation incentives and educational programs?

JS: What exactly is the shortcoming of the Science Report's assessment of Lynx in the northeast?

SM: Quite simply, the chapter on the history and distribution of lynx relies heavily on data as well as anecdotal information which has to be biased if for no other reason than it was collected at a time when the species was already compromised and perhaps downright scarce as a function of human land uses that had been going on here for well over a century and a half. So, to conclude that lynx may have never been really abundant in the northern forest is a bit absurd if we're basing that conclusion on data that was collected in the later 19th and early 20th centuries—a time when lynx habitat would have been most severely impacted.

JS: Is that pretty much like describing the pre-settlement forest based on its current conditions?

SM: Exactly, it makes just as much sense—or nonsense to be more precise...What worries me is that if we accept this reasoning, we will legitimize continuing policies of inaction on the part of the agencies as well as the private sector, resulting in continuing habitat loss and fragmentation. Then lynx and other wide-ranging carnivores and the healthy ecological infrastructure and processes these carnivores are associated with will become compromised, and fail with time. The conservation of lynx, indeed the whole ball of wax, depends upon our willingness to make sacrifices. What remains of the northeast's wildlife and habitat will not exist as we know it in just a few decades unless we aggressively seek to preserve even larger blocks of core habitat, and connect, buffer and sustain them with rural landscapes and corridors in which human occupancy and disruptive behaviors are limited.



Sue Morse holding a cougar kitten during a research project in Colorado. Photo © Susan C. Morse

JS: Given the limitations of some of the listing's reasoning, what do you recommend?

SM: The answer is easy. Get out in the field and HAVE A LOOK. Conduct field studies with all the appropriate thoroughness, rigor and consistency that good biological science requires, and seek to find evidence of lynx presence throughout the region if it exists. Seek to document things like residency, reproduction, recruitment and, over time, seek to learn about what contributes to a viable population in our region. Lynx ecology, population dynamics, habitat and prey interactions might be entirely different here in the northeast. We won't know unless we look, and learn accordingly.

For example, just within the past two years Maine biologists have learned that Maine does indeed have a breeding population which does not appear to merely consist of just a few scattered transients from Canada. Other subjects that Maine's 5 year research project will explore include:

Is lynx persistence in Maine independent from recruitment from Canada?

Is there enough regional diversity and productivity in Northern Maine's forested habitat to support lynx even when or where snowshoe hare densities are low? What are the impacts of other generalist predators including coyote and bobcat?

What are the impacts of road densities, and various commercial forestry practices including pre-commercial thinning?

Efforts like this, and more research aimed at documenting presence of lynx in other likely habitats throughout Maine, Northern New Hampshire and possibly the Northeast Kingdom of Vermont will form the only appropriate basis for judging what the northeastern Lynx DPS does in fact contribute to persistence of *Lynx canadensis* in our region.

JS: What concerns you most about the current listing and its assessment of Lynx in the northeast?

SM: I call it the self-unfulfilling prophecy. This is the view that lynx haven't, and still don't exist here in abundance, and that the habitat here is too dominated by human-caused fragmentation and degradation—ergo it shall be so. Therefore, the lynx that are here now chasing rabbits at night, and napping at noon will gradually become rare, and then disappear even as their forests fall and fall apart—even as the whole community of living organisms breaks down under the sheer weight of our neglect and nefarious activities. Then the northeast will surely live up to the snide expectations many westerners (many of them transplants from the east) have of our wildlands. As if the big sky west has a copyright on conservation! To be sure, those same sturdy pioneers who wreaked havoc in the American west did an extra thorough job of it here in the northeast a century earlier. But what of the astonishing recovery of millions of acres of our forested habitats here in the Northeast?

What distresses me most about today's conservation agenda is how fragmented we conservationists are and how what should be a national consensus for appropriate and urgent conservation planning in all ecoregions gets bungled and mismanaged utterly. The conceptual framework for the next paradigm in America's conservation history is well known and largely embraced by the nations' leading biologists and managers. Yet opportunities elude us as divisive and self-serving policies and visions limit our field of view.

JS: So, you would like to see a genuine effort at partnership involving USFWS leaders, state and provincial agencies as well as other university and independent researchers, working together as a team rather than defending turf so to speak?

SM: That would be lovely. The right idea at precisely the right time.... The west is blessed with the deliberations and activities of an *ad hoc* committee of folks attempting just this sort of thing. I've been a participant in their meetings for several years. Called the Western Forest Carnivores Committee, public agency biologists and managers regularly meet with independent scientists and NGO leaders in order to explore research and management needs as they relate to lynx, fisher, American marten

and wolverine. This group has impressed me so much that I proposed to the Wildlife Conservation Society (WCS) that starting a similar group here in the northeast would be a great idea. Recently, the idea has taken shape thanks to the leadership of WCS staff scientist Justina Ray. We had our first meeting in September. Folks in attendance were from nearly all northeastern states, southeastern Canadian provinces, as well as officials from the USFWS and leaders of certain NGOs. The premise for our deliberations (which were preliminary to actually forming the Northeastern Carnivore Conservation Group) was as follows:

There is ample cause for optimism in the region. Many species (e.g. marten, fisher, and river otter) have staged remarkable comebacks in this century. Habitat potential is high for these and other species, possibly even the lynx.

There is need for northeastern-based research regarding the habitat and prey base needs of the various carnivores of our region, as well as how these species interact with and influence one another's long-term well being.

The northeast landscape is unique; its ecology and conservation needs require a coordinated action and information exchange among our region's biologists, conservation organization leaders and public officials across both state and national borders.

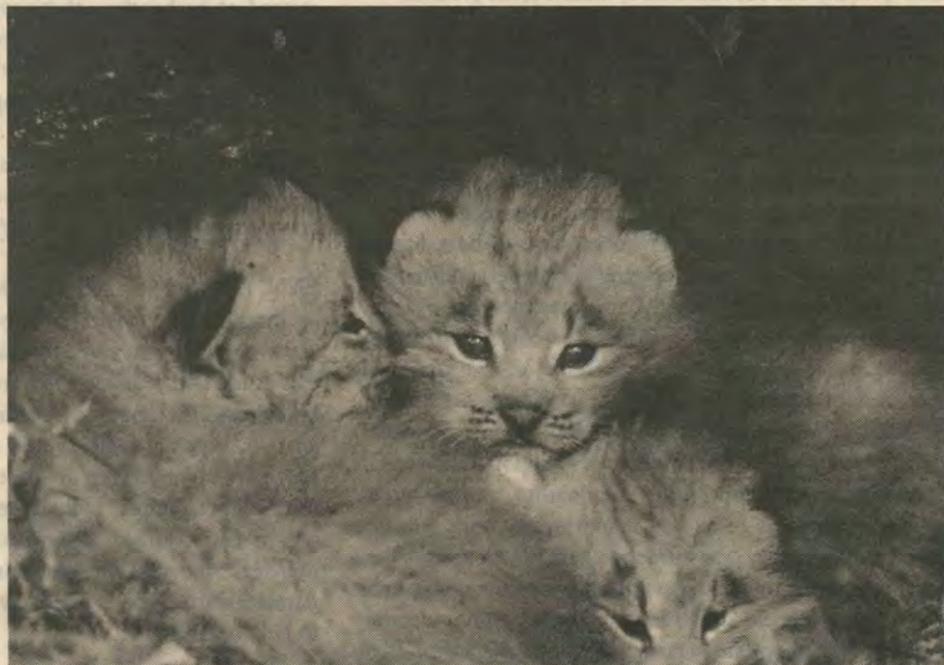
JS: What was the outcome of the meeting?

SM: It's not for me to say, but I believe that a small group of attendees are committed to formally establishing the NCC group. I'm hopeful, largely because the Wildlife Conservation Society has taken the lead on getting us started. WCS has demonstrated again and again the wisdom of forging a proactive partnership between concerned citizens, biologists, managers and policy makers. I'm confident that our purpose and agenda will move us along. What starts out small and deliberate will soon become much larger—like the task before us. Just like the Western Forest Carnivores Committee, a handful of folks will grow to include many more with time.

JS: The Northeastern Carnivores Conservation Group sounds like a great idea. But what are your realistic expectations of the recent listing? What are the limitations in your view?

SM: A quick review of our endeavors to list Lynx at all will impress us with two things: (1) the endurance of various conservation advocates in pressing for the *right* decision, even when a series of wrong decisions were made, (2) the listing in its present form is clearly aimed at providing lynx *some* protection while making great compromises in other respects. As we've noted earlier, the northeast, Midwest and southern Rockies are not regarded as "primary regions" for lynx conservation potential. Could it be that these regions have been dismissed because of the obvious complications inherent in private lands' resource extraction, recreation and development potentials? Under the current listing, the focus will be on recovery planning for public lands. My prediction is that this will be largely applied on western federal lands. Issues of safeguarding quality habitat and landscape connectivity throughout the entire range of lynx in the lower U.S. may be ignored. It will be interesting to see what measures the USFWS will take locally and nationally to ensure that lynx and its habitat are not further imperiled. For example, will the listing actually result in a pro-active collaboration involving

"We need more people, readers of the Forum, for example, to really pick up the telephone and call their representatives in Washington and say, "Gee, I'm really glad that we've listed the lynx as threatened in the Lower 48. What is Washington going to do about it?"



Lynx kittens Photo © Susan C. Morse

Federal, State and private citizens in shaping new policies and lasting incentives for effective lynx conservation on private as well limited northeastern public lands? Time will tell I suppose. But in some sectors there isn't much time.

JS: You don't sound optimistic about the current listing. Would you elaborate further?

SM: Believe me I'm trying to be optimistic because I realize how frustrating and expensive all the legal battles can be for the public officials charged with the responsibility to do the right thing. Well, the listing is in place now. Now it's time for action. Now it's time for broad-based community and public leadership to define the course of action in our region. If the northeast is not "primary" lynx range, what does this mean for the lynx that live here? If instead the northeast has greater potential, then we should find the evidence. Can we commit ourselves to honest monitoring, regardless of pre-conceived notions? On behalf of Keeping Track® I will affirm with full confidence that we will find more lynx out there, and that community members will seek more involvement in wildlife monitoring. As a region, we may be witness, over time, to increasing or decreasing numbers and distribution of lynx (and other rare species) depending on how we respond to the challenges before us.

One final thing—I've heard again and again that (with the exception of Vermont) our northeastern state wildlife agencies didn't want to recommend listing lynx as threatened because of the practical reality that non-game budgets are minimal. In other words, we have hardly a dime to spend on T & E species as it is, and the thought of adding another charismatic animal to the needs list would deplete already scarce resources—possibly compromising the funding for other species whose situation is much graver. I'm flabbergasted when I hear this sort of reasoning, and angry. We can spend billions of dollars collecting rocks on the moon, but budgets for our living plant and animal neighbors right here on earth are so miniscule. It's a national disgrace!

We need more people, readers of the *Forum*, for example, to really pick up the telephone and call their representatives in Washington and say, "Gee, I'm really glad that we've listed the lynx as threatened in the Lower 48. What is Washington going to do about it? How are we really going to strengthen the budget of these agencies so that they can really do their job well instead of having to rob Peter to pay Paul? We've got the money in Washington...It's just that tradition has always dictated that listing means less money to departments most of the time rather than more. And that's not right.

Interview with Susan C. Morse, continued next page

Interview with Susan C. Morse

JS: On the issue of habitat, you've indicated some question of our knowledge and understanding of lynx habitat needs in our region. For example, what are the impacts of clearcuts, herbicide spraying and the reduction of mature forest growth?

SM: No one has the absolute knowledge of any of this because biologists have only recently started looking. The best we can do at the present time is proceed with caution, allowing that some of what we have learned about lynx habitat in the west may be applicable here. Only future research will appropriately refine our knowledge.

Lynx are creatures of the boreal and sub-boreal forest. Their necessary security, foraging and travel requirements appear to be provided by a dynamic assemblage of varying age classes of softwood cover and associated hardwood, woody shrub and herbaceous species. The size and juxtaposition of these diverse habitat patches is believed to influence the home range requirements of lynx, and perhaps even the stability of individual lynx populations. The complexity and continuing availability various forest structures appears to be very important to both lynx and their principal prey—the snowshoe hare. Both species benefit from the right interspersed of early-succession habitats, riparian areas and mature forests with understory growth and abundant woody debris on the forest floor. Thus, sufficient woody and foliage browse can be accessed, which supports the prey. What benefits hare benefits lynx. Riparian areas and mature forests provide essential travel, resting and denning cover, which benefit both predator and prey alike.

JS: What about clearcuts and herbicides?

SM: Again, the data haven't been gathered regarding the effects of these industrial forestry practices on lynx habitat in the east. But common sense would dictate that a perpetual moonscape of huge clearcuts wouldn't provide for all habitat needs of lynx or their prey. The configuration and complexity of forest cover and structure is what contributes to what we think we've learned about lynx habitat in the west. How we treat the northern forest, both at the stand and landscape scale will enhance or diminish lynx habitat potential.

As for herbicides, I am personally opposed to their use. There are so many unanswered questions. Throughout this county alone we are potentially exposed to more than 75,000 synthetic chemicals whose possible



Narrow-eyed bobcat. Photo © Susan C. Morse

singular or synergistic effects have not been adequately studied. Pesticides and products we were told were "safe" are now recognized to be lethal, or sublethal in ways which compromise the immune system, reproductive health, or cause numerous endocrine function disorders.

And what are the effects of these chemicals on wildlife? If herbicides are so safe then their applicators should browse treated acres alongside the hare, or join the lynx and dine upon one herbicided herbivore hare after another, and see what happens. It's just not worth the risk. Whether pre-commercial thinning is the goal (or roadside or powerline corridor maintenance) I prefer to put people to work instead of herbicides. If it's too expensive to hire people to thin forests then raise the price of paper. There'll be less flagrant waste then. There's a larger purpose for trees than cheap fodder for the dumpster anyway!

JS: Sue, can we conclude with some positive thoughts. What fascinates you so much about lynx? What have been your most rewarding experiences while studying the animal?

SM: I'm glad you asked. One very positive and very exciting thought is what I learned roughly a year ago from carnivore biologist, Gary Koehler from Washington State. His studies of Canada lynx are well known, and he's as knowledgeable about this secretive northern species as anyone. Koehler believes that our northern forest region very possibly holds the greatest promise for lynx recovery in the United States. Unlike the Northern Rocky/Cascade region characterized by large mountains which may form physical barriers fragmenting the landscape, our Appalachian region is relatively continuous and accessible to lynx habitation.

JS: Why are you so fascinated by lynx?

SM: Anyone who knows me knows that I'm fascinated by all cats. Their superb hunting prowess, incredible athletic abilities and exquisite beauty totally capture my imagination. I've studied cougar and bobcat for many years now. More recently, I've been studying lynx. I don't have access to radio collared animals. Instead, I make annual field trips to Northwestern Montana, where I track lynx to see what they've been up to. I also look for lynx tracks up in the Jackman area in Maine where I go deer hunting every November. I look forward to the day when I do find sign of lynx, although it's apt to seriously distract me from my purpose of tracking a buck deer instead!

I've also observed closely the activities and movements of several captive lynx in order to clarify some hunches I've had while tracking lynx in the wild. Specifically, I've been able to identify some unique physiological features which contribute to the ghost cat's *modus operandi*. It all started with the feet. The first lynx tracks I saw were in Alberta. While volunteering on a radio telemetry cougar research project I was fortunate to briefly follow lynx tracks on two occasions. I was quickly impressed by the lynx's "floatation"—the huge saucer-sized furry feet had tremendous value in keeping the light-bodied predator from sinking deeply in deep snow. Cougar and bobcat tracks by contrast are posthole deep, with chests and bellies sometimes plowing in the deeper and drier snow pack. Their struggles, and the sometimes enormous expenditures they involve, are proof that the snowshoe footed lynx has the advantage in the snowy north woods.

That morning in Alberta started my thinking regarding the lynx's various specialties. French Canadian trappers call the lynx *Loup-cervier* which means *wolf cat*. My studies have led me to wonder why not the name *Lapin-cervier*, rabbit cat, which makes much more sense! Upon following the tracks I recognized something I couldn't make sense of at the time. When the lynx was bounding, its track pattern looked a great deal like that of a hare—with its two front feet set down on a staggered line one in front of the other not side by side like squirrels do. The hind feet, which appeared bigger than the front feet, were placed in front of the forefeet, enabling the long powerful hind legs to release their spring and propel the felid's next leap—just like a snowshoe hare. The lynx I was tracking, momentarily chasing a red squirrel, made a series of wildly erratic leaps, turning on a dime, as they say, switching direction with incredible dexterity and precision. The hind feet were bigger than ever. I'd never seen this in cat tracks.

Years later, and a sample size of over 90 sets of tracks, plus the opportunity to study the foot morphology of 5 deceased lynx, I've learned the following: (1) Lynx, unlike other Northern American cats, have larger hind feet than front feet. Skinning the feet reveals their anatomy, allow-

ing measurements to be taken of the full length of the "toes", and hence appreciate the fact that the rear feet are capable of being larger than front feet. This is not evident when the feet are relaxed, only when the longer hind feet toes are spread apart.

In many other ways, lynx is really a *Lapin-cervier*. Hind legs are longer than front legs, and the body is long, lean and relatively light. The arrangement of the eyes is also curious—the space between the eyes (called "interorbital breadth") is wider than the lynx's close cousin the bobcat. Examine my photos of each species in order to appreciate this feature. Think of the rhyme we learned in grade school: *If your eyes are in front, you hunt. If your eyes are to the side, you better hide!* Forward facing eyes are needed to increase the predator's ability to accurately judge distances—of obvious importance when dinner is a moving target and your clawed paw is your only weapon. A wider field of vision is somewhat sacrificed, however. The *eyes to the side* position enables the prey, i.e. the snowshoe hare, a greater view of the world around, less of a blind area. There's no "blind-siding" a hare, so to speak. I believe the lynx has evolved a wider eye position so as to maximize peripheral visioning capabilities while not sacrificing the hunter's necessary binocular attributes. It makes sense when you compare bobcat to lynx. Bobcats are generalist predators; they eat all sorts of prey. Lynx are specialists; they rely heavily on snowshoe hare. To catch the bunny one must be like bunny, just a little bit. When dinner attempts one of those wildly erratic zig-zagging escapes, the lynx has to somehow keep on top of things.

JS: You've referred to the lynx as a "Ghost Cat." Why?

SM: The dawn gray creature I watched creeping towards me through thick undercover really impressed me as a ghost. Not that any cat in concealment doesn't elicit feelings of apprehension. But the grizzled visage of the lynx peering at me was more like an apparition—a disembodied being—than any living animal I've ever seen.

I also like the metaphor; it's both complex as well as mysterious. The image might have multiple meanings. The ghost cat which wanders among us in this world is a spirit from another world. The lynx embodies the raw, snow-filled, dazzling purity of another time—a time before our species' ruinous enterprise.

End of Interview

¹ Ruggiero, L.F., K. B. Aubry, S.W. Buskirk [and others]. 2000. Ecology and Conservation of Lynx in the United States. University Press of Colorado, Boulder, CO. 480p.



Wide-eyed lynx. Photo © Susan C. Morse

EDITOR'S NOTE ON RABBIT: To all cottontail devotees or hare splitters alike who rebel at "bunny" being applied to the snowshoe hare, lay down your pen! Sue Morse knows the difference & insists on the idiosyncratic use.

Keeping Track Inc.

KEEPING TRACK'S MISSION is to inspire community participation in the long-term stewardship of wildlife habitat. Adults and children are taught to observe, interpret, record, and monitor evidence of wildlife in their communities, and Keeping Track supports the use of monitoring data by citizens in local and regional conservation planning. Keeping Track was founded in 1994 by nationally recognized naturalist and habitat specialist Susan Morse, who now serves as Program and Research Director. Susan has thirty years of experience in animal tracking and interpreting wildlife uses of habitat to conservation professionals. Keeping Track is based in Richmond, Vermont and is active throughout the northeastern United States with additional affiliations with organizations in the Southwest. Keeping Track is building partnerships with state and federal wildlife management agencies to address their monitoring needs and regularly coordinates with non-governmental organizations that espouse citizen science and grassroots wildlife conservation.

Keeping Track's monitoring and education programs focus on mammalian species in one of the following categories: area sensitive carnivores, threatened and endangered carnivores, keystone species, and species with rapidly shifting populations. Keeping Track's focus on these wide-ranging mammals provides a vital indicator of the ecological health of the landscape as a whole. Protection of critical habitats for our focal species is an efficient way to protect many other forms of biodiversity.

The organization's primary effort involves recruiting volunteers in towns and watersheds to run Keeping Track Monitoring programs (KTPM's). Citizens are taught a scientifically-based data collection methodology in the form of track and sign survey procedures. During the

training, the following issues are addressed: habitat fragmentation and conservation biology, how to identify habitat types, and how to apply the principles of habitat selection by our focal species in designing and monitoring study areas, called transects. When training is complete, volunteers establish the transects, which they survey once each season on an ongoing basis. Over time, the data collected becomes ever more powerful in informing local and regional planning efforts and helping the local population understand the degree to which certain areas are vital to the well-being of wildlife populations. In Keeping Track's first five years, close to 1,000 volunteers in 65 communities, primarily in Vermont, New Hampshire, and New York, have been trained by Keeping Track with the goal of establishing long-term KTMP's.

The advantages of Keeping Track's approach are several. Working with community groups, and not just offering tracking classes to a disparate group of individuals from a large area, helps bring together townspeople who share a common concern for wildlife. Monitoring teams are inclusive of a diverse group of people — farmers, hunters, teachers, retirees, business people, lawyers, scientists, students — all working side by side in the interest of understanding and preserving habitat.

When people are able to recognize the evidence of wildlife in the woods and fields around their homes, they feel empowered to make a difference. By putting the tools for conducting monitoring in the hands of citizens (as opposed to implying that only trained scientists can conduct wildlife habitat surveys), Keeping Track is tapping the energy of intensely committed individuals who have the motivation and the proximity to act upon their discoveries about critical habitat in their communities.

Keeping Track also runs a Youth Program focusing on educating youth in grades K-12 about tracking, habitat identification, and monitoring. We offer in-school slide programs, discussions, displays, and activities, and we offer half and full day programs in the field.

Sue Morse and Keeping Track can offer specialized workshops on the detection of lynx. In addition to her fine slides and displays on the species, she can take people into the field and demonstrate the proper use of bait stations and hair snags.

If you are interested in a special lynx workshop or in one of the other Keeping Track programs, contact: Keeping Track, POB 848, Richmond, VT 05477. Tel. 802 434-5383. Email: keeptrack@together.net. Website: www.keepingtrackinc.org



The Adirondack Lynx

Are there lynx in the Adirondacks? Peter O'Shea, Adirondack author and hiker, believes so. Writing in *Adirondack Voices*, newsletter of the Residents' Committee to Protect the Adirondacks, (vol 8 # 2, Winter 1998) O'Shea summarizes the historical record that stops around 1930 and picks up again during a brief bobcat bounty period around 1960. In that time, at least four lynx were taken, mistaken for bobcat. Lynx were taken around Indian Lake, the Town of Croghan, and Altona.

A well-publicized re-introduction effort undertaken in 1989 is thought to have failed because the introduced lynx were far-ranging animals accustomed to the roadlessness of their native Yukon Territory. Half the introduced lynx became documented road-kill and the others have disappeared. Other than a trickle of sightings, including one in 1976 by Peter O'Shea himself between Tupper and Long Lakes, there is no officially documented population here. However, the Wildlife Conservation Society, Mr. O'Shea reports, is conducting an investigation in northern New England and the Adirondacks to scientifically determine whether lynx are here.

New Hampshire Lynx

Paul Doherty, who recently passed away, spent decades in the woods of northern New Hampshire as a game warden. Early in his career, he met many of the woodsmen of an earlier generation who contributed much to Mr. Doherty's knowledge of the area, which he in turn presented to a contemporary audience through his *Northwoodsman* columns which ran in local papers (and were compiled in *SMOKE FROM A THOUSAND CAMPFIRES*).

In a column re-printed in *Northern Forest Forum* vol. 7 # 4 (Mid Spring 1999) with Mr. Doherty's permission, the retired game warden mentioned areas he would look for lynx sign after a fresh snow over the years, acting on an old timer's experience: "Dixville Notch near the height of land; Randolph near Bowman; Gorham near the Peabody Bridge; Pinkham Notch near the top of Spruce Hill; and Crawford Notch at the height of land near Saco Lake." Mr. Doherty continued, "it was the Wild River country where I saw the most signs. Every winter, I snowshoed in, either from Jackson or Gilead, Maine, and spent a night or two in the old log cabin (now gone) at No-Catchem Pond. It was in this remote headwater country that the lynx was making its last stand here in New Hampshire."

Perhaps it is there, as well, that the lynx will make its comeback in the Granite State.

Is Commercial Thinning Linked to Lynx Decline?

By David Carle

The Conservation Action Project has obtained government documents that suggest that certain logging practices might negatively impact Canada lynx and other wildlife. These practices are being used in the north woods of Maine and New Hampshire.

The documents, obtained from the U.S. Fish and Wildlife Service (FWS) through a Freedom of Information Act (FOIA) request, state concerns over a logging practice known as "pre-commercial thinning" (PCT). PCT takes place in 10-15 year-old stands and can include the use of herbicides, hand thinning, and plantation forestry. In 1995, more than 642,500 acres in Maine was subjected to PCT. It is estimated that PCT will be used on more than 1.5 million acres by 2015.

Areas of dense young forest usually support rabbit and hare populations. This was true in the Maine township of Brassus which also supported a population of Lynx. In 1998, much of the forest was subjected to PCT practices. During the winter of 1998-99, wildlife officials did not observe any rabbit or lynx tracks in the Brassus forests where they had been observed previously. One of the results of PCT is that the thinning of the forest stands end up being put into a grid with 6 x 6 spacing of softwood trees. This provides inadequate winter shelter for rabbits and hare. PCT practices thin forest stands just as they are becoming optimal hare and rabbit habitat. As one FWS document states, "experienced bobcat hunters avoid PCT treated stands — the cover is too sparse to support rabbits (and bobcats) in winter."

The author of the document, a FWS official, concluded that "PCT applications on federal and state forest land in ME and NH should be curtailed," and trapping and snaring of furbearers (except beaver, otter, and muskrat) should be discontinued in several ME townships known to be inhabited by lynx."

Maine trapping laws state that trappers using "killer-type traps" for bobcat and fisher only need to check their traps once in five days. A lynx that is accidentally caught in one of these traps might not be found for up to five days. According to a FWS official, "No lynx can survive five days in a trap."

The State of Maine apparently has no plans to either change the forest management regulations or the trapping laws.

A CHRONOLOGY OF CANADA LYNX EVENTS

AUGUST 22, 1991: A petition to list the "North American" (Canada) lynx in the North Cascades ecosystem of Washington as an endangered species and to designate critical habitat was received by the Fish and Wildlife Service (Service) from the National Audubon Society and 11 other organizations.

OCTOBER 6, 1992: The Service published a notice of a 90-day finding (57 FR 46007) indicating that the petition to list the "North American" (Canada) lynx in the North Cascades did not provide substantial information. Region 1 (Portland Regional Office) had the lead on the petition because the petitioned area was confined to that Region. Region 6 (Denver Regional Office) had the national lead for the lynx.

LATE 1992 OR 1993: The Greater Ecosystem Alliance and other organizations sued the Service over the negative 90-day finding announced on October 6, 1992.

APRIL 28, 1993: A settlement agreement was reached whereby the Service agreed to reevaluate the negative 90-day finding announced on October 6, 1992, in light of new information that was submitted by the petitioners.

JULY 9, 1993: The Service published a notice (58 FR 36924) indicating that the negative 90-day finding had been revisited by Region 1, but that there still was not substantial information to support the petitioned action. However, the Service announced in the notice that it believed that sufficient evidence existed to indicate that an in-depth range-wide status review for the lynx should be conducted and that the Service intended to commence this status review.

NOVEMBER 30, 1993: A second settlement agreement was reached. The Service agreed to complete and publish the results of a status review throughout the lower 48 States by 11/14/94.

FEBRUARY 2, 1994: The Service published a notice (59 FR 4887) indicating that it was soliciting information for a range-wide status review. The Service indicated that it would complete and publish its finding no later than 11/15/94. Region 6 was given the lead.

APRIL 27, 1994: A petition to list the "North American" (Canada) lynx in the contiguous United States and to emergency list the southern Rocky Mountain population was received from the Biodiversity Legal Foundation and four individuals.

AUGUST 26, 1994: The Service published a notice (59 FR 44123) indicating that the Service's administrative 90-day finding found that the petition received April 27, 1994, presented substantial information indicating the requested action for the contiguous United States population may be warranted, but there was not substantial information to indicate that an emergency listing of a southern Rocky Mountain population may be warranted.

DECEMBER 27, 1994: The Service published a notice (59 FR 66507) indicating that the Service's 12-month finding was that listing the Canada lynx in the contiguous United States was not warranted. The finding represented the Service's administrative finding as a result of the status review agreed to in the April 28, 1993, lawsuit settlement and the administrative 12-month finding for the petition received April 27, 1994.

JANUARY 30, 1996: The Defenders Of Wildlife and 14 other organizations and individuals sued the Service in the U.S. District Court, District of Columbia, over the not warranted petition finding that was announced in the Federal Register on December 27, 1994.

MARCH 27, 1997: Judge Kessler issued an opinion and order. She found that the Service's not warranted finding was "arbitrary and capricious, applied an incorrect legal standard, relied on glaringly faulty factual premises, and ignored the views of its own experts." Judge Kessler's order set aside the not warranted finding and remanded it back to the Service for further consideration. She stated that "Within 60 days from the date of this Order, Defendants shall publish a 12-month finding with respect to the status of the Lynx."

MAY 27, 1997: The Service published a 12-month petition finding (62 FR 28653) that the Canada lynx population in the contiguous United States was warranted for listing under the Endangered Species Act but precluded by actions on other species of higher taxonomic status. This warranted but precluded finding automatically elevated the Canada lynx to candidate species status.

SEPTEMBER 15, 1997: Defenders of Wildlife et al. filed suit against the Service in the U.S. District Court, District of Columbia, arguing that the Service violated the Endangered Species Act in finding that listing the Canada lynx population in the contiguous United States was warranted but precluded (published in the Federal Register May 27, 1997).

DECEMBER 22, 1997: Judge Kessler "reluctantly" denied the plaintiffs' Motion to Enforce Judgement against the Service's May 1997 finding that listing the Canada lynx population in the contiguous United States was warranted but precluded. At the same time, Judge Kessler set an expedited schedule and hearing date (March 18, 1998) for the lawsuit filed in September 1997.

FEBRUARY 1998: The Service and the Plaintiffs reached a settlement that calls for the Service to publish a proposed rule to list the Canada lynx in the contiguous United States by June 30, 1998. The settlement has been submitted to the U.S. District Court, District of Columbia for approval.

APRIL 24, 2000: The FWS determine that Canada lynx populations in the U.S. are threatened with possible extinction. This population occurs in forested portions of the States of Colorado, Idaho, Maine, Michigan, Minnesota, Montana, New Hampshire, New York, Oregon, Utah, Vermont, Washington, and Wisconsin. Lynx are threatened by the

EXCERPTS FROM A CHRONOLOGICAL SUMMARY OF MAINE LYNX RECORDS

AS OF DECEMBER 18, 1999
from the Maine Field Office of the U.S. Fish & Wildlife Service

- 1843 — 49 lynx taken by trapper/hunter Joshua Rich, in Rangeley/Aziscohos region (Forest & Stream Journal)
- 1850 — Lynx shot in Portland city limits, specimen was at Portland Society of Natural History (destroyed by fire)
- 1860 — Mounted lynx skin, Umbagog, Harvard University Museum of Comparative Zoology
- 1861 — 20 lynx killed by trappers Philbrick & Billings near Allagash Lake, winter of '60-'61, Manly Hardy outfitted the trappers and received the pelts (Manly Hardy's trapping ledgers)
- 1863 — 2 lynx specimens, Upton, Harvard University Museum, Museum of Comparative Zoology (CZ).
- 1864 — Lynx taken from Umbagog Lake, Maine (Boston Society of Natural History)
- 1864 — 2 juvenile lynx specimens (litter mates?), Upton, Harvard Museum of CZ.
- 1865 — Lynx skull, Moosehead Lake, Harvard University, Museum of CZ.
- 1865 — 3 lynx specimens (adult & 2 juveniles — litter mates?), Upton, Harvard Museum of CZ.
- 1868 — 9 lynx killed by trapper in Brownville (Palmer's records)
- 1875 — Lynx trapped, junction of the south and north branch of West Branch of Penobscot River near Canada Falls, by E. Thomas, author of *IN THE NORTH MAINE WOODS*.
- 1876 — Houlton lynx specimen, Bulletin of Geological Survey
- 1882 — Lynx (several) shot near Rump Pond and Moose Bog, Parmachenee & Bowmantown, reference appears in book, *HUNTING AND TRAPPING . . . UPPER MAGALLOWAY RIVER*.
- 1891 — 45 lynx killed by Alexander McLain in 47 years, Mattawamkeag (palmer's records)
- 1896 — Lynx trapped, North Baldwin (Palmer's records)
- 1896 — Lowell, lynx swimming with young — two other young on streambank (Palmer's records)
- 1896 — Lynx killed by E. Ham on 4th Musquacook, clubbed it with canoe paddle (Palmer's records)
- 1897 — Lynx specimen, Moosehead Lake, Harvard Museum of C.Z.
- 1901 — Upper Kennebec, lynx shot (Palmer's records)
- 1903 — Lynx killed in Masardis, skin and skull at HMCZ
- 1905 — Lynx shot in city limits of Portland (Palmer)
- 1905 — Lynx killed in Jackman, specimen at Bowdoin College
- 1910 — Lynx observed at Caucomogoc Lake (MH)

inadequacy of existing regulatory mechanisms. Current U.S. Forest Service Land and Resource Management Plans include programs, practices, and activities within the authority and jurisdiction of Federal land management agencies that may threaten lynx or lynx habitat. The lack of protection for lynx in these Plans render them inadequate to protect the species.—
DC

- 1911 — Lynx trapped, anot
- 1915 — Tracks observed on
- 1926 — Lynx on Mt. Kata
- 1939 — Lynx and kitten Stream, T9R11
- 1940 — Lynx killed in tra Gardiner
- 1947 — Tracks observed in for many years, game warde
- 1947 — 4 sets of lynx (adult den David Priest, T7R11, a cover
- 1947 - 1950s — Trapper (bountied) in the Churchi Maine Fish & Wildlife has with Beaulieu
- 1948 — Lynx tracks, adults den David Priest
- 1948 — Tracks in snow, Bi warden on Bigelow fire tow
- 1949 — 4 lynx killed by Al Priest, T6R12- Mud Pond
- 1951 — Lynx shot by war Umsaskis Lake
- 1954 — Lynx killed by L Lenny Richie, Daaquam
- 1955 — 2 lynx (litter mates (MFN)
- 1956 — Lynx observed by Westmanland
- 1957 — Lynx shot on Bige
- 1960 — Lynx killed in trap
- 1960 — Lynx found dead Allagash
- 1962 — 7 lynx bountied T15R15 & T14R15
- 1962 — Treed lynx, saw tr Kelly Dam, Karl Wentwort
- 1964 — 3 lynx kittens boun den M. Noble
- 1965 — Lynx killed in tra Hobbstown, Joe Doucette (has photo
- 1965 — Tracks of 2 young Paper road, lower SouthWe
- 1967 — Lynx killed at k Thibodeau (photo in DE m
- 1967 — Lynx eating bea Orcut
- 1967 — Lynx bountied by
- 1969 — Tracks in snow, Plantation,
- 1972 — Tracks in snow, Moulton, Hobbstown (near
- 1972 — Tracks in snow, U hunter Dick Laney

her observed in Phillips (P)
 Mt. Katahdin during winter (AJ)
 hdin (IBM)
 treed by John Kelly, Yankeetudai
 p near Allagash Village by Lesley
 Upper Magalloway River country
 n M. Noble
 with 3 young) tracks seen by war-
 animals fanned out working rabbit
 Camile Beaulieu caught 12 lynx
 ll Lake and Clayton Lake area,
 photographs and video interview
 and young, Cuxabexus Lake, war-
 gelow Mt., Duluth Wing (last fire
 er)
 Nugent, bountied by warden David
 den Maynard Pelletier in the fall,
 ionel Caron, bountied by warden
) killed same week, Mt. Abraham
 John Robertson (later a warden),
 low Mt. by Dr. Covert (MFN)
 , Owen Gardiner, Allagash
 l in woods by Owen Gardiner,
 by game warden Russell Dyer,
 acks of adult and young in snow,
 h
 tied, den found in Dixfield by war-
 p, near old German POW camp,
 Belgrade), Ron Joseph (USFWS)
 g and adult, crossed International
 st branch of St. John, M. Noble
 Kelly Brook by cat hunter Arthur
 ag)
 ver carcass, T10R7, trapper Bill
 warden John Robertson, Ashland
 , warden Lenny Richie, Caswell
 wardens Lloyd Trafton and Vern
 POW camp)
 pper Enchanted Township, bobcat

1972 — Lynx seen by warden Roland Pelletier near Fall Brook, Big 20 Township
 1975 — Lynx caught and released from trap, trappers Walter Richard Lane and Bob Wagg, Chub Pond, Hobbstown
 1975 — Tracks in snow, Kelly Dam near Dole Pond, Dick Laney
 1979 — Tracks in snow, Mayfield Plantation, wildlife biologist Gary Donovan
 1980 — Lynx caught and released from trap, Kennebago River Valley, Bill Covey
 1981 — Lynx specimen, now at IFW Augusta headquarters, came from Salmon Stream, Medway, warden Alvin Theriault
 1982-1986 — Tracks in T10R6, cat hunter Wendell Hudson
 1982 — Adult lynx Tracks in snow, Moxie Bog, Forks Plantation, trapper Colin Bates
 1982 — Adult lynx observed by retired warden Larry Bonney, Dead Brook, Orient
 1983 — Lynx caught and released from trap, Aziscohos area, Emery Cameron
 1986 — Tracks of 2 young lynx traveling together, Narraguagus Lake, T10SD, D. Livingston
 1986 — Lynx observed by woodsman Glen Wing, winter, 4th Musquacook Lake, T10R11
 1987 — Dead lynx found, Ragmuff Road, Jeff Bartley & Alvin Theriault
 1988 — Tracks (adult traveling with young) in snow, Thorndike Township, cat hunter Larry Pottle
 1988 — Tracks (casts made), Dennistown, R. Joseph and warden M. Favreau
 1989 — Tracks in snow, Brassua Township, wildlife biologist Bill Hanson
 1989 — Tracks in snow, Mosquito Mountain, Forks Plantation, Bill Hanson
 1990 — Lynx treed by dogs and shot (mistaken for bobcat), Princeton, guide Donald Boston, dead cat submitted to Lt. warden Chandler Smalley — MEDIFW — mounted and donated to Bucks Mill Rod and Gun Club (Bucksport)
 1990 — Tracks in snow, Brassua Township, Bill Hanson
 1990 — Lynx treed by dogs, T10R6, bobcat hunter Wendell Hudson
 1990 — Tracks in snow, Brassua Township
 1991 — Tracks in snow observed frequently, retired warden Russell Dyer, T14R15
 1993 — Tracks in snow, Norris Brook, Comstock Township, Bill Orcut
 1994 — Tracks in snow, Carrying Place Township, warden Alan Later
 1994 — Pair of tracks in snow, Little Black River and Oxbow Brook (hayfee Mt.) T18R11, bobcat hunter J. Guimond
 Record drawn from US Fish & Wildlife Service summary sheets by David Carle. Record continues through 1990s, with 25 further observations through 1999. Summary sheets do not include:
 Maine Department of Inland Fisheries and Wildlife winter track survey results; Maine lynx bounty records (missing), records from the Portland Society of Natural History (building burned), and other incomplete records.

Tracking Maine's Elusive Cat

by Jon Luoma

THE CANADA LYNX has been seen infrequently in Maine over the years, but records and sightings show a continual presence for decades (and centuries). Beginning with Henry Thoreau's Penobscot guide Joe Polis, who described "lunxus" in the woods near Chesuncook Lake before the Civil War, lynx have been tracked, trapped, treed by dogs, photographed, glimpsed and sometimes shot in many parts of northern and western Maine with some regularity right up through the 80s and 90s. But the record is more tantalizing than definitive, and the range and numbers of lynx in Maine are unknown. (Maine currently has the only documented resident lynx population in the Northeast U.S.)

Fortunately, though, Maine Department of Inland Fisheries and Wildlife biologists are currently conducting a multi-year study of lynx in Maine, and have already trapped, tagged, radio-collared, and released a number of lynx in two remote townships. As the traplines were shut down this October, the study has radio-collars on a total of 15 adult lynx, as well as coyote, fox, and a bobcat. The data biologists are gathering will document lynx habitats, habitat needs, interactions with other predators, generic relationship with eastern Canada lynx, and will estimate the state's lynx population by extrapolating from the study area to other areas where winter tracks are found.

Lynx mortality — several study lynx have so far been killed by humans, other predators and intestinal parasites — may show evidence of limiting factors at the southern edge of the lynx's North American range. The connections between lynx populations and the population cycle of their primary prey, the snowshoe hare, will be investigated.

Although the Maine IF & W biologists are careful not to claim evidence of a permanent lynx population in Maine, they have radio-collared three breeding females and have tagged seven new kittens from three litters this season. Combined with anecdotal reports and sightings over decades, an average citizen could be forgiven for concluding that lynx are here, have been here, and will continue to be here, if habitat and prey needs are met.

This past July I was fortunate to join a field trip, organized by Maine Audubon Society, accompanying IF&W biologists in their study area east of the Allagash Wilderness Waterway. Although not seeing lynx, we dozen participants tramped to a former lynx den, learned basic trap-

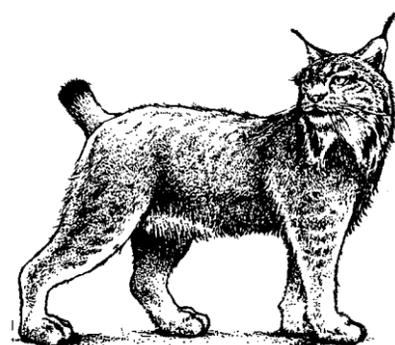
ping and radio telemetry techniques, watched a video of recent captures, and listened with interest as wildlife biologists Craig McLaughlin, Adam and Jennifer Vachon, student Shevenell Mullen, and pilot Jack McPhee described their work in the field. We did come within a hundred yards, probably, of a couple of collared lynx moving unseen through the puckerbrush as we tracked them with radios and antennae.

The two study townships were heavily clearcut in the 1980s during the spruce budworm epidemic, and are now largely covered with scrubby "early successional stage mixed forests," 15 to 25 years old. Ron Joseph of the U.S. Fish and Wildlife Service describes such country as "dominated by birch [and] popple with an understory of spruce and fir. This habitat often provides ideal conditions for snowshoe hare, the principal prey of lynx." (Previously, fires, windstorms, and the spruce budworm contributed to "setting back forest succession" and creating hare, and lynx, habitat.) Lynx apparently prefer to den in mature forest stands in the western U.S., but it may be that, here in the east, timber harvesting contributes (in part) to creating lynx habitat; the den site we visited was under blowdowns in thick scrub within "early successional" cover, although older trees were nearby. A separate University of Maine study is investigating the impact of pre-commercial thinning practices, in which the browse hare feed on is cut out, or killed with herbicides.

The study townships are no advertisement for "best management practices" forestry — you can drive for miles through hillsides covered with short, spindly hardwoods and new softwood stands — but the study area was selected on the basis of high numbers of winter tracks: apparently lynx like it there.

Lynx are controversial in Maine; IF&W Commissioner Lee Perry fought federal listing as "threatened" last April. It may take political courage for Maine's IF&W biologists to conduct an impartial study (in addition to the usual difficulties, and pleasures, of tending traplines, tracking collared animals in summer and winter, and managing equipment and logistics in the back country).

The lynx study is expensive, and must run for at least five years to collect complete data. The study is in its second year, and funds (currently from a federal tax on sporting goods) will run out next year. Funds for another three years are being sought.



On the Road to Recovery

by Paula MacKay

THERE MUST BE A WOLF bouncing people at the door," I joked with a friend as we watched one wolf recovery supporter after another file into the meeting room at the Black Bear Conference Center in Orono, Maine. It was October 12th. With sunset-colored leaves rustling in a mild breeze, this was the quintessential New England fall evening — yet something wild was in the air. Indeed, this was the night wolf advocates had anticipated for months — years, really — as it was the first and only USFWS public hearing on wolf recovery in the Northeast to take place during the proposed rule stage.

Along with two colleagues whose organizations also participate in the Coalition to Restore the Eastern Wolf (CREW), I was distributing green stickers bearing the bold words, "Welcome Wolves Home." Most received the handout with at least a supportive nod; many immediately peeled the backing and slapped it onto their jacket. When I had nearly depleted my pack of stickers, I wondered to myself with guarded optimism: *Where was the opposition?*

As the next 3 hours unfolded, the answer became remarkably clear — this was *our* party! Dozens of conservation-minded citizens had come to learn about and lend their support to the wolf recovery process, and they were not to be outnumbered. Indeed, of the 31 people who rose to testify, only 2 were downright averse to seeing wolves return to the New England landscape. The vast majority of the others enthusiastically embraced the possibility of wolf recovery in our region, primarily offering ecological and moral justifications for their positions.

Hunter and recreation guide, teacher and student, professional conservationist and logger, stood side by side in their commitment to approaching wolf recovery with open hearts and minds. Meanwhile, the small but disproportionately vocal minority of Northeasterners who oppose wolf restoration — those driven by misguided fears and myopic self-interest — were notably absent from Orono that historic night. Perhaps they are coming to realize that the restoration of a keystone predator is well worth the short-term challenges we must all face, together.

Make no mistake — the challenges are formidable. Not the least among them is the debate surrounding the proposed downlisting of wolves in the Northeast from endangered to threatened. These are troubled waters, and most of the folks at the Orono hearing appeared confused about how to navigate them. People who supported the downlisting generally did so in good faith, citing that the reclassification would help take wolf recovery forward. Those who opposed it found the proposal illogical or worse — how can decreasing the protection status of an extirpated species be in its best interest? In reality, we all stand between a rock and a hard place, trapped by the political underpinnings of this contentious issue.

It's as though we're being held hostage by an amorphous foe who's saying "if you want to see 'em back here alive, you'd better be prepared to play by our rules." The question is, in whose hands are we placing so much power? And why are we allowing the ESA, the future of the wolf, and our own collective integrity to be compromised in the name of a specious gamble? True, threatened status *may* be more palatable to those who will fight tooth and nail to keep wolves at arms length. But I suspect that, to those who fear or loathe them, a wolf is a wolf—no matter what its protective clothing. So why cast it out into the cold underdressed?

Ironically, almost all who supported the downlisting because it will allow for more "flexible management" actually opposed a proposed special rule that epitomizes such flexibility: that which would allow for the killing of wolves who eat "too many" moose and deer. One citizen called a spade a spade when he described this as a "spe-

cial rule for special interest groups." Another said she was against killing wolves for doing what they do to make a living. A third, he himself a hunter, was unwilling to stand behind such a provision just because it accommodates "certain hunting groups." Even the National Wildlife Federation, principal movers behind the downlisting, opposed the special rule because it is biologically unfounded.

No doubt, the Orono hearing was an inspiration and a boost to wolf recovery in the Northeast. Despite our differences, a broad diversity of advocates and other citizens presented the USFWS with resounding support for the proposed planning process. Ultimately, though, we're going to have to sort out exactly what we're looking for and what we're willing to do to get it. Presuming we want to see wild, unpersecuted, and free-roaming wolves living in an equally wild, forested landscape, we've got some serious talking to do amongst ourselves and with our Canadian neighbors with whom we will share the responsibility of stewardship. Judging from the flood of green stickers, I think—I hope—we're on our way.

TESTIMONY

I AM HERE THIS EVENING as a lifelong citizen of New England. I'm also testifying on behalf of two organizations working in the realm of biodiversity conservation: The Wildlands Project and the Wild Farm Alliance. Each in their respective ways, these organizations are striving toward an ecologically sustainable future for both humans and the broad diversity of species with whom we share the land.

First, I would like thank the US Fish & Wildlife Service for holding this hearing tonight, and for taking the bold step necessary to begin exploring the feasibility of wolf recovery in the Northeast. This will no doubt be a long-term and challenging process, as it brings to the fore many difficult questions about our ability to coexist with nature in general, and large carnivores in specific. Nonetheless, we are now faced with an exciting opportunity to restore a top predator whose vital presence on our landscape was brutally and systematically terminated more than 100 years ago. I, for one, am honored to take part in this effort to right such a blatant ecological and moral wrong. And I'm inspired by the fact that hundreds of thousands of Northeasterners share my enthusiasm.

In its proposed rule dated July 13, 2000, the Fish & Wildlife Service put forth several actions pertinent to wolf recovery in our region. The first, to establish a distinct population segment, or DPS, for wolves in the Northeast, is a necessary and appropriate action for which I lend strong support. Numerous studies have identified large areas of suitable wolf habitat in northern New England and New York—habitat which until only a century ago was home to wolves. Many species, including wolf prey species such as white-tailed deer, moose, and beaver, have returned to this habitat as the forests have regenerated. And although wolves inhabit neighboring forests in Ontario and Quebec, they have been unable to re-establish themselves in any viable numbers across the border. To do so, they likely need and certainly deserve our help.

Unfortunately, the proposed rule also seeks to downgrade the protection status of wolves in the Northeast from endangered to threatened. While I recognize the political motivations of this action, it is biologically and legally unjustified. How can we downlist a species—or in this case, as distinct population segment—that has been extirpated from this region? To do so is an affront not only to the wolf, whose situation in the Northeast undoubtedly warrants full ESA protection, but to the ESA itself. Furthermore, this action has the potential to undermine the very recovery process it ostensibly seeks to facilitate. Flexible management, as it has been practiced in other regions where wolves have made a comeback, too often means lethal control and heavy-handed manipulation based on the purported needs of special interest groups rather than the ecological needs of the wolf. Granted, wildlife management is a reality in areas where people and animals live in close proximity. But it should be used in good faith as a tool to help maintain biodiversity, not as a bargaining chip before a species is even restored.

One of the special rules proposed under threatened status, for example, would allow for the killing of wolves—up to 30% of a given pack every 3 years—to address the concern that wolves compete with hunters for moose and deer. Once again, this action is politically driven and biologically unfounded. As stated by Canadian wolf biologist John Theberge: "As a broad generalization, wolf abundance tends to correlate with prey abundance, or more accurately, prey biomass." Indeed, neither predator nor prey would have made it very far if this were not generally the case. For their part, the responsible hunters I know are more than willing to share their prey with other predators, and, in a healthy ecosystem, there should be enough to go around. If we do have larger habitat issues to address—for example, a shortage of deer wintering habitat due to overlogging—shooting wolves will not fix the problem. The bottom line is that no law, especially the ESA, should be manipulated to protect or accommodate wolf haters.

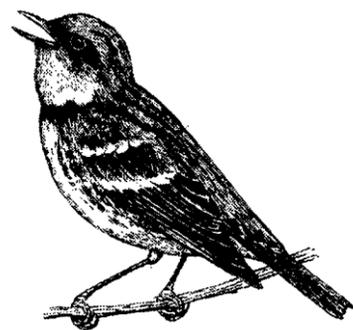
A recovery plan for wolves—as for any other species—should be rooted in sound biological science. First and foremost, we need to be sure that the Northeast can provide the habitat necessary to support a wolf population into perpetuity. Careful study of identified habitat should be undertaken to determine where wolves will find the wild prey, safety from humans, and habitat connectivity necessary for their survival. Such a process could no doubt help us meet the needs of other species as well—especially those sensitive to human disturbance. In fact, ecologically speaking, wolf conservation efforts should be explored in the context of the entire carnivore guild of which the wolf is a part. In the long-term, restoring wolves as top predators should be regarded as one important component of restoring ecosystem function to the Northeast.

Dr. Michael Soule, the founder of conservation biology and former president of The Wildlands Project, recently offered the following input to the current discussion on wolf recovery in the United States:

...The point of wolf recovery is not some arbitrary population target for small segments of the original range of the wolf. Rather, the goal should be the achievement of functional densities of the wolf so that the important ecological interactions (including top-down trophic regulation as being demonstrated in Yellowstone) are recovered. Simply put, without the wolf, many ecosystems are functionally decapitated...All ecosystems that had wolves need them back. Science as well as ethics requires their repatriation.

In conclusion, we in northern New England take great pride in our tradition of living with the land and embracing its challenges. But to truly live with nature means to accommodate the wild species comprising it, including native predators. For thousands of years, wolves played a critical role in this ecosystem we call home. We now have the opportunity to bring them back by providing them with the protection they deserve, the wild habitat they thrive in, and the ecologically sound recovery plan necessary to make it work—for the wolves and for us. Second chances like this don't come along very often.

Paula MacKay is the Project Organizer for the Greater Laurentian Wildlands Project, the northeastern effort of The Wildlands Project.



Cerulean Warbler, from USDA, Forest Service GT Report NE-108, New England Wildlife: Habitat, Natural History and Distribution

PROTECTION SOUGHT FOR NEW ENGLAND COTTONTAIL

FOUR CONSERVATION ORGANIZATIONS have initiated efforts to protect New England Cottontail populations under the Endangered Species Act (ESA).

The four organizations, the Conservation Action Project (CAP), Biodiversity Legal Foundation (BLF), Endangered Small Animals Conservation Fund (ESACF), and Defenders of Wildlife (DOW) filed a petition on behalf of the New England Cottontail with the USFWS. The groups are calling for the species to be protected as either "threatened" or "endangered" under the federal ESA.

According to the groups, New England Cottontail populations in New England have become biologically imperiled for a number of reasons including habitat destruction. Biologists estimate that over the last four decades New England Cottontail populations have declined at about 4 percent per year and at least 75 percent of the species habitat has been lost. The few remaining New England Cottontails are especially vulnerable to further habitat loss from expanding urbanization and suburbanization, logging, pollution, and other human activities.

"We are talking about one of the most critically endangered unprotected native species in New England," said Jasper Carlton, executive director of the Biodiversity Legal Foundation. "To stop the march towards extinction, the species needs an enforceable and accountable recovery plan. It is for species such as the New England Cottontail that the ESA—a safety net from extinction—was created."

Fifty years ago, New England cottontails were found through out New England and in New York east of the Hudson River. Today, the species range is much smaller. The New England Cottontail could once be found in more than 60 percent of New Hampshire. Today, it is estimated that the species is found in less than 20 percent of the state.

As a result of habitat destruction, New England

Cottontail have become confined to small patches of undeveloped land. According to one study, the winter-survival rate of New England cottontails on small patches is only half that of rabbits occupying larger patches where food and cover are more abundant.

"Urban sprawl has resulted in the New England Cottontail becoming vulnerable to local and regional extinctions," said David Wade, Executive Director of ESACF. "These rabbits require areas of brushy woodland and an abundance of herbaceous plants. Historically, fire, ice storms, hurricanes, and beaver created this type of habitat. The ever-expanding human occupation of New England has arrested this process."

There is also concern that hunting is having an impact on the few remaining New England Cottontail rabbits. All of the states that have—or are suspected of having—New England cottontails permit the hunting of the species.

Although the impact of rabbit mortality from hunting is not well known, rabbits are small game and among some are viewed as a 'pest.' For example, rabbits are known to get into gardens. As a result, rabbits have been unhesitatingly killed.

"State wildlife agencies in New England are currently expressing concern over the declining populations of the New England cottontail," said David Carle, Executive Director of CAP. "Two states, Maine and Connecticut, are planning to initiate or intensify their population assessments. But these assessments will be through hunter surveys and reports. With population numbers so low, we believe these assessments will only document what were the last remaining New England cottontails. This species



New England Cottontail (*Sylvilagus transitinalis*) & its local range — which also includes eastern New York to Alabama along the Appalachians to about 4,000 ft. elevation. Its cousin the Eastern cottontail (*Sylvilagus floridanus*) is more abundant, extends to parts of Central America, and is thought to be expanding its range in New Hampshire at the expense of the New England Cottontail. Source: USDA, Forest Service GT Report NE-108, New England Wildlife: Habitat, Natural History and Distribution

has slipped through the cracks and is in need of a safety net before it is too late. And that means ESA protection for the species."

The Fish and Wildlife Service has 90 days to issue a preliminary finding as to the merit of the petition.

The Conservation Action Project is a non-profit membership organization dedicated to restoring, preserving, and protecting the natural heritage of New England through education, advocacy, and grassroots empowerment.

The Biodiversity Legal Foundation is a non-profit organization dedicated to the preservation of all native wild plants and animals, communities of species, and naturally functioning ecosystems.

Endangered Small Animals Conservation Fund is a non-profit organization dedicated to protecting our rare and neglected small mammals.

Defenders of Wildlife, a nonprofit conservation organization founded in 1947 and comprising more than 280,000 members and supporters, strives to conserve all native wild animals and plants in their natural communities.

Songbird Declines 70% in Eastern U.S. in 30 Years

Conservationists Seek "Threatened" Status to Save the Cerulean Warbler

A COALITION OF 28 LOCAL, regional and national conservation groups, including the National Audubon Society, submitted a petition to the U.S. Fish and Wildlife Service (FWS) today to add the Cerulean Warbler (*Dendroica cerulea*) to the nation's list of threatened species. The Cerulean population has declined an average of 4 percent a year throughout its eastern U.S. range for a total loss of 70 percent between 1966 and 1999, making it one of the fastest-disappearing birds in the country.

The Cerulean Warbler, known for its brilliant blue plumage and its distinctive song, breeds in the summer in eastern U.S. forests and winters in Andean forests of South America. Well-known to wildlife watchers, it once was common but has become rare as forest habitat has been destroyed and fragmented by logging, road-building, development, and other human activities. In the U.S., the Cerulean's decline has been the worst in the core of its range in the Midwest and Southeast, where the total decline is about 80 percent.

"The Cerulean Warbler is one of the most

imperiled unprotected song birds in the eastern United States," said David Carle, executive director of the Conservation Action Project. "To stop the march towards extinction, the species needs protection and an enforceable and accountable recovery plan. It is for species such as the Cerulean Warbler that the ESA—a safety net from extinction—was created."

"Right now, there is no law or regulation specifically protecting the Cerulean's forest habitat. If the destruction of these forests continues, we will lose this bird in our lifetimes," said Douglas Ruley, an attorney with the Southern Environmental Law Center. "By listing the Cerulean as a threatened species, we can take significant steps to save it now and avoid more extensive measures later."

Like other migratory songbirds, the Cerulean Warbler performs important ecological roles such as insect consumption and pollination. In addition, the Cerulean is an indicator of forest health, and the birds' decline tells us that the forests on the two continents are in trouble. Numerous studies over the years show that the Cerulean needs large tracts of unbroken, mature forest. In the U.S., millions of acres of forest, especially along stream banks and rivers where Ceruleans like to nest, have been lost to commercial logging, sprawl development, dams and other stream projects. In South America, the evergreen forests along a narrow elevation zone through the Andes where the Cerulean winters have been virtually wiped out for agriculture.

"It's well-documented that Cerulean Warblers and other migratory songbirds need expansive forests to breed and survive. Conservation of forests here and in South America is fundamental to saving this species," said Jeffrey Wells, Director for Bird Conservation for the National Audubon Society.

The petition filed today represents one of the broadest conservation efforts ever undertaken in the east, and should result in coordinated forest protection throughout the Cerulean's range. It starts a review process within the FWS to determine if the Cerulean Warbler will be officially protected under the Endangered Species Act. Once it is listed as threatened, the FWS must develop a recovery plan for the songbird. The conservation groups say the best place to start is on public lands, particularly in national forests.

"We are losing the Cerulean Warbler to habitat destruction from logging, road building, and development," said Carle. "This habitat destruction is not limited to private lands but is also taking place in our national forests. It is not unrealistic to see that the politics of logging our public lands could drive this magnificent creature to the brink of extinction."

"These forests appear to harbor much of the Cerulean's habitat, but are not automatically protected just because they are in public ownership," Ruley said. "Too many U.S. Forest Service activities continue to degrade the large interior forests that the

Cerulean Warbler needs."

Under the Endangered Species Act, the FWS would be required to review any federal actions that might jeopardize the Cerulean Warbler. Such actions would include the 10-year management plans developed by the Forest Service for each individual forest as well as individual timber sales on the national forests. Moreover, formally listing the Cerulean would provide the U.S. government and conservation organizations more opportunity for cooperation with their South American counterparts to protect Andean forests.

The Cerulean would be the first warbler to be listed as threatened under the Endangered Species Act. Three other species of warbler found in the U.S. on the list—Bachman's, Kirtland's, and golden-cheeked—are endangered. Unfortunately, the Bachman's was likely extinct by the time it was listed and so did not benefit from protection under the Act. Kirtland's warbler populations, on the other hand, have increased since it was listed.

Joining the Conservation Action Project an National Audubon Society in filing the petition are the Sierra Club, the Wilderness Society, Defenders of Wildlife, and 21 local, state and regional conservation groups from 15 states. The petition is also supported by several of the nation's foremost experts on migratory songbirds, including Jeffrey Wells and Frank Gill with the Audubon Society, and John Terborgh of Duke University.

Bangor Hydro Transmission Line Threatens Downeast Lakes Wildland

In the era of de-regulation, transmission lines may be the environmental cost of consumer choice — & the benefits of a distributed generation system overlooked by government and industry

By Pamela Prodan

AFTER ENCOUNTERING significant legal hurdles within the past year, the attempt by Bangor Hydro-Electric Company (BHE or Bangor Hydro) to obtain permits to build a second 345 kV transmission line to New Brunswick appears to be underway again. The new line would stretch from Orrington, Maine (near Bangor) to Baileyville (near the New Brunswick border), much of it crossing former Champion International Corporation land, now owned by International Paper Corporation.

Begun in the late 1980s, the permitting process was not concluded when some of the original permits already started to expire, including permits from the Maine Land Use Regulation Commission (LURC) and the Maine Department of Environmental Protection (DEP). In 1999, BHE applied to renew the DEP and LURC permits, which were issued in 1992. An Environmental Impact Statement (EIS) was prepared in the early 1990s when a federal permit was obtained.

Circumstances in Maine have changed significantly since then, with mandatory electric utility restructuring, shifting patterns of large land ownership, and a sharpened focus on conservation. The agonizingly slow pace with which permitting has proceeded for this proposed transmission line may be emblematic of the nature of the project. It is like a dinosaur, unable to adapt to a changing environment in which large infrastructure projects having extensive environmental impacts are at a disadvantage compared to smaller projects dispersed over the landscape. Given greater scrutiny than ever before, these megaprojects now inevitably face the question by regulators and the public alike: do such projects make sense, environmentally or economically?

The proposed tie-line route traverses 84 miles through Penobscot, Hancock and Washington Counties, meandering in and out of the forest along the Stud Mill Road. The project cuts through the heart of the Downeast Lakes Wildland, a region identified for conservation by the Northern Forest Alliance. While the new natural gas pipe line corridor from New Brunswick is also located near the Stud Mill Road, the transmission line corridor proposed by Bangor Hydro would require significant additional clearing of the forest.

The alternative route that has been examined and compared to the proposed

new alignment in environmental analyses is the existing 345 kV transmission line route to New Brunswick (the MEPCO line), stretching from south of Old Town through Mattawamkeag and Haynesville. If the new transmission line were to use the MEPCO route, the only watershed that it would impact is the Penobscot River, which is already impacted by the MEPCO line. However, the new alignment would cross the headwaters of the Narraguagus, Machias and East Machias Rivers. More than one State agency reviewing the application has expressed concern over the significant adverse impacts that the proposed corridor would have on habitat and existing uses.

THE REGULATORY MAZE

Although the proposed transmission line mostly passes through unorganized territory, which is LURC jurisdiction, LURC stopped its own processing of the utility line permit in February of this year when LURC Director John Williams construed new statutory language as not requiring LURC to review the project. The Natural Resources Council of Maine (NRCM) argued against Williams' interpretation of the statute before the LURC Commissioners, maintaining that LURC retains oversight over those regulatory

issues that are not addressed by DEP, but when the Commission as a whole agreed with Williams' interpretation, NRCM did not appeal the decision allowing Bangor Hydro to withdraw its application before LURC.

Then, DEP also stopped processing BHE's application early this year when questions arose about the utility's ability to demonstrate that it had "right, title or interest" over the land that it proposed crossing with the transmission line. One landowner, Champion International Corporation, raised objections to the proposed corridor and indicated that it would not agree to use of its land along the Stud Mill Road for a transmission line corridor.

In a June 25, 1999 letter to Doug Morrell of Bangor Hydro-Electric dated June 25, 1999, John Bryant, Manager of Land Transactions for Champion, stated that although previous Champion leadership had no objections to the overall project, "several things have changed since 1990 which impact Champion's support for the proposed utility line crossing Champion property" including "more sensitivity to cleared corridors fragmenting the forest" and "concern for productive forest lands removed from timber production."

Bryant wrote that "At the very least, Champion would only support a line location that utilizes the gas pipeline and stud mill road corridor route, which would minimize disturbances to our land management activities, and the degree of any public concerns with continued forest fragmentation. Neither Champion, nor the environmental community, will support another deforested corridor bisecting the forest from Baileyville to Orrington." This letter proved a stumbling block to BHE for over a year and ultimately, in March of this year, DEP instructed Bangor Hydro to seek an advisory opinion from the PUC on the question of Bangor

"Neither Champion, nor the environmental community, will support another deforested corridor bisecting the forest from Baileyville to Orrington." [Champion land manager John Bryant]

Hydro's authority to use eminent domain to build the second New Brunswick tie-line. In August of this year, after the PUC issued its advisory opinion, the Maine Department of Environmental Protection finally ruled that Bangor Hydro did have sufficient right, title or interest to proceed with the site location permit application.

BHE has not yet applied for a Certificate of Public Convenience and Necessity from the Maine Public Utilities Commission (PUC or Commission). Ultimately, the PUC will have to review the purpose and need of the proposed interconnection before approving its construction. In the late 1980s, when Central Maine Power Company (CMP) attempted to obtain a Certificate of Public Convenience and Necessity to import power from Quebec, the proceeding dragged on before the Maine PUC for nearly two years, in the face of opposition from NRCM, No Thank Q Hydro-Quebec, Conservation Law Foundation and some Maine small power producers. Had the certificate for the purchase been approved, CMP would have gone through a second, separate proceeding to obtain a certificate to build the line through western Maine.

Now, with the restructuring of the electric utility industry, since Bangor-Hydro is no longer in the business of buying and selling energy and capacity, the only PUC certificate required is for construction of the line. Although the PUC denied CMP a Certificate of Public Convenience and Necessity to purchase energy and capacity from Hydro-Quebec and the line was never built, CMP recovered from ratepayers the cost of applying for all of its permits, which amounted to around \$10 million.

ENVIRONMENTAL IMPACTS COULD BE SIGNIFICANT

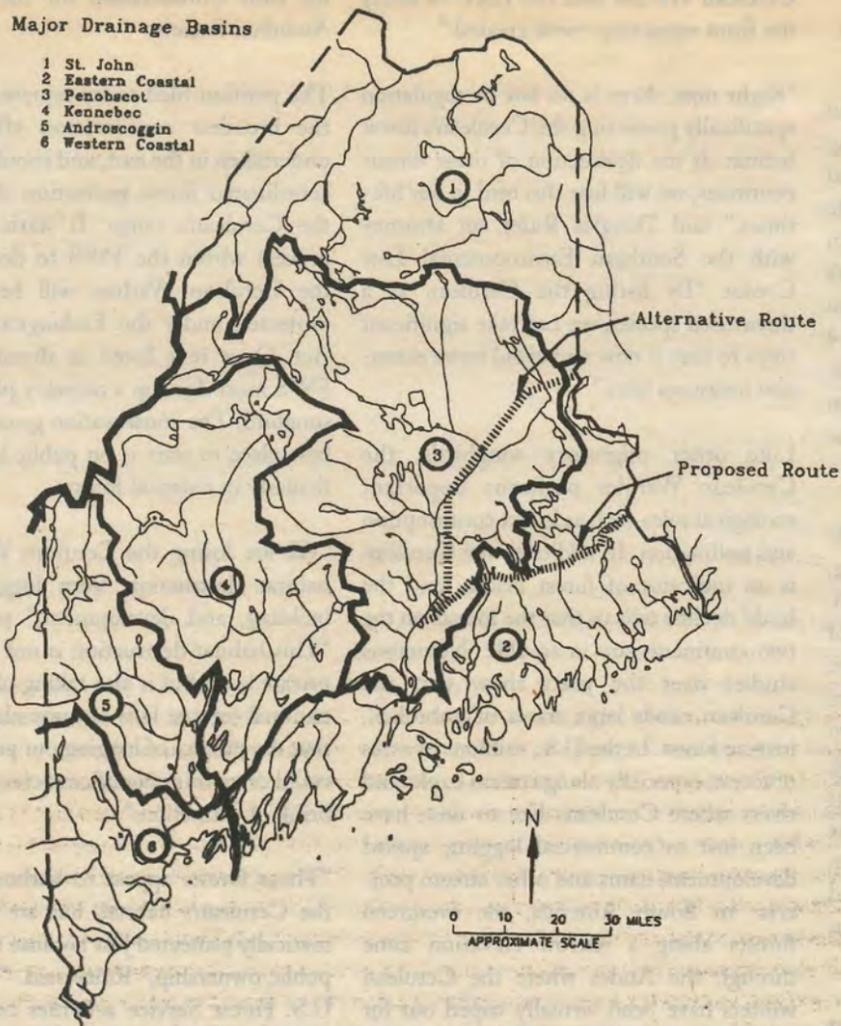
So far, NRCM is the only environmental group to seek intervention in the current permitting proceedings. NRCM's position is that the new transmission line should use the MEPCO corridor. Using an existing right-of-way, even if it meant expanding it somewhat, would have less impact than the construction of a whole new transmission line.

In agency review comments, the Maine Department of Inland Fisheries & Wildlife agreed, stating that "utilizing an existing right-of-way represents the lowest level of impacts to wildlife." Regardless of the route used, the impacts of the electricity generation used to feed the line, whether it be from Hydro-Quebec's massive dams or the Atlantic provinces' coal and nuclear plants, are not considered by DEP. Steve Spencer, Recreation Specialist with the Bureau of Parks and Lands in the Department of Conservation, made the following comments to DEP in April of this year:

Clearly the applicant is aware of the significant adverse impact on the recreational experience of power lines crossing rivers which have well documented histories of use by paddlers seeking a remote natural setting

Major Drainage Basins

- 1 St. John
- 2 Eastern Coastal
- 3 Penobscot
- 4 Kennebec
- 5 Androscoggin
- 6 Western Coastal



for multi day canoe touring. The applicant has made reasonable efforts to mitigate those impacts through well thought out siting. Notwithstanding these efforts the proposed route would have significant adverse impacts on the boating experience on the St. Croix, East Machias, Machias and Narraguagus Rivers. While the Existing Line Route would cross the Passadumkeag which is part of the recently designated Eastern Maine Canoe Trail, this option appears to have far fewer impacts on recreation opportunities.

The Maine Atlantic Salmon Commission raised concerns about the clearing of vegetation within buffer zones and the potential for construction-related impacts to ground and surface waters from erosion, sedimentation, use of herbicides or fuel and oils used in operation of vehicles and equipment. Despite these concerns, the Atlantic Salmon Commission recommended that the application be accepted [sic].

Dan Locke, Senior Geologist of the Maine Geological Survey commented on BHE's application's lack of maps depicting locations of water wells relative to the proposed power line footprint, despite his request to BHE's project manager concerning this issue. Locke indicated that he was not able to conduct a thorough review of the hydrogeologic impacts without that information. John Hopeck, Senior Geologist at the Division of Environmental Assessment at DEP agreed that locations of wells and test borings should be submitted, and raised questions about how "no spray" buffers would be marked in the field, during and after construction. Kenneth Libbey, Jr., Environmental Engineer in the Division of Watershed Management of DEP commented that the Erosion and Sedimentation Plan submitted by BHE is inadequate and raised the possibility that BHE might have to acquire easements if stormwater runoff is not able to be treated within the right-of-way.

On August 29 of this year, DEP requested additional information from BHE on these and other issues. BHE has 60 days to provide a response. The Board of Environmental Protection is expected to decide this fall whether to hold a public hearing.

Question: Who Would Develop and Own the Line?

Particularly unclear is which entity would actually build, own and operate the 345 kV transmission line and who would finance it. Bangor Hydro, as the applicant, must demonstrate to DEP that it has the financial capacity to build the transmission line. On August 29 of this year, DEP requested additional information about BHE's plans to finance the project, stating that BHE had agreed to but not provided with its application a description of the options it has available for financing the project. Some of the options would appear to include financing by another entity and joint ownership of the tie-line. BHE has 60 days from the date of the DEP request to provide this information.

The PUC has refused to delve in any depth into questions as to the prudence or legality of any particular ownership structure that might be created to own or oper-

ate the line. In 1998, at the time of selling its generation assets, Bangor Hydro proposed to sell the rights to develop the line to Penobscot Hydro, LLC., an affiliate of PP&L Global, Inc., along with the other BHE generation assets. When the PUC reviewed the sale, the PUC recognized that it was not clear what entity would own the line, since the owner of such a transmission line under Maine's Restructuring Act is by definition a T&D utility which may not own generation assets. However, the PUC issued an order approving the sale of the generation assets, including the development rights to the 345 kV line.

When Bangor Hydro requested an advisory opinion this year from the PUC concerning the question of eminent domain, NRCM and Champion asserted that Bangor Hydro lacks eminent domain authority for the transmission line because most of the proposed corridor is in Maine's unorganized territory, outside of BHE's existing service territory as specifically defined in its corporate charter. They also argued that the PUC has no statutory or regulatory authority to expand the BHE service territory to include the unorganized territories and thereby give BHE the requisite "territory" to condemn Champion's lands. The PUC responded that it is irrelevant that much of the area through which BHE proposes to build the transmission line is currently outside of BHE's service territory. Using circular reasoning, the PUC indicated that the Commission can authorize BHE to operate in unorganized territory because once the Commission issues a Certificate of Public Convenience and Necessity authorizing the construction of the transmission line, the utility will be authorized to do business in the location of the newly certified transmission line.

The PUC further concluded that

"BHE or any owner and builder of a second transmission tie-line to New Brunswick will be a transmission and distribution utility under Maine law and possesses rights to exercise eminent domain authority, and therefore possess the right, title or interest necessary to apply for a site location permit." However, the PUC also noted that the mechanism by which BHE would actually exercise its right, title and interest, i.e., eminent domain, cannot be obtained until BHE or whatever entity would exercise that power has received the Certificate of Public Convenience and Necessity to construct the transmission line. In that proceeding, the PUC must make specific findings as to the need for the proposed line and that the location of the line is in the public interest. If DEP has already issued a site location permit, then the Commission may not review environmental issues surrounding the location of the line.

The PUC advisory opinion raises serious questions. In commenting on a draft of the PUC opinion, Champion expressed concern that BHE could secure eminent domain rights on behalf of another party that might not be able to secure them on its own, for technical or financial reasons. Based on my understanding of this potentially far-reaching opinion, any entity could assert eminent domain to show right, title or interest where it could not obtain a landowner's permission to cross a piece of land, which would become available by virtue of the entity's becoming, by definition, a T&D utility when it builds or owns the line. Does the opinion also mean that a corporation created specifically to obtain permits for and construct a transmission line need only insert appropriate wording in its corporate charter, and thereby gain the power of eminent domain? In this way, might, for example, an affiliate of Hydro-Quebec, apply for

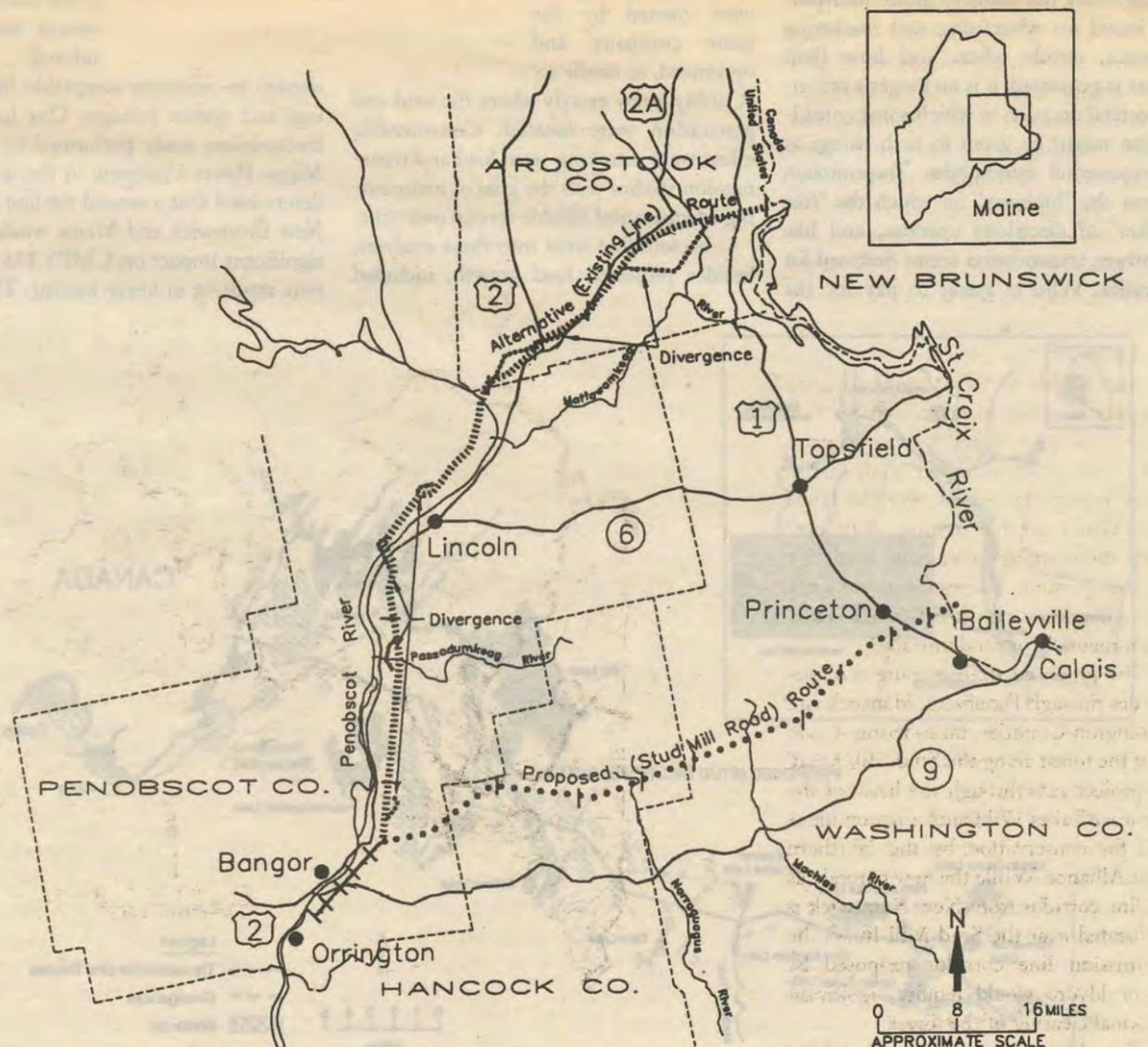
permits to build a transmission line anywhere through Maine?

HOW IS THE NEED FOR A TRANSMISSION LINE DETERMINED?

The PUC's advisory opinion concerning eminent domain also raises questions about how the PUC would decide the question of "need" that must be addressed in a Certificate for Public Convenience and Necessity proceeding. No other regulatory agency will examine whether there is a need for the line. Although LURC would have had to determine that a need for the transmission line exists in the community, LURC has relinquished its jurisdiction over the matter. Neither does the federal government confirm the asserted need for the project.

Nonetheless, the federal Environmental Impact Statement remarked that the new line is needed to complement and share electrical load with the existing 345 kV line, specifically, to reduce the current level of transmission losses, increase economic power transactions, meet projected load growth and increase tie-line capacity reserve benefits. Also, the EIS posited that indirectly, the project would increase system reliability for all of New Brunswick and New England. On the other hand, the PUC, when it issued its advisory opinion on eminent domain, stated that "BHE included its second tie-line property interests in its sale of its generation-related assets because a second interconnection between the New Brunswick electric system and the New England electric grid primarily will serve to bring additional generation into New England rather than provide transmission reliability." Bangor Hydro, having not yet applied for a Certificate of Public Convenience and Necessity, has not had to

Continued Next Page



Dinosaur Concepts Driving Generation & Transmission Policy

Continued from page previous
 establish a credible need for the line.

Questions surrounding the issue of "need" thus abound. In addition to technical issues such as reliability, there are policy issues. Is the so-called "need" for new transmission actually being artificially created by the restructuring of the electric utility industry? Is this another situation where industry creates consumer demands ("needs"), which are all too easily put before the "needs" of economic efficiency or the environment? When will the alternatives to building a new transmission line be given the value and recognition they deserve? These include conservation and on-site distributed generation that does not have to be wheeled across hundreds of miles of transmission lines. Before restructuring, these alternatives were encouraged as valid ways to avoid the costs of new generation and transmission. Electric restructuring, at least in Maine, has changed all of that as the benefits of these demand-side options have been devalued. Bangor Hydro and others have gone back to promoting the use of electricity, including electric heat.

The emphasis now appears to be to attempt to "beef up" the grid to match increased consumption. Ironically, in the process, the electric industry must move away from an optimally sized and located transmission system to a redundant one, hardly a model for economic efficiency. Allowing consumers to "shop" for electricity on the grid requires that considerable transmission infrastructure be available to allow these uncoordinated transactions to happen. Now, at least in theory, consumers may buy power from a generator from anywhere in the New England power supply area. This is what "consumer choice" under restructuring has come to mean: individuals, based on advertising and marketing schemes, decide where and how their power is generated; it is no longer a rational, societal decision in which some consideration might be given to such things as environmental externalities. Transmission is now the "highway" on which the "free market" of electricity operates, and like highways, transmission seems destined for upgrades. Who is going to pay for the

upgrades? These issues are being heavily debated now on a regional level.

Four years ago, I raised concerns about new transmission line construction in the restructuring debates, warning that unless precautions were taken, there would be a growing demand for new power lines under restructuring. Maine regulators have ignored, and even downplayed this very real problem, by equating the power grid with a swimming pool, which can have water added to it or removed from it freely. This concept has been used to vindicate the free market theory and illustrate the unusual nature of electricity that causes a purchaser of electricity to receive whatever electrons happen to be on the grid and closest to the purchaser at the time of use, and not necessarily the actual electrons generated by a particular electricity producer. It's an entertaining concept, but not entirely accurate. In reality, the fact that most electricity outages are caused by grid overloads, not generation breakdowns, gives the lie to the whole concept of a free-flowing market in electricity. With numerous new natural gas generating plants being built around this region, system failures would be caused by grid overload, not shortage of supply.

PHYSICS AND ECONOMICS

There actually was logic as to why the electric industry was structured the way it was. Laws of physics and rational economics prescribe that generation and transmission are complementary functions of electric utilities. Electric utilities in the pre-restructured era were regulated monopolies where generation, transmission and distribution were owned by the same company and optimized, or nearly so. A utility knew exactly where the load and generation were located. Considerable effort went into long-term load and transmission studies with the goal of maintaining adequate and reliable service over time.

Factors that went into these analyses, besides projected load growth, included

Transmission is now the "highway" on which the "free market" of electricity operates, and like highways, transmission seems destined for upgrades.

the amount of cogeneration, small power production, conservation and load management that were expected, although critics could argue that the first factor was always overestimated and the last two factors were always underestimated. Nonetheless, transmission system performance was carefully studied under normal conditions as well as for contingent conditions with critical lines and generating units out of service. Improvements to the transmission system were considered where

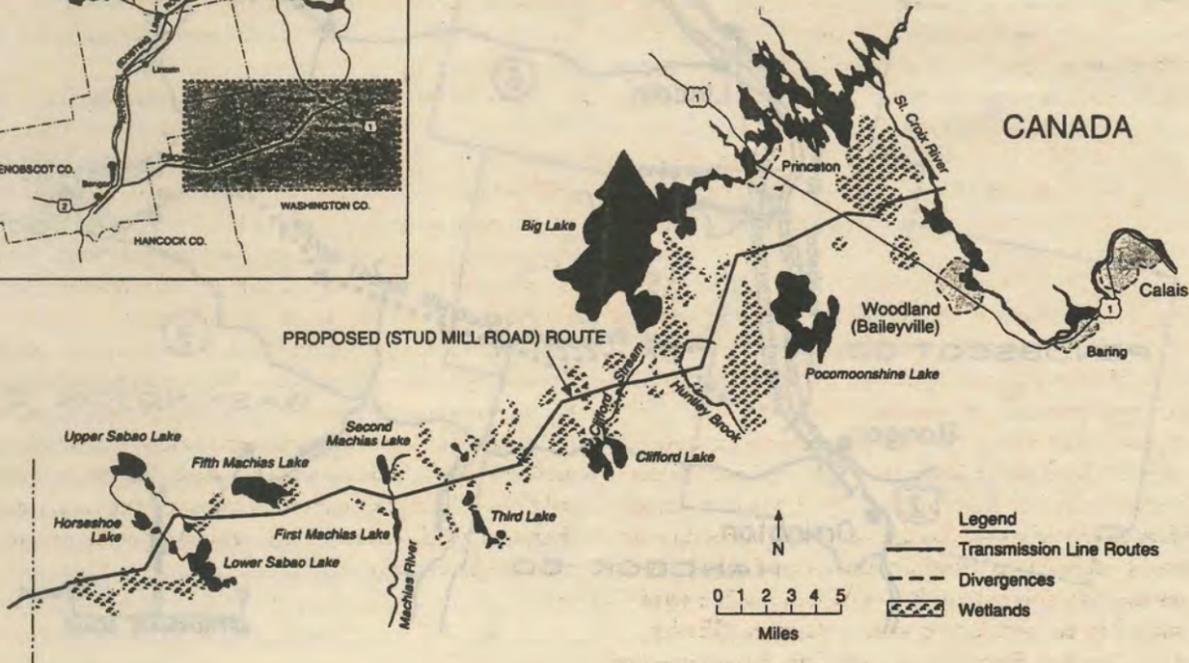
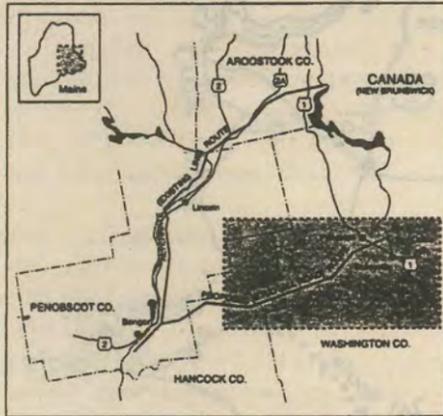
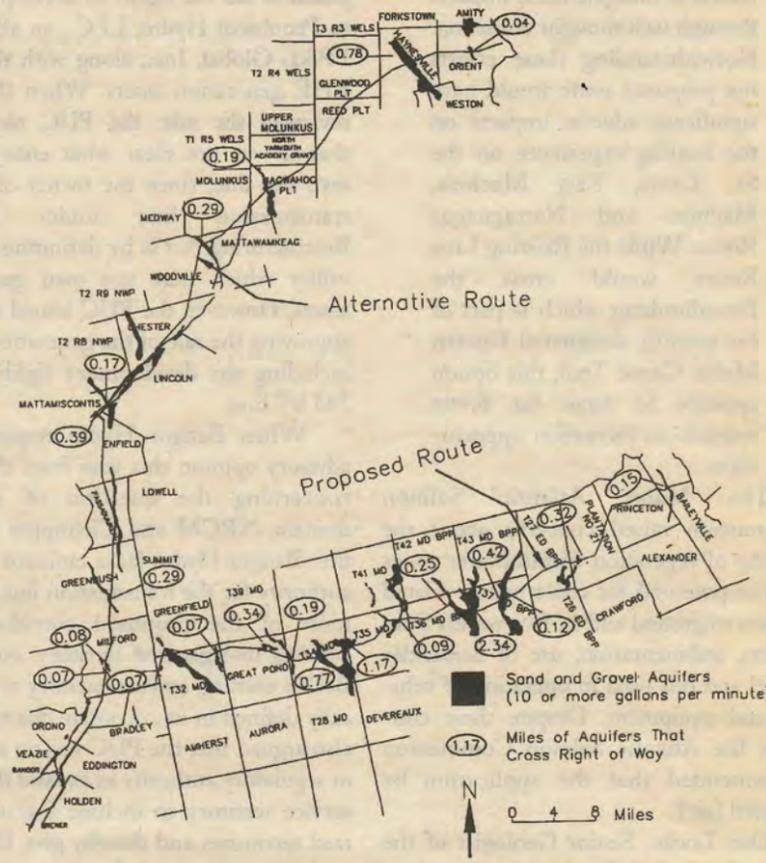
needed to maintain acceptable line loadings and system voltages. One long-term transmission study performed by Central Maine Power Company in the late 1980s determined that a second tie-line between New Brunswick and Maine would have a significant impact on CMP's 115 kV system, resulting in heavy loading. The study

recommended that details of the impacts of a new intersystem tie-line like this should be addressed in a separate tie-line study using the results of the long-term transmission study and the impact on the affected 115 kV lines should be reviewed. So far, Bangor Hydro has not indicated it has performed this type of study.

The Maine PUC still does not publicly acknowledge that supply no longer matches existing transmission. A brochure created by the PUC to explain electric restructuring has a drawing depicting electricity "before restructuring" as traveling from a single large generation plant through the transmission system and distribution lines to the home, while "after restructuring," the only difference is that the single generation plant has disappeared and been replaced by three smaller plants in the same spot. No mention is made of the reality that the existing large plant is probably still there, or there's a different large plant somewhere else, but run at a lower capacity factor at times, while the three smaller plants may be located anywhere, causing a shift in where T&D lines would be loaded.

A CHANGING WORLD

In light of the region's aging transmission infrastructure, it is not really clear what impacts the "free market" will have on reliability. A *Wall Street Journal* article that appeared this summer noted that one circumstance creating power shortages is "an interstate transmission network that wasn't built for a deregulated world." It raised questions about reliability. The PUC will have to decide whether the transmission system should be upgraded in anticipation of full-fledged competition. The argument is made that additional transmission capacity is needed in order to provide access to cheaper sources of power. On the other hand, it recently has been revealed that Aroostook County, isolated from the rest of the New England power grid except through New Brunswick and Quebec, has more competition and customers switching to new providers than the rest of Maine.



The PUC will have to decide whether the transmission system should be upgraded in anticipation of full-fledged competition.

True competition always has been available in alternatives that bypass the transmission system entirely, i.e., distributed generation and self-generation. Even before "deregulation" gained a foothold, large industrial users were able to negotiate lower electric rates with Maine utilities by threatening to self-generate or to move to where the power was cheaper. There was a story told at one meeting I attended at the Maine PUC in the mid-1990s about a large portable diesel generator that was being trucked around CMP's territory to various large commercial or industrial locations. It would be set up at the customer's location just before the customer would call up the utility and threaten to self-generate if CMP did not agree to a lower rate.

It's still the case that if large consumers decide that the costs passed along to consumers for transmission upgrades are too high, they can go off the grid or switch to self-generation in part, in spite of potential financial penalties for doing so. If that happens, small consumers will be left to pay the bill.

A wide range of options for generating energy exists, some more environmentally damaging than others. In the early days of electric utilities, electricity was generated on a small scale, close to where it was actually used. It would seem that we could come full circle now that the technology exists for efficient distributed generation. However, current policies and regulations greatly favor the centralized supply model developed during the twentieth century. Even in a restructured industry, central generation plants are presumed to be the norm, while small-scale distributed technologies are considered too far out in the future to warrant serious attention, even where they can provide significant benefits like greater reliability and avoidance of expensive investments in T&D infrastructure. Unfortunately, we stand at a point where complex public policy decisions, of which most members of the public are unaware, combined with an industry and regulatory environment that are unwieldy, reinforce dinosaur concepts standing in the way of progress and environmental sanity.

Prodan, Pamela, "Electric Restructuring Presents More Questions Than Answers," *Northern Forest Forum, Autumn Equinox, 1996, p. 28* (I wrote then, "With our regulated monopoly, we now have a more or less optimized generation, transmission and distribution system for the present location of generation and load. But with open markets, generation can originate anywhere and shift the demand for transmission capacity... How transmission construction can be minimized given the pressures of an open market would seem to be an extremely important issue. But is it being addressed?").

Friedland, Jonathan, "Volatile Electricity Market Forces Firms To Find Ways to Cut Energy Expenses," *Wall Street Journal*, August 14, 2000, p. A3.

Bidding Farewell to the Great Champion of Wilderness, David Brower

DAVE BROWER died on November 4 at age 88. He had been ill for the past few weeks, and we knew the end was not too far off. Still, it is hard to believe the news. He was such a force of nature. Even as his body wore out, his mind remained sharp, and his passion for saving wild things never wavered.

Dave was born two years before John Muir died. For more than 50 years he lived just around the corner of the intersection of Grizzly Boulevard and John Muir Way in Berkeley. As a boy he became an avid and accomplished butterfly collector. Every piece and act of wild nature inspired his sense of wonder—a quality that increased with the passage of years.

One autumn in New England in his eighties, he picked up the fruit of a sugar maple and rhapsodized about the marvel of engineering, beauty and grace of the two-winged seed pod. He allowed the fruit to flutter to the ground, whirling around and around. Like a child who has just made a great discovery, he stooped down and picked it up and let it flutter earthward again and again, all the time expounding on the miracle of evolution and design.

In the early 1930s his mountaineering accomplishments in the Sierras became legendary and led him into an unparalleled career in conservation and preservationism. As the first Executive Director of the Sierra Club, he built the sleepy, patriotic club founded by John Muir in the 1890s into the most important and boldest national conservation organization in the United States in the 1950s and 1960s. He was one of the key figures in the passage of the 1964 Wilderness Act. He was in the midst of nearly every great conservation struggle in the 1950s and 1960s. He also pioneered the publication of large-format books of photos by Eliot Porter, Ansel Adams, and others, accompanied by texts drawn from Thoreau, Robinson Jeffers and many others.

In 1969 the Sierra Club fired him following a series of disputes with the Board over administration, finances and policy. It was a devastating moment for him, yet he never stopped loving the Sierra Club, and he was elected several times to the Board afterwards. In 1970 he founded Friends of the Earth and in 1980, Earth Island Institute. He never retired.

The Sierra Club firing highlights the paradox of conservation. From a purely administrative perspective, a strong case can be made for removing a David Brower. There was too much passion, too great a sense of poetic vision in David Brower to make him an efficient administrator of a large organization with a very involved Board of Directors. But, in the last 30 years, as mainstream conservation organizations have become more and more bureaucratized, they have lost that passionate and clear vision of Dave Brower, Dave Foreman, Rachel Carson, and Henry Thoreau.

Dave loved working with younger people, and, especially in his later years, he criss-crossed the country and the world tirelessly spreading his message of love and reverence for wild places and wild creatures. As his sometime New England chauffeur in the 1990s, I saw him deliver countless speeches to high schools and colleges. The students loved him. Often after a talk, he would meet with a group of especially committed students and patiently answer their questions. In these encounters, he abandoned the lecture format and deftly coaxed ideas out of the excited young people. By the end of these intimate encounters, the young men and women were convinced that they had ideas about preserving wildness that mattered. I suppose you call that empowerment. But I suspect that Dave saw it as another opportunity to feed his insatiable sense of wonder. Here were these beautiful young people, full of idealism, with their lives ahead of them—what magic and promise they possessed!

I suspect that if someone ever assembles a roster of "Brower alumni"—younger people whose lives were touched by Dave at a crucial moment—it would be a long and impressive honor roll. Donella Meadows, Brock Evans and Amory Lovens are the names that come immediately to mind.

Dave and I met early in 1991. He was helping the campaign to stop Hydro-Quebec from destroying any more wilderness in Northern Quebec, home of the Cree. I was in a period of transition, unsure of myself, unsure of what I should do next. Over a couple of Tanqueray martinis, Dave teased out of me my dreams for the restoration of Big Wilderness in the Northern Appalachians. He encouraged me with enthusiasm. When I launched *The Northern Forest Forum* a year later, he gave me the

funds to print the first issue.

He was the subject of the first *Forum* interview.

A year and a half ago, he invited me to visit him in Berkeley. Though nearly 87, he remained quite spry. As always, we spoke of many things, lamenting the folly of modern civilization, dreaming of a culture that values and preserves wild nature. He drove me over to San Francisco a couple of times, and, I confess, I was terrified as we roared across the Oakland-Bay Bridge at breakneck speed. One afternoon, he took me on a tour of Berkeley. He showed me a house he had lived in as a boy. In its front yard, next to the sidewalk, towered a redwood tree. "I planted that," he said with pride and affection.

This year, I conducted several short phone interviews with Dave. Here's a sampling of some of his comments:

[Regarding the accusation that Wilderness "locks up" valuable "working forest" land]: "The 'lock up' is a total cliché. You want to lock some things up the way you lock up the Mona Lisa. That is, you don't get a chance to walk over the painting. You don't get a chance to finger it. It's locked away for certain kinds of use but it's available for itself."

[I mentioned one of my favorite essays by Loren Eiseley, "The Last Magician"]: "Eiseley told me a story here in my house that I never saw in any of his writings. It was about someone who wanted a ticket to 'wherever it is.' I just like that curiosity. There's so much to learn. I'll take whatever there is going anywhere. Let's find out. The two great blessings we get are curiosity and diversity."

"I just wonder why we can't handle growth and develop our own thymus in everything we do. The thymus tells you when you're tall enough. You don't keep growing taller. We don't have anything that works like that in our civilization. We just want more and more of what pleases us."

"When people say there's no food problem—the hell there isn't. You haven't checked with the things that aren't eating because we've used up habitat that they're going to find their food in."

"What I really want to work on, and I hope I live long enough to do something good on it, is to have Magna Charta II. Magna Charta I was a long time ago—1215. The Barons finally got the king straightened out. Now we need a few kings to straighten out the barons."

He called industrial forest plantations: "botanical terrorism."

[On absentee ownership of timber land]: "I don't like it. You don't get a chance to see and read the earth."

[To private land owners on the need for a new private land ethic]: "You after all are a brief tenant and you do not own that land even if you think you do. You are going to do right by it or we're going to put you in jail."

Despite failing health, Dave never quit fighting for wild places and critters. He told an interviewer on National Public Radio about the need for rewilding places we have trashed. "[We need to] leave some parts to the creator who had pretty good experience in putting things together."

He campaigned for Ralph Nader for president just weeks before his final illness. To the end, he spoke of removing the Glen Canyon Dam on the Colorado River. He sought the removal of Hetch Hetchy Dam from Yosemite. This winter I asked Dave: "If you could take Gifford Pinchot [Theodore Roosevelt's first chief of the US Forest Service and long-time nemesis of Muir who helped promote Hetch Hetchy Dam and the conservation philosophy of utilitarianism and "wise use"] up to Hetch Hetchy, what would you say to him?" "What is your last wish, Mr. Pinchot?" Dave replied slyly. "Do you feel no shame? Don't you wish you had foreseen consequences better than you did?"

I spoke briefly with Dave when he was hospitalized in late September. I asked him about his philosophy of conservation leadership. He responded: "Recently, I did a whole list of [campaigns I was involved with]. I was rather proud of the fact that again and again throughout my life I was doing things that were not possible. People would say 'You can't get there.' And we won every one of them. I think it's time to start believing what you believe instead of what you hope will win."

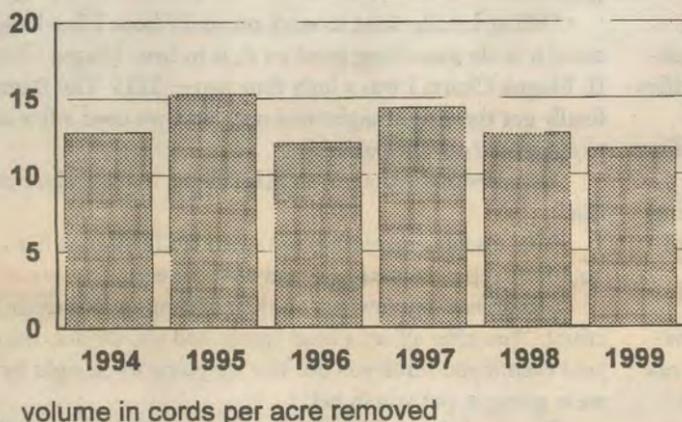
Dave's long, productive life is testimony to the greatness of the human spirit—his and ours. We responded to him, not because of his pragmatism or sense of expediency, but because of his passion, curiosity, love, respect, fearlessness, wit and whimsy, and especially for his vision of a culture that can co-exist with wild places and wild creatures. Long after the compromisers are forgotten, we'll celebrate Dave's vision for wilderness restoration. —*Jamie Sayen*

Forestry Statistics for Maine, 1999

by Mitch Lansky

THE MAINE FOREST SERVICE has released its 1999 *Silvicultural Activities Report* and its 1999 *Wood processor Report*. The "good news" is that the cut is down, clearcutting is way down (only 3.5% of all cutting), and even herbicide use is down. These figures, however, do not tell the whole story. The level of cut may not be down because of the intention of landowners to be more sustainable; it may have more to do with reduced mill capacity. The lowering of herbicide use and planting may have more to do with a switch in landownership from industrial to non-industrial, with less money available for such investments. And the level of clearcutting is a complex issue in itself. Silvicultural reports are growing more confusing because of the fuzziness of definitions. It is no longer clear, for example, what an "industrial landowner" is.

Volume cut per acre 1994-1999



Seven Islands, which used to be a non-industrial manager, now has a sawmill. Does that make it "industrial"? Scott's land was sold to SAPPI (a South African corporation), which sold the land a few years later to Plum Creek. Plum Creek gets much of its revenues from sawmilling, but not in Maine. So is it industrial or non-industrial? In the past, landowners could choose various management options to describe their cutting: diameter-limit cuts, single-species cuts, selection, shelterwood, silvicultural clearcuts, and commercial clearcuts. Now the MFS has only three options: selection, shelterwood, and clearcuts. When the options were first simplified, landowners were not fully savvy to their implications. When they did a commercial clearcut (cut anything that is marketable), they called it a commercial clearcut. Now they have two other options that do not sound as bad: selection and shelterwood (overstory removals). Indeed, the MFS calls any cut that leaves opening smaller than 5 acres and that leaves more than 30 square feet of basal area a "selection" cut, even though this is a deliberate misuse of a silvicultural term. High grading (cut the

best and leave the rest), diameter-limit cutting (cut the biggest, leave the smallest), single-species cut (cut for a specific market that just wants one type of tree) are just commercial removal rules, not real silviculture. Selection, technically, is a term for a silvicultural system designed to manage for an uneven-aged stand. Shelterwood is an even-aged system that normally does one or two thinnings to establish regeneration and then does an overstory removal to "release" the regeneration. The MFS does not differentiate between shelterwood thinnings and overstory removal. If there is advanced regeneration from previous cutting, landowners can do an overstory removal with no need for thinnings. Shelterwood overstory removals look like clearcuts that have been growing a few years. There is usually very little, if any, mature timber left.

Who did what?

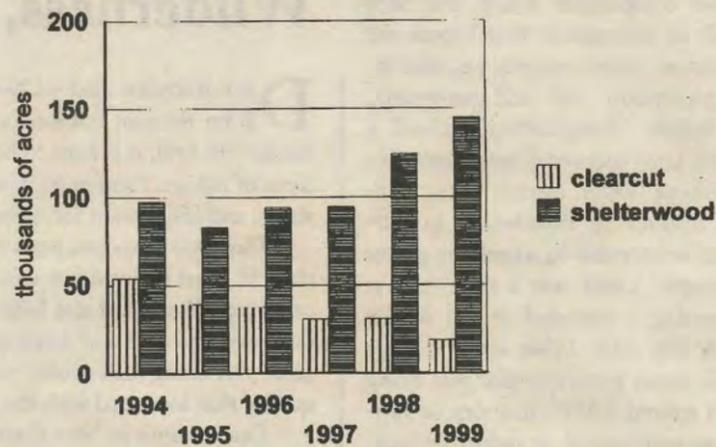
The prevalence of various cutting practices is not evenly distributed among landowners. Those landowners who own 100,000 acres or more, especially industrial landowners, tend to use more mechanized and more even-aged systems. The large private landowners did 48% of all

the cutting (in terms of acreage), but 77% of all the shelterwood, 83% of all the clearcuts (indeed, these clearcuts were the product of just 11 landowners), 84% of all the brush clearing, 90% of all the tree planting, and 97% of all the herbicide use. By the MFS definitions, half of the cutting of the large private landowners was by even-aged systems (44% shelterwood and 6% clearcut). By normal forestry definitions, a good proportion of what the MFS called selection is probably also even-aged (one or two age classes), so one could safely say that most of the cutting of the largest private landowners is by even-aged management. In contrast, for all other landowners, 87% of cuts are listed as selection, 12% as shelterwood, and only 1% is considered clearcut.

Is cutting getting lighter?

In a previous article, where I only had access to 1997 and 1998 figures, my conclusion was that cutting per acre was remaining constant, but the level of cut was increasing. This did not bode the state well, since the state determined, based on a 50-year projection, that the 1995 cut level was not sustainable. The MFS revised its 1998 figures downward

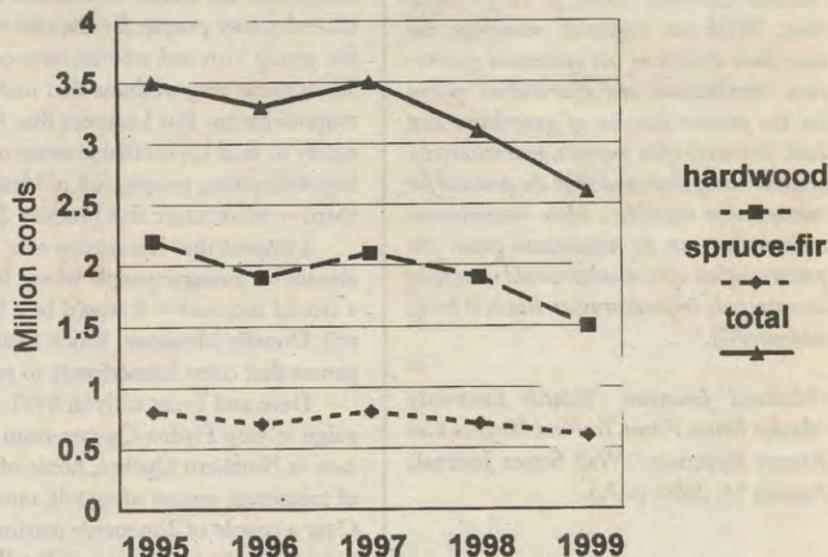
Trends in Clearcutting and Shelterwood 1994-1999



for cut and, as indicated, cut went down further in 1999. My previous conclusions were correct given the available information, but with the new information, it appears that volume cut and cut per acre are declining. For the latter statistic, however, the figures are so inconsistent that the trends may be doubtful. The volume per acre removal figures are declining 1997-1999, but the 1997 removal intensity rating (11.7 cords per acre) is not much different from the 1996 figure (12.1 cords per acre) (see chart 2). The 1999 clearcut acreage was half that of 1996, but the shelterwood acreage was 50% greater. One can conclude, given a similar harvest intensity, that a lot of acreage shifted from clearcuts to shelterwood overstory removals (see chart 1). Those trying to fend off regulations may try to use some of the MFS statistics to imply that problems are clearing up by themselves. The figures, unfortunately, do not give us a very clear picture of what is happening on the ground. How much of the stand was taken up in roads, trails, and yards? How much logging damage was there? To what degree was the stand highgraded and degraded? This can only be determined by random sampling. **Cutting trends.** The lowering of cut levels closely correlates to a decline in cut for hardwood pulp. By the end of the 1980s, hardwoods surpassed spruce-fir as the major pulpwood source. This relations remains, despite the lowered demand for hardwood (see chart 3).

To some extent, an argument could be made that Maine will never have a short-fall. As wood becomes more scarce, its price would normally go up in a free market. But this is a global market. Wood can be shipped long distances. Maine has been a net importer of pulpwood and biomass for years. To the extent that prices do start to go up, we can expect companies to shut down marginal machines, or even mills, rather than pay what would be the market price. As these machines and mills shut down, this frees up more wood for other mills. So there will be no short-falls, even though there will be fewer mills and fewer workers and less forest. The processor report shows that while there is a decline in cut for pulpwood, the level of cut for sawlogs is going up. This is not due to higher quality wood; it is more a result of more sophisticated milling technology that allows the use of lower-grade wood. Most of the sawlogs harvested in Maine are spruce-fir, not pine (see chart 4). While Maine is a net importer of low-grade commodity wood (pulp and biomass), it is a net exporter of sawlogs. The processor report shows that Maine landowners exported 7% of their pine sawlogs, but 35% of their sugar maple, 40% of their spruce-fir, 42% of their yellow birch, and 56% of their oak sawlogs. Current policy protects neither the forest nor the local communities that live near the forest.

Pulpwood cut 1995-1999



The MFS Report of the 1999 Annual Inventory: Not all good news

Although the press release for the 1999 inventory report (released two weeks before the election) stated proudly that the results show that there is not a "crisis," a quick glance at this document shows that there are grounds for continuing concern. It is difficult to come up with any significant statement on major trends in the woods, however, because of the following: It is only 4 years between 1995 (the last USDA survey) and 1999. Forests do not normally change significantly in four years.

The previous inventory showed a number of serious problems—since there has been little change in four years, the problems still stand.

There were very few plots—only 1/5 of USDA plots. This means around 1 plot for every 30,000 acres of forest in Maine. This rules out comparisons by county or landowner type due to insufficient data.

Some comparisons to previous surveys can't be made because of changes in definitions or algorithms.

There are insufficient plots to support a valid estimate of growth.

Some changes in type areas are due to changes in algorithms. The MFS could not determine how much change was real and how much was due to their changed system of analysis.

Areas of concern:

The Maine Forest Service emphasized the good news—that the inventory seems to have increased slightly. Maine's average volume per acre (around 16 cords) is still far below the average for neighboring New Hampshire (around 25 cords). In both states, the lowest volume per acre average is on industry land. The report only looks at a fraction of the types of measurements of the USDA inventory, but even in the ones chosen, there are areas of concern after just 4 years:

The figures show a decline in area in the spruce-fir and northern hardwood forest types—these are the major ecological types for the state.

The report looks at stocking for all trees 1" and bigger. It does not look at stocking of growing stock trees (acceptable trees larger than 5"). Even so, there seems to be a decline in fully-stocked stands and an increase in poorly-stocked and moderately-stocked stands. The MFS seemed to think that moderately-stocked stands are a good thing (they lumped them in with fully-stocked stands to show that forest stocking is ok), but moderately-stocked stands only have between 35% and 60% of the stocking of a fully-stocked stand.

There has been a significant increase in stands stocked with less than 50 square feet of basal area. This represents 3.2 million acres. Most of this is on industry land and has small-diameter trees. To put this in perspective, B-line stocking (a goal for many thinning regimes) of trees averaging eight inches run around 80 square feet for hardwoods and over 120 for softwoods.

The biggest increase in trees is for saplings.

The biggest increase in trees is for balsam fir—a species vulnerable to the spruce budworm.

There is a continuing decline in pole timber stands. This means less replacement in future for sawtimber that is cut now.

It is unfortunate that the Maine Forest Service chose to release these sketchy figures in the midst of a contentious campaign, rather than wait for things to simmer down so that the numbers could be discussed in a more rational manner with less spin. Because only one fifth of the US Forest Service plots were revisited (and some people would contend that those plots were woefully insufficient) the data hardly represents any conclusive findings. Unfortunately, the data are useless for looking at some of the important trends by landowner type or by region. It will be years before there is enough data to address these issues.

BAD NEWS FOR NEW ENGLAND HEMLOCKS

STUB HUNT of Granville, Massachusetts was a man who loved trees. His memory stretched to the time his father swapped a ridgeside of chestnut for one of hemlock. Stub admired the plucky resolve of chestnut sprouts and saplings in the face of the blight which wiped the mature trees out. He also loved to bring visitors to the family farm to places in the woods where the fallen giants lay. How sad it would be for Stub to know that a new pest is wiping out the hemlock throughout southern New England. And how sad for us here in the hemlock's northern reaches that the woolly adelgid creeps closer year to year.

The news from forest ecologists is not good. Harvard Forest researchers David A. Orwig and David R. Foster presented a research paper (1998) to a symposium on sustainable management of hemlock in Eastern North America that concludes a "bleak" future for hemlock forests in New England. They found that site characteristics do not reduce mortality from the adelgid and that only extreme cold may hinder the pest's northward march. Unless an acceptable control is found, they predict the hemlock "may be eliminated across broad portions of its range in a few decades." The researchers hope to continue to develop data and information of relevance to management.

The adelgid has been rumored to have arrived in southern New Hampshire this past summer. Meanwhile, West Coast forests are apparently experiencing recent mortality of tan oak from an unknown pathogen.

A previous hemlock decline is documented as having occurred 5000 years ago. Another paper by David R. Foster (*Hemlock's Future in the Context of its History*) identifies the presumed cause as a pathogenic infestation, according to recent study. Among science's findings on the subject, is the suggestion that hemlock

may have persisted in "small, but widespread populations." Foster states that the recovery process took 1000 years or more.

Here is what the Vermont Department of Forests, Parks & Recreation has to say about the adelgid in its 1999 publication *Forest Insect and Disease Conditions in Vermont*:

"Hemlock woolly adelgid is not known to occur in Vermont. However, in 1999, it moved further north in its range in both New York and Massachusetts. In Massachusetts, where it was first introduced ten years ago, one-third of the towns now have this insect. Additionally, it was found in locations in Maine, where it was introduced on nursery stock, and at one New Hampshire location, where the insect has been eradicated. We still don't recommend any management changes at this time, for several reasons:

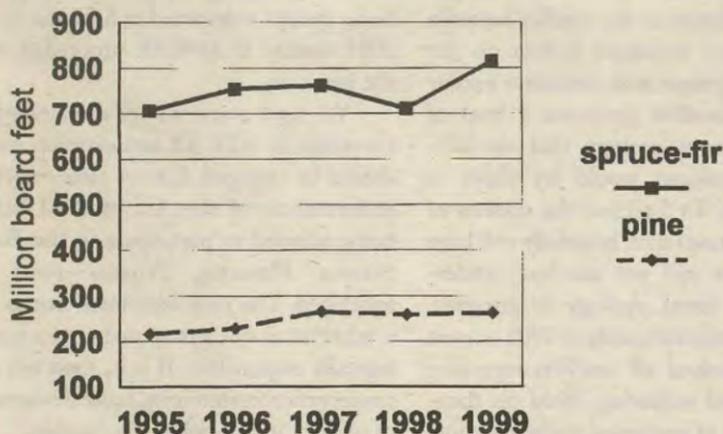
- Although southern towns are at most risk, it's impossible to be sure where and when the insect will arrive. The natural northward spread in New York state has been slow. Most of the rapid movement of the insect has been caused by human introduction, which could occur anywhere in the state.

- Although hemlock woolly adelgid is clearly changing the landscape where it is established, hemlock mortality does not occur immediately. In fact, most trees survive the first outbreak in a new area.

- Natural controls may change the impact of the insect in Vermont forests. A tiny beetle which feeds on hemlock woolly adelgid is now being introduced from Asia. Early research data justifies optimism that this beetle, and other natural enemies, may lower adelgid populations.

- Ongoing research on the impact of hemlock woolly adelgid may provide managers with better information on how to manage threatened stands. For example, hemlocks on shallow soils appear to be most at risk." The report recommends close monitoring of the situation and management changes as needed. — Andrew Whittaker

Spruce-fir and Pine lumber cut 1995-1999



spruce trees - used to grow at edge of field

NH Conservation Community Needs Clear, Comprehensive Forest Protection Agenda

By Jamie Sayen

A NUMBER OF RECENT events highlight that there is a crisis in New Hampshire's conservation community. There is no clear, comprehensive forest protection strategy.

Tension between SPNHF and much of the rest of the state's conservation community has been increasing in recent years. The Forest Society opposed the Clinton Administration's October 1999 Roadless Area initiative that would designate about 45,000 acres off-limits to road building in the White Mountain National Forest (WMNF). The Audubon Society of New Hampshire, and NH Wildlife Federation also opposed the plan, while the Appalachian Mountain Club, The Wilderness Society, the Sierra Club, and Conservation Law Foundation supported protecting roadless areas.

SPNHF argued that the Clinton plan undermined the planning process. Regardless of the merit of that position, the recent disclosure by *Boston Globe* reporter Robert Braile on October 8, 2000 that SPNHF has been working on legislation that would mandate multiple use (in this case meaning: forever logging) on significant portions of the WMNF has exposed the Forest Society to the charge that it has been hypocritical about the sanctity of the WMNF planning process. The SPNHF proposal called the planning process "inadequate" for resolving issues of wilderness and multiple use/forever logging.

This controversy comes on the heels of the Forest Society's aggressive support for \$13-\$25 million in federal Forest Legacy funds to acquire a conservation easement on 170,000 acres in northernmost NH lands formerly owned by Champion, but now owned by International Paper which swallowed Champion this summer. These lands form the headwaters of the Connecticut River and the Androscoggin/Magalloway Rivers. The plan supported by the Forest Society would have permitted the corporate landowner to continue clearcutting large tracts of land and spraying those clearcuts with a chemical soup of herbicides. Spending scarce federal conservation dollars to acquire development rights on lands that mostly do not have significant development potential seems a dubious proposition under any circumstances. Allowing the current corporate owner to continue with the most destructive, unsustainable, industrial practices on this "conservation" transaction is Orwellian.

In September, International Paper indefinitely suspended its application to the NH Forest Legacy Board for this plan, claiming that it needed to conduct a full assessment of the Champion lands it acquired in June. Critics of the deal note that IP may have decided that a public brawl over Forest Legacy funding of industrial herbicide spraying was not a wise public relations strategy. Whatever the reason for IP's decision, most of the NH conservation community is quietly

relieved by the suspension of this ill-conceived plan.

NH Senator Judd Gregg normally is a reliable sponsor of the SPNHF legislative agenda. However, Gregg had authored a rider to an appropriations bill that would exempt the WMNF from the Clinton Roadless Initiative. The rider was only dropped this October, after Clinton threatened to veto it and most regional and national conservation organizations had raked Gregg over the coals. The Senator had complained to the Forest Society that it had not provided him with sufficient support for his rider. When SPNHF approached Senator Gregg to ask him to sponsor its "White Mountain National Forest Wilderness and Sustainable Management Act of 2001", the Senator declined to take a position on it until the Society could demonstrate broad support. A Gregg spokesman, Ed Amorosi, told Braile: "[Senator Gregg] asked the Forest Society to discuss it with other parties, since it's their proposal, and to develop a consensus."

Accordingly, around the time that the public hearings on the Clinton Roadless Initiative this summer demonstrated that citizens of NH and the region support protection of roadless areas in our national forests and oppose the Forest Society's position, the Society began to show its "Act of 2001" to organizations it thought might support the bill. Forest Society policy makers were stunned by the vehemence with which NH conservation groups opposed the proposed bill, and embarrassed by the hostility to the bill expressed by some of the Society's own membership. What had gone wrong? Let us examine the Act of 2001.

WMNF Wilderness & Sustainable Management Act of 2001

The Forest Society's Act of 2001 contained four specific parts:

The act would designate additional wilderness areas in the WMNF, including "all or parts" of roadless areas identified by the Clinton initiative.

It would create "core management areas" dedicated to multiple use. It would require an act of Congress to undo this designation. Although SPNHF's proposed Act does not expressly mandate "Forever Logging" on these lands, it does call for the establishment of "permanent sustainable forestry and wildlife habitat management zones." Sounds like "Forever Logging" to everyone I've spoken to.

It calls for independent third party certification of logging in the WMNF as a means of ending controversy over forest management practices in the WMNF. No more appeals. The recent certification of Irving's plantations has effectively destroyed any credibility built up by the certification process.

The act would prohibit the Secretary of Agriculture from issuing executive orders such as the Clinton Roadless initiative.

Although professing to value wilderness as much as logging on the WMNF,

the Forest Society has a long track record of enthusiastic support for the "working forest" regardless of the management practices (such as industrial herbicide spraying, which it continues to support), and a troubling record of trying to restrict or thwart wilderness designations on productive timberlands. Before the current planning process commenced, SPNHF stated it would not support further wilderness additions to the WMNF. Recently, Dick Ober, communications director of SPNHF, told me the Society was the first state group to call for concrete wilderness additions. While I laud that change in Forest Society wilderness policy, SPNHF ought to uncouple its support for wilderness additions from its pursuit of forever logging designations. Then, I suspect, SPNHF would find broad support in NH conservation circles for substantial new wilderness additions, especially in productive, lower elevation areas that are under-represented in current wilderness areas.

The Act of 2001 would substitute a new planning process to designate the multiple use areas "through an open and informed public process." What the Act failed to state, but SPNHF staff stated at at least one briefing session, was that only members of the public who accept the terms of the Act of 2001 would be permitted to participate in this open process. If you have any objections to forever logging on our public lands, the open process is closed to you.

Mercifully, the resounding rejection of the Act of 2001 by NH's conservation community means that the idea is dead in the water for now. But, don't expect the Forest Society to give up so easily. When I spoke with SPNHF's Executive Director Jane Difley early in October, she indicated that SPNHF is "still toying" with some of the ideas contained in the Act, especially the issue of multiple use management. Stay tuned.

When I first learned about this proposal, I contacted one of NH's most respected conservationists who asked me a good question: "Jamie, are you opposed to all logging on the WMNF?" I replied, it depends. If you are talking about the current situation in which the WMNF is almost the only protected public land in NH and Maine, then yes, I oppose logging the only large refuge for biodiversity in the region. However, if Maine, NH and Vermont establish a system of large, connected ecological reserves that adequately protect the region's ecological integrity and evolutionary options, then I'm willing to discuss appropriate low impact logging on some lands in the WMNF. However, designating forever logging zones before the successful establishment of a comprehensive system of ecological reserves is ecologically irresponsible.

The proposed Act of 2001 sought ultimate resolution to the conflict between wilderness and managed forests on the WMNF. To achieve such definitive resolution of the conflict presumes a level of knowledge about ecology that no self-respecting ecologist would lay claim to today, or ever. To foreclose the options of future generations that, hopefully will have a clearer (but still not absolute) understanding of forest ecology is arrogant. Imagine if conservationists in 1900 or even 1950 had resolved all conflicts regarding wilderness and timbering based on then-current levels of ecological understanding! Heck, the word ecosystem wasn't even

coined until 1935.

In addition to our necessarily limited understanding of forest ecology, we have only a limited grasp of future anthropogenic threats to forest health. In 1950 issues such as acid deposition, global climate change, ozone thinning and the dangers of pesticides, to name but a few current threats to forest health, were largely unknown. Policies that hobble our ability to deal with these issues hardly resolve the conflict. Better to put up with some messy political squabbles between science-informed advocates and ecological ignoramuses (including at least one presidential candidate) who deny global climate change is a serious problem than to tie the hands of future generations and stifle democratic policy making. The Forest Service planning process is deeply flawed, but it at least allows us periodically to revisit issues in light of new information.

SPNHF's primary focus on maintaining working forests, and its frequent opposition to wilderness designations on productive timber lands suggests that SPNHF is still stuck in early 20th century conservation thought modes. The Forest Society needs to embrace the basic tenets of conservation biology. And, it needs to view issues on a landscape scale. SPNHF's proposed Act of 2001 seems to view the National Forest in isolation. Once NH and Maine have established a comprehensive ecological reserve system and outlawed the worst forestry practices, and the healing process has advanced sufficiently, then we can discuss which areas of the WMNF might be suitable for low impact logging. But not until then.

NH Needs a New Forest Policy

One reason NH forest policy is in such disarray these days is that it has not been inclusive. Dissident voices and community activists have not been included in policy discussions with SPNHF and other state organizations. In fact, even the larger state organizations are not now systematically working together to forge a vision for the new century. While there is enough blame to spread around to all the larger groups, SPNHF has long claimed the mantle of leader of the state's forest conservation community. Leaders must accept a larger share of the responsibility for problems such as the current lack of a clear, comprehensive forest protection agenda. Recently, SPNHF has developed policies, such as its Act of 2001, in isolation and then presented its proposals to the rest of the conservation community. Much the same thing happened with the Forest Legacy proposal on the Connecticut Lakes region. Only rather late in the game did SPNHF convene an informational meeting for the other organizations. The other conservation organizations are increasingly reluctant to go along with SPNHF policy. Some groups threatened to fight the Act of 2001 openly if SPNHF proceeded with the proposal.

We need a new way of developing forest policy in NH. All conservation voices should be engaged. Litmus tests—such as endorsement of the Act of 2001 before being allowed to participate in the Forest Service Planning Process—must be squelched. The only legitimate litmus test is whether or not a proposed action is ecologically responsible. If it is, then we, as a conservation community, must devise ways of making it also politically feasible.

Here are some critical components of

a responsible forest protection strategy.

The ecological integrity of the state's landscape is the overarching priority. We need to protect biological diversity and ecosystem integrity throughout the state. Establishment of a system of ecological reserves is our highest priority.

Thwarting unsustainable forest practices and inappropriate development are essential. However, an expensive easement on lands relatively unthreatened by development, such as the IP lands in northern NH, is a misallocation of scarce funds and a misuse of a conservation tool of limited value. Easements in suburbia, and in areas where development is the number one threat often make sense, if full fee acquisition is not the appropriate response. Easements are the wrong tool when the greatest threat to ecological integrity is irresponsible forestry.

SPNHF's Paul Doscher argues that you can't write prescriptive language for forest practices in easements. I submit that we cannot responsibly spend public funds on such easements unless we require the highest standards in forestry. I find it curious that SPNHF is proud of the strong restrictive terms that govern the Society's newly certified lands. If Green Certifiers can craft language that restricts forest practices, why can't easements?

Large tracts of corporate timberlands, such as the IP lands in Pittsburg, where the Connecticut Lakes lie, should be acquired by the public and managed first and foremost for the protection of biodiversity. Expect IP to sell the 170,000 acre Connecticut Lakes tract in the next couple of years. Will the NH conservation community again be caught by surprise?

We need to develop ways to assist landowners who want to manage their private lands for wildlife and biodiversity, not fiber extraction. These privately owned lands can buffer, and sometimes add to core ecological reserves at no additional cost. NH Current Use must be reformed to give the maximum tax break to landowners whose management protects biodiversity. Landowners who clearcut, overcut, or spray herbicides should lose favorable current use taxation.

Funds for public land acquisition must be dramatically increased. There is no real hope that the NH Legislature will adequately fund the fledgling Land and Community Heritage Program, given NH's current fiscal woes. Therefore, over the next five to ten years, the two most promising alternatives to state funding of land acquisition are federal funding (Land and Water Conservation Fund without the sweetheart deals for oil exploration) and private philanthropy (i.e., internet billionaires who don't know what to do with all their money and want to leave a legacy as grand as Governor Percival Baxter's gift of Baxter State Park to the people of Maine).

Forest Legacy must be reformed. Legacy enjoys broad support throughout the region's conservation community. Unfortunately, until recently, few groups have bothered to monitor the activities of state legacy boards. In NH, only SPNHF and The Nature Conservancy have been paying close attention. This has allowed many members of the NH Forest Legacy Board to narrow Legacy's Congressional mandate to protect biodiversity into little more than a funding source for members of the NH Timberland Owners Association. Legacy funds must be used to acquire reserves as well as well-managed

forests. We must resist two sinister efforts that are popular in some circles in NH: "forever logging" requirements on future Legacy easements, and "anti-forever wild covenants" on Legacy easements that prohibit the landowner from subsequently designating her land as forever wild. SPNHF, in particular, needs to take a strong public stance against both of these bad ideas.

There are a variety of economic issues that severely limit our ability to implement responsible, sustainable forest policies, including: low wages for loggers; low stumpage for landowners; and low return on wood cut.

-Low wages for loggers: Loggers get squeezed by contractors and by landowners. The state and federal government abet this by permitting approximately 40 Canadian loggers to cut wood in NH each year. This serves to depress logger wages. If we are going to expect good logging practices, we had better pay loggers an honorable wage. If we wish to look ourselves in the mirror, we should pay loggers a wage that reflects the danger and hardships of the work as well as the care needed to do the job properly.

-Low Stumpage: Low stumpage is a consequence of mill price fixing, and excess supply of wood on the market. Two ways of reducing the glut of wood are: (1) stop liquidation and overcutting and require cutting at sustainable levels; and (2) end logging on public lands which represents unfair competition for small landowners for quality prices.

-Low return on wood cut: In northern NH, especially on the former Champion lands in the Connecticut Lakes region, most of the wood cut is exported unprocessed to Canadian mills. Currently, if we want to create more jobs in the area, we need to cut more wood and hire more truck drivers to haul the wood to Canada. This is a prescription for overcutting. We need to stop all raw log exports. We need to promote greater economic diversification in the forest products sector, and we especially need more local value-added processing and manufacturing. The ideal situation would be for small woodlot owners to process the wood on their land or to combine in coops so that their wood goes directly to those who add value locally and are willing and able to pay fair stumpage. Fair stumpage prices will reduce pressure to overcut. Currently there are many subsidies for below cost logging on national forest lands and federal assistance programs to private landowners who liquidate or export raw logs. If we redirected these subsidies to help diversify our economy, the cost ought to be quite small and the gains enormous.

Conservationists need much better communication with forest researchers, and researchers need to do a better job of communicating their work to the general public, especially when vested interests misrepresent the state of our knowledge regarding acid deposition, global climate change, the condition of soils, water quality, the protection of biodiversity, and other critical forest ecology issues. As stated above, we need an ecosystem approach. What are the effects of outside disturbances such as air pollution, on soils, on our air, and on the forests in between? We must identify areas that are most sensitive to outside disturbances and assess whether soil productivity is diminishing as a consequence of these pollutants. To protect our

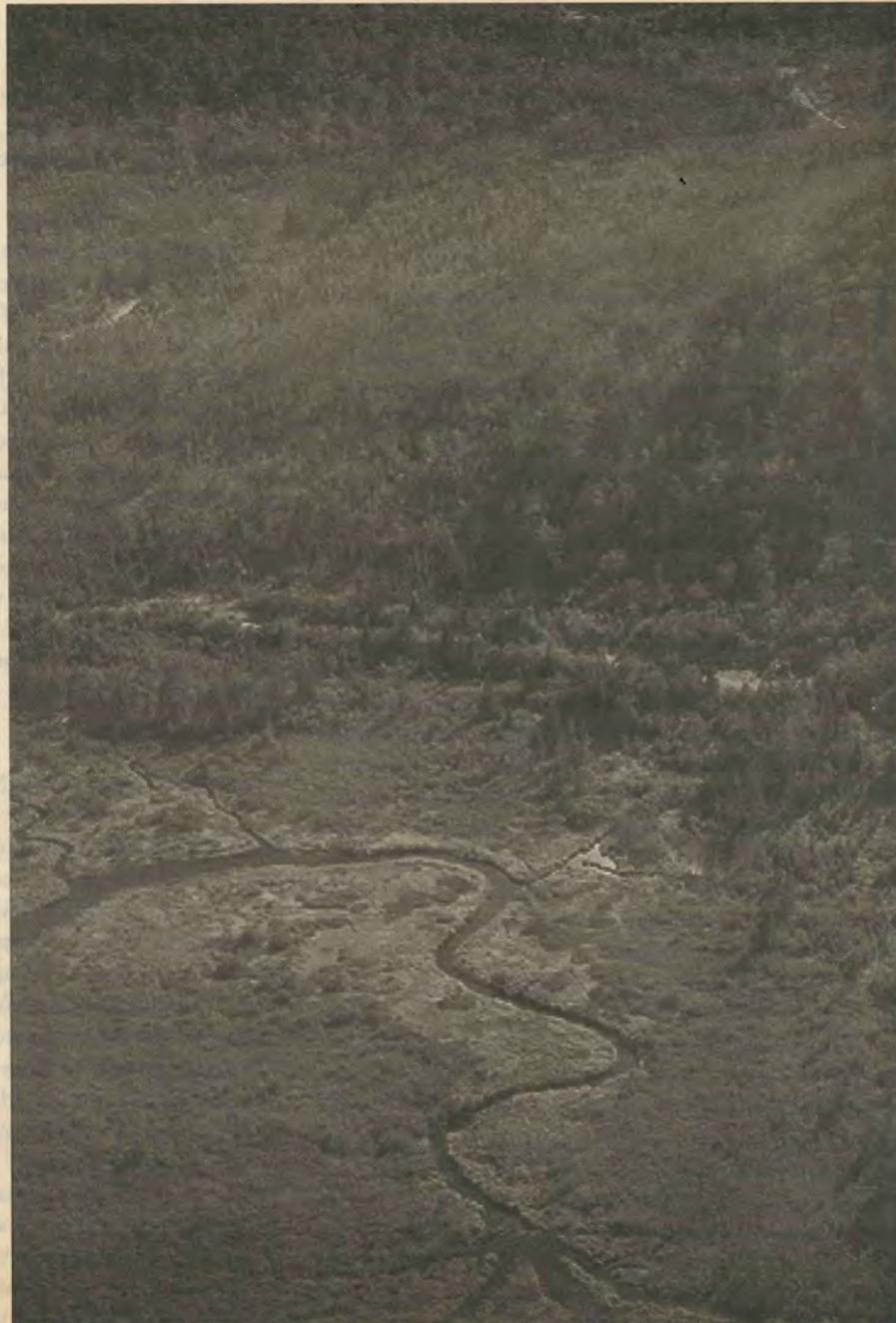


Photo © Alex MacLean, Landslides. An herbicide spray area on Champion lands of northern New Hampshire; Connecticut Lakes area. The road in middle distance was the intended spray boundary.

forests from acid deposition, greenhouse gases and the like, we must address root causes—a depressingly long-term proposition. But, we also must *immediately* refine our forest management practices in light of the ongoing threats of anthropogenic disturbance. If air pollution is diminishing soil productivity, as it is, then we must reduce the stress of forest management practices, regardless of what market forces may be telling us.

Forest Policy Making: The state's conservation organizations must learn to work together and to celebrate our differences as a sign of strength and confidence. Suppressing dissidents, as has happened routinely in recent years, sends a sign of weakness and insecurity. On the state level, the Forest Advisory Board (FAB), after nearly five years has little to show for its efforts. It has not promoted any meaningful dialogue between interested parties. Indeed, it has discouraged concerned citizens from participating in its work or raising important forest management reform issues. It has suppressed efforts to examine the most abusive forest practices. (Oh, sure, it did appoint a Forest Liquidation Committee in 1997 after an embarrassing public relations blunder in which it suggested to a member of the public that he was not welcome to remain in the room while it deliberated his proposal that the FAB examine overcutting. But the Liquidation committee was loaded up with industry representatives adamant that there would be no meaningful recommendations. There weren't any.) The Forest

Advisory Board is charged with the implementation of the excellent Forest Resources Plan published in 1996. Although a committee was supposedly established in 1997 to evaluate the degree to which the plan has been implemented, I suspect that it couldn't tell us much. The neglect of the Forest Resources Plan sends the wrong message to citizens who are asked to donate large amounts of their time to help write such plans. If our work is ignored, why should we bother?

There are undoubtedly a variety of other important issues for a comprehensive forest policy for a state like New Hampshire. But, if we come together as an inclusive community, committed first and foremost to the protection of ecological integrity, we'll achieve a rate of success undreamed of under our current, narrow utilitarian focus. Although this article has focused on the shortcomings of the state's traditional leader in forest policy making, all NH conservation groups share in the blame. All are responsible for the way we develop and implement forest policy. All must refuse to participate in exclusionary initiatives or to make issues of ecological integrity secondary to fiber extraction and perceived political pressures. We can continue bickering and get little done. Or, we can engage in free and open debate and respectful collaboration and leave a legacy we can all be proud of.

Another View

RICHARD OBER, SOCIETY FOR THE PROTECTION OF NEW HAMPSHIRE FORESTS

I'VE KNOWN Jamie a long time and have been reading the *Forum* since its inception. We have traded ideas, argued policy, and spent some time together (not enough) in the woods. I respect Jamie's intelligence and I enjoy our exchanges. He can also be royally difficult (he used a more vulgar term to describe himself in this regard) but I, for one, am glad he and the *Forum* are a part of our landscape. That said, I agreed to respond to the accompanying article under the condition that I be given the chance to be as candid as he has. So here it is.

My overall reaction, which I shared with Jamie on the phone, is disappointment that he insists on coupling his worthy ideas with unworthy attacks on colleague organizations that don't share all of them. His piece in this issue is a classic example: a mostly unsubstantiated complaint about the Society for the Protection of New Hampshire Forests followed by his own thought-provoking vision. I can't help but think the latter is more useful than the former. The piece is also classic Jamie style: part opinion, part reporting, part analysis, part catharsis. I've suggested to Andrew that these different components should be teased apart to be fair to the reader.

I need to start this with a reminder: The Society for the Protection of New Hampshire Forests is three things — a forestry association, a land trust, and a conservation advocate. Our positions reflect all three roles. Second, while we are flattered by Jamie's high esteem of our political influence, policy is only one thing we do. Most of our energy and money is spent acquiring land and easements, taking care of the 100,000 acres already under our care (and growing every year), and teaching thousands of New Hampshire people the basics of model forestry and land protection.

WHO IS TENSE?

Jamie says that there is "tension" between SPNHF and other conservation groups, but he offers no evidence. In the only instance where he names other groups — the Clinton roadless proposal — he acknowledges that the conservation community was split evenly. Are there healthy differences of emphasis and strategy between and among all these groups? Of course. In fact, Jamie argues we need more of that.

THERE IS NO NEW WILDERNESS ACT

In two phone conversations with Jamie recently I stressed that Bob Braile's October 8 *Boston Globe NH Weekly* article (which he cites) was wrong (The *Globe* published a letter from SPNHF on October 22 clarifying the article). We have not been "working on legislation" affecting the White Mountain National Forest. In our efforts to promote both land preservation and model forestry in the WMNF, we had written a draft concept paper for a new "Wilderness Act" in July, but we dropped the idea in September after discussing it with colleague groups. We had an idea; others weren't wild about it; we dropped it. Again — isn't that the kind of give-and-take that Jamie would like to see? Jamie also ignores the fact that all the groups he names, with the exception of the Sierra Club, wrote a joint position paper last year supporting sustainable forestry on the WMNF. Although there are differences on how to achieve that end, we do share that common goal.

I don't know why Jamie feels the need to detail what our concept for a new wilderness act might have looked like, when he knows we are not pursuing it. But I would leave it to readers to decide if the plan had merit. We think it did, because it was an honest and straightforward attempt to add new wilderness areas and advance truly model forestry — a goal, if not a tactic, that most conservation groups support. But that's all moot: we are not pursuing this legislation. What do you think of the concept?

Oh — and to ascribe emotions to us (SPNHF staff were "stunned and embarrassed") about the reaction we got to this plan is just plain odd. First, we were neither.

Second, as someone who occasionally criticizes others for being arrogant, does Jamie really want to claim he knows the depths of other people's feelings?

FOREST LEGACY ENJOYS BROAD SUPPORT

The Forest Legacy program generally enjoys the "aggressive support" of not only SPNHF, but the Northern Forest Alliance and most of the groups mentioned in Jamie's piece (we're not sure about the Sierra Club). None of the groups was able to take a position on a specific application from International Paper in northern New Hampshire because it never got that far. Champion had asked us to help on a possible Legacy application before International Paper bought them. After the merger, we had preliminary meeting with IP and then they decided not to pursue the application. Our involvement fell far short of Jamie's description.

JUST HOW SHOULD WMNF DECISIONS BE MADE?

Jamie may have a point in questioning if there was a conflict between our statements about process on the White Mountain National Forest. In fact, we are unsure about how the best decisions should be made. This much is true: We opposed Clinton's roadless plan not because of the substance, but because it added yet another layer in decision-making: Executive authority from the White House. Already there are so many layers and so many laws and regulations in national forest planning that we feared this step would alienate people even further. The response from a wide range of New Hampshire citizens suggests that it did. We also worried about the precedent of management by executive order, given the impact an anti-environmental president could have in the future. This is also true: Since Congress alone can designate and un-designate Wilderness areas, would it make sense for Congress also to designate some areas where long-term, model forestry could take place? Areas where foresters and scientists trying to develop better forest practices could be ensured of truly long-term management? We thought so.

But we remain conflicted, as does virtually everyone who cares about it, on just how to balance local, regional, and national input in planning for the future of the national forest system. Just where should the decisions be made? By whom? Based on what? With what information? Setting what precedent? I think that's also a good topic for *Forum* readers to weigh in on.

SPNHF PRACTICES AND PROMOTES CONSERVATION BIOLOGY AND STATE-OF-THE-ART FORESTRY

Jamie is way off in the last paragraph before the "NH Needs a New Forest Policy" section. We have not "frequently proposed wilderness designations"; in fact, nobody has proposed any since we all worked together on the 1984 Wilderness Act. Second, it is insulting for Jamie to suggest we are stuck in early 20th century thought. As he knows because he participated fully, we co-lead the Forest Sustainability Standards Work Team that set a high bar for exemplary forestry in the publication, "Good Forestry in the Granite State." Other states continue to say that project was a model effort. And we have fully embraced conservation biology and landscape scale planning on our own 121 forest reservations. We have developed a revolutionary new biological inventory method that is being peer reviewed on forests in four New England states. We are New Hampshire's only FSC-certified landowner (SmartWood) and must adhere to extremely high standards. (Check them out yourself at www.smartwood.org.) Critics of green certified forestry, including Jamie, need to remember that each certification is distinct. I've invited Jamie to read ours, spend a day with us in the woods, and then make up his mind.



Photo © John McKeith

GO FOR IT, JAMIE!

Jamie's 10-point strategy for forest protection offers food for thought. Like the writer, the ideas are ambitious, intriguing, full of conviction, idealistic, and a bit problematic. I would not agree with all the premises nor all the conclusions, but I commend Jamie for putting them out there. I take issue only with a couple specific statements. First, we do not develop ideas in isolation. In fact, we are in almost daily contact on a wide range of issues with the Audubon Society of New Hampshire, AMC, the NH Wildlife Federation, CLF, and many, many other groups. With the wilderness act it is precisely *because* we sought reaction that we changed our plans. And with the IP easement, it was not our job to convene any meetings because it wasn't our plan. Had IP prepared a Forest Legacy application, it would have been addressed by the Forest Legacy committee, not us.

Second, I'm mystified that Jamie believes some "Internet billionaire" savior is a more likely funding source for conservation in New Hampshire than the Land and Community Heritage Investment Program. If Jamie had been at all involved in the LCHIP, which he hasn't, he would know that there is strong momentum and a huge coalition behind that program. His casual dismissal of "no hope" for funding is out of touch and a little demeaning to the thousands (yes, thousands) of community activists advocating this program. Is LCHIP the whole answer? Of course not, but it is a heck of a start, especially for the southern two-thirds of the state where 20,000 acres of open space are converted to permanent development every year. We also pushed hard for major new federal conservation investments through CARA, LWCF, and, yes, Forest Legacy.

So here, 1200 words later, is my point: We urge Jamie to pursue his vision with the same energy, determination, and passion that he brings to his writing. But he shouldn't criticize others for not picking up his mantle. When there are ideas and goals we share, we look forward to working together. When we disagree, we try to do so with respect.

For more information on SPNHF, please check out www.spnhf.org. Thanks.

NEWS & NOTES

SALMON RIVER SEDIMENTATION
AN AUGUST 22ND article in the *Bangor Daily News* by Mary Anne Clancy reported on the results of a summer survey by a LURC intern that found numerous instances of non-point pollution on land owned by the International Paper Company (the former Champion land). The intern identified over 60 instances of siltation on the Machias, East Machias, Narraguagus, and Pleasant Rivers with authorized and un-authorized use of logging roads by ATVs identified as a major source of problems. Watershed councils comprised of landowners and users have taken steps to mitigate siltation. These councils have been set up under the auspices of the state Atlantic salmon plan.

EPA WITHDRAWS PROPOSAL
THE FEDERAL Environmental Protection Agency withdrew its proposed regulation of non-point sources of pollution in forestry operations over the summer. The permitting proposal would have applied to watersheds identified as impaired. Senator Bob Smith of New Hampshire led a charge against the proposal which was replicated across the country in field hearings attended by large and small timberland owners alike. Champion was one of the companies in New England that protested the proposal as onerous and mis-placed. Meanwhile, a court has upheld the authority of the EPA to regulate forestry operations under the Clean Water Act. Senator Smith and other Senate Republicans have offered greater funds for monitoring efforts which some regulation opponents have said is all that is needed. No word as yet if such funds are part of this year's approved budget.

NEW WATER STANDARDS
NEW WATER STANDARDS took effect in Vermont this July. A report in the Autumn 1999 CONSERVATION MATTERS, journal of the Conservation Law Foundation outlines some of the guidelines. Water conservation will be a stipulation of water withdrawal permits as will be overall stream flows and water levels. "The standards include a clearer policy addressing pollution that enters water through runoff," says CLF. Watershed management and basin planning are encouraged; biological assessments will be used in judging water quality.

CHEMICALS RISKIER THAN VIRUS?
NEW YORKERS are supposedly neurotic about animals generally and insects particularly, Stuart Little notwithstanding. It was nonetheless surprising to see a picture this summer in the *New York Times* of Manhattanites being gassed in the streets — no, not for protesting, but for the chance they might be bitten by a mosquito bearing the Nile virus. The same paper reported on August 18th that an "obscure toxicologist" at EPA, Dr. Brian Dementi, has characterized malathion, formerly used by NYC in mosquito spraying, as a likely carcinogen. Malathion has been used widely in aerial spraying in Florida and California to control the Mediterranean fruitfly. The *NYT* said in its August 18th article that city officials are now using Anvil and Scourge, which anti-spray activists object to as well, despite assurances that these chemicals resemble naturally-occurring

toxins found in chrysanthemums (pyrethrins, we presume). Dead birds carrying the Nile virus, which has caused several human deaths in New York, have been found in New Hampshire and more recently Vermont. Officials there have yet to panic.

ATLANTIC CANADA'S OIL BOOM
THE *NYT* ALSO reported in a September 7th story by James Brooke on the oil boom that promises to elevate the fortunes of Atlantic Canada while feeding the oil and gas fix of the Northeastern United States. Newfoundland may soon be pumping 400,000 barrels of oil a day from off-shore sites. The United States burns 20 MILLION barrels a day, says the *NYT*. Total reserves in Atlantic Canada are considered to be 40 billion barrels. The fuzzy math suggests that Atlantic Canada could lube the entire US for 5-6 years.

Reserves of natural gas off Nova Scotia and Newfoundland amount to trillions of cubic feet. Newfoundland's energy minister Paul Dicks confidently predicts construction of a \$3billion gas pipeline from the Grand Banks to New England within ten years. Nova Scotia's 653 mile Sable gas pipeline already is feeding existing pipelines running to Boston.

OUR HABIT MELTS THE POLE
BILL MOLLISON CHASTISES environmentalists who read the Sunday papers, in particular, and he is more than right in this. The *NYT* and *Forum* itself are printed on Canadian fiber, which is increasingly sourced in increasingly fragile ecosystems of the boreal north. The Quebec National Assembly may soon consider latitudinal limits on logging, according to the latest *Atlantic Forestry Review*.

Coverage during the presidential election of the economic difficulties being experienced by Kentucky's tobacco growers suggests we really need to legalize the growing of hemp as an alternative fiber. An AUDUBON magazine article on hemp (Nov/Dec 1999) reports that Kentucky and Wisconsin were top producers in the U.S. during WW II. The same article says that under pressure from the Clinton administration a University of Wisconsin researcher's report favorable to hemp was withdrawn by the US Forest Service, which had sponsored the study. The study found that Wisconsin, the paper-making state, could supply all its pulp fiber needs from hemp.

Opponents to hemp legalization (law enforcement and most of the nation's governors) argue it would be de facto legalization of hemp's wacky cousin. The growing mumble for corrections reform — with our jails busting at the seams — may help alter the political climate on both issues. Don't hold your inhalation though . . .

A *NYT* story on October 10, which followed front page treatment of the watery north pole encountered by visitors this summer, said that Canadian researchers and natives of the subarctic are reporting signs of climate change from the ground. These include unusual winter rains, melting permafrost and the appearance of southern animal species such as wolverines, grizzlies (!?) and robins.

Data recorded by satellites document phenomenon such as thinning of the ice cap over the past 20 years. The World Wildlife Fund issued a warning this summer that 60% of Canada's northern land-mass and 20% of its species face fundamental alteration and outright loss, respectively, should warming trends continue.

A related story on the antarctic ozone hole written by Andrew C. Revkin explored the possibility that the hole, which is widening despite the levelling of Chloroflourocarbons in the atmosphere, may be connected to global warming. More precisely, the causal link is conjectured to be the documented stratospheric cooling that may result from increased levels of greenhouse gases. Such high altitude cooling may lead to the formation of ozone destroying ice clouds.

Yet another story by Revkin on October 26 added authoritatively to the steady parade of consensus from scientists that humans are inducing global climate change. The latest 5 year report from the Intergovernmental Panel on Climate Change, a world-wide body informing such discussions as the Kyoto Treaty (see below) represents, says Revkin, "a significant shift in tone."

MONTIEL REMAINS JAILED
THE STORY of Rodolpho Montiel and Teodoro Cabrera in Mexico should be a cautionary tale for the United States, which is now militarizing the drug war in Colombia. What happens to people when we empower corrupt militaries? The two activists, who organized a fight against de-forestation and its military-backed perpetrators in southwest Mexico's Guerrero, remain in jail despite the charges against them being termed a frame-up by Mexico's national human rights commission and protests by Amnesty International. While an appeal is pending, and Montiel and Cabrera may be released, they will be returning to a corrupt state of affairs. 17 peasants were killed in an ambush covered up by the governor of Guerrero in 1995. Montiel was a lead organizer of the Organization of Peasant Farmer Ecologists which led protests of the logging which, according to satellite images, has stripped the area around El Mameyal, high in the mountains, of 38% or 215,000 acres, of forested cover. Source: *NYT*, October 27, 2000, "A Farmer Learns About Mexico's Lack of the Rule of Law", by Tim Weiner

KYOTO TREATY TRADE OFFS
The Kyoto Treaty promises to create a global framework for the reduction of greenhouse gases. A negotiating session planned for November 13-24 finds environmental activists in the US pressuring the Clinton/Gore administration to stand up for old growth forests over plantations, and not to favor hydropower development. (See "An Open Letter to the Clinton/Gore Administration" on page 5.)

The trading of emissions credits, whereby polluters can "buy" the right to pollute, have found favor in the US, with the scheme being credited for reducing sulfur emissions (and under attack by the state of New York which is seeking to limit

state utilities trading credits to permit its upwind of New York).

Environmentalists are concerned that plantation forests, which industry actively promotes to the public as greenhouse gas busters, may pre-empt favoring natural forest as a superior means. Dam-building is widely viewed as ecologically destructive, and activists are concerned that an emissions trading scheme could favor their development.

Activists also point out that the Kyoto protocols create a framework of international agreements that could lead to protection for old growth in Russia, which is currently vulnerable to unregulated exploitation. The recent election has jeopardized prospects for ratification of the treaty by the United States.

A NORTHERN FOREST AGENDA
WHAT REFORMS AT the federal level ought our Northern Forest senators jointly pursue? What broad policies on a federal level could enhance the environment here?

Clearly the acid rain bill, Moynihan - Boehlert, ought to be passed. According to scientists, however, air over New England is mostly impacted by Eastern seaboard automobile emissions. Therefore, our Congressmen should be working with other Northeastern representatives to strengthen mass transit, particularly rail, and with national coalitions, to properly fund Amtrak so that we can have an effective inter-city rail passenger system. This would promote concentrated, rather than sprawling development, certainly another desirable outcome supported across the spectrum.

What about water? Senator Robert Smith of New Hampshire, in pressuring the EPA to dump its proposed rules on non-point pollution, suggested an augmentation of monitoring and amelioration funds. We agree, although not as a replacement for effective regulation on some level, so that we are not duped into paying to window-dress the irresponsibility of others. Watershed organizations across the nation should be able to propose projects and compete for funds to restore riparian health across the region.

Augmented funds for forest preservation ought to emphasize just that: preservation. We agree we need a quality job base from an ecologically functional forest — but public money should be expended to ensure the other large objective of restoring forest ecology: Wilderness. To that end, we need Wilderness legislation that would ensure more Wilderness on the Green Mountain and White Mountain National Forests. Part of that effort should be support and funding for restoration work, that would return to our landscape the wolf, lynx, catamount, marten, Atlantic salmon.

Labor reforms should be part of the jobs argument — and our Northern Forest reps can, with the federal Department of Labor, do something about that, too — as they ought to know.

— Andrew Whittaker

Your Help is Needed to Secure the Siskiyou Wild Rivers National Monument

A COALITION OF environmental and business partners, including Siskiyou Project, World Wildlife Fund and the Northwest Sportfishing Industry Association, have begun a campaign to create a new national monument in Oregon, and your help is needed to make it happen. The Siskiyou Wild Rivers National Monument would protect a million acres of public land in the Siskiyou National Forest and nearby BLM lands. The proposed monument would serve as a critical refuge for Pacific salmon — it includes five Wild & Scenic Rivers and nine rivers eligible for Wild & Scenic status. One of those rivers is Rough & Ready Creek, site of the proposed NICORE strip mine. The monument also includes one of the largest exposures of serpentine rock in North America, the Josephine ophiolite. This geological formation hosts a remarkable array of rare and endemic plants and unique wetlands called darlingtonia fens.

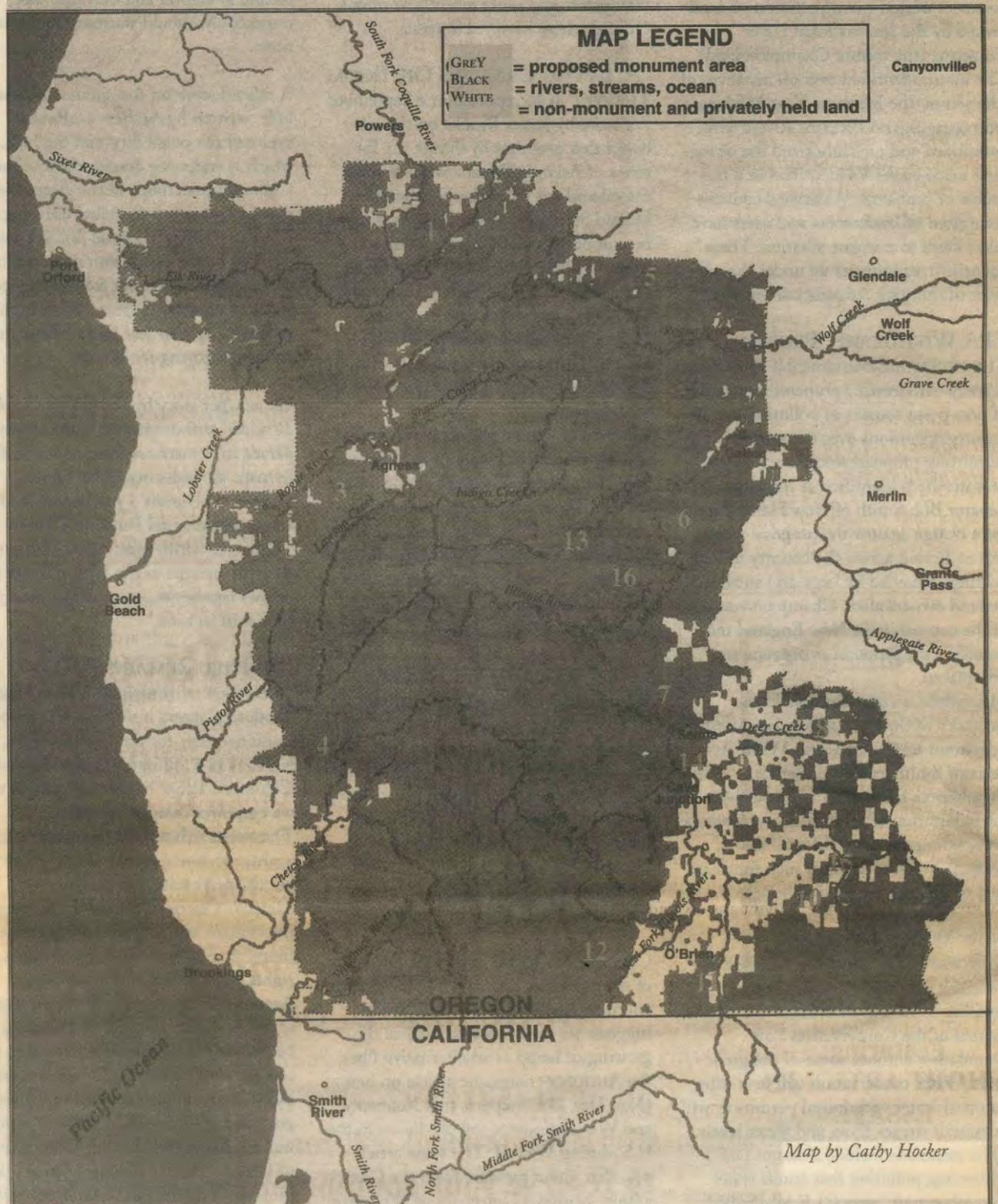
Mining, logging and roads all threaten the Siskiyou Wild Rivers. There are about 6,000 mining claims on the Siskiyou National Forest. Ancient forests are still being logged as well, requiring an extensive network of logging roads. The aging road system is a serious threat to watershed integrity. The 1997 New Year's Day Storm triggered numerous landslides and road and culvert failures, sending thousands of tons of forest soils and road fill into rivers and streams. Future and more severe storm events could irreparably damage the salmon and steelhead habitat of the area.

The proposed Siskiyou Wild Rivers National Monument management plan would end commercial logging and create a refuge for Pacific salmon. It would withdraw the area from new mining claims. [All of the recreational activities that people now enjoy, such as hunting, fishing, horseback riding, hiking and biking would continue as before, except that there would be restrictions on off-road vehicles. These restrictions are necessary in order to protect rare plant habitats and watersheds from degradation and to prevent introduction of noxious weeds and the deadly Port Orford cedar disease.

The Siskiyou Project commissioned an economic impact analysis, which found that ending logging in the proposed monument would reduce the timber supply in southwest Oregon by only 2.3%. This translates into the loss of about 145 jobs and \$7 million in income in the lumber and wood products sector and related sectors. On the flip side, a new national monument would attract visitors to the area. A 10% increase in visitor spending could create 703 jobs and \$14 million in income. Restoration of damaged watersheds in the monument would also provide dozens of high wage jobs. You can get a copy of the economic report at www.siskiyouivers.org.]

To send a free, instant fax in support of the monument to decision makers, check out www.siskiyouivers.org. You can also call Siskiyou Project at (541) 592-4459 for more information.

Proposed Siskiyou Wild Rivers National Monument



BELOW IS A SAMPLE LETTER TO PRESIDENT CLINTON AND VICE PRESIDENT AL GORE

SAMPLE LETTER

Dear President Clinton and Vice President Gore,

Please proclaim a Siskiyou Wild Rivers National Monument in order to preserve and protect the nationally important scientific and historic values of the wild rivers of Oregon's Siskiyou Mountains and their globally outstanding biodiversity.

If nothing is done, mining, off-road vehicle use, logging and roads will destroy the ecological integrity of these fragile watersheds and put wild salmon, rare plants and unique forest communities at risk of extinction.

Future generations will thank you for your judicious use of the Antiquities Act to provide permanent protection to the Siskiyou Wild Rivers, a real gem in America's public lands legacy.

ADDRESS:

President William Jefferson Clinton
 Vice President Al Gore
 c/o George Frampton, Jr., Council on Environmental Quality
 722 Jackson Place, NW
 Washington, DC 20503

White Mountain National Monument

A Proposal
By David Carle

"I know of no other section of the East, in fact there are few places on the Continent, where a person can be so speedily parted from his troubles, completely taken away from the work-a-day world, as during a two- or three-days' climb up and down the high spots of these mountains. As you breathe the invigorating air, feast upon the continuous superb panorama, study the weird rock formations and foreign alpine flowers, your trouble becomes thin and rare as the air which you are breathing." —Elon Jessup, author, 1920

THE GREAT WHITE HILLS

"The White Mountains constitute a section of the country which is unrivaled in its variety of natural interests. It may be ventured that nowhere else, within so small a radius, is there such a concentrated wealth of spectacular formation in peaks, valleys, and waterfall."

The Book of the White Mountains, 1930

Extending from Lake Winnepesaukee in central New Hampshire about 60 miles to the north, and from the Connecticut River Valley easterly about 50 miles across the state border into Maine, is a region of more than 3,000 square miles that is known as the White Mountains. About half of this area includes rugged mountains, including the tallest mountain in the Northeast. Covered in green during the summer, except above treeline, these granite mountains are bold, daunting, and inviting.

This area of mountain and valleys, lakes and rivers, wildlife and trees, attracts more than 7 million people for recreation, work, and scenic wonder. People come from all parts of the country, and the world to visit the region, but the majority come from the adjoining New England states. This area of wildness is within a day's travel of 90 million people. In the summer, sightseeing, hiking, camping, fishing, and swimming are just some of the activities of the visitors. In the winter, skiing, snowshoeing, and hiking keep the area busy with people. In 1996, tourists to the White Mountains expended \$500 million or 18 percent of total state-wide tourism receipts.

Know as the "White Mountains" as far back as 1672, the rugged panoramas have provided visitors an inspiring background for more than a century and a half. It can be argued that outdoor recreation in America began in the White Mountains. The Royal Governor of New Hampshire had a summer home built in the White Mountains. The region was the host to many huge summer hotels, with many smaller ones being built by the start of the 20th century. People went to the mountains by train and spent entire vacations there, whether for a week, a month, or all summer. In the late 1800s, the State of New Hampshire, which owned much of



the land that comprised the White Mountains region, sold the acreage to lumber barons for pennies an acre. With the sale, the new owners began to denude the mountains of their trees. Logging activities reached its peak about 1900. As the more accessible virgin stands were removed, the greed of the industry caused its own decline. Today, there remains a struggling timber industry and a few scattered groves of old growth forest in what has become the White Mountain National Forest.

The organized efforts to protect the White Mountain region coincided with the peak of the logging. In 1902, the Reverend Edward Everett Hale of Intervale organized a meeting that resulted in a resolution calling for Congress to make the White Mountains a national park. Other organizations including the Society for the Protection of New Hampshire's Forest and the Massachusetts Forestry Association began to lobby for a White Mountain National Park. The spirit of compromise brought together a tense coalition of scenery lovers, practical forestry advocate, broad conservationist, and water resources enthusiast that urged the U.S. Congress to protect the forests east of the Mississippi River, including the White Mountain region. In 1911, the Weeks Act was passed and signed into law, allowing the federal government to buy the White Mountains.

Since 1911, discussions have taken place as to whether the White Mountains would serve the national purpose better as a national park than as a national forest. We believe the establishment of a White Mountain National Monument would be an excellent compromise.

AN IDEA WHOSE TIME HAS COME

The oncoming generation will inherit either wilderness or mountains chewed up by machines, depending on the social philosophy and outlook of a few men in the Forest Service. This is not right. Those who love wilderness as man's refuge need more protection than the whim or caprice of a bureaucracy. The sacred precincts should be locked and barred against all machines and against all encroachments by civilization. They need to be protected, not by mere administrative orders than can be changed at will, but by laws as enduring as we can make them.

William O. Douglas, East to Katahdin, 1961

The White Mountains are home to towering white pines and thick krummholz; lady slippers and trillium; free-flowing rivers and crystal-clear ponds; treeless mountain tops and deep-forested valleys. It could be the future home to the

wolf, Atlantic salmon, and the Black-crowned night heron. It could be the nucleus of an ecologically sound local economy. A White Mountain National Monument could be a symbol in the way we manage our public lands for the new millennium.

The White Mountains face a number of threats and challenges. Yet, most of these challenges can be controlled by humans. Some of these concerns include:

- o more than 35,000 acres clearcut since 1970;
- o a logging program that is subsidized by taxpayers by more than a million dollars a year;
- o seven million visitors a year with that number expected to increase to more than 11.5 million by 2045;
- o more than 500 miles of roads, equal to the distance of Concord, NH to Washington, DC;
- o nearly half of the recreational facilities and trails are in fair or poor condition.

Where the management priority of national forests is logging and other extractive activities, the management of a national monument focuses on preservation and recreation.

Our vision of a White Mountain National Monument is one of healthy forest ecosystems, diverse local economies, and a region that offers solitude and spiritual renewal to civilization-weary people. Nature is universal, it has no bounds, it offers no prejudice. The spell of the wild, the music of falling water, the echoes in the valleys, and the wind in the trees, it is nature, and it is our connection to each other.

There is no better place than the White Mountains of New Hampshire and Maine for believers in preserving our natural areas for this and future generations. Here is an opportunity for a new National Monument to be born. Here we can complete the actions started by a dedicated group of people almost a hundred years ago. Here, for so many reasons, we can make the White Mountains a National Monument.

The White Mountain region of New Hampshire and Maine has natural, historic, and recreation features of national significance. The region is steeped in Native American legends, settlers' exploits, and natural history. It is an area where people once feared to tread, yet today, is visited by more than seven million people a year. A White Mountain National Monument would provide strong and lasting protection to a region that offers much to this and future generations.

AN AMERICAN MONUMENT

"Look over the whole creation with wonder and surprise as far as the eye could extend in every direction, and view the wonderful works of God!"

—Lucy Crawford describing the view from the summit of Mt. Washington in 1845

The White Mountain National Monument would complement other public lands in the northeast including Acadia National Park, Baxter State Park, the Green Mountain National Forest, and Adirondack State Park. It would encompass a diversity of coniferous and deciduous forests, alpine tundra, river systems, lakes and ponds, and glacial features unmatched by any existing national monument. It would include the headwaters of four major New England rivers, the highest mountain range in the northeastern United States, and critical wildlife habitat in two states.

The White Mountain National Monument would include such treasures as:

- o the headwaters of the Merrimack, Ammonoosuc, Androscoggin, and Saco rivers; and the Wildcat River, a federally designated National Wild and Scenic River;
- o a multitude of waterfalls and cascades including Glen Ellis, Bridal Veil, Arethusa, and Thoreau Falls;
- o 170 miles of the famed Appalachian National Scenic Trail;
- o a number of rare and sensitive high altitude natural ponds including Loon Pond, Lake-of-the-Clouds, and Shingle Pond;
- o habitat for imperiled and sensitive species such as the Canada lynx, peregrine falcon, northern bog lemming, small whorled pagonia, pine marten, and spruce grouse;
- o critical spawning habitat for the near extinct Atlantic salmon;
- o potential restoration areas for extirpated species including the eastern timber wolf, cougar, wolverine, and woodland caribou;
- o rare old-growth forest stands and some of the largest contiguous tracts of second-growth forest in the Northeast;
- o important Abnaki, Civilian Conservation Corps sites and logging era artifacts;
- o unique natural areas including Alpine Gardens, Gibbs Brook, Nancy Brook, the Bowl, and the Devil's Hopyard;
- o the highest peak in the Northeastern United States, Mt. Washington at 6,288 ft.; and
- o an area visited, written about, or advocated for by Henry David Thoreau, Lucy Crawford, P.T. Barnum, Robert Frost, William O. Douglas, and Theodore Roosevelt.

The Coalition for a White Mountain National Monument is working to build citizen support for the possibility of establishing a White Mountain National Monument. We urge everyone who loves the White Mountains and wants to see the area preserved, to join us in this important campaign.

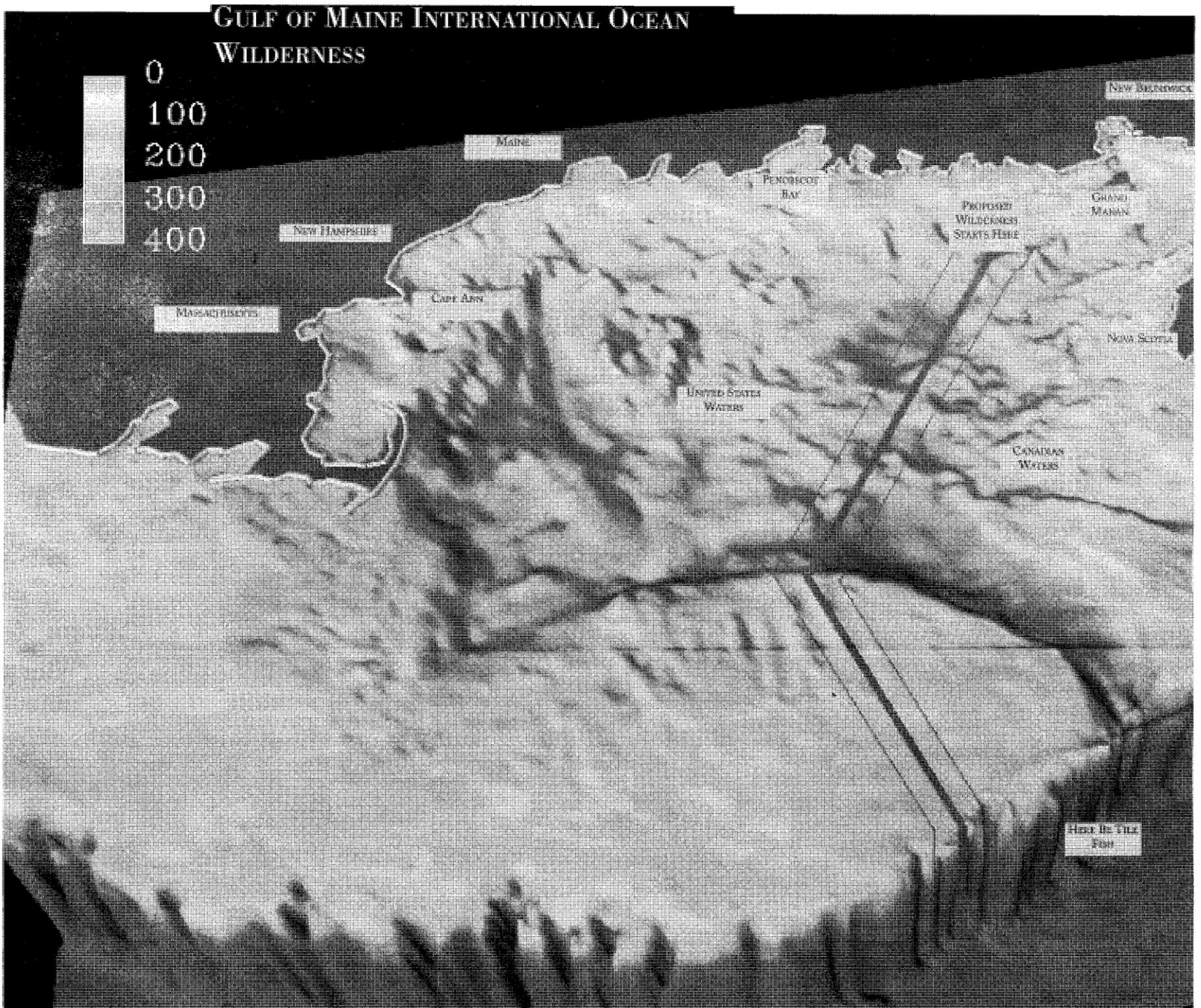
For more information, please write to us at: Alliance for a White Mountain National Monument 15 Tanguay Ave. Box #2, Nashua, NH 03063. Thank you.

THE GULF OF MAINE INTERNATIONAL OCEAN WILDERNESS!

Join NARP's Task Force Atlantis and the marine scientific community in a historic effort to bring genuine *wildlands protection* to the rugged under-sea landscapes and marine life of the Gulf of Maine, the majestic Georges Bank Plateau, and the mysterious abyssal lands of the Continental Slope.

This vast public lands area includes shallow shoals filled with waving kelps and sea turtles, deep basins swarming with shrimp, krill, whales and seabirds, vast great rolling gravel plains where giant flatfish and cod swim above scallops, mussels and sponge gardens, sheer underwater precipices where swordfish and herring roam, and deep sunless canyons filled with dense stands of tree corals, giant lobsters, and mysterious fishes barely known to science.

Straddling the US Canada border as it wends its way across these landscapes, the International Ocean Wilderness will bring full protection to key portions of each of these wildlife habitats, and establish baseline natural marine areas that researchers of both nations have long sought after.



HELP MAKE IT HAPPEN

America's and Canada's top marine scientists, supported by the leading public lands and wildlife conservation groups of both nations, are now asking the American President and Canada's Prime Minister to designate the two nations' shared borderlands across this magnificent region as a fully protected ocean wilderness.

The federal laws of both nation's allow their Chief Executives to declare fully protected natural areas in this magnificent region, which at present is wholly given over to exploitive resource extraction industries. More details at www.atlantisforce.org

Our leaders have the chance to make a historic change in how we interact with our marine public lands and wildlife - *finally treating them as a part of Nature, not merely as resource extraction zones.*

ADD YOUR VOICE TO OUR NATION'S TOP MARINE SCIENTISTS & CONSERVATION GROUPS TODAY!

Contact:

President William Jefferson Clinton
The White House
1600 Pennsylvania Avenue
Washington DC 20500
USA

Prime Minister Jean Chrétien
Prime Minister of Canada
House of Commons
Ottawa K1A 0A6
Canada

<president@whitehouse.gov>

Only YOU can bring real wilderness protection to places in our biggest public land area

Do It ! For more information contact Task Force Atlantis at 418 Main Street Rockland ME 04841 207-594-5717 email coastwatch@acadia.net URL www.atlantisforce.org